



# British Lichen Society *Bulletin*



# British Lichen Society Bulletin no. 122

## Summer 2018

Welcome to the Summer 2018 Bulletin and a thank you to all those who responded to our appeal for contributions. Your response has given us an interesting edition which we hope will be a good read.

As lichenologists we seem to be living in exciting times. Reading Alistair Hodgkiss's account of the discovery of the green morph of *Sticta canariensis* fertile in Wales and Neil Sanderson's of finding *Cladonia peziziformis* in Ireland brought back to me the sense of enthusiasm and thrill I had when reading Oliver Gilbert's 'The Lichen Hunters'. Both of these accounts are real 'page-turners'.

To add to the excitement the Society was propelled into the 21<sup>st</sup> century with the launch on Twitter which, although not everyone's 'cup of tea', has resulted in our reaching out to the far corners of the globe and generated pithy and informative threads of debate as well as high quality lichen images to enjoy. This development is marked by the splendid image on the front cover, and two articles, one from Greece and one from The Netherlands, serve to remind us of the breadth of our membership base.

The increasing interest in lichenicolous fungi in recent years is changing the face of the New, Rare and Interesting section and the content of our favourite lichen image websites as seemingly widespread fungi are found in addition to those which may be genuinely uncommon. This situation is perplexing when it comes to giving these species Conservation Evaluation Status codes as their true distribution is still in the process of unfolding.

Yet another exciting event is about to happen at the time of going to press and that is the release of the 7<sup>th</sup> edition of 'Lichens – an Illustrated Guide to the British and Irish Species' by Frank Dobson with important contributions from Mark Powell. The book will feature a section dealing with lichenicolous fungi and will reflect recent taxonomic changes too. Be prepared to meet old friends with new names! This popular guide is awaited with eager anticipation.

The new edition of Lichens of Great Britain and Ireland is likely to take 4 years or more. However work on the accounts is going on all the time and drafts for some genera are on the website for comment on any additions or changes you may wish to make. This brings me to a valuable contribution featured in this issue which will help you find these draft accounts and facilitate navigation of the BLS website. It is a schematic representation which includes all the main components. It was tricky to devise but guides one to the main elements.

As for business matters you will find details of the Society's constitutional change to a Charitable Incorporated Organisation (CIO) in this issue. Comments from members are welcomed before the deadline of 9<sup>th</sup> September 2018 and draft documents can be accessed via a link on the website. After a full debate any changes will be put to the vote at the AGM to be held in January 2019 at Kew.

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**Front cover:** 'Circle of Enlichenment', a Tweet from @squinancywort1. One of the wonderful images which appeared on Twitter. Copyright Phil Barnett.

# Lichens at Hatfield Forest NNR, Essex

## Summary

- The recent survey has confirmed that Hatfield Forest supports lichen communities of regional importance
- Using the current guidelines for selection of biological SSSIs, Hatfield Forest would be judged as worthy of consideration for SSSI status for its lichen communities alone
- Almost all the notable lichens are associated with veteran ash, field maple, hornbeam and oak trees. Veteran hawthorns, such a feature of Hatfield Forest, do not support notable lichens
- The notable lichens on the veterans are restricted to their trunks and largest branches. The conspicuous lichens on twigs and smaller branches are generally non-notable species
- The lichen communities at Hatfield Forest were significantly degraded by atmospheric sulphur dioxide. Since the 1980s this form of pollution has abated, and a new pollution regime (compounds of nitrogen) is modifying the lichen communities
- The acidic bark of oak and hornbeam seems to have been more severely affected by former acidic sulphurous pollution than the more basic bark of ash and field maple trees
- Non-native trees are generally of low interest for lichens but those with veteran characteristics should be retained. A horse chestnut of modest size but with a shattered crown supports the largest colony of *Bacidia incompta* in a wound track on its trunk
- *Punctelia reddenda* is one of the very few examples of a notable 'ancient woodland indicator' not found on a veteran tree
- Notable lignicolous lichens are rather sparse and few but form an important part of the overall community associated with the veterans
- Man-made wooden structures complement the lignicolous lichen communities associated with the veteran trees
- Current management of the site is conducive to maintaining the important lichen communities. Any significant future encroachment of the veterans' trunks by rank vegetation and brambles should be addressed
- The current atmospheric pollution regime (dominated by compounds of nitrogen) has significantly modified the lichen communities at Hatfield Forest but the important trunks of the veterans are, fortunately, relatively unaffected to date

## Background

Hatfield Forest, owned by the National Trust, is a 392 ha Site of Scientific Interest (SSSI) and National Nature Reserve (NNR) designated primarily for its wood pasture and ancient coppice habitats.

The following is taken from the SSSI citation for Hatfield Forest:

It is comparatively rich in bryophytes and lichens and has locally important breeding bird communities and insect populations.

This sentence is the only mention of the lichen interest and does not do the site justice. Even before the recent survey, previous records of species such as *Bacidia incompta*, *Gyalecta flotowii* and *Lecanora sublivescens* indicated that notable lichen communities were present. Such species, particularly in this region, are associated with veteran trees. Despite the intense industrial pollution which caused large areas of lowland England to effectively become ‘lichen deserts’, sites with large numbers of veteran trees normally retain a number of relict lichen species. These important lichens are to be found on the bark and lignum of the veteran’s trunks; their branches (except for the oldest bark of the main boughs) support lichen communities little or no different from those found on non-veteran trees.

### **The survey**

For four days in late February 2017, I explored the lichens at Hatfield Forest. On each day, I was accompanied by one or more of the following colleagues: Brian Coppins, Paula Shipway and John Skinner. The survey was considerably enhanced by their company and keen eyes. I am also grateful to National Trust staff, especially Henry Bexley (Countryside Manager for Essex & South Suffolk) and Stuart Warrington (Wildlife Adviser for East of England Region). As well as facilitating access, they considerably improved my original draft.

The recent survey has confirmed the presence of three notable lichens (*Bacidia incompta* found on eleven separate trees, *Gyalecta flotowii* and *Lecanora sublivescens*) and added several extra notable lichen species to the Hatfield Forest list. Particularly notable additions are *Graphina anguina* on one veteran *Carpinus* and *Opegrapha corticola* on two *Acer campestre* trees.

615 individual records of 166 taxa were accumulated from examination of the bark and lignum of trees and from the lignum of wooden structures. The full list of lichens can be obtained from the author.

### **Lichenicolous fungi**

These fungi grow on or in lichens; they are often host-specific and pathogenic. They represent a wealth of under-recorded and undescribed diversity. As an example, *Gonatophragmium lichenophilum* was described as new to science in 2015 and was added to the British list just a couple of weeks before the recent survey of Hatfield Forest (where the second British record was made).

For further information and images of *G. lichenophilum* see:

<http://fungi.myspecies.info/taxonomy/term/7957/media>

Twenty-one species of lichenicolous fungi were recorded at Hatfield Forest.

### **The notable lichens at Hatfield Forest – an assessment of their importance using SSSI criteria**

Hodgetts (1992) provides guidelines for the selection of biological SSSIs (non-vascular plants). The guidelines are currently being revised but the new version is not yet published. In a national context, Hatfield Forest supports a relic assemblage of lichens

which has been depleted by past atmospheric pollution. Its score in the New Index of Ecological Continuity is four whereas the current threshold for consideration as an SSSI is twenty. However, the presence of Red Data Book species is also used to assess sites as qualifying for consideration. *Bacidia incompta* (VU, S41) occurs as a very significant population (on at least eleven widely scattered trees) at its only known site in Essex and in Natural England's AoS (Area of Search). This alone would qualify the site for consideration for SSSI status and the quality of the site is further boosted by the presence of an extant population (at least two trees) of *Lecanora sublivescens* (NT, S41). *Gyalecta flotowii* (NT) and *Opegrapha corticola* (IR) provide good subsidiary species.

### **Taxa with IUCN threat categories (other than Least Concern) and those which are Nationally Rare/Nationally Scarce**

The following table lists all taxa found at Hatfield Forest that have an IUCN designation other than Least Concern and those which are listed by Woods & Coppins (2012) as being Nationally Rare or Nationally Scarce. This analysis has the advantage of reference to the latest paper publication of Conservation Evaluation of British lichens and lichenicolous fungi but it does not accurately separate the species present in the notable communities on the veterans from under-recorded 'weeds'. For example, *Graphina anguina* is a very notable find for Hatfield Forest but it is rather common in western British Isles and so is excluded from the table as being IUCN Least Concern. On the other hand, *Catillaria nigroclavata* and *Halecania viridescens* are common on twigs across England but are currently Nationally Scarce due to a combination of their recent spread and under-recording. This deficiency will be addressed later.

#### **Table 1**

##### **Key to annotations on the table**

**Column A** gives the standard BLS number for each taxon.

**Column B** gives the taxon name as currently listed in the BLS Taxon Dictionary.

**Column C** gives the group to which each taxon belongs (0 = lichenized fungus, {F} = non-lichenized fungus, {LF} = lichenicolous fungus).

##### **Column D - Status:**

**Rarity:** **NR** = Nationally Rare (occurring in 1–15 hectads in the UK); **NS** = Nationally Scarce (occurring in 16–100 hectads in the UK); **nr** and **ns** = species that are 'technically' Nationally Rare or Nationally Scarce, but which are thought to be much overlooked by recorders and hence much under-recorded.

**Conservation evaluation:** **VU** = Vulnerable; **NT** = Near Threatened; **DD** = Data Deficient, not fully evaluated but likely to be designated as NT or above; **NE** = Not evaluated owing to insufficient data; **LC** = Least Concern, **IR** = species for which the UK has international responsibility (mainly species that are present in the UK in significant populations, but very rare elsewhere in Europe. Woods & Coppins (2012) state that this category should be used with caution until further evidence supports the listings but that further research is likely to demonstrate that Britain supports more than 10% of the extant European and/or world's population), **L** = a species included in the list for identification

of the Lobarion community (Section 42, Wales), M = a species included in the list for identification of metallophyte communities (Section 42, Wales).

**Designation: S41** = Section 41 species (Species of principal importance for the purposes of conserving biodiversity).

| A    | B   | C    | D               |
|------|---|------|-----------------|
| 2683 | <i>Arthonia parietinaria</i>                            | {LF} | NE ns           |
| 1982 | <i>Arthonia phaeophysciae</i>                           | {LF} | LC nr           |
| 153  | <i>Bacidia incompta</i>                                 | 0    | VU A S41 Sc Wa  |
| 130  | <i>Bacidia neosquamulosa</i>                            | 0    | LC ns           |
| 2317 | <i>Caloplaca phlogina</i>                               | 0    | NE ?ns          |
| 316  | <i>Catillaria nigroclavata</i>                          | 0    | LC ns           |
| 345  | <i>Chaenotheca hispidula</i>                            | 0    | LC NS           |
| 348  | <i>Chaenotheca stemonea</i>                             | 0    | LC NS           |
| 1831 | <i>Chaenothecopsis nigra</i>                            | 0    | LC NS           |
| 536  | <i>Gyalecta flotowii</i>                                | 0    | NT NS Sc L      |
| 1704 | <i>Halecania viridescens</i>                            | 0    | LC ns           |
| 2071 | <i>Illosporopsis christiansenii</i>                     | {LF} | LC ns           |
| 685  | <i>Lecanora argentata</i>                               | 0    | LC NS           |
| 2121 | <i>Lecanora barkmaniana</i>                             | 0    | LC ns           |
| 1996 | <i>Lecanora compallens</i>                              | 0    | LC NS           |
| 621  | <i>Lecanora hagenii</i>                                 | 0    | NE              |
|      | <i>Lecanora cf. sarcopidoides</i>                       | 0    |                 |
| 779  | <i>Lecanora sublivescens</i>                            | 0    | NT NS S41 Wa IR |
| 1537 | <i>Leptorhaphis maggiana</i>                            | {F}  | LC NS           |
| 2087 | <i>Lichenochora obscuroides</i>                         | {LF} | LC nr           |
| 2092 | <i>Lichenocodium lecanorae</i>                          | {LF} | LC ns           |
| 2094 | <i>Lichenocodium usneae</i>                             | {LF} | LC NR           |
| 2095 | <i>Lichenocodium xanthoriae</i>                         | {LF} | LC ns           |
| 872  | <i>Micarea globulosella</i>                             | 0    | DD NR           |
| 884  | <i>Micarea misella</i>                                  | 0    | LC NS           |
| 945  | <i>Opegrapha corticola</i>                              | 0    | LC IR           |
| 2441 | <i>Opegrapha viridipruinosa</i>                         | 0    | LC ns           |
| 2135 | <i>Paranectria oropensis</i><br><i>subsp. oropensis</i> | {LF} | LC ns           |
| 2150 | <i>Phoma physciicola</i>                                | {LF} | NE NR           |
| 1614 | <i>Porina byssophila</i>                                | 0    | DD nr Sc        |
| 2492 | <i>Pronectria oligospora</i>                            | {LF} | NE NR           |

|      |                                     |      |             |
|------|-------------------------------------|------|-------------|
|      | <i>Psammia cf. stipitata</i>        | {LF} |             |
| 1793 | <i>Protoparmelia oleagina</i>       | 0    | LC NS       |
| 1637 | <i>Psilolechia leprosa</i>          | 0    | LC M*       |
| 1011 | <i>Punctelia reddenda</i>           | 0    | LC L        |
| 1932 | <i>Rinodina pityrea</i>             | 0    | LC ns       |
| 1372 | <i>Strangospora moriformis</i>      | 0    | LC ns       |
| 1374 | <i>Strangospora pinicola</i>        | 0    | LC ns       |
| 1375 | <i>Strigula jamesii</i>             | 0    | LC ns       |
| 1378 | <i>Strigula taylorii</i>            | 0    | LC NS Sc IR |
| 2240 | <i>Syzygospora physciacearum</i>    | {LF} | LC ns       |
| 2603 | <i>Tubeufia heterodermiae</i>       | {LF} | NE          |
| 2260 | <i>Unguiculariopsis thallophila</i> | {LF} | LC ns       |

In summary (omitting the non-lichenized fungus and the lichenicolous fungi) 1 IUCN Vulnerable lichen is now known to be present at Hatfield Forest, 2 IUCN Near Threatened, 2 Nationally Rare, 18 Nationally Scarce and 2 lichens for which Britain has International Responsibility. The following are particularly important:

***Bacidia incompta*** (IUCN Vulnerable and a Section 41 species) was recorded from 11 separate trees indicating that Hatfield Forest is an important stronghold for this lichen. It is most often found here on the lignum inside veteran *Acer campestre* trunks.

***Gyalecta flotowii*** (IUCN Near Threatened) was recorded from one veteran *Acer campestre*.

***Lecanora sublivescens*** (IUCN Near Threatened and a Section 41 species) was recorded from two veteran trees.

***Opegrapha corticola*** (for which Britain has International Responsibility) was found on two *Acer campestre* trees and represents a considerable extension of its known geographical range.

An alternative list is provided below which contains all the lichens that are particularly associated with the veteran trees at Hatfield Forest and which are rare or absent other than on veterans in Essex:

*Arthonia pruinata*, *Bacidia incompta*, *B. rubella*, *B. viridifarinosa*, *Calicium glaucellum*, *Chaenotheca hispidula*, *C. stemonea*, *C. trichialis*, *Chaenothecopsis nigra*, *Chrysothrix flavovirens*, *Enterographa crassa*, *Graphina anguina*, *Gyalecta flotowii*, *Lecanora sublivescens*, *Ochrolechia subviridis*, *O. turneri*, *Opegrapha corticola*, *Pertusaria coccodes*, *P. leioplaca*, *P. pertusa* and *Schismatomma decolorans*.

### National Lichen Indices for woodland continuity and quality

The RIEC (Revised Index of Ecological Continuity) was published in 1976 and aimed to grade the 'ancient woodland' characteristics of deciduous woodlands throughout the whole of Great Britain and Ireland. The NIEC (New Index of Ecological Continuity) was developed subsequently and is applicable to most of lowland England.

The NIEC is based on a list of 70 species primarily devised towards grading woodlands for their conservation status, rather than just focusing on the 'old woodland' interest. Hatfield Forest has four Main list species (*Chaenotheca* sp. [*stemonea*], *Lecanora sublivescens*, *Opegrapha corticola* and *Punctelia reddenda*). No Bonus species were found. Hence the NEIC score for Hatfield Forest is 4 + 0 = 4. The SSSI threshold for NIEC is currently 20 (Hodgetts, 1992).

### New to VC 19 (North Essex)

The following taxa are believed to be new to the Vice-county (the download available on the BLS website 'BLS Lichen records by VC Jan 2016' was used as the resource to decide which records are 'new'). Lichenicolous fungi are in blue. Those which are a notable part of the veteran tree community, or otherwise important additions to the site, are in bold. Others are additions to the Vice-county picked up due to the number of days of intensive survey. For example, *Catillaria fungoides* was recorded from the branch of a veteran but is not a notable part of the veteran tree community.

*Arthonia parietinaria*, *Arthopyrenia analepta*, *Bacidia neosquamulosa*, ***Caloplaca phlogina***, *Catillaria fungoides*, *C. nigroclavata*, ***Chaenotheca hispidula***, *C. stemonea*, ***Chaenothecopsis nigra***, *Chrysothrix flavovirens*, *Cladosporium lichenophilum*, *Clypeococcum hypocenomycis*, *Gonatophragmium lichenophilum*, ***Graphina anguina***, ***Gyalecta flotowii***, *Halecania viridescens*, *Laetisaria lichenicola*, ***Lecania cyrtellina***, ***Lecanora argentata***, *L. barkmaniana*, *L. compallens*, ***Lecanora sarcopidoides***, *Lichenochora obscuroides*, *Lichenocodium usneae*, *L. xanthoriae*, ***Micarea globulosella***, *M. micrococca*, ***M. misella***, *Normandina pulchella*, ***Opegrapha corticola***, *O. viridipruinosa*, *Paranectria oropensis*, *Phoma physciicola*, *Porina byssophila*, *Pronectria oligospora*, *Protoparmelia oleagina*, ***Punctelia reddenda***, *Rinodina pityrea*, *Strigula jamesii*, *Syzygospora physciacearum*, *Tubeufia heterodermiae*, *Unguiculariopsis thallophila*.

### Management

The management of the site appears to be suitable for preserving the notable lichen communities on the veteran trees. Anything that preserves the health and wellbeing of these trees will ensure suitable habitat survives for their lichens. Some trees are becoming slightly encroached upon by bramble patches. None were seen that were so overgrown that they gave immediate cause for concern but it is important to monitor this aspect. Light bramble growth around some of the trunks is not a problem but this can rapidly develop and cause excessive shading. The presence of rank vegetation around the veterans' trunks also tends to enhance mollusc browsing to a level where it may cause some decline in the notable lichens. The management of the habitat near the veterans may have an impact (beneficial or deleterious depending on the individual circumstance). Those veterans currently in rather shaded situations should not be exposed by extensive tree felling in their vicinity and those veterans currently in open situations should not be subjected to excessive shading by expansion of nearby canopies, scrub or planted trees.

The notable lichens are mostly rather inconspicuous specialists and later in this report detailed descriptions and images of some individual trees is provided so that an



interested manager may get a feel for where the important communities are present. The showy lichens on twigs and branches are largely non-notables. If crown reduction is required to stabilise or reinvigorate veteran trees this can proceed without concern that notable lichens will be removed. If crown reduction or other tree surgery is proposed for veteran oak trees, any dead branches should be retained on the tree as far as practical. For the sake of the health of the tree, more than for the lichens, it is important to use a phased approach to crown reduction to prevent damaging shock to veterans.

Veteran trees do not lose their importance for notable lichens when they die. Oak trees develop important lignicolous communities once their bark falls off. At Hatfield Forest the most important decorticated oak trees are still standing. This is in contrast with the situation in some old parks (e.g. Old Park, Chatsworth) where fallen veterans provide important 'hulks' with a specialist community. If any oak veterans fall they should be left where they fall. Fallen branches and fallen veterans of other tree species are likely to be important for other groups of organisms but are unlikely to develop notable lichen communities. Old wooden structures provide an important additional source of weathered lignum and consideration should be given to preserving these features. They act as a useful refuge for important lignicolous lichens. A gate rail yielded one of the few recent British records of *Micarea globulosella* while a bridge-like structure supports a rather rich community with much overlap with the natural lignicolous community of veterans on the site.

Although horse chestnut trees are not normally considered to be important habitat for lichens, the largest colony at Hatfield of the IUCN Vulnerable *Bacidia incompta* was found on a relatively small *Aesculus*. It is, of course, very important that this tree is retained and the possibility of other horse chestnuts supporting this notable species should be considered if any felling of them is planned.

The priority is to maintain the viability of the existing veteran trees but some consideration may be given to eventual replacement trees to compensate for natural wastage of the population. In general, the same species (preferably grown from seed sourced from the veterans themselves) should be used for any proposed tree planting. However, if the predicted demise of ash trees from *Chalara* die-back comes to pass, consideration should be given to planting some Norway maples, these being probably the best substitute as far as lichens are concerned.

### **Potential threats**

Some potential threats to the notable lichen communities have been mentioned elsewhere, viz. encroachment by ivy, bramble, crown expansion of neighbours and planting of trees too close to the veterans.

In the long term, a lack of habitat continuity might be reasonably anticipated by a depletion of the veteran population by natural wastage. Carefully considered planting (or promotion of naturally-seeded trees when the opportunity arises) may help to address the continuity of suitable trees.

Air pollution can be assumed to have severely depleted the lichen communities at Hatfield Forest (especially sulphur dioxide during the 19<sup>th</sup> and 20<sup>th</sup> centuries). The levels of sulphur dioxide are now almost insignificant but the site is currently

experiencing a different pollution regime, one in which the effects of compounds of nitrogen are dominant. This situation is affecting much of lowland England though the proximity of major roads and Stanstead Airport may boost the levels of atmospheric nitrogenous pollution. There is little that can be done by managers of the site to mitigate against this regional threat except to monitor the situation and support further study to identify point sources of the pollution which have thus far proved elusive, with potential causes being located in close proximity to one another. Fortunately, the trunks of the veteran trees appear to exhibit a resistance to the eutrophication that is so evident on their branches. The decades-old bark of the trunks is probably exhibiting a form of ‘toxic legacy’ in which formerly acidic pollution has semi-permanently altered the chemistry of the bark. Paradoxically this acidification may be providing temporary resistance to the nutrient-enrichment and it is to be hoped that this phenomenon is sufficiently long-lasting to protect the notable lichens until, hopefully, the levels of nitrogen compounds declines.

### **Some notes on the notable species**

The Fungi of Great Britain and Ireland (<http://fungi.myspecies>) is a website being developed by Kew in partnership with the BMS, BLS and others. This provides information and images of many of the lichens and lichenicolous fungi recorded at Hatfield Forest. For example, for *Bacidia incompta*:

<http://fungi.myspecies.info/taxonomy/term/4266/media>

and, see:

<http://www.britishtichensociety.org.uk/resources/species-accounts/bacidia-incompta>

### ***Bacidia incompta***

Coppins & Aptroot (2009) state of this species: “On trunks of trees with basic bark (especially *Ulmus*), often forming extensive dark green-grey, uneven, vertical streaks along rain or wound seepage tracks, sometimes on exposed roots of *Ulmus* on cliff faces. Recently much declined owing to demise of *Ulmus*...”

The recent survey found *B. incompta* on eleven separate trees. By far the most common habitat for *B. incompta* at Hatfield Forest is on the lignum of hollowed *Acer campestre* trunks. The largest individual colony is on the trunk of a shaded *Aesculus hippocastani* where it grows in one of its classic habitats, the wound seepage track from the scar of a long-lost stem. Of the notable lichens at Hatfield, *B. incompta* is unusual in not being restricted to veterans of native tree species.

*B. incompta* is not an easy lichen for the non-specialist to identify with certainty. When abundantly fertile, the presence of black apothecia associated with a dull, dark green granular-verrucose thallus is reasonably recognisable. In many cases *B. incompta* occurs without fruiting bodies and is not dissimilar to some algal crusts which grow in similar situations.

### ***Graphina anguina***

*G. anguina* is rare in Central and Eastern England where it occurs mainly on veteran trees. At Hatfield Forest, it was found on a single *Carpinus betulus* veteran. *G. anguina*

is impossible to reliably identify in the field, being very similar in appearance to *Graphis scripta*. Its identification relies on observing the presence of its muriform ascospores.

### ***Gyalecta flotowii***

There are previous records of both *G. flotowii* and *G. truncigena* at Hatfield Forest. These two species are effectively indistinguishable in the field but it is likely that some recorders make field identifications based on their own hunches, including the quality of the site. *G. flotowii* is considerably more notable than *G. truncigena* and it is possible that a field recorder might be tempted to record the more notable lookalike due to its occurrence on a veteran tree. During the recent survey one colony of *G. flotowii* was found, in abundance, on a veteran *Acer campestre*. The identity of this occurrence was



confirmed by microscopy. *G. truncigena* was not recorded during the recent survey. Previous records of *G. truncigena* may be correct; alternatively, they may have been field records with the recorder taking the conservative option. Considering the numerous veteran *Acer campestre* trees at Hatfield Forest, many of which appear to have suitable spongy bark, it is rather surprising that *G. flotowii* and *G. truncigena* appear to be so rare here.

*Gyalecta flotowii*, minute (c. 0.3 mm diam.) fruiting bodies semi-immersed in soft old bark of *Acer campestre* veteran.

### ***Lecanora sublivescens***

This species was identified based on its appearance and its habitat. No specimen was collected; any microscopic characters separating it from lookalikes are subtle and poorly documented. With familiarity *L. sublivescens* is relatively distinctive. Its nearest lookalike is *L. symmicta* which exhibits a C+ orange reaction. A very frugal spot reaction was performed on one thallus of *L. sublivescens*. In the absence of a cocktail stick, a piece of dried grass stem is effective in applying a minute quantity of the reagent and hence avoiding undue damage to the thallus.

## *Opegrapha corticola*



*Opegrapha corticola* is inconspicuous but recognisable on sight with its delimited pastel-orange soralia. One occurrence was on a veteran *Acer campestre* but the second record was from a non-veteran *A. campestre* within woodland (near veterans).

The pale orange soralia of *Opegrapha corticola* (the orange patches c. 0.2 to 0.5 mm across).

### Absentees

There are a number of lichen species (some moderately notable) which were not rediscovered during the recent survey and a larger number which might have been expected but which have never been recorded at Hatfield.

The fact that some species were not rediscovered does not give cause for great concern and does not necessarily indicate a recent decline in the quality of the lichen communities. Some are likely to have been missed due to the large size of the site and small population of individual lichen species. Others may have been misidentified in the past. Examples are given below:

***Anaptychia ciliaris***: there is an old (1900) record, most likely to be extinct at this site (it has declined markedly across England, especially since the demise of mature elm trees).

***Candelariella xanthostigma*** was recorded on “old *Acer*” twice in the 1980s. John Skinner remembered the approximate location of one of the previous records but a careful search failed to rediscover it.

***Cladonia caespiticia*** was recorded at “the base of old hazel near tree 643”. The genus *Cladonia* is a notoriously tricky genus and Neil Sanderson cast a degree of doubt on this record. If *C. caespiticia* were present at Hatfield it would be a valuable addition to the site (notable for this region) though it is IUCN Least Concern and not part of the veteran community.

***Chrysothrix candelaris*** is a species of old trees and forms bright yellow colonies in bark crevices. There are many trees at Hatfield Forest which appear suitable for *C. candelaris* and it was somewhat surprising that it was not seen during the recent survey.

The previous records are likely to be reliable since this lichen is quite distinctive (although some recorders have confused it with *Candelariella reflexa*).

*Gyalecta truncigena* has been recorded at Hatfield on *Acer campestre* and it is likely to be present. However, without microscopic examination its separation from *G. flotowii* (now confirmed for the site) would be uncertain.

*Pertusaria flavida* has been recorded previously as “1 sq. inch” on a “Q280 SE” in TL53.20 in 1989. Considering the quality of the parkland communities on the trunks of many of the veteran *Fraxinus* trunks, it is rather surprising that it appears to be so rare at Hatfield.

*Schismatomma cretaceum* was recorded in 1969 on a “Field Maple in glade” at TL536.205. The record is highly likely but there is also the possibility of mistaken identity. During the recent survey, several mollusc-browsed thalli of *S. decolorans* were observed to have almost completely lost their pinkish-brown colour and these ‘bleached’ thalli bore a close resemblance to *S. cretaceum*.

### Detailed studies of some individual trees



Veteran *Acer campestre*. The lignum of the hollowed-out trunk has a vertical colony of *Bacidia incompta*. This is the most frequent habitat for *B. incompta* at Hatfield Forest. Otherwise the tree supports only relatively common species (the veteran trees tend to be less rich in notables when out in an exposed situation): *Amandinea punctata*, *Bacidia rubella*, *Caloplaca phlogina*, *C. ulceroza*, *Diploicia canescens*, *Diplotomma alboatrum* and *Pyrrhospora querneae*.

A relatively small, but very important *Aesculus hippocastani*. The dark green streak dominating the side of the trunk facing the camera is the largest and most fertile colony of *Bacidia incompta* discovered at Hatfield Forest (a weaker colony is present on the opposite side of the trunk, out of sight). *B. incompta* is IUCN Vulnerable and a BAP Priority species. *B. incompta* is growing here in its classic habitat, a wound track



where water seeps out of a rot hole above. All the other notable lichens are restricted to veteran native trees at Hatfield but *B. incompta* is shown here to have a subsidiary habitat on horse chestnut (most occurrences are on the lignum of hollowed veteran field maples). Other horse chestnut trees in the vicinity were examined but none others were found to support *B. incompta*. Nevertheless, consideration should be given to the possibility of other horse chestnut trees supporting *B. incompta* if there are plans to remove any. It is not the largest horse chestnut trees that are necessarily most likely to support *B. incompta*, smaller ones with past damage as shown here provide suitable habitat.



In common with most of the old oaks at Hatfield Forest the lichens are rather sparse and notables are few. In addition to the very common species *Amandinea punctata* and *Lepraria incana*, two species of *Chaenotheca* are present. The stalked apothecia of *C. trichialis* occur in some quantity in the bark crevices of the trunk below the level of the large burr (mainly on the opposite side of the trunk to that viewed here). A sterile colony of the nationally scarce *C. stemonea* occurs as a bright pale green powdery patch on the lower part of the large burr, just about in the centre of the trunk as viewed here.

Veteran *Fraxinus* supporting a rich lichen community typical of old parkland trees and of particular importance is the presence of a single thallus of *Lecanora sublivescens*. The extensive pale crusts include the common species *Diploicia canescens* along with various species of *Ochrolechia* and *Pertusaria*. The complete list of species recorded on the trunk of this trees is: *Chaenotheca hispidula*, *Cliostomum griffithii*, *Diploicia canescens*, *Hyperphyscia adglutinata*, *Lecania cyrtellina*, *Lecanora expallens*, *L. sublivescens*, *Lepraria incana*, *Ochrolechia turneri*, *Opegrapha ochrocheila*, *Pertusaria albescens*, *P. coccodes*, *P. leioplaca*, *P. pertusa*, *Pyrrhospora quereia*, *Schismatomma decolorans* and *Xanthoria parietina*.



Veteran *Acer campestre*. This tree is of importance due to the presence of *Opegrapha corticola*. Part of the colony is rather vulnerable due to it occurring on a rather loose portion of dead bark on the side of the trunk facing the camera. It is likely that this will become detached sooner or later. It might be worth considering some way of stabilising this piece of bark but, if it is lost, the colony will not be too badly depleted as *O. corticola* grows

elsewhere on more stable parts of the trunk. *Bacidia rubella* is present in quantity and the elder stem at the right side of the trunk (as seen here) is also dominated by *B. rubella*, an unusual occurrence caused by the 'inoculum pressure' from the fertile colonies on the *Acer* trunk. The lignum within the hollow trunk has a dark green crust which is a good candidate for poorly developed *B. incompta* but this was not confirmed. Other species present on the *Acer*: *Caloplaca phlogina*, *Diploicia canescens*, *Lecania cyrtellina*, *Lepraria incana*, *Opegrapha niveoatra*, and *Schismatomma decolorans*.

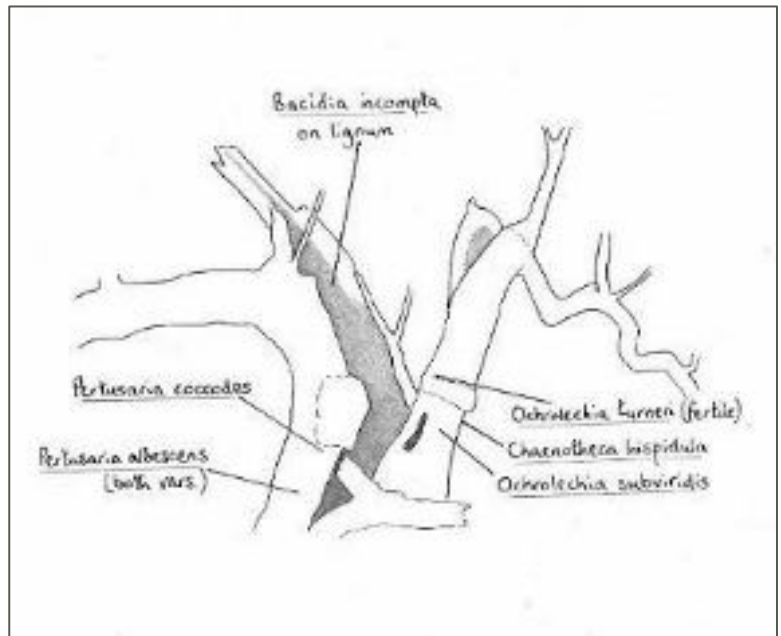
This characterful veteran *Fraxinus* exhibits many of the important features of the veteran trees at Hatfield Forest. The lignum of the hollow left-hand trunk has a colony of *Bacidia incompta*. The extensive pale crusts on the exposed bark of the trunk includes a rich community of lichens typical of parkland veterans



such as *Ochrolechia subviridis*, *O. turneri* (fertile), *Pertusaria albescens* var. *albescens*, *P. albescens* var. *corallina*, *P. coccodes*. Dry bark on the underhanging side of the right-hand stem has a different community which includes *Chaenotheca hispidula*, *C. trichialis*, *Cliostomum griffithii*, *Pyrrhospora querneae* and *Schismatomma decolorans*. The almost complete absence of *Xanthoria parietina* on the trunk is in marked contrast to the abundance of this nitrophilous 'weed' on the twigs. This scarcity of such nitrophiles is a welcome but rather puzzling feature of the

trunks of the veterans at Hatfield. The presence of low-hanging branches and fallen material meant that for this tree a good record of the crown lichen community could be made. In addition to the conspicuous yellow 'weed' *Xanthoria parietina*, much less conspicuous sorediate nitrophiles were present on the large twigs, including *Catillaria fungoides* (new to Essex) and *Halecania viridescens* (which has rapidly spread across Eastern England in recent years). If tree surgery was required on a tree such as this, there is no need to be concerned about the lichens on the twigs and small branches. It is the trunk, and to a lesser extent, the main branches which support the notable lichens. The lichens on the smaller branches and twigs are no different to those found on any 'ordinary' tree in the region.

Drawing of veteran *Fraxinus* in above photograph. Three important habitats are present: a rich 'parkland' community containing several species of *Ochrolechia* and *Pertusaria* on exposed, well-lit bark; a community of lichens which grow in on the 'dry side' of a leaning trunk, including species which grow in crevices such as *Chaenotheca hispidula*; and the exposed lignum in the hollowed trunk, important habitat for *Bacidia incompta*.







Veteran *Carpinus betulus*. This double-trunked tree is of importance for the presence of *Graphina anguina* and the relative abundance of *Enterographa crassa*. Other species recorded: *Cliostomum griffithii*, *Dimerella pineti*, *Lecanora expallens*, *Opegrapha herbarum*, *O. vermicellifera* and *O. vulgata*.



Veteran *Acer campestre*. This tree is of special importance due to the presence of a large colony of the IUCN Near Threatened *Gyalecta flotowii*. This species favours rather spongy bark and much of the side facing away from the camera is suitable. The bark has been flushed by decades of rain water flowing down its slightly leaning trunk while the sheltered, humid conditions within light woodland may have favoured the development of a favourable bark texture.

## References

- Alvin, K.L. (1959) Lichens of Hatfield Forest. *Essex Naturalist* **30**: 166-169.
- Coppins, A.M. & Coppins, B.J. (2002) *Indices of Ecological Continuity for Woodland Epiphytic Lichen Habitats in the British Isles*. British Lichen Society.
- Natural England, SSSI citation for Hatfield Forest:  
[http://www.sssi.naturalengland.org.uk/citation/citation\\_photo/1003932.pdf](http://www.sssi.naturalengland.org.uk/citation/citation_photo/1003932.pdf)
- Natural England, list of S41 species:  
<http://publications.naturalengland.org.uk/publication/4958719460769>
- Skinner, J.F. (2016) Observations on changes in the lichen flora of Hatfield Forest, Essex, over a nineteen year period. *Bull. Brit. Lichen Soc.* **119**: 42-48.
- Smith, C.W., Aptroot, A., Coppins, B.J., Fletcher, A., Gilbert, O.L., James, P.J. & Wolseley, P.A., (eds) (2009) *The Lichens of Great Britain and Ireland*. London: British Lichen Society.
- The Fungi of Great Britain and Ireland website: <http://fungi.myspecies>
- Woods, R.G. & Coppins, B.J. (2012). A Conservation Evaluation of British Lichens and Lichenicolous Fungi. Species Status 13. Joint Nature Conservation Committee, Peterborough.

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## Discovery of a fertile *Sticta canariensis* (green algal morph) population in North Wales – a lichenological crescendo to four years of woodland surveying

Four years ago, in January 2014, I left the statutory nature conservation agency in Wales (NRW, and previously CCW), and joined the Woodland Trust on a 4-year HLF-funded project to survey and provide management advice to owners of ancient woodland sites in Wales. This was focused on ancient woodland in the most critical condition - those that had been cleared and replanted (or underplanted) with dense non-native plantations at some point in the past hundred years or so. These plantations on ancient woodland sites (PAWS) account for 40% of our remaining ancient woodland in the UK. So I was essentially swapping working on the finest protected ancient woodland, wood-pasture and parkland (often with superb lichen assemblages), to just spending all my time in heavily degraded ancient woodlands in their worst condition - the gritty end of conservation. But one of the appeals of this position was the opportunity to look around lots of privately owned woodland that might never have been looked at by naturalists before. Who knew what I might find!



So, over the past four years I surveyed and provided management advice on something like 700ha of ancient woodland across Mid- and North-Wales. Admittedly, a lot of that was in a bad state, and lichenological excitement was often limited to the prospect of finding a scrap of *Thelotrema lepadinum* on a 'pre-plantation' oak or ash that had serendipitously been left standing amongst a dense dark hemlock plantation, or noticing how abundant things like *Dimerella lutea* were on mossy Sitka spruce twigs or coating mossy larch cones. But occasionally I did see some more interesting things, with pockets of richer Lobarion surviving beside streams and areas spared from coniferisation, with things like *Parmeliella triptophylla*, *P. parvula*, *Peltigera horizontalis*, *Phaeographis inusta*, *Mycobilimbia pilularis* and fertile *Megalaria pulvereana*. I saw fertile *Evernia prunastri* for the first time on an exposed sessile oak on a rocky outcrop sticking out above a sea of dense Douglas fir. The job also opened up opportunities to get to some incredible places like the Woodland Trust's Coed Felinrhyd, where I first saw *Pyrenula hibernica* and *Thelotrema petractoides*, the trust's Coed Hafod y Llyn with its *Lobaria scrobiculata*, Coed Cwm Clettwr where I saw the *Tylophorum hibernicum*, and a return to Ganllwyd to see *Parmeliella testacea* on its single ash. All of these internationally important woodlands have PAWS within them or adjacent. I surveyed Allt Boeth in Cwm Rheidol near Aberystwyth, where I found more good oceanic smooth bark communities in the unconiferised riverside gorge, with a new site for *Graphina pauciloculata*, and where other interesting species like *Arthonia graphidicola* and *Sticta dufourii* (*Sticta canariensis* cyanobacterial morph) also occur. The trust subsequently acquired this woodland at Allt Boeth, where I have since established a long-term monitoring program to observe changes to lichen communities through the

gradual restoration and continuous cover forestry transformation of the dense even-aged stands of Sitka, beech and pine, on former ancient oceanic oak-birch woodland. We are also using DNA-metabarcoding to produce a fungal inventory from soil and air samples (which will also reveal lichens from spores/fragments in the air – another story).



Some examples of the sorts of hotspots of remnant features within Plantations on Ancient Woodland Sites in Mid- and North-Wales.

But it was in December 2017 when all of this reached a new high. I was asked to visit a small piece of ancient woodland on the north side of the Mawddach estuary, not far from Barmouth. The owners were concerned about ash dieback, which had now reached west Wales, and wanted some advice on what they should (or shouldn't) do. It was right at the end of the project, and not really a priority in terms of threat – there were no dense conifer stands desperately needing thinning, and no thick rhododendron understories. I very nearly decided against going but, enticed by its location and the description the owners gave me over the phone (of a steep humid riverside ancient woodland), I thought it was worth a quick look.

After a quick cup of coffee with the owners we left to walk the site in the rain, and I soon started to encounter some nice things - mature ash with *Pannaria conoplea*, *Sticta sylvatica*, and *Sticta limbata*, plenty of *Enterographa crassa*. Old birches were noted with *Parmelinopsis horrescens* and *Cladonia norvegica*, and hyperoceanic smooth bark communities with *Pyrenula laevigata*, and I think probably *Pyrenula acutispora* (although I hadn't quite sorted out *P. acutispora* and *P. occidentalis*, and it was one of those times when I felt pressure to keep moving with the owner having to keep waiting for me

every two minutes!). Anyway, we dropped down further into a steep riverside oak wood, which looked promising, but I certainly wasn't anticipating what came next.



*Sticta canariensis* on Quercus

Clambering up towards a small waterfall, my eye line was suddenly met by a mossy oak trunk with vivid green patches of what I fairly quickly realised was the green algal morph of *Sticta canariensis*. I was beside myself with excitement. I'd never seen the green morph before, only in photographs (and in my dreams). It was scattered over approximately an area of 50x50cm on the oak trunk, and as my heart rate dramatically increased, I immediately swung the camera round and started photographing it. Almost forgetting I had company, I soon had to return to reality and attempt to explain the significance of this find to the owner, who by that point was probably wondering why I was pacing about like a mad man, mumbling to myself about how amazing this was. The company of the landowner added extra surrealism to my ecstasy, and I tried my best to articulate why I was so excited. Although clearly pleased that something on his land had resulted in such a reaction in me, I think he was soon quite keen to keep walking. Upon turning around to leave the oak, an even more extraordinary sight emerged. About 10m further upslope was a mossy rock face beside the waterfall with a strikingly large patch (about 100x50cm) of independent luscious green *Sticta canariensis* – and what was more, it was covered in abundant apothecia. Other smaller (10x10cm) patches were scattered nearby, and I had entered a lichenological nirvana. I found myself frozen on the spot repeating the word 'unbelievable' over and over again, but eventually snapped out of this *Sticta*-stupor as my mind began to vaguely remember being aware of a site somewhere on the North Mawddach for this, and I

started to wonder whether or not this was the known site, or something undiscovered. It's amazing where people have been before, and I recalled finding the grass mountain melick *Melica nutans* in an almost inaccessible gorge in Cardiganshire the previous year, convinced it must've been a new site, before finding the same site mentioned in the Flora.



The largest patch of fertile *Sticta canariensis* on rock beside small waterfall.

I was having too much of a rush to care about much else but from memory both the rock faces and the oak were largely dominated by the moss *Thamnobryum alopecurum*, with maybe some ivy *Hedera hibernica* but I don't recall much else. On the walk out, another oak about 30m away was spotted supporting some composite thalli of green *Sticta canariensis* with blue-green *Sticta dufourii*, then another rock face (probably about 100m away from the *S. canariensis*) supporting 'just' *S. dufourii*.

What a fine crescendo to four years of woodland surveying, and the perfect way to finish the project! And the owners gave me delicious raspberry cake afterwards! I drove home, buzzing after what I had just seen, but keen speak to others to establish whether or not this was a known population.

It soon became clear that this was not a known site, and the population of *Sticta canariensis* that was in the back of my mind, was actually about 2 miles east near Bontddu – found by Francis Rose in the 1970s. What's more, that population has not been recorded fertile, and there appeared to be no record of it ever occurring fertile in Wales. Ray Woods remembered Peter Benoit once telling him of a site not far from the main road between Bontddu and Barmouth, but my feeling is that this is probably different, as the location of this population was not close to the main road at all, and not easily accessible from that direction.



*Sticta canariensis* with abundant apothecia.

Upon recounting my psychological symptoms to Steve Chambers, he quickly diagnosed it as a severe case of 'lichen shock' and recalled a similar rush of endorphins at finding *Usnea articulata* recently, where he literally couldn't move for a few minutes until he recovered his senses. I've just about recovered from this 'lichen shock' now, although even typing this account a couple of months later is resulting in a slight relapse.

On a more serious note, the North Mawddach valleys are clearly an internationally important hotspot of lichenological interest, yet they remain extremely vulnerable, particularly in this case to hydroelectric power (HEP) schemes. Indeed, the Bontddu population of *Sticta canariensis* did not prevent HEP licensing and construction there. The vulnerability of many conservation priority lichen species and assemblages is being compounded by the impacts of nitrogen-pollution, tree diseases, and the urgent need to restore our damaged ancient woodland sites. From January this year, I became the Woodland Trust's Conservation Adviser on Ancient Woodland. Although remaining based from home in Mid-Wales, I now have a UK-wide role, and as well as having an excellent excuse to look at lichens in woodlands across the UK, I hope I can use this position to further lichen conservation within the organisation and externally.

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# An Irish Survey and *Cladonia peziziformis* in The Mourne Mountains, Co. Down

## The Trip

The Lichen Ireland project and associated lichen surveys have been ongoing since the first part of the project in 2005 – 2010, which was based on extensive square bashing <<http://www.habitas.org.uk/lichenireland/project.html>>. Since then the work has continued but with more emphasis on recording and refinding potential Red List lichens. These latter surveys have been exciting; delving into some stunning habitats and finding all sorts of expected and unexpected lichens. My latest trip was in March 2018 after Damian McFerran, of the National Museums Northern Ireland, contacted me in November 2017 saying there was enough money for some more rare species surveying in Northern Ireland and east Donegal if the work could be completed by the end of March 2018. By then I had a rather full work schedule but the temptation to squeeze in some Irish work was too much and I said yes. This was done at the last moment of course, so I finally got to Ireland in the first weeks of March for nine days of survey.

My itinerary included a nostalgic revisit to sites in Co. Down previously visited in 1992 during a BLS field trip, breaking new ground for me in Co. Derry/Londonderry, an exploration into Co. Donegal and finally back into well trodden ground in the stunning Co. Fermanagh. As usual there were many new finds, including six new to Ireland. Highlights included Tollymore Forest Park, Co. Down, a former early modern deer park converted into a landscape park in the 18<sup>th</sup> century. Much of this is now conifer plantation but rich old Oaks survive along the ravine of the Shimna River surviving from the pre 18<sup>th</sup> century deer park. This habitat produced three new species to Ireland: *Agonimia flabelliformis*, *Opegrapha viridipruinosa* and *Taeniolella toruloides* parasitising *Thelotrema lepadinum* along with *Porina hibernica* new to Northern Ireland and new records for *Agonimia allobata*, *Buellia schaeereri*, *Calicium glaucellum*, *Chaenothecopsis nigra*, *Melaspilea amota*, *Micarea doliiformis*, *Micarea hedlundii*, *Microcalicium ahlneri*, *Parmelina tiliacea*, *Porina coralloidea*, *Porina rosei*, *Strigula phaea* and *Thelenella muscorum* var. *muscorum*: stunning!

In Co. Derry/Londonderry the highlight was Banagher Glen NNR, a barely explored oceanic woodland in a large ravine complex. This produced *Cetrelia monachorum* (a member of the *Cetrelia olivetorum* s. lat. group) and *Skyttella mulleri* parasitising *Peltigera praetextata*, both new to Ireland, along with *Chaenotheca stemonea* in its second Irish location, *Chaenotheca chrysocephala*, *Chaenothecopsis pusilla* and a host of *Lobarion* species. Within the latter assemblage *Pyrenidium actinellum* was found on *Peltigera collina*, a new host. A more worrying aspect of Banagher Glen was the impact of decades of grazing removal on former oceanic pasture woodland; large areas were near impenetrable, dark and lichen poor. One area with rich *Lobarion*, including *Lobaria scrobiculata* in 1991 (Coppins O'Dare, 1991), was now deeply shaded and lichen poor. Areas with a semblance of surviving pasture woodland structure were still very lichen rich. Ervey Wood in the same county, produced additional excitement in the form of two ancient Oak stools on a cliff within the



wood. These supported *Enterographa sorediata* (now known to be a soreciate form of *Syncesia myrticola* (Ertz et al, 2018)). Not only the fourth Irish record of the sterile soreciate form of *Syncesia myrticola* but the most northerly record for either form in Europe and the world. A downtime day in the rain was, of course, spent lichening. A speculative search was made on the East Donegal coast for the very rarely recorded Polyfilla False Reindeer moss *Cladonia stereoclada*. This was successfully found at Crummie's Bay on the Inishowen peninsula, plugging in a big gap in its distribution.

Correl Glen NNR, the damp side of a very rich Holly old growth woodland. The damp side has *Schismatomma niveum*, *Parmeliella parvula* and *Bunodophoron melanocarpum*. The drier side also supports *Mycoporum lacteum* and *Calicium diploellum*.



The survey ended at Correl Glen in the Fermanagh Scarplands, a wonderful site that I had visited in 2010 for Lichen Ireland. Then I had made a transect across the site and at the end of the day found an

stunning looking area of old growth Oak – Holly – Birch wood. This time I was able to give the old growth area a detailed survey. This produced *Opegrapha fumosa* on Oak and *Graphina pauciloculata* parasitising *Graphina ruiziana* on Hazel, both new to Fermanagh and second records for Northern Ireland. The Holly here was the best acidic veteran Holly I have ever seen, locally swathed in fertile *Bunodophoron melanocarpum*, with *Micarea pycnidiophora*, *Opegrapha fumosa*, *Parmeliella parvula*, *Schismatomma quercicola* and *Schismatomma niveum* on the wet bark and *Mycoporum lacteum* dominating the dry bark along with *Arthonia arthonioides*, *Schismatomma niveum* and a remarkable population of the tiny *Calicium diploellum*. This was recorded at 29 locations, with more than one occupied Holly at some locations. Some thalli were so vigorous that the tiny pinhead apothecia were just visible to the naked eye!

A very odd habitat recorded previously at the site was also fully recorded. This was live and dead Ivy stems climbing up over hanging sandstone cliffs. *Lecanographa lyncea* was known from this habitat already in one of its few Irish sites, which was was refound, but another remarkable colony of *Enterographa sorediata* was found along with

typical associated species including *Cresponea premnea*, *Lecanactis subabietina*, *Schismatomma cretaceum* and *Schismatomma niveum* together with *Opegrapha areniseda*.

Finally prone Sallows on the interface between ancient woodland and bog produced more *Cetrelia monachorum* and the first record of *Menegazzia subsimilis* for Northern Ireland.

### **The *Cladonia peziziformis* Survey**

This was an eventful trip but the most exciting event personally was finally finding *Cladonia peziziformis*. I had actually missed the existing records of this species on the spreadsheet of records of potential Red List species sent out by Damian when divvying up potential survey sites for 2018 with John Douglass. On the ferry over to Larne, however, I spotted two records of *Cladonia peziziformis* at Bloody Bridge, Co. Down, thought oh!, checked the map and found, even better, these had been made only 4km from where I was staying. I had spent some time in the last few years going over odd *Cladonia ramulosa* specimens to convince myself they were not *Cladonia peziziformis* and it would be good to finally get to see the real thing.

The records were made from grid square J3826 in 1972 by Richard Brinklow and 2009 by Roy Anderson by the Bloody Bridge on the lower slopes of the Mourne Mountains. I followed these up on the afternoon of 6/3/2017, after having finished at Tollymore that morning. The Bloody Bridge site is a strip of heathland along the Bloody Bridge River, owned by the National Trust, situated between the main coast road and the common grazings above. This was dominated by European Gorse *Ulex europaeus* and Moorgrass *Molinia* and was not very promising, with no lichens at all in this vegetation. It was at best lightly grazed, although there was much Gorse cutting and a good deal of presumably controlled burning. Even bare ground on old banks of glacial till exposed by the river lacked any *Cladonia*, with just *Lepraria* species present. The till-derived soil appeared to be too fertile. The exception was where small terraces of coarse river alluvium survived within the base of the steep river valley. These produced lower productivity soils and supported more open vegetation with flushed areas of Black Bogrush *Schoenus nigricans* – *Molinia caerulea* wet heath, and heath on better drained terrace edges marked by the appearance of Western Gorse *Ulex gallii* and Bell Heather *Erica cinerea*.

Exposed banks where paths cut through *Schoenus nigricans* – *Molinia caerulea* wet heath had the first *Cladonia* squamules, all sterile, some yellowish and dissected and likely to be *Cladonia ramulosa*, but others were entire, rounded and distinctly bluish; potentially *Cladonia peziziformis* but annoyingly resolutely sterile. Moving on, a distinctive site stood out in the lichen poor heath (alt. 30m). A terrace edge, with boulders and large patches of exposed humic soil between, with an open *Ulex gallii* – *Molinia caerulea* – *Erica cinerea* heath. Here the rounded and distinctly bluish squamules were abundant and, yes, finally fertile. And what a beauty! Delicate, short unbranched podetia capped by neat chestnut brown hemispherical apothecia distinctly wider than the stalks! It was immediately obvious that this was *Cladonia peziziformis*; no need to agonise over identification books and internet pictures. One of those cases of you will know it when

you find it and, if you are not sure, then it is not likely to be it. The associated lichen assemblage was limited but striking: *Placynthiella oligotropha*, a species with only four previous Irish records and *Cladonia cyathomorpha*, which I had never seen as a terrestrial species before. The heath had been burned previously which had helped to keep the Gorse from dominating and the presence of Wood Sage *Teucrium scorodonia*, suggested a somewhat mineral rich soil.



The first terrace edge site for *Cladonia peziziformis*, in open *Ulex gallii* – *Molinia caerulea* – *Erica cinerea* heath, on the edge of an old river terrace.



A close up of the first fertile thallus of *Cladonia peziziformis*, in patches of humic soil, in open *Ulex gallii* – *Molinia caerulea* – *Erica cinerea* heath.

Having re-found the original site I decided to move uphill and into J3827 to see what else I could find. Targeting edges of river alluvium terraces with similar heath

vegetation produced two smaller *Cladonia peziziformis* colonies, the last well above the original (alt. 80m). Above this, humus on a granite outcrop produced *Cladonia callosa*, new to Northern Ireland.

Beyond the National Trust land was open common grazing on the lower slopes of Crossone (J3727). This was heavily grazed, producing an open habitat and was also burned rotationally. The combination of burning and grazing was stopping the western gorse dominating. Here more *Cladonia peziziformis* was found but in a rather different habitat. It was locally frequent across about 100m of flushed *Schoenus nigricans* – *Molinia caerulea* – *Ulex gallii* wet heath (alt. 140 – 160m). The *Cladonia* occurred in drier niches within the heath, on small banks on slopes and on top of mounds on more level ground. The podetia were larger than those lower down and sometimes branched. Other associated vascular plants were varied: *Agrostis capillaris*, *Carex demissa*, *Erica cinerea*, *Erica tetralix*, *Myrica gale* and *Polygala serpyllifolia* but the lichens were limited to *Cladonia subcervicornis*. Nearby wetter acid peat had more diverse lichen assemblages but lacked *Cladonia peziziformis*. This latter habitat did, however, produce *Dibaeis baeomyces* and *Cladonia strepsilis*, both new to the Mourne Mountains.



The habitat of *Cladonia peziziformis* on the open hill land, sloping *Schoenus nigricans* – *Molinia caerulea* – *Ulex gallii* wet heath. The rucksack marks the location of a colony.



A close up of a fertile thallus of *Cladonia peziziformis* on a bank in the sloping *Schoenus nigricans* – *Molinia caerulea* – *Ulex gallii* heath.



A close up of *Cladonia peziziformis* growing on open patches of humic soil on low hummocks in *Schoenus nigricans* – *Molinia caerulea* – *Ulex gallii* wet heath on more level ground.

I ran out of time to examine more of the hill land but there appeared to be extensive areas of hard grazed and burned *Schoenus nigricans* – *Molinia caerulea* – *Ulex gallii* wet heath to the north and south of the new site on the lower slopes of Crossone and there is the potential for an extensive unrecorded meta-population of *Cladonia peziziformis* beyond the newly discovered population.

On the next day higher moorland sites (alt. 240 – 260m) in the Mourne Mountains were briefly looked at when journeying to and from another woodland site, but these were much more upland habitats and generally lichen poor.

### **Comments of the Ecology of *Cladonia peziziformis***

The upper and lower sites were in different vegetation types but they shared features such as an open nature and slight mineral enrichment. The hard grazing and regular burning of the open hill land was clearly important in keeping the small open niches for *Cladonia peziziformis* on banks and low mounds. The lower lying colonies were lightly grazed but had openness maintained by low soil productivity and controlled burning.

The ecology of this lichen and why it is so rare has not been very clear ([wales-lichens.org.uk/species-account/cladonia-peziziformis](http://wales-lichens.org.uk/species-account/cladonia-peziziformis)), but an association with fire has been suggested and the distribution suggests it is an oceanic species. The observations in the Mourne Mountains, suggest that like many other small *Cladonia* species *Cladonia peziziformis* requires strong illumination and is likely to be eliminated by shade in tall older mature heath (Sanderson, 2017). The association with burning is probably related to this need for light, rather than any special need for fire. In several lightly grazed Welsh sites the species has occurred as an ephemeral after fires and then disappeared as the vegetation closed over. However one more permanent site, a maritime heath in Anglesey, is known. Here *Cladonia peziziformis* is flourishing in rather peaty soil - very wet, very short and open, burnt in the past, but not for 15 years or more but in a very exposed situation (Dave Lamacraft, pers. comm.). In the Mourne Mountains the sites recorded are kept open by varying combinations of low fertility, controlled fire and grazing. The habitat on the common grazings would normally be regarded as “overgrazed” but this management appeared to suit the *Cladonia peziziformis* very well. One feature in common with the Welsh sites appears to be a slight degree of soil mineral enrichment. All sites in the Mourne Mountains were on damp but freely draining humus rich soil. The species may be limited by narrow requirements for damp but not wet and mildly mineral enriched, humus rich soils in short open vegetation.

### **Further Work**

The population on the Mourne Mountains is also potentially much bigger than was recorded in 2018. Aerial photos suggest that similar short open *Schoenus nigricans* – *Molinia caerulea* – *Ulex gallii* wet heath can be found for at least 1km to the north and several kilometres to the south. There is potential for many more colonies; further survey is urgently required. The lichen is very rare in Europe (Ahti & Stenros, 2013) and this area could easily support the largest European population.

## References

- Ahti, T. & Stenros, S. (2013) *Cladonia*. In: *Nordic Lichen Flora* 5: 8-86 Cladoniaceae (ed. T. Ahti, S. Stenros & R. Moberg). Uppsala: University of Uppsala.
- Coppins, B. J. & O'Dare, A. M. (1991) *A Preliminary Lichen Survey of Five Woods in Counties Londonderry and Tyrone*. A report to the Department of the Environment (NI), Countryside and Wildlife Branch.
- Ertz, D., Coppins, B. J. & Sanderson, N. A. (2018) The British endemic *Enterographa soredata* is the widespread *Syncesia myrticola* (Roccellaceae, Arthoniales). *Lichenologist* 50: 153-160
- Sanderson, N. A. (2017) *The New Forest Heathland Lichen Survey 2011 – 2015*. Natural England Joint Publication JP020. Peterborough; Natural England

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## The British Lichen Society hits the world of social media

At the BLS AGM in January 2017 Allan Pentecost made a plea for help from membership and in particular for help with social media. After some thought, I offered to help with this, together with my husband Simon Davey.

Prior to this, Simon and I had been noticing a substantial body of interest in lichens on Twitter and the lack of a BLS account meant some useful opportunities for engagement were slipping past largely unnoticed. We were able to pick up a few, but with so many organisations present on Twitter, the time was approaching for the BLS to become involved officially. Facebook has a very active lichen group, 'British and Irish Lichens', which although not the BLS account is handling identification requests. A BLS Facebook page had been created a few years ago, but this had stalled and now there was scope for a new BLS page to be set up alongside the Twitter account.

By November we were all ready to go for it. At a weekend meeting of the Education and Promotions Committee in Somerset, Simon and I, with the support, assistance and enthusiastic optimism of the committee chose the names to use and discussed strategies.

On 14<sup>th</sup> November 2017 we launched the Twitter (@BLSlichens) and Facebook (@BLSlichensF) accounts/pages. With the help of BLS colleagues and Twitter friends (including the inspiring Louise Marsh of the BSBI) the number of followers was up to 500 within 3 days! Two weeks later there were 600. We had known that the interest was there but it still took us all by surprise. Ages of followers ranged from 14 to 74 (for those whose ages we knew). The interaction has been excellent ever since. At the time of writing we have 1374 followers on Twitter and 254 plus 'Likes' on Facebook.



Over the weekend of the 25<sup>th</sup>/26<sup>th</sup> November we ran a ‘See where you can find lichens’ challenge. Atticus tweeted an eye-catching signpost to a *Cladonia* on the 25<sup>th</sup> November. Our contribution of the back bumper of my car generated the term autocolous for the substrate.

Copyright Alison (@AtticusTheFitch)

A consistent feature of the photographs shared with the BLS accounts has been the excitement *Xanthoria parietina* can provoke and the sense of magic that the showy *Cladonias* inspire. These ‘pop star’ lichens have been raising awareness with many who hadn’t really thought about lichens before and were coming to them anew. The warmth of their appreciation has been a joy.



Copyright Phil Barnett (@squinancywort1)



On the 20<sup>th</sup> December we ran a tweet and Facebook post about the BSBI New Year Plant Hunt (with their permission) offering help with lichen IDs for those not finding many flowering plants. This generated a good degree of enthusiasm and up to 150 more followers, as well as calls for a New Year Lichen Hunt to be run alongside the BSBI event.

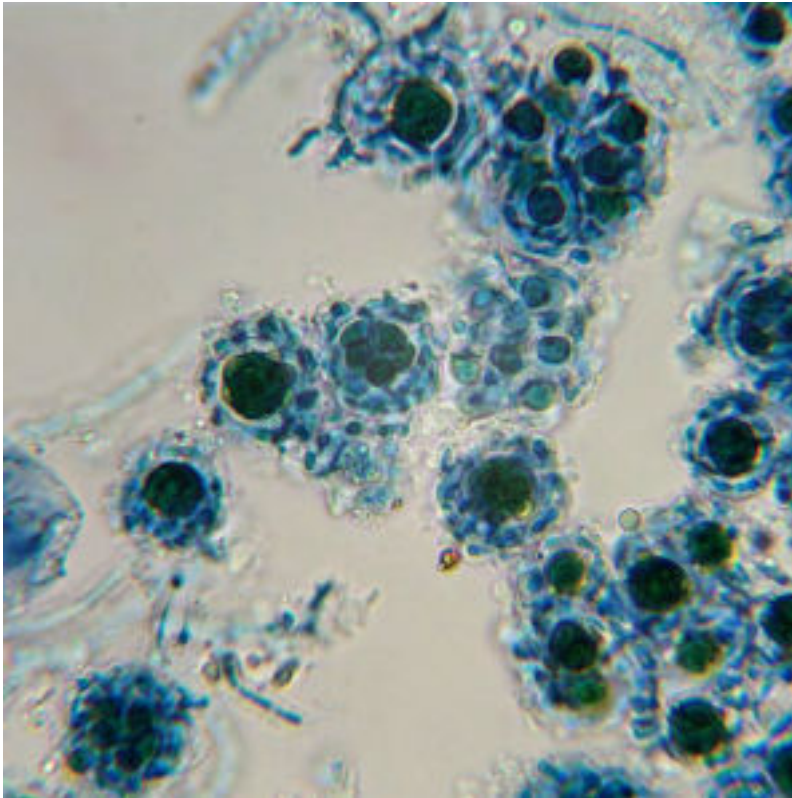
A tweet about the Observer's Book of Birds triggered a reply that their lichen book was very helpful. A surge of new followers resulted as more people realised the existence of the BLS. On the same day came announcements from Plantlife about their Ancient Woodland Initiative, as well as Heritage Lottery Funding for Caring for God's Acre. It was at this time too that Phil Barnett tweeted the striking image of *Xanthoria parietina* which went pretty much 'viral' and has been used as the front cover of this Bulletin.

In January, one follower tweeted a photograph of the top of a fence post, with magical Cladonias, foliose lichens and moss. This image gained 1800 'Likes' in those dark days. Fence posts have remained popular on Twitter. It turns out that there is even #fencepostoftheday which has been around for the past few years!



Copyright Bob Macintosh (@scotfot)

Regularly identification requests and comments have triggered many interesting and informative discussions. Mark Powell's input has been greatly valued by us and by the social media lichenologists. He has been providing valuable microscopic shots and insights on lichen behaviour that are often the equivalent of masterclasses in lichenology.



Soredia of *Evernia prunastri* stained with ink/vinegar technique

Copyright Mark Powell (@obfuscans3)

Many people are keen to know what lichens are, about the use of chemical tests and where they can access books, etc. There will be an enthusiastic response to the release of Frank Dobson's new edition of *Lichens* to be published this June. (For details see 'items for sale' at the back of the *Bulletin*)

New followers continue to come although input from known BLS members is still low. We have expected a stabilising effect on Twitter, with Facebook an unknown quantity but this has yet to happen. Since November we estimate that we have 'lost' only about 30 followers, which is very unusual for a social media account.

Other things that happen on Twitter and Facebook are announcements of field courses, events and initiatives. Where I see them or have been notified about them I have been pushing out job announcements and material relevant to lichens, always hungry for more. Much of this is enthusiastically received and is picked up and passed on by others.

It has been an eventful and completely fascinating six months. Thank you to everyone who has been so supportive and has shared their knowledge of lichens with the rookies and with us.

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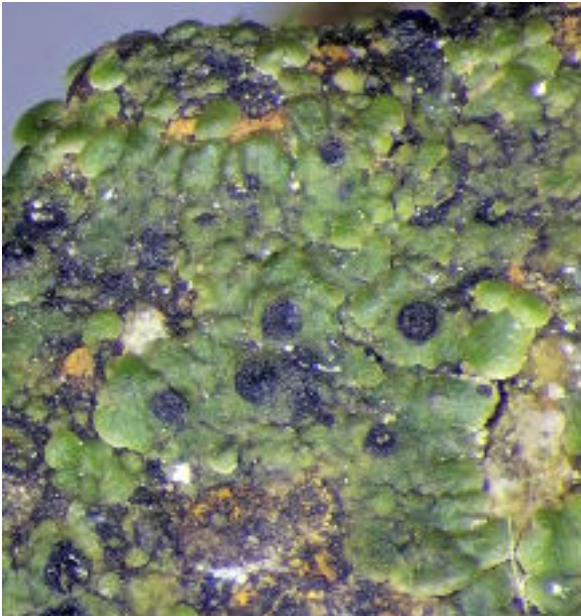
## A note from a Bristol based lichenologist

Having moved away from our old village where we had lived for 35 years and moving into a new home about a year ago with still masses of work to do on it, lichenology had to take a back seat.

But it is still amazing what turns up! We go into the field and feel fairly confident with the common and abundant species that seem to thrive in these times of high nitrogen pollution, and then we keep coming across things that stump us. I get stumped rather more times that I would like to admit. Just the other day I was looking at the grey lobed thallus of a *Verrucaria/Catapyrenium* looking thing which I had collected in 2014 on Steep Holm Island in the Bristol Channel which is a hump of carboniferous limestone sticking out of the estuary. I was stumped.

In the end I took photos down the dissecting microscope and emailed them to Brian Coppins for help because he and Pat Wolseley are preparing a lichen flora of Somerset. Try *Verrucaria latericola* he emails. But this is parasitic on *Caloplaca* and my bit is not yellow! The spore characters are exactly right in size and narrow and a bit curved in on one side. Whoops! - I overlooked it thinking it would be on or in a yellow thallus. I wonder how many others of us looking at limestone might miss it. Anyway thanks to Brian it is a good addition to the Somerset list.

On one of my rare outings last year, being the diocesan contact for lichens, I was obliged to go to a couple of Somerset churchyards near Frome. The benefice, preparing to put in a grant application for some conservation work, wanted to be sure they had ticked all the boxes. Surveyed in 1974 with 28 species, Lullington churchyard was small and did not seem particularly great for lichens so I did not expect much but in the end one turned out to be unexpectedly good. I recorded 82 species (including a



few on one or two small trees). Why so many more? I don't know; less pollution perhaps. Anyway, the best find was *Endocarpon pallidulum*<sup>1</sup>. I recognised the bright green squamulose thallus (it was wet) with perithecia as looking a bit familiar in the field but I couldn't think why.

So I took a little bit as voucher, as you do, and back home under the microscope ...WOW! Now I remembered having seen it before some years before (Steepholm in 2014) – why didn't I remember it? We have perhaps 4 records for *E. pallidulum* – 2 in Dorset (BLS Mapping Scheme data) and now 2 in Somerset.



Photos by Paul Cannon (many thanks, Paul) show thallus and spores from the Lullington material.

At the BLS field meeting in the Forest of Dean a few years ago, Mark Powell showed me *Catillaria fungoides* on a tree. You know the kind of thing, greenish grey, 'cruddy looking' with some dark bits sticking up but this one has clusters of little black *Catillaria* fruits sprinkled on the top. Internally the apothecia are much the same as *C. nigroclavata*. Well, I was in the garden of our new home trying to tackle some rather neglected trees and decided that one or two lower branches should come off to let a bit more light in. My practice is to check any such bits of trees for lichens before disposing of them. I had a lens and chopped a bit of the bark off where there were a little cluster of black fruits to look at later with the microscopes. And, yes, it turned out to be *C. fungoides*! I was trying to keep an eye open for it since Mark had shown it to me but to no avail and I had given up any hope of ever finding it for myself. Maybe it is not so rare after all but just a bit overlooked.

So my motto is keep looking and never give up hope of finding something unusual.

*David Hill*

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<sup>1</sup> After Paul Cannon examined it and consultation with Brian Coppins, *Endocarpon pallidulum* seemed the nearest species it is possible to ascribe the Somerset material to for the time being. We are not sure of the actual identity until a full review of the genus is made.

## Lichens on *Juniperus drupacea* in Greece

*Juniperus drupacea* Labill. occurs in Europe only on a single mountain in Greece, Mt. Parnon in the SE Peloponnese (map in Strid & Tan, 1997). Elsewhere it has a limited range in western Asia (Lebanon, western Syria, southern Turkey), all at least 800 km from Greece. It forms a fairly tall tree (to 20 m) with a distinctive, elegant, conical shape, and it has unusually large fruits for *Juniperus*. On Mt. Parnon it occurs at altitudes from about 900 m to the tree limit at about 1600 m, but it is commonest at the lower altitudes, where it may form almost pure stands. When not in pure stands it occurs in forests with mainly *Abies cephalonica* or *Pinus nigra*; other species of tree sometimes occur with it but are uncommon. From conversations I have had with elderly local people, its range at lower altitudes on Mt. Parnon appears to be extending (or perhaps it is just regaining ground formerly lost). The villages in the area have been heavily depopulated over the last 70 years, so there has been a reduction in logging and grazing, presumably to its benefit.

There are no previous reports of lichens from *Juniperus drupacea* in Europe. The lichens of its Asian range are not well known and the literature is very scattered, so I have not made a systematic search for records from *J. drupacea* there. However, I do not recall ever seeing any.



### Mt. Parnon site

On 19 March 2015 I studied the lichens of *J. drupacea* at a single site on Mt. Parnon. I recorded 38 species from it, a higher total than expected, as species of *Juniperus* are usually poor in lichens in the Peloponnese. The site was on a NW facing slope above the monastery Malevis, in the nomos of Arcadia, co-ordinates 37° 19' 30" N, 22° 35' 20" E, altitude about 1000 m. It had a fairly dense woodland of *J. drupacea* with a few scattered trees of other species. The underlying rock was limestone. There were no indications of past fires.

The lichens on *J. drupacea* were studied thoroughly to obtain as complete an inventory as possible. Other substrates were also studied to help put the site into perspective, but reports for those substrates are much less complete. All the material was determined by the author. At present collections are in the author's personal herbarium.

*Candelariella boleana* is here reported new to Greece. *Calicium salicinum*, *Caloplaca oasis*, *Lecanora saligna*, *Lecidella pulveracea*, *Pertusaria servitiana* and *Physconia thorstenii* are new to the Peloponnese.

The lichens recorded from the site were as follows. Nomenclature follows the Greek lichens website, <http://www.lichensofgreece.com>, which itself generally follows Abbott (2009). Authorships of names may be found on the website.

On bark of *Juniperus drupacea*: *Anaptychia ciliaris*, *Bacidia rubella*, *Calicium salicinum*, *Caloplaca haematites*, *C. pyracea*, *Candelariella boleana*, *C. vitellina*, *Catillaria nigroclavata*, *Cladonia pyxidata*, *Collema furfuraceum*, *Fuscopannaria mediterranea*, *Lecanora chlarotera*, *L. horiza*, *L. leptyroides*, *L. saligna*, *Lecidella elaeochroma* f. *elaeochroma*, *L. pulveracea*, *Lepraria* sp., *Megaspora verrucosa* var. *mutabilis*, *Melanelia glabratula*, *Parmelina tiliacea*, *Pertusaria albescens* var. *albescens*, *P. coccodes*, *P. servitiana*, *Physcia adscendens*, *P. aipolia*, *P. stellaris*, *P. tenella*, *Physconia perisidiosa*, *P. venusta*, *Pleurosticta acetabulum*, *Porina aenea*, *Pseudevernia furfuracea* var. *furfuracea*, *Rinodina sophodes*, *Scoliciosporum umbrinum*, *Tephromela atra*, *Xanthoria parietina*.

On wood of *Juniperus drupacea*: *Xylographa parallela*.

On bark of *Acer* sp.: *Anaptychia ciliaris*, *Buellia schaeereri*, *Catillaria nigroclavata*, *Collema furfuraceum*, *Fuscopannaria mediterranea*, *Leptogium teretiusculum*, *Ochrolechia balcanica*, *Parmelia submontana*, *Phaeophyscia orbicularis*, *Physcia leptalea*, *Physconia thorstenii*, *P. venusta*, *Pleurosticta acetabulum*, *Ramalina farinacea*, *R. fastigiata*, *Scoliciosporum umbrinum*, *Tephromela atra*.

On limestone: *Acarospora cervina*, *Bagliettoa marmorea*, *Caloplaca chalybaea*, *C. flavescens*, *C. oasis*, *C. variabilis*, *C. xantholyta*, *Collema polycarpon* subsp. *polycarpon*, *Diplotomma ambiguum*, *Lecanora graeca*, *L. pruinosa*, *Leptogium massiliense*, *Lobothallia radiosa*, *Placocarpus schaeereri*, *Placynthium nigrum*, *Psora vallesiaca*, *Rinodina immersa*, *Rinodinella controversa*, *Romjularia lurida*, *Squamarina stella-petraea*, *Tephromela atra*, *Verrucaria viridula*.

Overgrowing bryophytes on limestone: *Cladonia convoluta*, *C. pocillum*, *Leptogium lichenoides*, *L. palmatum*, *Pleurosticta acetabulum*.

On mossy soil: *Peltigera polydactylon*, *P. praetextata*.

Lichenicolous: *Caloplaca inconnexa* var. *inconnexa* on undetermined *Aspicilia* sp. on limestone.

### **Juniperus in the Peloponnese**

Four other species of *Juniperus* occur in the Peloponnese: *J. communis* and *J. foetidissima* are rather rare upland species, *J. oxycedrus* is a common upland species, and *J. phoenicea* is a fairly common coastal species. There are no reports of lichens from *J. communis*, but there are reports from the other three species. (Two more species, *J. excelsa* and *J. sabina*, both rare, are restricted to northern Greece: there are no published lichens from either.) To put the data for *J. drupacea* into perspective, the lichens recorded in the Peloponnese from the other three species, including both my own records and those in the literature, are as follows.

*J. foetidissima* (9 taxa): *Anaptychia ciliaris*, *Caloplaca cerina*, *Candelariella vitellina*, *Lecanora rugosella*, *Lecidella elaeochroma*, *Megaspora verrucosa* var. *mutabilis*, *Pertusaria caesia* auct., *Physcia biziana*, *Pleurosticta acetabulum*.

*J. oxycedrus* (22 taxa): *Anaptychia ciliaris*, *Collema furfuraceum*, *C. subnigrescens*, *Evernia prunastri*, *Hypogymnia laminoisorediata*, *H. tubulosa*, *Lecanora chlarotera*, *Lecidella elaeochroma*, *Lobaria pulmonaria*, *Melanelia exasperata*, *Nephroma laevigatum*, *Ochrolechia szatalaensis*, *Parmelia submontana*, *Parmelina pastillifera*, *P. tiliacea*, *Pertusaria albescens* var. *albescens*, *P. albescens* var. *corallina*, *Phlyctis argena*, *Physcia leptalea*, *Platismatia glauca*, *Ramalina farinacea*, *Xanthoria parietina*.

*J. phoenicea* (17 taxa): *Bacidia auerswaldii*, *B. parathalassica*, *Bactrospora patellarioides*, *Caloplaca flavorubescens* var. *quercina*, *C. obscurella*, *Catillaria nigroclavata*, *Collema nigrescens*, *Dirina ceratoniae*, *Lecanora horiza*, *Lecidella elaeochroma*, *Opegrapha varia*, *Physcia adscendens*, *P. biziana*, *Pyrrhospora querneae*, *Schismatomma decolorans*, *Thelopsis isiaca*, *Xanthoria parietina*.

### **Discussion**

It is a telling comment on the poor state of our knowledge of Greek lichens that even in the Peloponnese, one of the best studied regions of Greece, a single site, unremarkable except for having a rare species of tree, and studied for just part of one day, can yield 7 species new to the region, one of which is new to Greece itself. Any competent lichenologist could make similar progress almost anywhere in Greece. In poorly studied regions of Greece - of which there are many - she could make much more impressive progress. The necessary Checklist, keys and Flora are all freely available on the Greek lichens website, so any lichenologist visiting Greece on vacation could easily make a worthwhile contribution to our floristic knowledge without great

effort. The author can provide advice to anyone considering such work. (Now that I have excluded all possible excuses, I really would hope to see more of our community, amateur or professional, paying some attention to Greece. The scenery is better than where you live. So is the weather. And the wine is cheap. What are you waiting for?)

The high number of taxa recorded from *J. drupacea* was surprising. In part the total may reflect focused study of this single phorophyte, but the species list includes lichens typical of rather acidic bark, such as *Pseudevernia furfuracea* as well as those typical of rather basic bark, e.g. *Physconia* species. This suggests either that *J. drupacea* has bark of intermediate pH that is acceptable to both acidophilous and basiphilous lichens, or that there is considerable variation in pH from one tree to another. In contrast, the common upland *J. oxycedrus* usually has distinctly acidic bark and a correspondingly limited lichen biota.

Most of the species recorded from *J. drupacea* are fairly common in the Peloponnese. Unsurprisingly, the assemblage lacks a lowland element (such as several of the species recorded for *J. phoenicea*). Except perhaps for *Calicium salicinum*, sensitive species of upland forests (e.g. *Calicium glaucellum*, *Lobaria amplissima*, *L. pulmonaria*) are absent, and species of strongly acidic bark are not well represented. The altitude of the site was too low for the long pendent epiphytes of *Alectoria*, *Bryoria* and *Usnea*; they require higher humidity. The presence of several species not previously recorded for the Peloponnese probably carries little weight, as our knowledge of their distribution is so scanty. Overall, the assemblage of lichens on *J. drupacea* at this site seems unremarkable for bark at this altitude.

### Acknowledgment

Reay Sutherland assisted with the fieldwork, including pointing out some interesting specimens that I would otherwise have overlooked.

### References

- Abbott, B. F. M. (2009). Checklist of the lichens and lichenicolous fungi of Greece. *Bibliotheca Lichenologica* **103**: 1-368
- Strid, A. & Tan. T. (1997). *Flora Hellenica. Volume one*. Königstein

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## Thoreau - Journals Vol 4 - Princeton U.P. 1992

The Lichens look rather bright to day near the town line in Heywoods wood by the pond. When they are bright is it not a sign of a thaw or of rain? The beauty of lichens with their scalloped leaves – the small attractive fields – the crinkled edge – I could study a small piece of bark for hours. How they flourish! I sympathize with their growth.

January 26<sup>th</sup> 1852

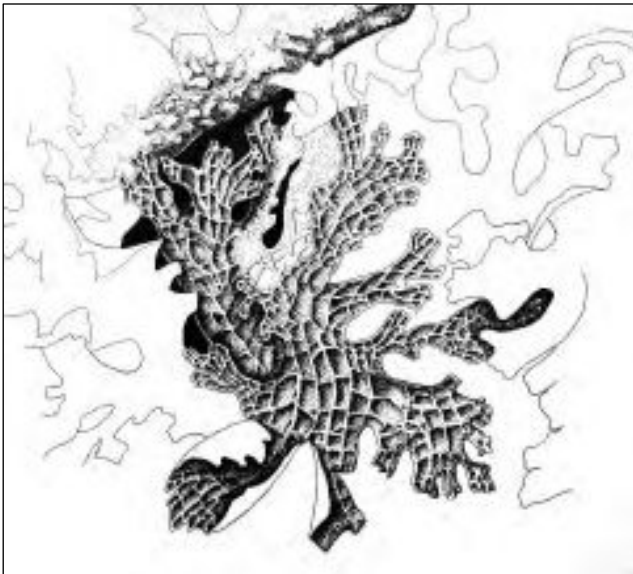


The trees all at once appear covered with this crop – of lichens & mosses – of all kind – flat – & tearful are some - distended by moisture - This is their solstice –and your eyes run swiftly through the mist to these things only. On every fallen twig even that has lain under the snows – as well as upon the trees, they appear erect & now first to have attained their full expansion. Nature has a day for each of her creatures – her creations. Today it is an exhibition of lichens at forest Hall – The livid green of some- the fruit of others. They eclipse the tree they cover, - And the red club pointed – (baobab tree like) on the stumps – the *erythrean* stumps. Ah beautiful is decay.  
December 31<sup>st</sup> 1851

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## Lichens – slow growing – slow art

It's almost 2 years since lichens first caught my attention while artist-in-residence at Sumburgh Head Lighthouse in Shetland, and they continue to inspire and intrigue like a good thriller! I get lost in research, reading of the wolf lichen, apparently once used as a poison to kill wolves in Russia but also used as a dye in Alaska by the Chilkat Tlingit people for their prized blankets. Other lichens provide much needed winter food for wildlife and have even been ground up to make tea as well as a variety of cures in traditional medicinal remedies. Taking my camera on walks, I now seem to have hundreds of images of lichens – their variety is quiet astonishing. Earlier this year I was delighted to have been one of a handful of artists invited to stay in Inverewe House located in the middle of Inverewe Botanic Gardens, originally created by Osgood



Hanbury Mackenzie in the mid 1860's, all now owned by the National Trust for Scotland. Compared to the tiny crusty lichens found clinging on the cliffs around Dunnet Head cliffs where I live, the lichens at Inverewe were positively showing off – very flamboyant! A turkey oak, planted in the 1930's by his daughter, Mairi, to commemorate the rebuilding of Inverewe House (destroyed by fire), was stunning and also home to about 24 different lichens!

Trying to capture not only the variety and different uses, but the stories connected to lichen over time, is proving difficult – I’m easily distracted, drawn in to follow new leads in the mystery. I started to look at the illustrations of lichens by Johan Peter Westring made around the early 1800’s. These early illustrations show not only great detail, but also the range of colours made by each lichen when used as a dye. It’s the bold black lines and soft colours (perhaps faded with age?) combined with the formal layout for scientific research that I enjoy, as the rest remains a mystery – the text, is of course all in Swedish! I also visited the herbarium department at Manchester Museum, and like a child in a sweet shop, I delighted in opening box after box of lichen specimens – the aged papers with beautiful handwritten copper plate text labelled lichens in folded packets or still attached to rocks. A few larger rocks were in individual boxes, but most were stuck to paper, thin paper at that. Again, most of the info on the labels meant nothing, particularly as many of the names had changed since they were first collected, it was the formal layout of an old collection that inspired. As I go back to the source, making detailed observational drawings of lichens, using the photographs I’ve taken, while I figure out what to do next that will somehow encapsulate all that I continue to discover, one chapter in my lichen inspired work has come to an end. Over the last 18 months, I have been working in Swaledale as invited lead artist on the Chrysalis Arts project, ‘Fabric of Place’. A slow art, community project, I decided to make the focus with the groups I’d been working with, lichens. Working as volunteers, British Lichen Society members Les and Sue Knight led the workshops about lichens. Earlier this year, we had our ‘end of term’ party, bringing together some of the adults who had been working on the project, with pupils at Reeth and Gunnerside Primary School. All had been working on the same theme – creating artwork inspired by lichens in Swaledale, linking it with scientific research, the landscape, folklore or even personal stories. I worked in parallel, investigating lichens around my home in Dunnet Head in Caithness This approach of contrasts helped to highlight how lichens adapt to their environment. As a slow art project, it also meant that we could all access the source of inspiration on our doorsteps and make use of the time taken to research, document and create new work. For our end of term celebration, the pupils transformed their classroom into a gallery, displaying not only their work, but a selection made by the adults in the project, including mine.





The children talked excitedly to their invited guests about the research they'd done and the artworks they'd made. We adults formed a panel of artists and lichen experts for a more formal questions and answers sessions led by the children. Making use of local expert knowledge was key to the project, as without Les and Sue Knight, we wouldn't have the depth that's been created in the artwork. It was clear that all had engaged with the project, hopefully igniting a new interest, and inspired new ways of creating artwork that is much more than just decorative. Fabric of Place continues as three other artists are now on board, each working with different groups in Swaledale, and taking forward their own ideas of 'bringing the outside in'.

All the work created will be brought together in a touring exhibition which opens at the Dales Countryside Museum, Hawes, before touring to Keld and Catterick.

3rd October 2018 to 26 November 2018 - Dales Countryside Museum

1st December 2018 - 16th January 2019 - Keld Resource Centre

21st January 2019 - 8th March 2019 - Catterick Library (TBC)

A Chrysalis Arts project supported by NYCC Stronger Communities and YD National Park. All of the 'Fabric of Place' events were offered free to the public.

*Joanne B Kaar*

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## Lichens on weird substrates

You don't always have to travel far from home to find lichens growing on novel substrates as Ginnie Copsey found at her home in Hampshire!



The trampoline provides a suitable substrate for an artistic array

*Normandina pulchella* seems to be increasing its range and is seen here growing on tarpaulin



Ginnie Copsey [ginniecopsey@aol.com](mailto:ginniecopsey@aol.com)

# Learning about Lichens with Cennad and putting this to use at Gilfach

In December 2016 I was given the chance to join the Cennad lichen apprenticeship scheme and shortly afterwards started work at Radnorshire Wildlife Trust's Gilfach reserve. Gilfach is a large SSSI of 410 acres which lies just off the A470, 3 miles north of Rhayader, along the River Marteg

Steve Chambers carried out a detailed botanical study of the reserve in 1997 which includes a comprehensive list of 413 lichens, almost a third of the Welsh flora, a testament to the wide variety of habitats on the reserve.


Gilfach's lichen flora includes a distinctive element of saxicolous lichens which are normally found further north. This is perhaps due to the slightly colder climate of Radnorshire and the free draining south facing crags of Wyloer hill (475m).

During my apprenticeship with Cennad I was given the chance to learn more about saxicolous lichen by attending a weekend field course in and around Cardigan. As a result of this and another Cennad workshop in November 2017, I formed the idea of a Lichen Trail based around a cluster of rocks around the Welcome gateway car park at Gilfach. This trail is included here.


A guide to lichens growing on rocks near the Welcome Hub Car Park at the Radnorshire Wildlife Trust's Gilfach Nature reserve.

## The Rock is my Pillow


The rocks at Gilfach host sheets of life. These include Lichens – a strange mixture of fungi whose threads enfold simple plant cells called algae. Together the community of living organisms in a lichen can survive harsh conditions and gather enough sustenance for life even on a rock face. 420 species have been found at Gilfach which is nearly a third of the species known in Wales.



Can you see an outline of the UK in this Map lichen?





**Rhizocarpon geographicum**  
The Map Lichen  
This lichen is often used to date objects, as it is common, fairly easy to see and grows relatively fast for a lichen. It is used to track how fast glaciers are retreating and exposing montane rock.



Start at the Welcome car park at Post Marteg. Walk along the path and find the Lizard rock. Can you spot these nearby rocks and their lichens?  
The rocks are Llandovery Shales and about 440 million years old.

**Cladonia**  
Cladonia lichens are the main food source for Reindeer. They are so tough they can grow even in arctic conditions. *Cladonia porcinosa* is used in floristry and even by model rail enthusiasts!

**Cladonia**  
*arvicolaris*. This grows on nearly all of these rocks.

**Cladonia**  
*porcinosa* is tucked away under some heather.

**A guide to lichens growing on rocks near the Welcome Hub Car Park at the Radnorshire Wildlife Trust's Gilfach Nature reserve.**

**Aethoparmella conspersa**  
makes uric acid – which has potent antibiotic effects against bacteria like *Staphylococcus*.

**Stereocaulon vancouverense**  
A common spongy lichen often found on the top or edges of rocks or walls. Stereocaulons make a compound which gives orange and brown dyes.

**Umbilicaria devexa**  
Gilfach has a cluster of lichens which are more usually found farther north. Lichens from this family have been used as a survival food in the Arctic, but they are very bitter and require a lot of preparation!

**Perlmutter scabiosa**  
Also known as Crottle, this lichen was used to produce the rusty orange and deep red colours of Harris Tweed, but crofters also used it to dye the wool for their knitted socks.  
According to folk tradition, it was believed to be a cure for epilepsy, especially if it was found growing on an old skull.  
Once mature, the centre of this lichen becomes covered with little finger-like projections, known as lobes. These break off and start clones of the lichen.

**More information about lichens.**  
Lichens can tell us about air pollution...  
See two citizen science projects using lichens:  
The QPAL Air survey: [www.qpal.org.uk](http://www.qpal.org.uk)  
ARIS [www.aris.ac.uk](http://www.aris.ac.uk)

**Lichens in the UK**  
The British Lichen Society  
[www.britishtolichensociety.org.uk/](http://www.britishtolichensociety.org.uk/)  
Care Daily Well charts – Lichens on Trees & Rocks  
[www.britishtolichensociety.org.uk/resources/uk-lichens/](http://www.britishtolichensociety.org.uk/resources/uk-lichens/)  
*Publications*: Two beautiful and inexpensive posters.

**Heritage Lottery Fund**  
LETTER FORMS  
Wildlife & Lichens

**Cyfoeth Naturiol Cymru**  
Natural Resources Wales

**Plantlife**  
Sir Fawcett  
Radnorshire

The Cennad apprentices also had the opportunity to visit the National Trust's woodland reserve at Coed Ganllwyd. Here we saw the success of their project to translocate *Lobaria pulmonaria* (Tree Lungwort). Ray Woods had been thinking about trying this at Gilfach, and so in consultation with him, and using the Association Française de Lichénologie's recent review article on *Lobaria pulmonaria*, I wrote an application to Natural Resources Wales to translocate Tree Lungwort to Gilfach. This lichen occurs within 200m of the reserve boundary but has not been recorded in the reserve. This may be due to tree felling during the First World War and perhaps the impact of the Mid Wales Railway, the old line of which runs through the Marteg valley. The application was successful and loose vegetative propagules have been collected and transferred to selected trees within a sheltered oak woodland on the reserve. We await the results with interest!

## Acknowledgements

With thanks to the patience and kindness shown to a beginner by the BLS Churchyard group, Steve Chambers, Tracey Lovering and Ray Woods.

## Reference

Laurence et Jean-Bernard Quiot. *Bulletin d'informations de L'Association Française de Lichénologie* 2017. Vol 42 – fascicule 2 : 249-259 *Lobaria pulmonaria*. (L) Hoffm, un lichen forestier.

Barbara Brown email [barbara@rwtwales.org](mailto:barbara@rwtwales.org)

## Lest we forget?

This quiet graveyard is now eulogised  
as 'wildflower-friendly': Eggs-And-Bacon  
thread through Ladies' Bedstraw and Self-Heal.

The Norman porch displays a list  
of the ninety-two lichen taxa  
found by the enthusiastic British Lichen Society  
including the rare *Myriospora smaragdula*.

We stroll through knee-high Yorkshire Fog  
and Sweet Vernal Grass mouthing  
the graves' names, their ages.

Turn a verdant corner and  
come upon them: scoured,  
buzz-cut, rawly new.

Do they want this regimented scrubbing?

This forever standing to attention:  
*All-ready-for-inspection-sir!*  
Why not let this 19 year old, this 22 year old,  
this Private, this Lieutenant develop a skin  
of lichen, a suit of moss, a softening  
of bird-splatter?

Do they want their grasses and wildflowers  
shaved to within a millimetre of their soil?  
Does this six-monthly assault with electric sander  
comfort them?

Or do they wish to rest, to lie  
hammocked in the curve of the earth,  
to become one with the bearded graves

that cluster round them, that lean in  
like ears, like hands ready to soothe,  
while the soldiers stand to attention

in uniforms stiff with bleach.

# Lichens at Ascension Burial Ground and in Streets to the North

A survey by Mark Powell and the Cambridgeshire Lichen Group, 19<sup>th</sup> November 2017  
Attended by Jon, Mark, Paula, Phil, Sam, Serena

The Cambridge Lichen Group meets about once a month and an illustrated report is produced for each meeting. These will gradually be uploaded as an archive on the FGBI website; the following link leads to a few other reports:

<http://fungi.myspecies.info/content/surveys-vc029>

## Ascension Burial Ground, TL435.597

Our Group last visited this small cemetery almost exactly six years ago. The cemetery now seems rather neglected, with large evergreens shading quite significant portions of the site, the grass rather rank, and ivy encroaching onto some of the memorials. All three factors are potentially deleterious to the lichen communities and are a threat in many churchyards and cemeteries.

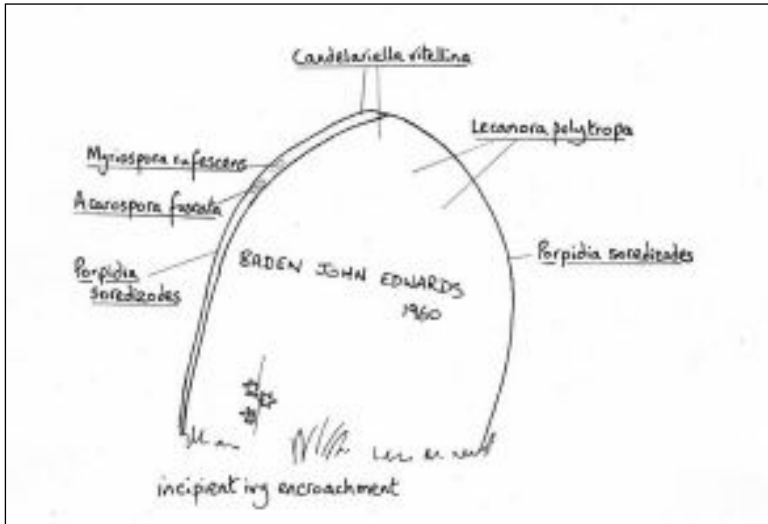


A relatively modern sandstone gravestone in the extension part of the Burial Ground.

The lichens are heavily browsed by molluscs, so for example *Lecanora polytropa* on the side facing the camera is reduced to rather featureless roundels, the apothecia poorly



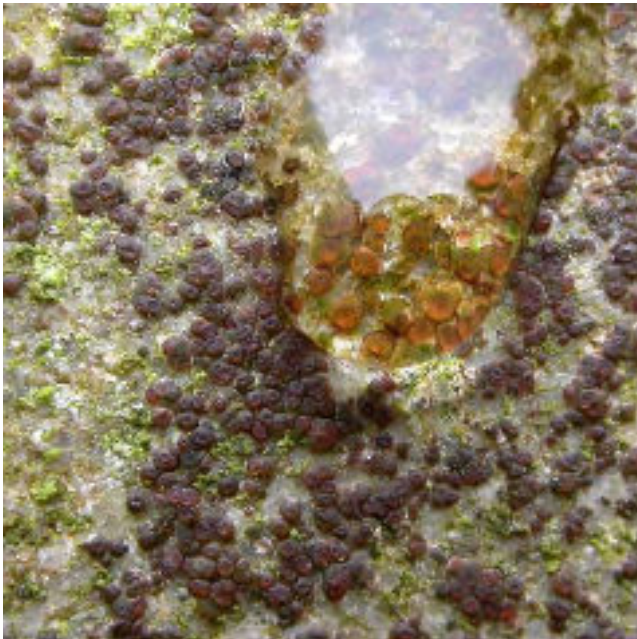
developed and semi-immersed in the scanty thallus. *Myriospora rufescens* is a common feature of late 20<sup>th</sup> century fine-grained sandstone memorials and is identified by its lack of spot test reactions and the relatively conspicuous immersed apothecia which glow orange-chestnut when damp.



Drawing of above gravestone .

As well as providing a convenient meeting point, we wanted to attempt to resolve two of the uncertainties from last time. Unfortunately, it appears the molluscs have been busy rasping. The putative *Chaenotheca chrysocephala* on a wooden cross is now reduced to a few barely perceptible blobs and remains uncertain. The putative *Lecania leprosa*, on a low flat tomb in 2011, has now completely disappeared. We added eight species to the list for the site:

*Acarospora fuscata*, *Chaenotheca ferruginea*, *Lecanora orosthea*, *Myriospora rufescens*, *Muellerella lichenicola*, *Placynthiella icmalea*, *Thelidium incavatum* and *Verrucaria ochrostoma* bringing the total to just under sixty.



*Myriospora (Acarospora) rufescens* on the side of a modern sandstone gravestone. This species is one of the few lichens that is perhaps more distinctive when wet, as demonstrated here by a serendipitous rain drop. When wet, the apothecia glow orange.

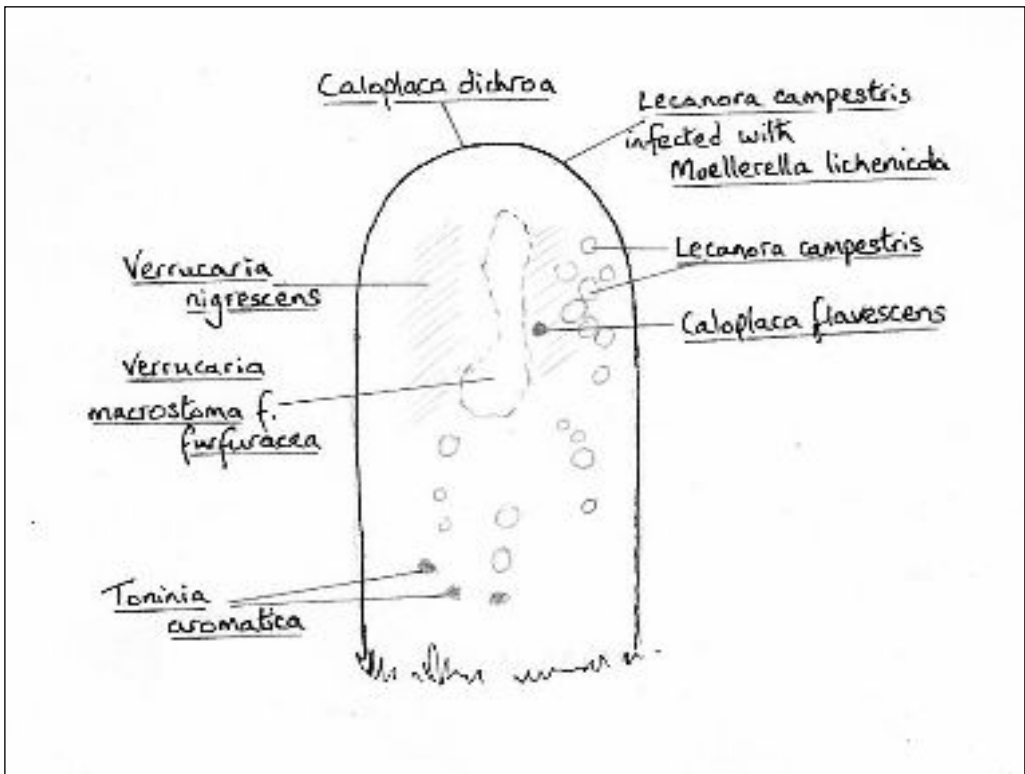


Wittgenstein's memorial, a stone laid horizontally and close to ground level, which is called a ledger for recording purposes.

In 2011 *Myriospora (Acarospora) rufescens* was tentatively recorded from this ledger but no traces of lichen are currently present.



. Old limestone headstone to the east of Wittgenstein's ledger.



. Drawing of above headstone.

### ***Toninia aromatica***

It is often interesting to look back at 19<sup>th</sup> century writings and Smith & Sowerby (1843) in English Botany do not disappoint. As *Lecidea aromatica*, they give the following account:

Thallus strongly rooted, indeterminate, of irregular, minute, crowded, smooth, greyish-white portions. Apothecia in the interstices, black, round, concave, with a thick black border.

Found on old flint walls, especially where there is a stratum of earth or moss, chiefly in the eastern counties of England. Its most striking peculiarity is the powerful and highly fragrant scent which it gives out, in a recent or moist state more especially, when rubbed or bruised.

Later sources suggest that *T. aromatica* has no smell but acquired its specific epithet because the type was received in a scented envelope by the describing author.

Our experiments reveal that this species does have a slightly elusive but pleasantly fragrant scent when a fragment is rubbed between finger tips.

### **Suburban lichenology**

Most of our day was spent along residential roads to the north of Ascension Burial Ground where the numbers of taxa encountered was rather surprising. Hotspots in this habitat are those wall-tops which have not been replaced or restored within several decades. The weathered old concrete coping stones of a front garden wall in

Woodlark Road had patches of moss amongst which was growing *Lempholemma chalazanellum* and *Leptogium turgidum*. Old brick copings supported interesting communities including mosaics comprising *Lecidella carpathica* and *L. stigmatea*. Many lichenologists have a distorted impression of lichens since they spend most of their time studying them at sites they consider will be richest. We find it fascinating to find out what is present in the wider landscape, including urban and suburban areas. The

lists that result contain many common species but with occasional pleasant surprises.

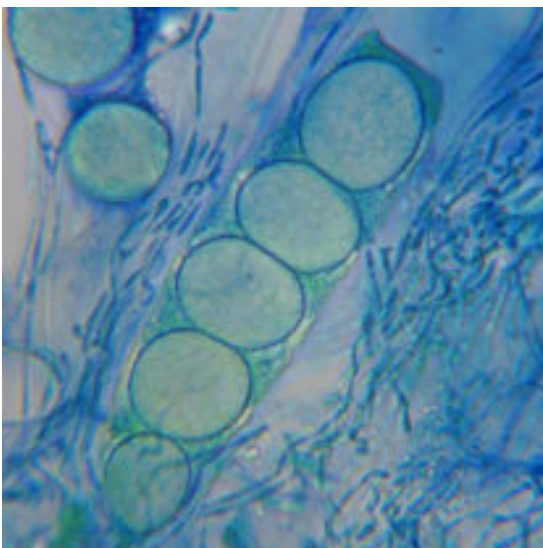


Suburban lichenology.

Tarmac paths and concrete curbs are dominated by a dozen or

so common lichens. Several of these are either under-recorded or their microscopic characters are not correctly described in modern literature. Fletcher *et al.* in the 2009 'Flora' states of *Aspicilia contorta* subsp. *contorta* "asci 4-spored, ascospores  $20 \times 11 \mu\text{m}$ ". In fact, the asci are consistently more than 4-spored (six spores per ascus appears to be most common) and the spores are sub-globose, about  $20 \times 22 \mu\text{m}$ . This is an indication

that much useful investigative work can be done with lichens that are almost literally on people's doorsteps, with little more than a modest microscope.



*A. contorta* subsp. *contorta*, five globose ascospores in an ascus (stained with ink-vinegar).



*Lecidella carpathica*, two thalli either side of *L. stigmatea*.

Even on this heavily mollusc-browsed garden wall, the thicker, more warted thallus of *L. carpathica* can be seen. *L. carpathica* also has a more prominent dark prothallus, and apothecia with narrower margins.

A field section can help to distinguish the two, the dark pigmentation of *L. carpathica* giving a fruit which appears dark throughout in the field. However, two other reasonably common species have apothecia which appear dark throughout in the field and care is required not to confuse *L. carpathica* with either sparsely soresiate specimens of *L. scabra*, or with *Clauzadea monticola* (which is usually restricted to old limestone in this region).

The occurrence of *Caloplaca aurantia* on concrete wall copings (and the absence of *C. flavescens* in the streets we visited) was an interesting surprise. *Lecania rabenhorstii* was seen on two old walls, a species that has been under-recorded, perhaps partly because Dobson's Illustrated Guide suggests that it is mainly coastal. *Agonimia tristicula*, *Caloplaca aurantia*, *Lecania rabenhorstii* and *Lempholemma chalazanellum* are all species which we tend to associate with churchyard recording but suburban walls provide suitable habitat for them after several decades of maturation. The streets which we visited did not have particularly rich street trees (many were birch or horse chestnut) but planted street trees are frequently a rich source of interesting corticolous species, often in good condition due to the relative lack of mollusc browsing compared with trees within grassland. The base of two trees in TL44.60 had an interesting granular-

isidiate fertile *Caloplaca*. With some hesitation we have recorded this as *C. chlorina*. We will retain the specimen and review the situation in future, especially if we learn of a taxon which more closely fits this material. Recording lichens is always a balance between over-confidence and under-confidence. We decided to record *Bacidia caligans* as confirmed even though we found no apothecia. *B. caligans* appears to be rather a common saxicolous species, especially on paving and the colour and distribution of the soralia are distinctive.



An unlikely place to find *Leptorhaphis maggiana*?

*Leptorhaphis maggiana* was found in some quantity on the stems of hazels in an amenity planting. Aguirre-Hudson in the 2009 'Flora' gives the following information about *L. maggiana*: "On *Corylus* and young branches of *Castanea* (also on young *Quercus* in C. Europe), not lichenized but superficial algae fortuitously present; rare. S. England (Devon, Suffolk, Somerset), W. Wales (Pembrokeshire), Scotland (Argyll, Glasdrum, E. Perth) ..." *L. maggiana* appears to be one of the 'smoothies' which is spreading (though it is undoubtedly easily overlooked). During 2017 it was found new for West Kent and Northamptonshire and this occurrence in Tavistock Road was its first record for Cambridgeshire. Already in 2018 *L. maggiana* has been added to Bedfordshire, Middlesex and East Norfolk, including again in amenity plantings.

**Table 1: list of lichens and lichenicolous fungi recorded in North-West Cambridge (suburban habitats)**

Column A gives the standard BLS number for each taxon.

Column B gives the name of each taxon recorded.

Column C indicates whether the taxon is a lichenicolous fungus (LF), a fungus recorded by lichenologists (F) or a lichen (0).

Column D gives the conservation designations as follows: LC = Least Concern, NE = Not Evaluated, NS = Nationally Scarce.

Column E gives the substratum upon which the taxon was growing: Bry = bryicolous (growing on moss), Cort = corticolous (growing on bark), Lic = lichenicolous, Sax = saxicolous (growing on stonework).

Column F provides details of substratum using standard BLS codes.

| A    | B  | C    | D     | E    | F          |
|------|--|------|-------|------|------------|
| 38   | <i>Agonimia tristicula</i>                           | 0    | LC    | Bry  |            |
| 212  | <i>Amandinea punctata</i>                            | 0    | LC    | Cort | CBt        |
| 107  | <i>Aspicilia contorta</i> subsp. <i>contorta</i>     | 0    | LC    | Sax  | STa        |
| 113  | <i>Aspicilia contorta</i> subsp. <i>hoffmanniana</i> | 0    | LC NS | Sax  | SCo        |
| 137  | <i>Bacidia caligans</i>                              | 0    | LC NS | Sax  | STa        |
| 2022 | <i>Buelliella physciicola</i>                        | {LF} | LC NS | Lic  | Z1107, SCo |
| 2503 | <i>Caloplaca albolutescens</i>                       | 0    | LC NS | Sax  | SMo        |
| 2442 | <i>Caloplaca arcis</i>                               | 0    | LC NS | Sax  | SCo        |
| 239  | <i>Caloplaca aurantia</i>                            | 0    | LC    | Sax  | SCo        |
| 247  | <i>Caloplaca citrina</i> s. lat.                     | 0    | LC    | Sax  | SBr        |
| 249  | <i>Caloplaca crenulatella</i>                        | 0    | LC    | Sax  | STa        |
| 2315 | <i>Caloplaca flavocitrina</i>                        | 0    | LC    | Sax  | SCo        |
| 2527 | <i>Caloplaca holocarpa</i> s. str.                   | 0    | LC    | Sax  | SBr        |
| 2461 | <i>Caloplaca oasis</i>                               | 0    | LC    | Sax  | SCo        |
| 277  | <i>Caloplaca saxicola</i>                            | 0    | LC    | Sax  | SCo        |
| 281  | <i>Caloplaca teicholyta</i>                          | 0    | LC    | Sax  | SCo        |
| 289  | <i>Candelaria concolor</i>                           | 0    | LC    | Cort | CPp        |
| 291  | <i>Candelariella aurella</i> f. <i>aurella</i>       | 0    | LC    | Sax  | SCo        |
| 297  | <i>Candelariella reflexa</i>                         | 0    | LC    | Cort |            |
| 298  | <i>Candelariella vitellina</i> f. <i>vitellina</i>   | 0    | LC    | Sax  | SBr        |
| 306  | <i>Catillaria chalybeia</i> var. <i>chalybeia</i>    | 0    | LC    | Sax  | SCo        |
| 375  | <i>Cladonia coniocraea</i>                           | 0    | LC    | Bry  |            |
| 384  | <i>Cladonia fimbriata</i>                            | 0    | LC    | Lig  | LWT        |
| 440  | <i>Collema crispum</i> var. <i>crispum</i>           | 0    | LC    | Sax  | SCo        |
| 460  | <i>Collema tenax</i> var. <i>ceranoides</i>          | 0    | LC    | Sax  | STa        |

|      |  |      |       |      |       |
|------|--|------|-------|------|-------|
| 511  | <i>Evernia prunastri</i>                     | 0    | LC    | Cort | CBt   |
| 1018 | <i>Flavoparmelia soredians</i>               | 0    | LC    | Cort | CSb   |
| 1125 | <i>Hyperphyscia adglutinata</i>              | 0    | LC    | Cort | CFx   |
| 582  | <i>Hypogymnia physodes</i>                   | 0    | LC    | Cort | CBt   |
| 2071 | <i>Illosporopsis christiansenii</i>          | {LF} | LC NS | Lic  |       |
| 2667 | <i>Laetisaria lichenicola</i>                | {LF} | NE    | Lic  | Z1112 |
| 613  | <i>Lecania cyrtella</i>                      | 0    | LC    | Cort |       |
| 1707 | <i>Lecania inundata</i>                      | 0    | LC NS | Sax  | SCo   |
| 1708 | <i>Lecania rabenhorstii</i>                  | 0    | LC    | Sax  | SCe   |
| 627  | <i>Lecanora albescens</i>                    | 0    | LC    | Sax  | SCe   |
| 635  | <i>Lecanora campestris subsp. campestris</i> | 0    | LC    | Sax  | STa   |
| 636  | <i>Lecanora carpinea</i>                     | 0    | LC    | Cort | CSb   |
| 639  | <i>Lecanora chlarotera</i>                   | 0    | LC    | Cort | CAe   |
| 641  | <i>Lecanora confusa</i>                      | 0    | LC    | Cort | CFg   |
| 646  | <i>Lecanora dispersa</i>                     | 0    | LC    | Sax  | STa   |
| 649  | <i>Lecanora expallens</i>                    | 0    | LC    | Cort | CBt   |
| 621  | <i>Lecanora hagenii</i>                      | 0    | NE    | Cort |       |
| 661  | <i>Lecanora muralis</i>                      | 0    | LC    | Sax  | STa   |
| 610  | <i>Lecanora semipallida</i>                  | 0    | LC NS | Sax  | SCo   |
| 796  | <i>Lecidella carpathica</i>                  | 0    | LC    | Sax  | SBr   |
| 797  | <i>Lecidella elaeochroma f. elaeochroma</i>  | 0    | LC    | Cort |       |
| 802  | <i>Lecidella scabra</i>                      | 0    | LC    | Sax  | SBr   |
| 803  | <i>Lecidella stigmatea</i>                   | 0    | LC    | Sax  | SCo   |
| 811  | <i>Lempholemma chalazanellum</i>             | 0    | LC NS | Sax  | SCo   |
| 1974 | <i>Lepraria incana s. str.</i>               | 0    | LC    | Cort | CBt   |
| 849  | <i>Leptogium turgidum</i>                    | 0    | LC    | Sax  | SCo   |
| 1537 | <i>Leptorhaphis maggiana</i>                 | {F}  | LC NS | Cort | CCo   |
| 2108 | <i>Marchandiobasidium aurantiacus</i>        | {LF} | LC    | Lic  | Z1530 |
| 1020 | <i>Melanelixia subaurifera</i>               | 0    | LC    | Cort | CBt   |
| 1022 | <i>Parmelia sulcata</i>                      | 0    | LC    | Cort | CBt   |
| 1106 | <i>Phaeophyscia nigricans</i>                | 0    | LC    | Cort | CFx   |
| 1107 | <i>Phaeophyscia orbicularis</i>              | 0    | LC    | Cort |       |
| 1112 | <i>Physcia adscendens</i>                    | 0    | LC    | Cort | CBt   |
| 1114 | <i>Physcia caesia</i>                        | 0    | LC    | Sax  | STa   |
| 1120 | <i>Physcia tenella</i>                       | 0    | LC    | Lig  | LWT   |
| 1127 | <i>Physconia grisea</i>                      | 0    | LC    | Cort |       |
| 1189 | <i>Protoblastenia rupestris</i>              | 0    | LC    | Sax  | SCo   |



|      |   |   |    |      |     |
|------|---|---|----|------|-----|
| 1200 | <i>Psilolechia lucida</i>                         | 0 | LC | Sax  | SBr |
| 2070 | <i>Punctelia subrudecta</i> s. str.               | 0 | LC | Cort | CFx |
| 1234 | <i>Ramalina farinacea</i>                         | 0 | LC | Cort | CSb |
| 1235 | <i>Ramalina fastigiata</i>                        | 0 | LC | Cort | CMA |
| 1289 | <i>Rinodina oleae</i>                             | 0 | LC | Sax  | STa |
| 1306 | <i>Sarcogyne regularis</i>                        | 0 | LC | Sax  | SCo |
| 1510 | <i>Verrucaria nigrescens</i> f. <i>nigrescens</i> | 0 | LC | Sax  | SCo |
| 2514 | <i>Verrucaria nigrescens</i> f. <i>tectorum</i>   | 0 | LC | Sax  | SCo |
| 1527 | <i>Xanthoria candelaria</i> s. lat.               | 0 | LC | Cort | CMA |
| 1528 | <i>Xanthoria elegans</i>                          | 0 | LC | Sax  | SCo |
| 1530 | <i>Xanthoria parietina</i>                        | 0 | LC | Sax  | STa |
| 1531 | <i>Xanthoria polycarpa</i>                        | 0 | LC | Cort | CAe |

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## ***Bunodophoron melanocarpum* at Naddle Forest, Cumbria**

A chance hearing of a repeat BBC Radio natural history programme, with enthusiastic interviewee Ray Woods, inspired me to revisit a record I had made many years before in Naddle Forest, Mardale. Ray's reference to the 'Black-eyed-Susan' lichen had sent me checking: *Bunodophoron melanocarpum* would perhaps have been deemed a mouthful too far on radio. To my chagrin, I discovered that whilst I still had the specimen, and photos of my find, there were no field notes, no site photos and no grid reference, plus my memory of the exact site was now well beyond recall. And of course, the record had never gone to BLS. A shameful and, for me, unusual state of affairs. The decade-old specimen was almost white, though in good condition. Amongst the moss adhering to it I now noticed - for the first time - some tiny very pale orange 'apothecia', dry and no doubt faded. This raised the possibility that I should be looking not only for the *Bunodophoron*, but also *Dimerella lutea*. Naddle is a west-facing, pathless ancient upland woodland, now forming part of the RSPB's Haweswater Reserve. At highest levels it is on steep moss-covered bouldery ground, and can be hard going, especially in summer once bracken and other ferns conceal underfoot hazards. As the Site Manager Lee Schofield has said to me, '*Whenever I'm out and about in Naddle, the terrain makes me think there must be plenty of treasures hiding away, still to be discovered.*'

When I first found *Bunodophoron* there, in November 2008, it included fertile material. ('Dobson' 2011 edition states the species to be 'very rarely fertile in Britain',

though the current *Flora* is somewhat less insistent on this point.) There are only five other Cumbria records at monad or better resolution, and all but one of these are nearly 40 years old. *Dimerella* has even county fewer records and none at all from VC69, in which the Naddle site falls. Two good reasons for putting the record straight!



Site (arrowed) of the colony shown in close-up below. Photo David Clarke

By a process of elimination, I found what was likely to have been the 2008 *Bunodophoron* location in early May this year, though not at my first attempt.



Fertile Fertile *Bunodophoron* at Naddle Forest, Cumbria 2018. Photo David Clarke

Rock outcrops near the top of the wood at about 380 metres above sea level fitted well with the only detail on my specimen label, and I found more than one location.

A particularly fine patch, north-facing, had the apothecia on quite long branches, drooping slightly, so much so that at a distance the colony more resembled a strange flowering plant than a lichen.

The related *Sphaerophorus globosus* was much more frequent here. The woodland at this level is mainly birch, with frequent bilberry amongst the ground flora. The rocks are tuffs of the Borrowdale Volcanic Group.

A new site and hectad for *Bunodophoron* (NY51) is thus confirmed at last, and past sins redressed! This is now the most easterly site within the Lake District National Park. The species is most widely recorded further north into Scotland and Northumberland - and Dr Rod Corner informs me he has found fertile material in the Scottish Borders. I did not find the putative *Dimerella* this time, but it may yet be there and is firmly on my list for future searches. I am grateful to Janet Simkin for sight of the BLS records and have now passed her this one. A nod in the direction of Ray Woods seems also in order.

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## **Introduced Lichens in the Netherlands: how they arrive and how they survive.**

In the field of vascular plants, insects, mammals and birds the introduction of alien species in a specific new habitat is well known and widely documented, especially when these introductions are detrimental to indigenous or endemic species, and can be considered to be invasive. The introduction of alien lichen species has received much less scientific interest, probably because in this case the negative impact seems to be minor or completely lacking. In recent years however, introduced lichens have caught the attention of lichenologists in Europe, and especially in the Netherlands. Dutch researchers have recorded in detail the distribution dynamics of introduced lichens in their country. How did alien species wind up in the Netherlands, was a key question in their research, and also, are introduced lichens able to survive in their alien habitat and if so, can this be the start of further dispersal? Of interest is also the assumption that some species considered to belong to the indigenous lichen flora of the Netherlands have in fact been introduced to this country in the past.

### **Methods by which lichens are introduced**

In almost all cases, the introduction of alien lichens is unintentional. They just happen to be present on materials that are imported from abroad (or from another part of the country). Often, these materials are natural or of natural origin: living plants, shrubs and trees, timber, worked wood, boulders and stones. In some cases they are

transported while attached to the clothes or body of animals or even humans. They can be attached to the substrate in the form of a small or big specimen, but even spores and soredia could be enough to make it through the journey. Many will perish during that journey, but lichens are known for their hardiness. After arriving in one piece in their alien habitat the real struggle begins: surviving in a hostile environment where climatic conditions can be hugely different, and many species already present will wait for any opportunity to fill in any gap left by a struggling specimen.

### Lessons from the past

Although there was little understanding of, or interest in, introduced lichens in the past, it was even then quite obvious to lichenologists that some lichens could have been imported by man. In Great Britain *Heterodermia leucomela* is restricted to southwest England, a region with a particularly mild climate. This has been considered as proof of it being introduced into that country. This species has an otherwise tropical and subtropical distribution and its disjunct occurrence in England is thought to be the result of unintentional transport out of the West Indies by ships. Whether this is true or not, ships are known to have been the means of transport for alien lichens that were found on South Georgia and other Antarctic locations (Lindsay, 1973). They not only survived there, but also spread, an interesting development that may also have occurred with species introduced in the Netherlands.

In the 19th century, lichenologists collected some species in the Netherlands that later on were deemed so unlikely to occur there that they were dismissed as erroneous. During revisions of this material most of them were proven to have been correctly identified and to have indeed been collected from within the Netherlands. Even so, these collections are suspicious, for they always comprise one single find of a species,



with a distribution that starts far away from the Netherlands. In my opinion, some of these were introduced on imported trees, or on natural stone, imported for the construction of fortifications and seawalls. The last habitat, dikes clad with natural stone (mostly granite and basalt), is almost the only place in the Netherlands where saxicolous lichens can settle on exposed rock.

The Ramspol-dam near Kampen, one of many dikes with rare lichens thought to have been introduced in the past

All of these stones were imported from abroad, sometimes centuries ago. They now harbour a species-rich lichen flora, part of which must have reached them through

wind-driven spores, but there almost certainly must be species that have been introduced with the stones themselves.

That failure to spread beyond the initial arrival point seems to be a pretty good indicator that a “suspicious” species has been introduced.

The case of a rather ‘notorious’ species, *Lecanora conizaeoides*, seems to contradict this. At the end of the 19th century, this sulphur dioxide tolerant species with a natural distribution in *Pinus mugo* swamps in the Alps, suddenly appeared on wooden palings in north western Europe, first in Great Britain and some decades after that in the Netherlands. It was not long before it spread to trees and became so common and omnipresent that it had all the characteristics of an invasive species. It may very well have pushed the pollution-stricken and struggling urban lichen flora to near extinction by just overgrowing it. There is the possibility it reached the palings through wind-driven spores, but it seems more likely the wood used for the palings was imported and already bore specimens.

### Recent research in the Netherlands

In the past decades, the import from abroad of trees, shrubs, potted plants and ornamental stones has seen a steady growth in the Netherlands. A lot of these natural materials trace their origin to countries located far to the south of the Netherlands, especially France, Spain and Italy. Ornamental rocks that are widely used in gardens and for street design originate from all over Europe and even from other continents. Many of these materials bear lichens on them, and this has not escaped the attention of Dutch lichenologists. They have recorded the alien species, tried to locate their original habitat, and even monitored their development in their new surroundings. Are they able to survive or even spread, or will most of them perish in their new environment?

In Belgium, lichenologist Van den Broeck regarded his finds in 2006 of *Parmelina quercina*, *Physcia aipolia* and *Buellia disciformis* all on the same, young tree as highly suspicious (Van Den Broeck et al. 2006).

Henk Timmerman was one of the first to notice the prevalence of introduced lichens on trees in the Netherlands. Along a suburban street in the town of Dronten (province of Flevoland) a row of rather young American sweetgum trees (*Liquidambar styraciflua*) showed a lichen diversity that was completely out of tune with similar trees in this city (Timmerman, 2010).



American sweetgum trees in Dronten

The abundantly fertile *Ramalina fastigiata* (which is rare in this part of the country) and the occurrence of species like *Anaptychia ciliaris* and *Physcia leptalea*, which are very rare

in the Netherlands, indicate a foreign and warmer origin than the wet and chilly lowlands. Similar sweetgum trees in this town harboured a very different, rather species-poor lichen flora that comprised only species ubiquitous for this region. It was soon found out these sweetgum trees had been imported from France or Italy in 1992 or 1993, which means that at the time of their discovery in 2010, these alien species had already managed to survive for some 17 years! The occurrence of very young specimens of these species was a good indication for some very localized dispersion (on the same tree or a neighbouring introduced tree).

As more and more Dutch researchers and amateurs developed a keen eye for the lichen invaders, many more introduced species were discovered all over the country. Surprising was the find of many elm trees of the variety 'New Horizon' with lots of introduced lichens. The demise of many thousands of elm trees due to Dutch elm disease has sparked city planners to use the resistant variety 'New Horizon', supplied by nurseries in southern France. With these elm trees Amsterdam planners introduced not only a new future for the elm, but also alien lichens and even cicadas! In fact for some species (like *Athallia cerinella* and *Athallia cerinelloides*) this represented a re-introduction, for they disappeared from Amsterdam around 1900 due to air pollution.

Another case of this kind of re-introduction was discovered in Monster, a small town near The Hague, (Aptroot & Toetenel, 2011). Elm trees planted in 2009 yielded a very unusual lichen diversity for the Netherlands, with three species that have become extinct from that country a long time ago: *Buellia disciformis*, *Rinodina sophodes*

and *Lecania fuscella*. Fortunately, the provenance of these 'New Horizon' elm trees could be traced in detail. The elms started their intricate journey as saplings at a nursery near the German town of Darmstadt. After three years, they were transported to a nursery near Avignon in southern France. Three years later, they were brought up by a nursery in the Netherlands and stayed there for another three years before being planted in Monster. The alien species must have reached the trees during their stay in Germany or, more probably, France. Similar elm trees could be found in the United Kingdom too, for 'New Horizon'-trees from the same German nursery in Darmstadt have been widely used there in recent years.



Ulmus 'New Horizon' along a canal in Amsterdam

Lichenologists could take a look at these elms in Cardiff (Pontcanna Park, coastal roads around Cardiff Bay) and London (Kensington High Street, Olympic Park). Good hunting!

A survey of garden centres in the Netherlands has indicated that not only young trees can yield introduced species, (Aptroot, 2011). Old olive trees, especially, imported from Spain, showed a remarkable, though species-poor lichen flora. You can find a mediterranean species like *Candelariella viae-lacteae* on these olive trees, as well as *Lecanora crenulata*. The latter species is quite common in the Netherlands, but it never grows on trees there. Thus, this species is not new to the host country, but its genetically defined preference for a non-saxicolous habitat may well be. Imported fig trees were also found to yield introduced lichens.

### **Intruders on alien stone**

Trees are certainly not the only means of transport for the introduction of lichens in the Netherlands. For a long time, worked wood from abroad has been proven to harbour introduced species. Quite a few finds of lignicolous species in the 19th century must have been examples of lichen introduction. There is also evidence of recent introductions on wood, but research in this field is still lacking. Far more conclusive is the introduction of saxicolous lichens in the Netherlands.

As mentioned before, this development started many centuries ago. Nowadays, it's mostly ornamental stone on which alien lichens cross the border. More and more, imported rocks are used to brighten up gardens, parks, cemeteries and city streets. An

interesting example is to be seen in the town of Soest, where 12 granite boulders with lichens and all, brought over from Normandy, France, were placed as sockets for statues, (Aptroot, 2009). Two lichens on these boulders were new to the Netherlands, of which one, *Acarospora sinopica*, seemed to have spread to neighbouring boulders. Another species found here, *Placopsis gelida*, was until then considered extinct in the Netherlands.



*Parmelia omphalodes* on the standing stone in Amsterdam

After their relocation to Soest in 2010, there were also some new, Dutch arrivals on these boulders. They comprise mostly nitrophytes that are known to grow mainly on trees.

In 2017, two interesting species were found on a huge, granite boulder that was erected in Frankendaal Park in Amsterdam. Both species, *Parmelia omphalodes* and *Pertusaria pseudocorallina* are nationally endangered in the Netherlands.

The foreign origin of this boulder was obvious, but the story behind it surprised everyone. A landscape artist had moved a standing stone from Bodmin Moor in central Cornwall to the Dutch capital, hoping the beautiful lichens on it would survive there. The stone was erected in 2009, so the lichens have indeed survived.

Standing stone in Amsterdam, imported from Cornwall



Another, and rather spectacular example can be observed near Arnhem, where big boulders from all over the world form a commemorative monument in heathland, (Aptroot, 2010). These boulders were placed there two to five years prior to the lichen survey in 2010. (See photo overleaf).

All lichens on the rocks from tropical countries like Rwanda and Indonesia had already died off by then, but the ones from Iceland, Sweden and Peru yielded a rich lichen diversity. All in all, seven new species for the Netherlands were recorded from these stones. Some, like *Punctelia stictica* on the Peru-boulder, had already spread to other stones. *Xanthoparmelia mougeotii*, an indigenous species, seemed to thrive and spread fast, something that has been observed in other parts of the Netherlands as well. André Aptroot suggests another genotype of this species has been introduced recently, one with a more aggressive dispersion habit than the indigenous type.

This brings us to two key questions concerning introduced lichens:

Can they survive in the long run? And if so, when is it sound to call them established and a part of the indigenous lichen flora?



### Survival of the oddest

Even during the various surveys of introduced lichens, it was already obvious that some alien species not only had survived for many years, but even thrived and spread to neighbouring trees or boulders. There are multiple examples of locations in the Netherlands where introduced lichens must have endured for many decades or even centuries (especially on granite and basalt dikes).

Recent introductions are now monitored to determine if species survive and spread and which dynamics lay behind their success rate. The results of a large survey of several locations were rather conclusive: At some locations introduced species appear to disappear quickly while at other locations they manage to survive, thrive and even spread very locally, (Sparrius et al. 2014). On trees, *Athallia*-species and robust foliose species like *Physcia aipolia* remained healthy, while others, like *Rinodina sophodes* all but disappeared. It seems species that naturally occur in the Netherlands or the Northwest European lowland have a far better chance of survival than species from warmer or colder climates. Saxicolous species appeared to fare somewhat better than epiphytes. Here, crustose species with a robust cortex have an advantage.



Monument near Arnhem with boulders from all over the world

Survival and spread of introduced lichens seem to depend very much on the specific location, how alien is the climate and habitat for a specific species and the distance from areas of natural populations. If it manages to survive and spread for at least 10 consecutive years, we could honour it by calling it part of the indigenous flora, though some lichenologists may object to that. For species that have become very rare or

extinct in the Netherlands an unintentional re-introduction could mean they could make a comeback somewhat quicker. Regarding the really odd ones, the species that are very alien to the conditions offered in the Netherlands are in most cases doomed to vanish in time. Thus, any detrimental effect of introduced lichens is not very likely to occur, although a new genotype could make some species spread a lot faster than they would otherwise. So far, they are just an interesting and harmless addition to our indigenous lichen flora. And they could very well be present close to your home in Great Britain too. They may be waiting there for you to discover them.

## References

- Aptroot, A. (2009). Nieuwe en zeldzame korstmossen en mossen aangevoerd met stenen voor kunstwerk. *Buxbaumiella* **84**: 36-40.
- Aptroot, A. (2010). Nog meer nieuwe en zeldzame korstmossen aangevoerd met stenen. *Buxbaumiella* **85**: 42-49.
- Aptroot, A. (2011). Mossen en korstmossen op aangevoerde olijfbomen en geïmporteerde stenen substraten. *Buxbaumiella* **90**: 31-37.
- Aptroot, A. & H. Toeteneel. (2011). Korstmossen op aangevoerde iepen in het Westland. *Buxbaumiella* **89**: 49-54.
- Lindsay, D.C. (1973). Probable introductions of lichens to South Georgia. *British Antarctic Survey Bulletin* **33/34**: 169-172.
- Sparrius, L. et al. (2014). De overleving van aangevoerde korstmossen. *Buxbaumiella* **99**: 25-31.
- Timmerman, H. (2010). Aangevoerde epifytische korstmossen: het Amberlaantje in Dronten. *Buxbaumiella* **87**: 28-34.
- Van Den Broeck, D. et al. (2006). Een lichenologisch verslag van het voorjaarsweekend naar Zeeuws-Vlaanderen en aangrenzend België. *Buxbaumiella* **75**: 16-25

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H.J. Timmerman, member of BLWG (Dutch Lichen and Bryophyte Society).  
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## Trouble with botanical Latin

John Skinner's note about Latin names in the Winter Bulletin 2017 revived some memories of my own troubles with this subject. I am among those unfortunate persons who came out of school without any Latin, so I had to struggle with that in addition to other subjects as a student at the university. In Bergen there was not any particular course I could take, but in the Botanical Department they taught us how to handle and pronounce Latin names of plants. When I later came to Uppsala, I was soon

approached by Professor Nils Hylander (1904-1970), a leading authority in botanical Latin, who told me that if I intended to become a professional botanist, it was necessary for me to improve my Latin. He gave me Wikén's textbook (1951) and offered to help when I got into difficulties. This was very generous of him, but I rather disliked his continuous corrections of my pronunciation of Latin names, even during my lectures. When I later came to London, I got to know William Stearn (1911-2001) whose book on the subject was and still is, the Bible of the subject. His first comment was quite typical of him: "I can hear that you have been with Hylander, but you know, he was not always right!" Then it all started again, but in a gentler way. They obviously belonged in two different schools of how to pronounce the words (Hylander being more influenced by classic Latin scholars). They agreed, however, on the following: Latin should not be pronounced either in Norwegian or in English, that also included Latinized forms of modern names, though Stearn was more willing to accept that it was admissible to retain the original pronunciation for modern names which would sound awkward in Latin, such as the epithet in the fossil plant: *Rhynia gwynnevaughanii*. They both agreed that when making new names one should avoid cumbersome names foreign to Latin.

I have repeatedly pleaded with colleagues not to use my family name in Latin botanical names, and yet there is a genus *Joergensenia* Passo (in Chile), which may cause difficulties particularly for English and Spanish speaking botanists for it should sound like 'yoer – g (as in guest)-ensenee-ah'. I have instead recommended the use of a latinized form of my Christian names Per Magnus, which both have Latin roots and are more easily handled in that language. I am aware of an attempt to do so for a New Zealand lichen, where the author is intending to adopt the epithet *petromagni* instead of the awkward *joergenseni*.

However, even this method has its drawbacks as I have experienced with the name of my first new species, *Arthonia abeloniae* (Jørgensen 1970). This species is named after a Norwegian war-heroine, Abeline Møgster (1883 -1975), who put me up during the fieldwork in her remote island. The lecturer of Latin, who helped me with the diagnosis, suggested the use of the Latin form of her Christian name, Abelona, when forming the epithet. However, when transferred to the genus *Corticifraga* this epithet was corrected to *abeloneae*, since *this* is the way to latinize the Norwegian form of the name. In this form it is now recorded, e.g. in the British lichen list. Clearly *abeloniae* is the correct form as this was no correctable mistake of the original publication! A subsimilar case is that of *Placynthium garovaglii* (Massal.) Malme, which I (Jørgensen 2005) was misled to correct to *garovaglio*. This because of the Code's advice to add one –i after the letter o- in a name, rather than substituting the o with an i. However, as outlined by Skinner (2017) this epithet is based on the latinized form of his name, Garovaglius, and accordingly *garovaglii* is the correct form.

The bottom line is that no one knows exactly how Latin was spoken, and we do not know how the Romans would tackle names in different languages. Perhaps they would agree to pronounce Baglietto's name as the Italians do today (Skinner 2017). Actually there are no rules to guide us, so we must use our best judgement, which also includes the consideration of how others are able to understand what you say. Our botanical scientific names have a Latin form but are there to ease communication

rather than to initiate philological quibbling. As Stearn wisely says in his book: “How they are pronounced really matters little, provided they sound pleasant and are understood by all concerned.”

## References

- Jørgensen, P. M. (1970): *Sticta dufourii* Del. and its parasymbiont *Arthonia abaloniae* nov. sp. new to Norway. *Nova Hedwigia* **18**:331-340.
- Jørgensen, P. M. (2005): *Placynthium garovaglioii* not present in Scandinavia. *Graphis Scripta* **17**: 3-5.
- Skinner, J. (2017): Lichen names with Italian connections. *British Lichen Society Bulletin* **121**:74-75.
- Stearn, W. (1973): *Botanical Latin*. 2<sup>nd</sup> edit. Newton Abbot.
- Wikén, E. (1951): *Latin för zoologer och botanister*. Malmö.

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## Where in the Web?

This schematic representation of our website was originally contributed by Sue Knight to help us find the things we are looking for.

It is not possible to present all that can be found on the website but some useful elements within **Resources** are detailed below.

## Downloads

- Recording cards with guidelines on recording
- Lichen records by taxon, county and vice-county
- Corrections to *The Lichens of Great Britain and Ireland*
- Skills and Knowledge for Lichenologists

## Useful Links

Details of websites with lichen images, those of associated organisations and societies worldwide, study courses and a variety of other topics can be found here.

|                    |                                   |  |
|--------------------|-----------------------------------|--|
| <b>The Society</b> | Home News                         |  |
|                    | Council and Committees            | Churchyard Conservation<br>Data<br>Education and Promotion<br>Finance<br>Membership Services |
|                    | Grants and Scholarships           |  |
|                    | Events and Meetings               | Calendar<br>Programmes pdf   |
|                    | Membership                        | Join and Review<br>Benefits  |
|                    | People                            | Officers   |
|                    | Legal Matters                     | Constitution<br>Accessibility<br>Privacy<br>Insurance  |
|                    | BLS bulletin<br>The Lichenologist |  |

|                      |   |   |
|----------------------|---|---|
| <b>About Lichens</b> | What is a Lichen<br>Lichen Biology<br>Lichen Morphology<br>Lichen Ecology |   |
|                      |   | Ash Die-back<br>Coastal Shingle<br>Gardens  |
|                      | Habitats and Conservation   | Lowland Grassland Management<br>Lowland Rocks<br>Monuments and Urban<br>Seashore Habitats |
|                      | Ecological Continuity indices   |   |
|                      | Lichen Communities  | The Graphidion  |
|                      | Lichen Names  |   |
|                      | Glossary and Terms  |   |

|                       |  |   |
|-----------------------|--|---|
| <b>Identification</b> | General Guidance<br>Field Work<br>Collecting<br>Chemical Tests<br>Microscope Work<br>Referees<br>Books and Guides  |   |
|                       | ID Keys  | Installing and Running Lucid                            |
| <b>Recording</b>      | BLS Databases<br>Submitting Records<br>On-line Recording<br>Using BLS Records<br>BLS Recording Scheme  |   |
| <b>Activities</b>     | Introduction   |   |
|                       | Churchyards  | Churchyard Lichens<br>Conservation<br>Diocesan Contacts |
|                       | Garden Survey<br>Ash Die-back Survey   |   |
|                       | Lobarion Survey  | Interactive Map   |
|                       | ID Common Lichens<br>OPAL  |   |
| <b>Resources</b>      | Introduction<br>Publications<br>Items for Sale<br>Downloads<br>Taxon Dictionary<br>LGBI3 Draft Accounts<br>Species Accounts<br>English Names for Lichens |   |
|                       | Learning Zone  | For Schools<br>For Universities                         |
|                       | Herbaria   |   |
|                       | Literature   | Bibliographic Data<br>Unpublished Lit.                  |
|                       | Library  |   |
|                       | Useful Links   |   |
| <b>Contacts</b>       | General Contacts<br>Contact Form<br>Local Contacts   |   |

# New Chemotype for *Usnea fragilescens* in the British Isles with implications for *Usnea* spot tests

## BACKGROUND

An *Usnea* specimen sent to the author for identification by Jenny Ford (JF18009) was identified by the author as typical *Usnea fragilescens* from its morphology but the spot tests did not match any known chemotype from the British Isles. The specimen was collected from a *Betula* tree located in the Glen Loy area of western Scotland (Nat. Grid NN11878274) and is now in the herbarium at E.

The medulla was found to give an orange reaction to Pd and no reaction to KOH. TLC was carried out on an acetone extract of the specimen using solvent G following the methods described by Orange et al (Orange et al 2001) and found to contain consporomic, psoromic, and usnic acids. This represents a new chemotype for the British Isles, previously known only from N. America.

## IMPLICATIONS FOR SPOT TESTS

*Usnea fragilescens* from the British Isles has previously been considered to have the stictic acid syndrome only and therefore always tested K<sup>+</sup> yellow slowly turning orange-red and Pd<sup>+</sup> yellow turning orange-red although there is also the possibility that a specimen with no medullary substances could be found, giving all negative spot tests. However, the author has yet to encounter the latter in this species.

The psoromic syndrome chemotype of *Usnea fragilescens* will test K negative and Pd<sup>+</sup> orange on medulla and soralia.

The author is always willing to identify or confirm any well annotated British specimens of the genus *Usnea*. Specimens must have full basal parts and should be sent to the Royal Botanic Garden Edinburgh at the address given below.

## REFERENCES

Orange, A. et al (2001) *Microchemical Methods for the Identification of Lichens*. British Lichen Society.

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# A Very Early Description of a Lichen Rich Habitat

I am indebted to Clive Chatters for drawing my attention to this very early description of a lichen heath in Aubrey's Natural History of Wiltshire, written between 1656 and 1691 ([archive.org/details/naturalhistoryof00aubruoff](http://archive.org/details/naturalhistoryof00aubruoff)):

“In Boudon-parke, fifteen foot deep under the barren sand, is a great plenty of blew marle, with which George Johnson, Esq., counselor-at-law, hath much improved his estate there. The soile of the parke was so exceedingly barren, that it did beare a gray mosse, like that of an old park pale, which skreeks as one walkes on it, and putts ones teeth on edge. Furzes did peep a little above the ground, but were dwarfes and did not thrive.”

This is delightful description of a Breckland type lichen heath down to the sound produce by walking on the habitat when dry. Aubrey's Natural History of Wiltshire was never published in his lifetime, but the manuscript was completed. It is well worth reading, and is full of astute ecological observations. It has been widely quoted by authors such as Oliver Rackham but I have never seen this observation quoted previously. The quote is from his chapter on soils. The park mentioned is Bowden Park (ST9368) in North Wiltshire. It occupies a scarp capped by Lower Greensand sands west of Calne. The improvement described by Aubrey was very effective and now nothing of this habitat survives in this area. In fact there is very little acid open habitat surviving on the Lower Greensand anywhere in Wiltshire (Sanderson, 1998). The scarp west of Calne, does have three old parks in close proximity, Bowden Park, Bowood Park and Spye Park, with surviving veteran trees with a nationally important assemblage in the latter park, but any acid grassland or heathland interest has long gone.

## References

Sanderson, N. A. (1998) *English Nature Research Reports No. 259. A Review of the Extent, Conservation Interest and Management of Lowland Acid Grassland. Volume 1 Overview*. Peterborough: English Nature.

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# Öland Field Meeting Sweden June 2017

BLS and SLF members at Ottenbylund, Öland, 14th June 2017



*left to right standing:* Heather Colls; Frank Burghause; Steve Price; Annelie Burghause; Peter Lambley; Martin Westberg; Allan Pentecost; Paul Cannon; Lyndon Pentecost; Jenny Ford's hat; Graham Boswell; Lars Borg; Ulf Arup; David Ford; Andy Acton; Ginnie Cosey; Jon Klepsland; Douglas McCutcheon; Toni Berglund; Andrew Hodgkiss.

*kneeling and seated:* Jan Henriksson; Sandra Freire; Alica Kosuthova; Tommy Knutsson.

*not present for photo:* Lars Fröberg

The above throng assembled at Allegarden Kastlösa from many parts of Europe. Most of us met at Kalmar railway station, some having spent a few days lichenizing in nearby cities. Kalmar was also the place to stock up on food and wine for those intending to self-cater. Others enjoyed the ambiance and food of this very pleasant seaside town. Those with more stamina drove from various parts of Europe. The more pedestrian of us enjoyed the chauffeuring provided by our leader Lars and his wife. We thank them and all the other drivers who provided transport for the week.

## Background Ecology

The geology of Öland is Cambrian sandstones and chert and younger Ordovician limestone. During the last ice age the whole of the Baltic was covered by thick ice, and as the ice retreated Öland slowly rose by isostatic readjustment resulting in the low lying gentle topography we have today. From a lichenological point of view the limestone is of great interest; it forms the alvar, a limestone grassland community with extensive areas of limestone pavement, thin soils and numerous outcrops which are

botanically very rich. The soil pH is high, the limestone hard and compact and the bedding flat, leading to areas of inundation in winter that become anaerobic and dry out during the summer. To add interest some areas are strewn with moraine composed of granitic and sandstone boulders of lower pH, brought in by glacial drift. There are some areas of blown sand forming a sandy steppe community with an interesting assemblage of lichens. Where deeper soils have accumulated at the edge of the alvar there are excellent elm and oak woodlands, but sadly the large elms are in decline due to Dutch elm disease. Öland is home to the largest alvar community in the world. There are smaller areas of alvar throughout Sweden and in Estonia and a similar limestone grassland community in Canada. For more detail see reference to Eddy van de Maarel 2007.



Typical image of the alvar grassland with shrubs, a smattering of rocks and ample bare areas. ( Jan sorting his images and Andrew donning a sun-hat while others search the alvar.) Photo G. Boswell

### **Kastlösa**

Our base was at Allegarden Kastlösa in Morbylänga which offered a variety of accommodation from self-catering to full board. The grounds were extensive with a wide variety of substrates. The work area was spacious and Ulf and Lars provided microscopes and all sundries for ID purposes, and an appropriate ambiance for work and pleasure. We quickly set about the large elms on site, and they revealed healthy populations of *Anaptychia ciliaris* and *Pleurosticta acetabulum* along with *Opegrapha xerica*. *O. rufescens* was encountered on the smoother corticolous substrate. Many common species were also found on the site.

### **Gösslunda**

Two sites were visited on the alvar at Gösslunda, one in the morning and the other after lunch. Terricolous species were abundant where they were free from interspecific competition of vascular plants. There were excellent displays of *Flavocetraria cucullata*

and *F. nivalis*. Yellow speckles of *Fulgensia bracteata* and *Fulgens fulgens* were also abundant as was *Thamnolia vermicularis* ssp. *subuliformis*. To see this species at sea level was amazing for those of us residing in the UK. Another notable terricolous species was *Psora decipiens*.



*Thamnolia vermicularis* with *Flavocetraria nivalis*. Photo G. Boswell

Most saxicolous species were more familiar and included a wide range of calcicolous species that we are familiar with in the UK. A few erratic granitic boulders bumped up the species list with siliceous species.

### **Halltorps Nature Reserve**

Halltorps is a deciduous woodland mostly of oak with some several hundred years old. The structure of the woodland varies from closed canopy to more open pasture woodland. The reserve is very rich and many groups are well represented; the site is well known for its beetle fauna. Lichenologically the site is rich in 'pin-heads', seven in total; four *Calicium* species the most notable of which are *C. adpersum* and *C. salicinum*, and three of *Chaenotheca*, *C. ferruginea*, *C. hispidula* and *C. trichialis*. The yellow flashes of *Chrysothrix candelaris* were abundant. Five species of *Pertusaria* were present, and even *Usnea subfloridana* put in an appearance, a species that we encountered at only one other site during the week.



On our way back from Halltorps we diverted to the Old Windmill site at Ismantorp to feast our eyes on the rare Wolf lichen *Letharia vulpina*, its only site in Sweden.

The lichen is very distinctive, a richly branched lemon/yellow thallus containing vulpinic acid and has been used to kill wolves and foxes. It was very abundant on the lignin along with *Imshaugia aleurites* and other common lignicolous species.

Lichenologists swarming the windmill at Ismantorp. Photo G. Boswell



*Letharia vulpina*. Photo Paul Cannon

## Ottenby

We arrived at Ottenby nature reserve at the southern tip of Öland on a bright and sunny day. The reserve is one of Sweden's top bird sites and home to thousands of breeding and migrating birds. While we did not ignore our feathered friends our main interest was in Ottenbylund, an ancient oak/birch woodland and once a royal hunting ground. The pasture woodland boasts some very sturdy oaks both standing and lying as dead wood.

There were many familiar lichens and Ottenbylund had somewhat the feel of an English oak wood, surprising given that we were so far east. The common species included *Haematomma ochroleucum*, *Schismatomma decolorans*, *Lecanographa lyncea*, *Pyrrhospora querneae* and *Thelotrema lepadinum* besides many of the more common foliose and fruticose species. Rarer and found on only one tree was *Lobaria pulmonaria* clearly struggling with the drier climate of the east. More unusual were *Arthonia anombrophila* and *A. pruinata*, *Biatorrella resiniae* and *Cladonia symphyrcarpia*. Many of us saw *Ramalina baltica* for the first time at Ottenbylund.



A fine oak with lichenologists at Ottenby Lund. Tommy (with glasses) giving some history of the site.

Photo G. Boswell

## Parboäng

Parboäng is a less extensive Alvar site than Gösslunda, visited the previous day. The site differed from Gösslunda in have a few more willow and blackthorn. Lichenologically it is similar to other alvar sites in having good terricolous populations of *Fulgensia fulgens*, *F. bractialata* and *Thamnolia vermicularis*. A yew tree yielded a good

population of *Ramalina siliquosa*. *Arctoparmelia centrifuga* was found at this site on acid boulders, the only site where we found this species.

### Västerstads Almlund

Västerstads Almlund is a 12ha woodland mostly of mature elm with some oak. The elms are sadly heavily infected with Dutch elm disease. *Anaptychia ciliaris* was doing very well on the declining elms. *Bacidia auerswaldii* found on one elm by Andy Acton is very rare in the UK now that we have lost most of our elms. Other nice to see species included *Bacidia rubella*, *Caloplaca chrysophthalma*, *C. phlogina*, *Pertusaria coccodes* and *Ochrolechia turneri*. *Cladonia deformis*, a rare species in the UK, was also found at this site.

### Läckerby pine Forest

The excursion to Läckerby involved a short trip over the bridge to the Swedish mainland. The site was rather a contrast to the woodlands on Öland. The soils are acid and underlain by an esker from a long-gone fluvio-glacial river. The site also had a few large granite boulders adding greater substrate diversity to the site. The forest floor was carpeted with *Cladonia* species and we were fortunate in having Annelie Berghause with us to point out the subtle differences between the 16 different species we found



*Cladonia stellaris* with other Cladonias. Photo G. Boswell

The star of the show for many was *Cladonia stellaris*, the regular globose heads of this species making it aesthetically very pleasing. Some of the more unusual species of *Cladonia* were *C. botrytes* on trees stumps and *C. pleurota* and *C. symphyrcarpia* adding to

the ground cover. There was also an abundance of *Cetraria islandica*. The granite boulders yielded a good range of common saxicolous species plus *Parmelia discordans* and *Pertusaria lactescens* which were more localised.

### **Halterstads Church**

The local lichenologists had heard a great deal about the BLS obsession with church yards, and to this end Steve gave an on-site introductory talk as to the working of the 'Gods Acre' group and of the benefits it had produced to the BLS recording scheme over many years. Steve then laid out the standard recording procedure for such sites and we set about our work. Halterstads Church is on the Eastern side of the island, sandwiched between the coast road and intensively farmed arable land. From a lichenological point of view the church was uninteresting being of well-maintained and painted render. More interesting were the limestone walls enclosing the churchyard, fronted by a range of trees including some old elms and the usual mixture of acid and basic headstones. *Candelaria pacifica*, not well known in the UK, was abundant on an old elm; initially we mis-identified it until Ulf Arup pointed out its characteristics. Also on the elms were *Candelariella xanthostigma* and *Lecania naegelii*. This was also the only site where we found *Clauzadea immersa* and *Rinodina oleae* both on the limestone. In total the churchyard had 67 species, which while average for the UK, might be good for Oland: we look to the locals to report back !



*Candelaria pacifica* with other species on elm. Photo G. Boswell

## Köping Klint

Köping Klint is a limestone outcrop providing a more extensive vertical exposure of substrate than the more commonly horizontal surfaces provided by most of the alvar sites. The site provided us with a wide range of common limestone species, and in addition entertained passing locals with our intense interest in the rock. We also attracted the attention of a herd of inquisitive cows! Our more interesting finds included *Bacidia fuscoviridis* which is rather overlooked in the UK, appearing to like the shaded grass-covered zone at the edge of limestone exposures. Another unusual find was *Bacidina arnoldiana*, another species probably overlooked in the UK. Surprisingly Köping Klint was the only site where we saw *Caloplaca chalybaea* and *C. pusilla*.

## Dröstorps

Dröstorps is a nature reserve on the south east side of Öland, well known for its rare fauna and flora, its karst features and its historical remains.

In some areas the shrub growth is quite dense forming areas of closed canopy. Much of the reserve however is typical alvar grassland with numerous bare patches giving ample opportunity for lichens. There are also areas of inundation where the limestone is hard and compact. One highlight of the site was 3 species of *Squamarina*; in addition to the common *S. cartilaginea*, the rare *C. gypsacea* was also present along with the declining *C. lentigera*. Another star of this site was *Psora testacea*.



*Psora testacea*. Photo Andy Acton



Another genus well represented was *Collema*. and Dröstorps was the only site on Öland where we found *Collema cristatum* and *C. multipartitum* in addition to the more common species in that genus. Also present at this site was *Cliostomum corrugatum*, another species rare and on the decline in the UK. Another unusual species, *Pertusaria popularis*, was new to many of us.

### Gårdby

Gårdby Sandhed is a nature reserve of 75ha formed by wind-blown sand. It is described ecologically as sand steppe and occurs in Sweden, Poland and Germany. The sands are rich in calcium but poor in most other nutrients; there is disturbance due to wind, grazing cattle and it is sometimes ploughed. The terricolous species at the site were quite rich and included 7 species of *Cladonia*, of which *C. gracilis* and *C. pocillum* were the most unusual. Several species of *Cetraria* and *Flavocetraria* were also present including *F. cucullata* and *C. ericetorum*.



*Flavocetraria cucullata*. Photo Paul Cannon

The next most species-rich substrate at the site was the lignin of the infrastructure that made up the boundary of the reserve, and included *Cetraria sepinctula*, *Imshaugia aleurites*, *Tuckermanopsis chlorophylla* and *Parmeliopsis ambigua*.

### Tornrör Alvar

Some of the group visited Tornrör Alvar on the final day and were rewarded with a good list of species most of which we had seen at previous alvar sites on the Island. *Synalissa ramulosa* was present and more abundant than at Gösslunda. This species is

uncommon in Sweden as well as in the UK, and can easily be mistaken for the equally scarce *Lempholemma*.

## Conservation Considerations

Heterogeneity in general seems to suit lichens and lead to greater species richness on the alvar as do the thin soils and high substrate pH. Maintaining low nitrogen and phosphate levels is also positively correlated with species richness. The above factors have been managed by appropriate grazing by controlling stock levels, although local conservationist Tommy Kuntsson reported that in some areas cattle density was lower than optimal. Soil pH can be lowered by the invasion and high density of juniper and, while we observed some dense patches, we saw no evidence of control. It is significant that some species of juniper supported *Vulpicida juniperinus*. The inundation hollows on the alvar also appear to be important for lichen species richness and of course for other groups such as bryophytes and vascular plants. We observed the importance of wet areas at Drostorps where species richness was high and a number of rare lichens as well as species from other groups occurred. For more information on lichen conservation on the alvar see Rosen 2006; although this article is not specifically about lichens it does have a lot of relevant comment. A more recent article by Tyler et al also has relevant information for lichen conservation on the alvar.

## Ulf Arup's Talk

Ulf is well known for his work on *Caloplaca*, *Teloschistes* and *Lecanora* at Lund. On the Thursday evening he gave us an update on his work with *Lecanora*. It came as no shock to a bunch of lichenologists that we were in for another bout of name changes! Ulf began with an outline of the *Dispersa*, *Subfusca*, *Polytropa* & *Symmicta* groups; he then went in to some detail on the prospects of a new genus *Myriolecis* replacing the *Dispersa* group. Ulf was able to point to many morphological features that distinguished the 15 or more potentially new species. Clearly these species will also be differentiated by phylogeny. Keep an eye out for Ulf's papers in the future.

## References

- Eddy van de Maarel(ed) (2007). Structure and Dynamics of Alvar vegetation on Öland and some related dry grasslands. *Acta Phytogeographica Suesica* **88** Edidit Svenska Vaxtgeografiska Sällskapet, Uppsala
- Rosen, E. (2006). Alvar vegetation of Öland - changes, monitoring and restoration. *Biological Environment* **106B**: 387-99.
- Tyler, T. et al (2018). Determinants of bryophyte species composition and diversity on the Great Alvar of Öland, Sweden. *Journal of Bryology* **40**: 12-30

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# Species List Öland, Sweden BLS/SLS Joint Meeting June 2017

| □<br>Taxon                                 | Site/Location |           |          |                        |         |          |                     |                 |                    |              |           |        |               |
|--|---------------|-----------|----------|------------------------|---------|----------|---------------------|-----------------|--------------------|--------------|-----------|--------|---------------|
|  | Kastlösa      | Gröslunda | Halltorp | Ismantorp Old Windmill | Ottenby | Parboäng | Västerstads Almlund | Läckerby Forest | Halterstads Church | Köping Klint | Dröstorps | Gårdby | Tornrör Alvar |
| <i>Acarospora cervina</i>                  |               | •         |          |                        |         |          |                     |                 | •                  | •            |           |        | •             |
| <i>A. fuscata</i>                          |               |           |          |                        |         | •        | •                   |                 | •                  |              | •         | •      | •             |
| <i>A. glaucocarpa</i>                      |               | •         |          |                        |         |          |                     |                 |                    |              | •         |        |               |
| <i>A. macrospora subsp. macrospora</i>     |               | •         |          |                        |         |          |                     |                 |                    |              |           |        |               |
| <i>Acrocordia conoidea</i>                 |               |           |          |                        |         |          |                     |                 | •                  | •            |           |        |               |
| <i>Agonimia tristicula</i>                 |               | •         |          |                        |         |          |                     |                 |                    |              | •         |        |               |
| <i>Amandinea punctata</i>                  | •             |           |          |                        |         |          |                     |                 | •                  |              |           |        |               |
| <i>Anaptychia ciliaris subsp. ciliaris</i> | •             |           |          |                        |         | •        | •                   |                 |                    |              |           |        |               |
| <i>Abrothallus parmeliarum LF</i>          |               | •         |          |                        |         |          |                     |                 |                    |              |           |        |               |
| <i>Arctoparmelia centrifuga</i>            |               |           |          |                        |         |          | •                   |                 |                    |              |           |        |               |
| <i>Arthonia anomorphila</i>                |               |           |          |                        | •       |          |                     |                 |                    |              |           |        |               |
| <i>A. didyma</i>                           |               |           |          |                        |         | •        |                     |                 |                    |              |           |        |               |
| <i>A. pruinata</i>                         |               |           |          |                        | •       |          |                     |                 |                    |              |           |        |               |
| <i>A. punctiformis</i>                     |               |           |          | •                      |         |          |                     |                 |                    |              |           |        |               |
| <i>A. radiata</i>                          |               | •         | •        |                        | •       |          |                     |                 | •                  |              |           |        |               |
| <i>A. spadicea</i>                         |               |           |          |                        | •       |          |                     |                 |                    |              |           |        |               |
| <i>A. varians</i>                          |               |           |          |                        |         |          |                     |                 | •                  |              |           |        |               |
| <i>A. vinosa</i>                           |               |           | •        |                        |         |          |                     |                 |                    |              |           |        |               |
| <i>Aspicilia caesiocinerea</i>             |               |           |          |                        |         |          | •                   | •               |                    | •            |           |        |               |
| <i>A. calcarea</i>                         |               | •         |          |                        | •       | •        |                     |                 | •                  | •            | •         |        | •             |
| <i>A. contorta subsp. contorta</i>         |               | •         |          |                        |         | •        |                     |                 | •                  |              | •         |        | •             |
| <i>A. contorta var. hoffmanii</i>          |               |           |          |                        |         |          |                     |                 |                    | •            | •         |        |               |
| <i>A. cinerea s. lat.</i>                  |               |           |          |                        |         |          |                     |                 | •                  |              |           |        |               |
| <i>A. coronata</i>                         |               | •         |          |                        |         |          |                     |                 |                    |              |           |        |               |
| <i>A. radiosa</i>                          | •             | •         |          |                        |         |          |                     |                 | •                  |              | •         |        | •             |
| <i>Athallia holocarpa</i>                  |               |           | •        |                        |         |          |                     |                 |                    |              |           |        |               |
| <i>Bacidia arceutina</i>                   |               |           |          |                        |         |          | •                   |                 |                    |              |           |        |               |
| <i>B. auerswaldii</i>                      |               |           |          |                        |         |          | •                   |                 |                    |              |           |        |               |
| <i>B. bagliettoana</i>                     |               | •         |          |                        |         |          |                     |                 |                    | •            |           |        |               |
| <i>B. fuscoviridis</i>                     |               |           |          |                        |         |          |                     |                 |                    | •            |           |        |               |
| <i>B. herbarum</i>                         |               |           |          |                        |         |          | •                   |                 |                    |              |           |        |               |
| <i>B. rosella</i>                          |               |           |          |                        |         |          | •                   |                 |                    |              |           |        |               |
| <i>B. rubella</i>                          |               |           |          |                        |         |          | •                   | •               |                    |              |           |        |               |
| <i>Bacidina arnoldiana</i>                 |               |           |          |                        |         |          |                     |                 | •                  |              |           |        |               |
| <i>Belonia nidarosiensis</i>               |               | •         |          |                        |         | •        |                     |                 | •                  | •            |           |        |               |
| <i>Biatorella resinae</i>                  |               |           |          |                        | •       |          |                     |                 |                    |              |           |        |               |
| <i>Bilimbia sabulatorum</i>                |               |           |          |                        |         |          |                     |                 |                    | •            | •         |        |               |
| <i>Bryoria fuscescens</i>                  |               | •         |          |                        |         |          |                     |                 |                    |              |           |        |               |
| <i>Buellia griseovirens</i>                |               |           |          |                        | •       |          |                     |                 |                    |              |           |        |               |
| <i>Calicium adspersum</i>                  |               |           | •        |                        | •       |          |                     |                 |                    |              |           |        |               |
| <i>C. glaucellum</i>                       |               |           | •        |                        |         |          |                     |                 |                    |              |           |        |               |

| □<br><br>Taxon                                    | Site/Location |           |          |                        |         |          |                     |                 |                    |              |           |        |               |
|---|---------------|-----------|----------|------------------------|---------|----------|---------------------|-----------------|--------------------|--------------|-----------|--------|---------------|
|   | Kastlösa      | Gösslunda | Hallkorn | Ismantorp Old Windmill | Ottenby | Parboäng | Västerstads Almlund | Läckerby Forest | Halterstads Church | Köping Klint | Dröstorps | Gårdby | Tornrör Alvar |
| <i>C. salicinum</i>                               |               |           | •        |                        |         |          |                     |                 |                    |              |           |        |               |
| <i>C. viride</i>                                  |               |           | •        |                        |         |          |                     |                 |                    |              |           |        |               |
| <i>Caloplaca alociza</i>                          |               |           |          |                        |         |          |                     |                 |                    |              |           |        | •             |
| <i>C. arnoldii</i>                                |               |           |          |                        |         |          |                     |                 |                    | •            |           |        |               |
| <i>C. cerina</i> var. <i>cerina</i>               |               |           |          |                        |         | •        | •                   |                 | •                  |              |           |        |               |
| <i>C. cerinella</i>                               | •             |           |          |                        |         |          |                     |                 |                    |              |           |        | •             |
| <i>C. citrina</i> s. lat                          |               |           |          |                        | •       |          |                     |                 | •                  |              |           |        |               |
| <i>C. crenularia</i>                              |               | •         |          |                        |         |          |                     |                 |                    |              |           |        |               |
| <i>C. crenulatella</i>                            | •             |           |          |                        |         |          |                     |                 |                    |              |           |        | •             |
| <i>C. chalybaea</i>                               |               |           |          |                        |         |          |                     |                 |                    | •            |           |        |               |
| <i>C. chlorina</i>                                | •             |           |          |                        |         |          |                     |                 |                    |              |           |        |               |
| <i>C. chrysophthalma</i>                          |               |           |          |                        |         | •        | •                   |                 |                    |              |           |        |               |
| <i>C. decipiens</i>                               |               |           |          |                        |         |          |                     |                 | •                  |              |           |        |               |
| <i>C. dichroa</i>                                 | •             |           |          |                        |         |          |                     |                 |                    |              |           |        |               |
| <i>C. dolomiticola</i>                            |               |           |          |                        |         |          |                     |                 |                    | •            | •         |        |               |
| <i>C. flavescens</i>                              |               |           |          |                        |         | •        |                     |                 | •                  | •            | •         |        |               |
| <i>C. flavovirescens</i>                          |               | •         |          |                        |         | •        | •                   |                 | •                  |              |           |        |               |
| <i>C. phlogina</i>                                |               |           |          |                        |         |          | •                   |                 |                    |              |           |        |               |
| <i>C. pusilla</i>                                 |               |           |          |                        |         |          |                     |                 |                    | •            |           |        |               |
| <del><i>C. ruderum</i></del>                      |               |           |          |                        |         | •        |                     |                 |                    |              |           |        |               |
| <i>C. saxicola</i>                                |               |           |          |                        |         |          |                     |                 | •                  |              |           |        |               |
| <i>C. sinapisperma</i>                            |               | •         |          |                        |         |          |                     |                 |                    |              |           |        |               |
| <i>C. ulcerosa</i>                                | •             |           |          |                        |         |          |                     |                 |                    |              | •         |        |               |
| <i>C. variabilis</i>                              |               | •         |          |                        |         |          |                     |                 |                    | •            | •         |        | •             |
| <i>Caloplaca</i> sp                               |               |           |          |                        |         | •        |                     |                 |                    |              |           |        |               |
| <i>Candelaria pacifica</i>                        |               |           |          |                        |         |          |                     |                 | •                  |              |           |        |               |
| <i>Candelariella aurella</i>                      |               | •         |          |                        |         |          |                     |                 |                    |              |           |        |               |
| <i>C. vitellina</i> f. <i>vitellina</i>           |               | •         |          |                        |         |          |                     |                 | •                  | •            |           |        |               |
| <i>C. xanthostigma</i>                            |               |           |          |                        |         |          |                     |                 | •                  |              |           |        |               |
| <i>Carbonea vitellinarea</i>                      |               | •         |          |                        |         |          |                     |                 |                    |              |           |        |               |
| <i>Catapyrenium cinereum</i>                      |               |           |          |                        |         |          |                     |                 |                    |              | •         |        | •             |
| <i>C. daedaleum</i>                               |               | •         |          |                        |         |          |                     |                 |                    |              |           |        |               |
| <i>Catillaria lenticularis</i>                    |               |           |          |                        | •       | •        |                     |                 | •                  | •            |           |        | •             |
| <i>C. nigroclavata</i>                            |               |           |          |                        | •       |          |                     |                 |                    |              |           |        |               |
| <i>Cetraria aculeata</i>                          |               | •         |          |                        |         |          |                     |                 |                    |              | •         | •      |               |
| <i>C. ericetorum</i>                              |               |           |          |                        |         |          |                     |                 |                    |              |           | •      |               |
| <i>C. islandica</i> subsp. <i>islandica</i>       |               | •         |          |                        |         |          |                     | •               |                    |              | •         | •      | •             |
| <i>C. sepincola</i>                               |               |           |          |                        |         |          |                     | •               |                    |              |           | •      |               |
| <i>Chaenotheca ferruginea</i>                     |               |           | •        |                        | •       |          |                     |                 |                    |              |           |        |               |
| <i>C. hispidula</i>                               |               |           | •        |                        |         |          |                     |                 |                    |              |           |        |               |
| <i>C. trichialis</i>                              |               |           | •        |                        |         |          |                     |                 |                    |              |           |        |               |
| <i>Chrysothrix candelaris</i>                     |               |           | •        |                        | •       |          |                     |                 |                    |              |           |        |               |
| <i>Cladonia arbuscula</i> subsp. <i>squarrosa</i> |               | •         |          |                        |         |          |                     | •               |                    |              | •         | •      |               |

| □<br><br>Taxon                                 | Site/Location |           |          |                        |         |          |                     |                 |                    |              |           |        |               |
|--|---------------|-----------|----------|------------------------|---------|----------|---------------------|-----------------|--------------------|--------------|-----------|--------|---------------|
|  | Kastlösa      | Gösslunda | Halltorp | Ismantorp Old Windmill | Ottenby | Parboäng | Västerstads Almlund | Läckerby Forest | Halterstads Church | Köping Klint | Dröstorps | Gårdby | Tornrör Alvar |
| <i>C. bellidiflora</i>                         |               |           |          |                        |         |          | •                   |                 |                    |              |           |        |               |
| <i>C. botrytes</i>                             |               |           |          |                        |         |          | •                   |                 |                    |              |           |        |               |
| <i>C. ciliata var. tenuis</i>                  |               | •         |          |                        |         |          | •                   |                 |                    |              |           | •      |               |
| <i>C. coniocraea</i>                           |               |           |          |                        | •       |          |                     |                 |                    |              |           |        |               |
| <i>C. convoluta</i>                            |               | •         |          |                        |         |          |                     |                 |                    |              |           |        |               |
| <i>C. crispata</i>                             |               |           |          |                        |         |          | •                   |                 |                    |              |           |        |               |
| <i>C. deformis</i>                             |               |           |          |                        |         | •        | •                   |                 |                    |              |           |        |               |
| <i>C. diversa</i>                              |               |           |          |                        |         |          | •                   |                 |                    |              |           |        |               |
| <i>C. fimbriata</i>                            |               |           |          |                        |         |          | •                   |                 | •                  |              |           | •      |               |
| <i>C. floerkeana</i>                           |               |           |          |                        |         |          | •                   |                 |                    |              |           |        |               |
| <i>C. foliacea</i>                             |               | •         |          |                        |         | •        |                     |                 |                    | •            |           |        | •             |
| <i>C. furcata subsp. furcata</i>               |               |           |          |                        |         |          | •                   |                 |                    | •            |           | •      |               |
| <i>C. gracilis</i>                             |               |           |          |                        |         |          |                     |                 |                    |              |           | •      |               |
| <i>C. parasitica</i>                           |               |           | •        |                        |         |          |                     |                 |                    |              |           |        |               |
| <i>C. pleurota</i>                             |               |           |          |                        |         |          | •                   |                 |                    |              |           |        |               |
| <i>C. pocillum</i>                             |               |           |          |                        |         |          |                     |                 | •                  | •            |           |        |               |
| <i>C. pyxidata</i>                             |               |           |          |                        |         |          | •                   |                 |                    |              |           |        |               |
| <i>C. rangiferina</i>                          |               |           |          |                        |         |          | •                   |                 |                    |              |           | •      |               |
| <i>C. rangiformis</i>                          |               |           |          |                        |         |          |                     |                 |                    | •            |           | •      | •             |
| <i>C. stellaris</i>                            |               |           |          |                        |         |          | •                   |                 |                    |              |           |        |               |
| <i>C. stygia</i>                               |               |           |          |                        |         |          | •                   |                 |                    |              |           |        |               |
| <i>C. symphycarpia</i>                         |               |           |          |                        |         | •        | •                   |                 |                    |              |           |        |               |
| <i>C. subulata</i>                             |               |           |          |                        |         |          | •                   |                 |                    |              |           |        |               |
| <i>C. uncialis subsp. biuncialis</i>           |               | •         |          |                        |         |          | •                   |                 |                    |              |           | •      |               |
| <i>Clauzadea immersa</i>                       |               | •         |          |                        |         |          |                     |                 | •                  |              |           |        |               |
| <i>Cliostomum corrugatum</i>                   |               |           |          |                        |         |          |                     |                 |                    | •            |           |        |               |
| <i>C. griffithii</i>                           |               |           | •        |                        | •       |          |                     |                 |                    |              |           |        |               |
| <i>Collema auriforme</i>                       |               |           | •        |                        |         |          |                     |                 |                    |              |           |        |               |
| <i>C. cristatum</i>                            |               |           |          |                        |         |          |                     |                 |                    | •            |           |        |               |
| <i>C. fuscovirens</i>                          |               | •         |          |                        |         |          |                     | •               | •                  | •            |           |        | •             |
| <i>C. multipartitum</i>                        |               |           |          |                        |         |          |                     |                 |                    | •            |           |        |               |
| <i>C. parvum</i>                               |               | •         |          |                        |         |          |                     |                 |                    |              |           |        |               |
| <i>C. polycarpon</i>                           |               |           |          |                        |         |          |                     |                 |                    | •            |           |        | •             |
| <i>C. tenax var. tenax</i>                     |               |           |          |                        |         |          |                     |                 | •                  |              |           |        | •             |
| <i>Clauzadea immersa</i>                       |               |           |          |                        |         |          |                     | •               |                    |              |           |        |               |
| <i>Cyphelium inquinans</i>                     |               |           | •        |                        |         |          |                     |                 |                    |              |           |        |               |
| <i>Dermatocarpon miniatum</i>                  |               | •         |          |                        | •       |          |                     |                 |                    |              |           |        |               |
| <i>D. meiophyllizum</i>                        |               | •         |          |                        |         |          |                     |                 |                    |              |           |        |               |
| <i>Diploschistes muscorum</i>                  |               | •         |          |                        |         |          |                     |                 |                    | •            |           |        |               |
| <i>Diplotomma alboatrum</i>                    |               |           |          |                        |         |          |                     | •               |                    | •            |           |        |               |
| <i>D. venusta</i>                              |               |           |          |                        |         |          |                     |                 | •                  |              |           |        |               |
| <i>Dirina massiliensis</i> f. <i>sorediata</i> |               |           |          |                        |         |          |                     |                 | •                  |              |           |        |               |
| <i>Endocarpon pusillum</i>                     |               | •         |          |                        |         |          |                     |                 |                    |              |           |        |               |
| <i>Evernia prunastri</i>                       |               |           | •        |                        | •       |          |                     |                 |                    | •            | •         |        | •             |

| □<br><br>Taxon                                       | Site/Location |           |          |                        |         |          |                     |                 |                    |              |           |        |               |
|--|---------------|-----------|----------|------------------------|---------|----------|---------------------|-----------------|--------------------|--------------|-----------|--------|---------------|
|  | Kastlösa      | Gösslunda | Halltorp | Ismantorp Old Windmill | Ottenby | Parboäng | Västerstads Almlund | Läckerby Forest | Halterstads Church | Köping Klint | Dröstorps | Gårdby | Tornrör Alvar |
| <i>Farnoldia hypocrita</i>                           |               |           |          |                        |         |          |                     |                 |                    |              |           |        | •             |
| <i>Flavocetraria cucullata</i>                       |               | •         |          |                        |         |          |                     |                 |                    |              | •         | •      |               |
| <i>F. nivalis</i>                                    |               | •         |          |                        |         |          |                     |                 |                    |              |           | •      |               |
| <i>Flavoparmelia caperata</i>                        |               |           |          |                        | •       |          |                     |                 |                    |              |           |        |               |
| <i>Fulgensia fulgens</i>                             |               | •         |          |                        |         | •        |                     |                 |                    |              | •         |        |               |
| <i>F. bracteata</i>                                  |               | •         |          |                        |         | •        |                     |                 |                    |              |           |        |               |
| <i>F. schistidii</i>                                 |               | •         |          |                        |         |          |                     |                 |                    |              |           |        |               |
| <i>Fuscidea cyathoides</i> var. <i>cyathoides</i>    |               | •         |          |                        |         | •        | •                   |                 |                    |              |           |        |               |
| <i>Graphis scripta</i>                               | •             |           | •        |                        |         |          |                     |                 |                    |              |           |        |               |
| <i>Haematoma ochroleucum</i> var. <i>ochroleucum</i> |               |           |          |                        | •       |          |                     |                 |                    |              |           |        |               |
| <i>Hymenelia prevostii</i>                           |               |           |          |                        |         | •        |                     |                 |                    |              |           |        |               |
| <i>Hypogymnia physodes</i>                           |               | •         | •        |                        | •       | •        | •                   | •               |                    | •            | •         | •      | •             |
| <i>H. tubulosa</i>                                   |               |           |          |                        |         | •        |                     |                 |                    |              |           |        |               |
| <i>Hypocenomyce scalaris</i>                         |               |           |          | •                      |         |          |                     |                 |                    |              |           |        |               |
| <i>Hyperphyscia adglutinata</i>                      |               |           |          |                        |         |          |                     | •               |                    |              |           |        |               |
| <i>Imshaugia aleurites</i>                           |               |           | •        | •                      |         | •        | •                   |                 |                    | •            | •         |        |               |
| <i>Lecanactis abietina</i>                           |               |           |          |                        | •       |          |                     |                 |                    |              |           |        |               |
| <i>Lecania cyrtella</i>                              |               |           |          |                        |         |          |                     |                 |                    |              |           |        | •             |
| <i>Lecania naegelii</i>                              |               |           |          |                        |         |          |                     | •               |                    |              |           |        |               |
| <i>L. rabenhorstii</i>                               |               |           |          |                        |         |          |                     |                 |                    | •            |           |        |               |
| <i>L. turicensis</i>                                 |               |           |          |                        | •       |          |                     |                 |                    | •            |           |        |               |
| <i>Lecanographa amylacea</i>                         |               |           | •        |                        |         |          |                     |                 |                    |              |           |        |               |
| <i>L. lyncea</i>                                     |               |           |          |                        | •       |          |                     |                 |                    |              |           |        |               |
| <i>Lecanora albella</i>                              |               |           |          |                        |         |          |                     |                 |                    |              | •         |        |               |
| <i>L. albescens</i>                                  |               |           |          |                        | •       |          |                     | •               | •                  |              |           |        |               |
| <i>L. carpineae</i>                                  | •             | •         |          |                        |         |          |                     | •               |                    | •            |           |        |               |
| <i>L. chlarotera</i>                                 | •             | •         | •        |                        | •       | •        | •                   | •               |                    | •            | •         |        |               |
| <i>L. confusa</i>                                    |               |           |          |                        | •       |          |                     |                 |                    |              |           |        |               |
| <i>L. conizaeoides</i>                               |               |           |          | •                      |         |          |                     |                 |                    |              |           |        |               |
| <i>L. crenulata</i>                                  |               |           |          |                        |         | •        |                     | •               | •                  |              |           |        |               |
| <i>L. dispersa</i>                                   |               |           |          |                        |         |          |                     | •               |                    |              | •         |        |               |
| <i>L. expallens</i>                                  |               |           | •        |                        |         |          |                     |                 |                    |              |           |        |               |
| <i>L. gangaleoides</i>                               |               | •         |          |                        |         |          |                     | •               |                    | •            |           |        |               |
| <i>L. hagenii</i>                                    |               |           |          |                        |         |          |                     | •               |                    |              |           |        |               |
| <i>L. horiza</i>                                     |               | •         |          |                        |         |          |                     | •               |                    |              |           |        |               |
| <i>L. inferior ad. int.</i>                          |               |           |          |                        |         |          |                     |                 | •                  |              |           |        |               |
| <i>L. intricata</i>                                  |               |           |          |                        |         | •        |                     |                 |                    |              |           |        |               |
| <i>L. muralis</i>                                    |               | •         |          |                        |         | •        |                     | •               |                    | •            |           |        |               |
| <i>L. orosthea</i>                                   |               |           | •        | •                      | •       |          |                     | •               |                    | •            | •         | •      | •             |
| <i>L. polytropæ</i>                                  |               | •         | •        |                        | •       | •        | •                   | •               | •                  |              | •         |        |               |
| <i>L. pulicaris</i>                                  |               |           |          | •                      |         | •        |                     |                 |                    |              |           |        |               |
| <i>L. rupicola</i> var. <i>rupicola</i>              |               |           |          | •                      |         |          | •                   | •               |                    | •            | •         | •      | •             |
| <i>L. semipallida</i>                                |               |           |          |                        |         |          |                     |                 |                    | •            |           |        |               |

| □<br><br>Taxon                              | Site/Location |           |          |                        |         |          |                     |                 |                    |              |           |        |               |
|---|---------------|-----------|----------|------------------------|---------|----------|---------------------|-----------------|--------------------|--------------|-----------|--------|---------------|
|   | Kastlösa      | Gösslunda | Halltorp | Ismantorp Old Windmill | Ottenby | Parboäng | Västerstads Almlund | Läckerby Forest | Halterstads Church | Köping Klint | Dröstorps | Gårdby | Tornrör Alvar |
| <i>L. sulphurea</i>                         |               |           |          |                        |         |          |                     |                 | •                  |              |           |        |               |
| <i>L. symmicta</i>                          |               |           |          | •                      |         |          |                     |                 |                    |              |           |        |               |
| <i>L. sp</i>                                |               |           |          |                        |         | •        |                     |                 |                    |              |           |        |               |
| <i>L. varia</i>                             |               |           |          | •                      |         |          |                     |                 |                    |              |           |        |               |
| <i>Lechenopuccinia poeltii (f)</i>          |               |           |          |                        |         |          |                     |                 |                    | •            |           |        |               |
| <i>Lecidea fuscoatra s.str</i>              |               | •         |          |                        |         |          | •                   | •               | •                  | •            |           |        | •             |
| <i>L. grisella</i>                          |               |           |          |                        |         |          |                     | •               |                    |              |           |        |               |
| <i>L. lithophila</i>                        |               |           |          |                        |         |          | •                   |                 |                    |              |           |        |               |
| <i>Lecidella elaeochroma f. elaeochroma</i> | •             | •         | •        | •                      | •       | •        |                     |                 | •                  |              | •         |        | •             |
| <i>L. scabra</i>                            |               |           |          |                        | •       |          |                     |                 |                    |              |           |        |               |
| <i>L. stigmatia</i>                         |               | •         |          |                        |         |          |                     |                 |                    |              |           |        |               |
| <i>Lepraria caesioalba</i>                  |               |           |          |                        |         |          |                     | •               |                    |              |           |        |               |
| <i>L. ecorticata</i>                        |               |           |          |                        |         |          |                     | •               |                    |              |           |        |               |
| <i>L. finkii</i>                            |               |           |          |                        | •       |          |                     |                 |                    |              |           |        |               |
| <i>L. incana s. str.</i>                    |               |           |          |                        |         |          |                     | •               |                    |              | •         |        |               |
| <i>L. lobificans</i>                        |               |           | •        |                        | •       | •        |                     |                 |                    |              | •         |        |               |
| <i>Leptogium pulvinatum</i>                 |               | •         |          |                        |         |          |                     |                 |                    | •            | •         |        | •             |
| <i>Leptogium sp</i>                         |               |           |          |                        |         |          |                     |                 | •                  |              |           |        |               |
| <i>Letharia vulpina</i>                     |               |           |          | •                      |         |          |                     |                 |                    |              |           |        |               |
| <i>Lobaria pulmonaria</i>                   |               |           |          |                        | •       |          |                     |                 |                    |              |           |        |               |
| <i>Megaspora verrucosa</i>                  |               |           |          |                        |         | •        |                     |                 |                    |              |           |        |               |
| <i>Melanohalea exasperatula</i>             | •             |           |          |                        |         |          |                     |                 |                    |              |           |        |               |
| <i>Melanelixia fuliginosa</i>               |               | •         |          |                        | •       |          |                     |                 |                    |              |           |        | •             |
| <i>M. glabratula</i>                        |               |           |          |                        |         | •        |                     |                 |                    |              |           |        |               |
| <i>M. subaurifera</i>                       |               | •         | •        |                        | •       |          |                     |                 | •                  |              | •         |        | •             |
| <i>Ochrolechia androgyna</i>                |               | •         |          |                        |         |          |                     |                 |                    |              |           |        |               |
| <i>O. microstictoides</i>                   |               |           |          |                        | •       |          |                     |                 |                    |              |           |        |               |
| <i>O. parella</i>                           |               | •         |          |                        |         |          |                     |                 | •                  |              |           |        |               |
| <i>O. turneri</i>                           |               |           |          |                        |         | •        | •                   |                 |                    |              |           |        |               |
| <i>Opegrapha atra</i>                       |               |           |          |                        | •       |          |                     |                 |                    |              |           |        |               |
| <i>O. herbarum</i>                          |               |           |          |                        | •       |          |                     |                 |                    |              |           |        |               |
| <i>O. mougeotii</i>                         |               |           |          |                        | •       |          |                     |                 |                    |              |           |        |               |
| <i>O. niveoatra</i>                         |               |           |          |                        | •       |          |                     |                 | •                  |              |           |        |               |
| <i>O. rufescens</i>                         | •             |           |          |                        |         |          |                     |                 |                    |              |           |        |               |
| <i>O. rupestris</i>                         |               | •         |          |                        |         |          |                     |                 |                    |              |           |        | •             |
| <i>O. varia</i>                             |               |           |          | •                      | •       | •        |                     |                 | •                  |              |           |        |               |
| <i>O. vermicellifera</i>                    |               |           |          |                        | •       |          |                     |                 |                    |              |           |        |               |
| <i>O. xerica</i>                            | •             |           |          |                        |         |          |                     |                 |                    |              |           |        |               |
| <i>Parmelia discordans</i>                  |               |           |          |                        |         |          |                     | •               |                    |              |           |        |               |
| <i>P. ernstiae</i>                          |               |           |          |                        |         |          |                     |                 |                    | •            |           |        |               |
| <i>P. omphalodes</i>                        |               | •         |          |                        |         | •        |                     |                 |                    |              |           |        |               |
| <i>P. saxatilis</i>                         |               | •         | •        |                        | •       | •        | •                   |                 |                    |              | •         | •      | •             |
| <i>P. sulcata</i>                           | •             | •         | •        |                        | •       |          | •                   | •               |                    | •            | •         | •      | •             |

| □<br><br>Taxon                                     | Site/Location |           |          |                        |         |          |                     |                 |                    |              |           |        |               |
|--|---------------|-----------|----------|------------------------|---------|----------|---------------------|-----------------|--------------------|--------------|-----------|--------|---------------|
|  | Kastlösa      | Gösslunda | Halltorp | Ismantorp Old Windmill | Ottenby | Parboäng | Västerstads Almlund | Läckerby Forest | Halterstads Church | Köping Klint | Dröstorps | Gårdby | Tornrör Alvar |
| <i>Parmeliopsis ambigua</i>                        |               |           | •        |                        |         |          |                     | •               |                    |              |           | •      |               |
| <i>P. hyperopta</i>                                |               |           |          |                        | •       |          |                     |                 |                    |              |           |        |               |
| <i>Peltigera canina</i>                            |               | •         |          |                        |         |          |                     |                 |                    |              | •         |        |               |
| <i>P. membranacea</i>                              |               |           |          |                        |         |          |                     |                 |                    |              | •         | •      |               |
| <i>P. rufescens</i>                                |               |           |          |                        |         |          |                     |                 |                    |              | •         |        | •             |
| <i>Pertusaria albescens</i> var. <i>albescens</i>  |               |           |          |                        |         |          | •                   |                 |                    |              |           |        |               |
| <i>P. amara</i> f. <i>amara</i>                    |               |           | •        |                        | •       |          |                     |                 |                    |              | •         |        |               |
| <i>P. aspergilla</i>                               |               |           |          |                        |         |          |                     |                 |                    | •            |           |        |               |
| <i>P. coccodes</i>                                 |               |           |          |                        |         | •        | •                   |                 |                    |              |           |        |               |
| <i>P. corallina</i>                                |               |           |          |                        |         |          | •                   | •               |                    |              |           |        |               |
| <i>P. flavida</i>                                  |               |           | •        |                        |         |          |                     |                 |                    |              |           |        |               |
| <i>P. hemisphaerica</i>                            |               |           | •        |                        |         |          |                     |                 |                    |              |           |        |               |
| <i>P. lactescens</i>                               |               |           |          |                        |         |          | •                   |                 |                    |              |           |        |               |
| <i>P. leioplaca</i>                                |               |           | •        |                        |         |          |                     |                 |                    |              |           |        |               |
| <i>P. pertusa</i>                                  |               |           | •        |                        |         |          |                     |                 |                    |              |           |        |               |
| <i>P. pupillaris</i>                               |               |           |          |                        |         |          |                     |                 |                    |              | •         |        |               |
| <i>Petractis clausa</i>                            |               | •         |          |                        |         |          |                     |                 |                    |              |           |        |               |
| <i>Phaeophyscia orbicularis</i>                    | •             |           |          |                        |         |          |                     |                 | •                  |              |           |        |               |
| <i>Phlyctis argena</i>                             |               |           | •        |                        |         |          |                     |                 |                    |              | •         |        |               |
| <i>Physcia aipolia</i>                             | •             |           |          |                        |         |          |                     |                 |                    |              |           |        |               |
| <i>P. adscendens</i>                               | •             | •         | •        |                        | •       | •        |                     |                 | •                  |              | •         |        | •             |
| <i>P. caesia</i>                                   |               |           |          |                        |         |          |                     |                 | •                  |              |           |        |               |
| <i>P. tenella</i>                                  |               |           | •        |                        |         |          |                     |                 | •                  |              | •         |        | •             |
| <i>Physconia grisea</i>                            |               |           |          |                        |         |          | •                   |                 |                    |              |           |        |               |
| <i>Placopyrenium fuscillum</i>                     |               |           |          |                        |         |          |                     |                 |                    | •            |           |        |               |
| <i>Placynthiella icmalea</i>                       |               |           | •        |                        |         |          |                     |                 |                    |              |           | •      |               |
| <i>Placynthium nigrum</i>                          |               |           |          |                        |         | •        |                     |                 |                    | •            |           |        | •             |
| <i>Pleurosticta acetabulum</i>                     | •             |           |          |                        |         |          | •                   |                 | •                  |              |           |        |               |
| <i>Porina linearis</i>                             |               |           |          |                        |         |          |                     |                 |                    | •            |           |        |               |
| <i>Porpidia cinereoatra</i>                        |               | •         |          |                        |         |          | •                   |                 |                    |              |           |        |               |
| <i>P. macrocarpa</i>                               |               |           |          |                        |         |          | •                   |                 |                    |              |           |        |               |
| <i>P. tuberculosa</i>                              |               |           |          |                        |         |          | •                   | •               |                    |              |           |        |               |
| <i>Protoblastenia calva</i>                        |               | •         |          |                        |         |          |                     |                 |                    | •            |           |        | •             |
| <i>P. cyclospora</i>                               |               |           |          |                        |         |          |                     |                 |                    |              |           |        | •             |
| <i>P. incrustans</i>                               |               | •         |          |                        |         |          |                     |                 |                    | •            |           |        | •             |
| <i>P. rupestris</i>                                |               | •         |          |                        |         | •        |                     |                 |                    | •            | •         |        |               |
| <i>Protoparmelia badia</i>                         |               | •         |          |                        |         |          |                     |                 |                    |              |           |        |               |
| <i>Pseudevernia furfuracea</i> var. <i>ceratea</i> |               |           |          |                        |         |          |                     | •               |                    |              |           |        |               |
| <i>Pseudevernia furfuracea</i> s. <i>lat</i>       |               |           |          |                        |         |          |                     |                 |                    |              |           | •      |               |
| <i>Psora decipiens</i>                             |               | •         |          |                        |         |          |                     |                 |                    |              |           |        | •             |
| <i>P. testacea</i>                                 |               |           |          |                        |         |          |                     |                 |                    |              | •         |        | •             |
| <i>Pyrrhospora querneae</i>                        |               |           | •        |                        | •       |          |                     |                 |                    |              |           |        |               |



| □<br><br>Taxon                                  | Site/Location |           |          |                        |         |          |                     |                 |                    |              |           |        |               |
|---|---------------|-----------|----------|------------------------|---------|----------|---------------------|-----------------|--------------------|--------------|-----------|--------|---------------|
|   | Kastlösa      | Gösslunda | Hallkorn | Ismantorp Old Windmill | Ottenby | Parboäng | Västerstads Almlund | Läckerby Forest | Halterstads Church | Köping Klint | Dröstorps | Gårdby | Tornrör Alvar |
| <i>Ramalina baltica</i>                         |               |           |          |                        | •       |          |                     |                 |                    |              |           |        |               |
| <i>R. farinacea</i>                             | •             |           | •        |                        |         | •        |                     |                 | •                  |              | •         |        |               |
| <i>R. fastigiata</i>                            | •             |           |          |                        | •       | •        | •                   |                 | •                  |              |           |        |               |
| <i>R. fraxinea</i>                              | •             |           |          |                        | •       |          |                     |                 | •                  |              | •         |        |               |
| <i>R. polymorpha</i>                            |               | •         |          |                        |         |          |                     |                 |                    |              |           |        |               |
| <i>R. siliquosa</i>                             |               |           |          |                        |         | •        |                     |                 | •                  |              |           |        |               |
| <i>Rhizocarpon distinctum</i>                   |               | •         |          |                        |         |          |                     |                 |                    |              |           |        |               |
| <i>R. geographicum</i>                          |               | •         |          |                        |         |          | •                   | •               |                    |              |           |        | •             |
| <i>R. reductum</i>                              |               | •         |          |                        |         |          | •                   |                 | •                  |              |           | •      |               |
| <i>R. umbilicatum</i>                           |               | •         |          |                        |         |          |                     |                 |                    |              |           |        |               |
| <i>Rinodina oleae</i>                           |               |           |          |                        |         |          |                     |                 | •                  |              |           |        |               |
| <i>R. sp</i>                                    |               |           |          |                        |         | •        |                     |                 |                    | •            |           |        |               |
| <i>Romjularia lurida</i>                        |               | •         |          |                        |         |          |                     |                 |                    | •            | •         |        | •             |
| <i>Sarcogyne regularis</i>                      |               |           |          |                        |         | •        |                     |                 |                    |              |           |        |               |
| <i>Schismatomma decolorans</i>                  |               |           | •        |                        | •       |          |                     |                 |                    |              | •         |        |               |
| <i>Scolisciosporum umbrinum</i>                 |               |           |          |                        |         |          |                     |                 |                    | •            |           |        |               |
| <i>Sporodophoron cretaceum</i>                  |               |           | •        |                        | •       |          |                     |                 |                    |              | •         |        |               |
| <i>Squamarina cartilaginea</i>                  |               | •         |          |                        |         |          |                     |                 |                    |              | •         |        | •             |
| <i>S. gypsacea</i>                              |               |           |          |                        |         |          |                     |                 |                    |              | •         |        |               |
| <i>S. lentigera</i>                             |               |           |          |                        |         |          |                     |                 |                    |              | •         |        | •             |
| <i>Synalissa ramulosa</i>                       |               | •         |          |                        |         |          |                     |                 |                    |              |           |        | •             |
| <i>Tephromela atra var. atra</i>                |               |           |          |                        |         |          |                     |                 | •                  |              |           |        |               |
| <i>Thamnotia vermicularis var. subuliformis</i> |               | •         |          |                        |         | •        |                     |                 |                    |              | •         |        |               |
| <i>Thelidium decipiens</i>                      |               |           |          |                        |         | •        |                     |                 |                    | •            |           |        |               |
| <i>T. incavatum</i>                             |               |           |          |                        |         | •        |                     |                 |                    |              |           |        |               |
| <i>Thelotrema lepadinum</i>                     |               |           |          |                        | •       |          |                     |                 |                    |              |           |        |               |
| <i>Toninia aromatica</i>                        |               | •         |          |                        |         |          |                     |                 |                    |              |           |        |               |
| <i>T. physaroides</i>                           |               | •         |          |                        |         |          |                     |                 |                    |              |           |        | •             |
| <i>T. sedifolia</i>                             |               | •         |          |                        |         | •        |                     |                 |                    |              |           |        |               |
| <i>Trapeliopsis flexuosa</i>                    |               |           |          |                        |         |          | •                   |                 |                    |              |           |        |               |
| <i>Thyrea confusa</i>                           |               |           |          |                        |         | •        |                     |                 |                    |              |           |        |               |
| <i>Tuckermanopsis chlorophylla</i>              |               |           |          |                        | •       |          |                     |                 |                    |              |           | •      |               |
| <i>Umbilicaria polyphylla</i>                   |               | •         |          |                        |         |          | •                   | •               |                    | •            |           |        | •             |
| <i>U. proboscidea</i>                           |               | •         |          |                        |         |          |                     |                 |                    |              |           |        |               |
| <i>Usnea hirta</i>                              |               |           |          |                        |         | •        |                     |                 |                    |              |           |        |               |
| <i>U. subfloridana</i>                          |               |           | •        |                        |         |          |                     |                 |                    |              |           | •      |               |
| <i>Usnea sp.</i>                                |               |           |          |                        |         |          |                     |                 |                    |              |           | •      |               |
| <i>Verrucaria baldensis</i>                     |               |           |          |                        |         |          |                     |                 |                    | •            |           |        |               |
| <i>V. caerulea</i>                              |               |           |          |                        | •       |          |                     |                 |                    | •            |           |        |               |
| <i>V. calciseda</i>                             |               |           |          |                        |         | •        |                     |                 |                    | •            |           |        | •             |
| <i>V. dufourii</i>                              |               |           |          |                        |         |          |                     |                 |                    |              |           |        | •             |
| <i>V. fuscella</i>                              |               | •         |          |                        |         |          |                     |                 |                    |              |           |        |               |
| <i>V. hochstetteri</i>                          |               |           |          |                        |         |          |                     |                 |                    | •            |           |        |               |

| □<br><br>Taxon                      | Site/Location |           |          |                        |         |          |                     |                 |                    |              |           |        |               |
|-------------------------------------|---------------|-----------|----------|------------------------|---------|----------|---------------------|-----------------|--------------------|--------------|-----------|--------|---------------|
|                                     | Kastlösa      | Gösslunda | Halltorp | Ismantorp Old Windmill | Ottenby | Parboäng | Västerstads Almlund | Läckerby Forest | Halterstads Church | Köping Klint | Dröstorps | Gårdby | Tornrör Alvar |
| <i>V. macrostoma f. macrostoma</i>  |               |           |          |                        | •       |          |                     |                 |                    | •            |           |        |               |
| <i>V. maura</i>                     |               |           |          |                        |         | •        |                     |                 | •                  |              |           |        |               |
| <i>V. nigrescens f. nigrescens</i>  |               | •         |          |                        |         | •        |                     |                 | •                  | •            |           |        |               |
| <i>Vulpicida juniperinus</i>        |               | •         |          |                        |         |          |                     |                 |                    |              | •         | •      |               |
| <i>V. pinastri</i>                  |               | •         |          |                        |         |          | •                   |                 |                    |              |           |        |               |
| <i>V. tubulosus</i>                 |               |           |          |                        |         |          |                     |                 |                    |              |           | •      |               |
| <i>Xanthoparmelia conspersa</i>     |               | •         |          |                        |         |          | •                   | •               |                    |              |           |        | •             |
| <i>X. fuliginosa</i>                |               | •         |          | •                      |         |          | •                   |                 |                    |              |           |        |               |
| <i>X. mougeotii</i>                 |               |           |          |                        |         |          | •                   |                 |                    |              |           |        |               |
| <i>X. pulla</i>                     |               | •         |          |                        |         |          |                     |                 |                    |              | •         | •      | •             |
| <i>X. verruculifera</i>             |               | •         |          |                        |         |          |                     |                 |                    |              |           |        |               |
| <i>Xanthoria candelaria s. str.</i> |               |           |          |                        |         |          |                     |                 | •                  |              |           |        |               |
| <i>X. parietina</i>                 | •             | •         | •        |                        | •       | •        | •                   |                 | •                  |              | •         |        |               |
| <i>X. polycarpa</i>                 | •             |           |          |                        |         |          |                     |                 | •                  |              | •         |        |               |
| <i>X. sp.</i>                       |               |           |          |                        |         |          |                     |                 |                    | •            |           |        |               |

#### Contributors to the species list

Steve Price, Peter Lambley, Doug McCutcheon, Allan Pentecost, Graham Boswell , Andy Acton, Ulf Arup and Martin Westberg.

#### Site Locations

Allergarden Kastlesova, SW 6259 1538. Large garden with a variety of substrate

Gösslunda, site 1, SW 6262 1543. Alvar

Gösslunda, site 2, SW 6261 54. Alvar

Halltorp Hage, SW 629 154. Deciduous woodland with ancient oak

Ismantorp, SW 62911 15529. Wooden windmill

Ottenby Lund, SW 6232 1537. Pasture woodland

Parboäng, SW 6236 1539. Alvar

Västerdad Almlund, SW 6255 1537. Elm wood (declining)

Läckerby Forest, SW 6257 1525. Pine forest with granite boulders

Halterstads Church, SW 6258 1546. Trees walls and acid and basic headstones

Köping Klint, SW 6306 1555. Limestone outcrops (Devonian)

Dröstorps, SW 6274 1548. Alvar with inundation hollows

Gårdby Sandhead, SW 6276 1551. Wind blown sand

Tornrör, SW 6273 1547. Alvar

## Winter field meeting at Netherby Hall, Cumbria

January 21, 2018 [NY3971]

**Attendees:** Steve Price (Field Meetings Secretary), Allan Pentecost (local organiser), Ginnie Copsey, Fiona Spence, Carrie Hedges, Judith Allinson, Rebecca Yahr, Paul Cannon, Rod Ashwell, Graham Boswell, Heather Paul, Heather Colls, Aniya Barker and Eluned Smith.



Examining the 18<sup>th</sup> century walled garden. Photo by Judith Allinson

The group of fourteen lichenologists made their way from Carlisle to the Hall after the Annual General Meeting held at Tullie House Museum, Carlisle. We parked in front of the Hall at the kind invitation of the owners, Mr. and Mrs Gerald Smith, arriving at about 10.30 am. They informed us that the church situated in the grounds was in process of renovation and the architects had informed them that the lichen could be removed to improve its appearance, but we were glad to hear that this was not undertaken. The Hall, which dates from the 15<sup>th</sup> century is set in about 35 acres of wooded gardens containing many large trees that include beech, oak, hornbeam and

wych elm. There is also a large walled garden dating from the 18th century in the vicinity of which is the Roman fort, Castra Exploratorum. The grounds to the northwest of the Hall are under the ownership of Sir James Graham and we are grateful for his permission to examine the extensive open parkland which lies between the Hall and the River Esk. There is an interesting and historic suspension bridge over the Esk that links the estate to a small church known as Kirkandrews upon Esk, built of Permian sandstone. Small groups of lichenologists dispersed to visit the areas aforementioned although the weather made examination of trees and stones difficult at times owing to heavy falls of wet snow. We met back at the car park at 1 pm for lunch, eating out of cars because of the inclement conditions then went back out into the field until 3 pm when the light was beginning to fail owing to heavy cloud.

The trees in the grounds and along the driveway of the Hall and in the parkland to the west were given particular attention and yielded a number of good finds. These included *Chaenotheca trichialis* and *Punctelia borreri*, both of which have been rarely recorded for the county. The lichens totalled 74 species with an additional five lichenicolous fungi, one of which, *Arthonia subfuscicola* found upon *Lecanora carpinea* and collected by Paul Cannon, was of particular interest, being the first record of this species in England. Of the lichens recorded were those communities characteristic of large free-standing oaks situated in an agricultural setting in an area of moderate rainfall. The dry sides of these oaks supported a well-known community comprising *Dendrographa (Schismatomma) decolorans*, the bright yellow *Chrysothrix candelaris* and *Lecanactis abietina* with characteristic foliose taxa of the exposed sides: *Flavoparmelia caperata*, *Parmelia saxatilis* and *Punctelia subrudecta*. The *C. trichialis* referred to above revealed itself alongside *C. candelaris* in crevices of the trunk of an interesting veteran oak located near the boundary of woodland and parkland, a situation subject perhaps to less agricultural influence than in the more open parkland. The lower part of this trunk also held a good amount of *Cladonia parasitica* and collected from the same tree was what turned out to be *Cliostomum griffithii*. This specimen rather confusingly had no pycnidia and was abundantly fertile.

In the late 20<sup>th</sup> century, *Lobaria virens* was found on elm just a few miles from the estate. We did not see any promising areas for this lichen at Netherby but this is a big estate and it might occur here. Had conditions been better there is no doubt that our list of lichens would have been larger, nevertheless the visit was certainly worthwhile and the list obtained a very respectable one.

Allan Pentecost  
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List of lichens and lichenicolous fungi from Netherby Hall and Estate. Grid references for the four main areas of collecting are centred as follows: Hall trees 35/398717; Hall stonework 35/399716; Netherby Estate trees 35/393715; Kirkandrews upon Esk churchyard 35/391720.

| Taxon name                       | Hall trees | Hall stonework | Netherby estate trees | Churchyard | Notes                            |
|----------------------------------|------------|----------------|-----------------------|------------|----------------------------------|
|                                  |            |                |                       |            |                                  |
| <i>Amandinea punctata</i>        |            |                | •                     |            |                                  |
| <i>Anisomeridium polypori</i>    | •          |                |                       |            | on ash                           |
| <i>Arthonia radiata</i>          | •          |                | •                     |            |                                  |
| <i>Bilimbia sabuletorum</i>      |            |                |                       | •          | gravestone                       |
| <i>Caloplaca citrina</i>         |            | •              |                       |            |                                  |
| <i>Caloplaca flavocitrina</i>    |            | •              |                       |            | old oaks along drive             |
| <i>Candelariella vitellina</i>   |            |                |                       | •          |                                  |
| <i>Chaenotheca ferruginea</i>    |            |                |                       |            |                                  |
| <i>Chaenotheca trichialis</i>    |            |                | •                     |            | scarce, among <i>Chrysothrix</i> |
| <i>Cladonia coniocraea</i>       | •          |                |                       |            |                                  |
| <i>Cladonia fimbriata</i>        | •          |                |                       |            |                                  |
| <i>Cladonia parasitica</i>       |            |                | •                     |            |                                  |
| <i>Cliostomum griffithii</i>     | •          |                | •                     |            |                                  |
| <i>Chrysothrix candelaris</i>    | •          |                |                       | •          |                                  |
| <i>Dendrographa decolorans</i>   |            |                | •                     |            | old trees                        |
| <i>Diploicia canescens</i>       |            |                | •                     | •          | church wall & trees              |
| <i>Diplotomma alboatrum</i>      |            | •              |                       |            | brick and mortar                 |
| <i>Evernia prunastri</i>         | •          |                | •                     |            |                                  |
| <i>Flavoparmelia caperata</i>    | •          |                |                       |            | frequent                         |
| <i>Graphis elegans</i>           | •          |                |                       |            |                                  |
| <i>Graphis scripta</i>           |            |                | •                     |            |                                  |
| <i>Hyperphyscia adglutinata</i>  |            |                | •                     |            |                                  |
| <i>Hypogymnia physodes</i>       |            |                | •                     | •          |                                  |
| <i>Hypogymnia tubulosa</i>       | •          |                |                       |            |                                  |
| <i>Hypotrachyna afrorevoluta</i> |            |                | •                     |            |                                  |
| <i>Hypotrachyna revoluta</i>     | •          |                |                       |            |                                  |
| <i>Lecanactis abietina</i>       | •          |                |                       |            | old oaks on drive                |
| <i>Lecanora albescens</i>        |            | •              |                       |            |                                  |
| <i>Lecanora campestris</i>       |            | •              |                       | •          | common                           |

| Taxon name                                | Hall trees | Hall stonework | Netherby estate trees | Churchyard | Notes                 |
|---|------------|----------------|-----------------------|------------|-----------------------|
| <i>Lecanora carpinea</i>                  |            |                | •                     |            |                       |
| <i>Lecanora chlarotera</i>                | •          |                | •                     |            |                       |
| <i>Lecanora dispersa</i>                  |            |                |                       | •          |                       |
| <i>Lecanora expallens</i>                 | •          |                | •                     |            |                       |
| <i>Lecidella elaeochroma</i>              | •          |                | •                     |            |                       |
| <i>Lecidella scabra</i>                   |            |                |                       | •          |                       |
| <i>Lepraria incana</i>                    | •          |                | •                     |            |                       |
| <i>Melanelixia glabrata</i>               | •          |                |                       |            |                       |
| <i>Melanelixia subaurifera</i>            |            |                | •                     |            |                       |
| <i>Melanohalea elegantula</i>             |            |                | •                     |            |                       |
| <i>Melanohalea exasperatula</i>           |            |                | •                     |            |                       |
| <i>Mycoblastus fucatus</i>                | •          |                |                       |            |                       |
| <i>Opegrapha atra</i>                     |            |                | •                     |            |                       |
| <i>Opegrapha gyrocarpa</i>                |            |                |                       | •          |                       |
| <i>Opegrapha herbarum</i>                 | •          |                |                       |            | old beech             |
| <i>Opegrapha varia</i>                    | •          |                |                       |            | elms in drive         |
| <i>Opegrapha vulgata</i>                  | •          |                |                       |            |                       |
| <i>Ochrolechia parella</i>                |            | •              |                       |            | walled garden         |
| <i>Parmelia saxatilis</i>                 | •          | •              | •                     | •          |                       |
| <i>Parmelia sulcata</i>                   | •          |                | •                     |            |                       |
| <i>Peltigera hymenina</i>                 |            |                |                       | •          | lawns                 |
| <i>Pertusaria albescens var corallina</i> | •          |                |                       |            |                       |
| <i>Pertusaria amara</i>                   | •          |                |                       | •          | trees and gravestones |
| <i>Pertusaria coccodes</i>                |            |                | •                     |            |                       |
| <i>Pertusaria hymenea</i>                 | •          |                | •                     |            |                       |
| <i>Pertusaria pertusa</i>                 | •          |                |                       |            |                       |
| <i>Phaeophyscia orbicularis</i>           | •          |                | •                     |            |                       |
| <i>Phlyctis argena</i>                    | •          |                |                       |            |                       |
| <i>Physcia tenella</i>                    | •          |                | •                     |            | abundant on shrubs    |

| Taxon name                                 | Hall trees | Hall stonework | Netherby estate trees | Churchyard | Notes                        |
|--|------------|----------------|-----------------------|------------|------------------------------|
| <i>Physconia enteroxantha</i>              |            |                | •                     |            |                              |
| <i>Physconia grisea</i>                    | •          |                | •                     |            |                              |
| <i>Porina aenea</i>                        | •          |                |                       |            | old beech tree               |
| <i>Punctelia borrieri</i>                  |            |                | •                     |            | rarely recorded in Cumbria   |
| <i>Punctelia jeckeri</i>                   | •          |                |                       |            |                              |
| <i>Punctelia subrudecta</i>                |            |                | •                     |            |                              |
| <i>Pyrrhospora querneae</i>                | •          |                |                       |            |                              |
| <i>Ramalina farinacea</i>                  | •          |                | •                     |            | especially shrubs, K-P- form |
| <i>Ramalina fastigiata</i>                 | •          |                | •                     |            |                              |
| <i>Ramalina fraxinea</i>                   |            |                | •                     |            | scarce                       |
| <i>Scoliciosporum umbrinum</i>             |            |                |                       | •          |                              |
| <i>Tephromela atra</i>                     |            | •              |                       | •          | walled garden, headstones    |
| <i>Usnea subfloridana</i>                  | •          |                |                       |            | shrubs                       |
| <i>Verrucaria nigrescens</i>               |            | •              |                       |            |                              |
| <i>Verrucaria viridula</i>                 |            |                |                       | •          |                              |
| <i>Xanthoria parietina</i>                 | •          | •              | •                     | •          |                              |
|  |            |                |                       |            |                              |
| <i>Arthonia subfuscicola</i>               |            |                | •                     |            | lichenicolous fungus         |
| <i>Homostegia piggotii</i>                 |            |                | •                     |            | lichenicolous fungus         |
| <i>Paranectria oropensis ssp oropensis</i> |            |                | •                     |            | lichenicolous fungus         |
| <i>Pronectria oligospora</i>               |            |                | •                     |            | lichenicolous fungus         |
| <i>Vouauxiella lichenicola</i>             |            |                | •                     |            | lichenicolous fungus         |
|  |            |                |                       |            |                              |
|  |            |                |                       |            |                              |

## Literature pertaining to British lichens – 62

*Lichenologist* **49**(6) was published on 14 November 2017, **50**(1) on 26 January 2018, and **50**(2) on 19 March 2018

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 authors of this compilation.

- BROOKER, R.W., BREWER, M.J., BRITTON, A.J., EASTWOOD, A., ELLIS, C.J., GIMONA, A., POGGIO, L. & GENNEY, D.R. 2018. Tiny niches and translocations: the challenge of identifying suitable recipient sites for small and immobile species. *Journal of Applied Ecology* **55**: 621–630. Study demonstrating the difficulty of predicting suitable sites for translocation, using statistical models applied to *Flavocetraria nivalis*, because of the lichen's response to small, hard-to-quantify microniches.
- CZARNOTA, P. & GUZOW-KRZEMIŃSKA, B. 2018. *Bacidina mendax* sp. nov., a new widespread species in Central Europe, together with a new combination within the genus *Bacidina*. *Lichenologist* **50**: 43–57. The new species \**Bacidina mendax* Czarnota & Guz.-Krzem. is so far mostly recorded from Central Europe, but a single specimen is cited from England (Kew Gardens).
- EATON, S., ELLIS, C.J., GENNEY, D., THOMPSON, R., YAHR, R. & HAYDON, D.T. 2018. Adding small species to the big picture: species distribution modelling in an age of landscape scale conservation. *Biological Conservation* **217**: 251–258. Intensive sampling of species distributions can successfully map habitat quality across landscapes, but becomes increasingly limited when applied at regional scales.
- EATON, S., ZÚÑIGA, C., CZYZEWSKI, J., ELLIS, C.J., GENNEY, D.R., HAYDON, D., MIRZAI, N. & YAHR, R. 2018. A method for the direct detection of airborne dispersal in lichens. *Molecular Ecology Resources* **18**: 240–250. Demonstration of a new method for detecting lichen propagules dispersing in the air mass, using species-specific DNA-markers and simple automated spore traps.
- ELLIS, C.J. 2018. A mechanistic model of climate change risk: growth rates and microhabitat specificity for conservation priority woodland epiphytes. *Perspectives in Ecology, Evolution and Systematics*, **32**: 38–48. Population models applied to cyanolichens to show how improved habitat extent and quality could offset lower growth rates and negative responses to environmental change.
- ERTZ, D., COPPINS, B.J. SANDERSON, N.A. 2018. The British endemic *Enterographa soredata* is the widespread *Syncesia myrticola* (Roccellaceae,



- Arthoniales*). *Lichenologist* **50**: 153–160. Phylogenetic analysis shows that *Enterographa sorediata* is a sorediate morph of *Syncesia myrtilcola*.
- ERTZ, D., GUZOW-KRZEMIŃSKA, B., THOR, G., ŁUBECK, A. & KUKWA, M. 2018. Photobiont switching causes changes in the reproduction strategy and phenotypic dimorphism in the *Arthoniomycetes*. *Scientific Reports* **8**:4952, 14pp. DOI:10.1038/s41598-018-23219-3 (available free on-line). The sterile, sorediate *Buellia violaceofusca*, whose photobiont is *Trebouxia*, and the esorediate *Lecanographa amylacea* with *Trentepohlia* as photobiont, are shown to be the same fungus. [A remarkable story – well worth a read!].
- ERTZ, D., SANDERSON, N [A.], ŁUBECK, A. & KUKWA, M. 2018. Two new species of *Arthoniaceae* from old-growth European forests, *Arthonia thoriana* and *Inoderma sorediatum*, and a new genus for *Schismatomma niveum*. *Lichenologist* **50**: 161–172. \**Arthonia thoriana* Ertz & Sanderson, a non-lichenized species growing on the trunks of old oaks, is newly described from the Horner Woods of Somerset. The genus *Snippocia* Ertz, Kukwa & Sanderson is introduced with the single species *S. nivea* (D. Hawksw. & P. James) Ertz & Sanderson (syn. *Schismatomma niveum*).
- ETAYO, J. 2011. *Lichenochora hyperphysciae*, a new lichenicolous fungus found in Mexico and Spain. *Bibliotheca Lichenologica* **106**: 53–56. Gives original description and illustrations of this species, which has subsequently been found in England as a parasite on *Hyperphyscia adglutinata*.
- ETAYO, J. & VAN DEN DEN BOOM, P. 2005. Contributions to the lichen flora of the Canary Islands. VIII. Some lichenicolous fungi. *Nova Hedwigia* **81**: 157–162. Gives original description of \**Trichonectria pertusariae*, a recent addition to the British list.
- KONDRATYUK, S.Y., LÖKÖS, L., UPRETI, D.K., NAYAKA, S., MISHRA, G.K., RAVERA, S., JEONG, M.-H., JANG, S.-H., PARK, J.S. & HUR, J.-S. 2017. New monophyletic branches of the Teloschistaceae (lichen-forming Ascomycota) proved by three gene phylogeny. *Acta Botanica Hungarica* **59**: 71–136. The genus *Klauderuiella* S.Y. Kondr. & J.-S. Hur (type *K. thallincola*) is introduced for three species: *K. aurantia* (Pers.) S.Y. Kondr. & J.-S. Hur (syn. *Caloplaca aurantia*); *K. flavescens* (Huds.) S.Y. Kondr. & J.-S. Hur (syn. *Caloplaca flavescens*) and *K. thallincola* (Wedd.) S.Y. Kondr. & J.-S. Hur. (syn. *Caloplaca thallincola*), and the genus *Laundonia* S.Y. Kondr. L. Lökös & J.-S. Hur is introduced for the single species *L. flavovirescens* (Wulfen) S.Y. Kondr. L. Lökös & J.-S. Hur.
- MALICEK, J., BERGER, F., PALICE, Z. & VONDRAK, J. 2017. Corticolous sorediate *Lecanora* species (Lecanoraceae, Ascomycota) containing atranorin in Europe. *Lichenologist* **49**: 431–455. *Lecanora caesiosora* is considered to be a sorediate form of *Lecanora cenisia*, and given the name *L. cenisia* f. *soredians* (Suza) Malíček.
- ONUT-BRÄNNSTRÖM, I., JOHANNESSON, H. & TIBELL, L. 2018. *Thamnomlia tundra* sp. nov., a cryptic species and putative glacial relict. *Lichenologist* **50**: 59–75. *Thamnomlia vermicularis* subsp. *subuliformis* is shown to be an independent

- species, *T. subuliformis* (Ehrh.) W. Culb. (1963). *Thamnolia vermicularis* s. str. is apparently confined to the Central and Eastern European mountains.
- ORANGE, A. 2018. A new species-level taxonomy for *Trapelia* (*Trapeliaceae*, *Ostropomycetidae*) with special reference to Great Britain and the Falkland Isles. *Lichenologist* **50**: 3–42 (2018). \**Trapelia collaris* Orange and *T. elachista* (Ach.) Orange are separated from *T. coarctata*, and *T. glebulosa* and *T. involuta* are shown to be independent species. Also, some non-sorediate morphs of *T. obtegens* have previously been confused with *T. glebulosa*.
- PINO-BODAS, R., PÉREZ-VARGAS, I., STENROOS, S., AHTI, T. & BURGAS, A.R. 2016. Sharpening the species boundaries in the *Cladonia mediterranea* complex (*Cladoniaceae*, *Ascomycota*). *Persoonia: Molecular Phylogeny and Evolution of Fungi* **37**: 1–12. *Cladonia azorica* is placed in synonymy of *C. portentosa*.
- PYKÄLÄ, J., LAUNIS, A. & MYLLYS, L. 2017. *Verrucaria ahtii*, *V. oulankaensis* and *V. vitikainenii*, three new species from the *Endocarpon* group (*Verrucariaceae*, lichenized *Ascomycota*). *Lichenologist* **49**: 107–116. Included original descriptions of *Verrucaria ahtii* Pykälä, Launis & Myllis (2017) and *V. vitikainenii* Pykälä, Launis & Myllis (2017), which have subsequently been reported from the British Isles.
- WEBB, J.C. & GOODENOUGH, A.E. 2018. Questioning the reliability of “ancient” woodland indicators: resilience to interruptions and persistence following deforestation. *Ecological Indicators* **84**: 354–363. Critique of woodland indicators, including lichens, and advocating multi-taxon indices that are weighted by a species’ dependency and higher thresholds.
- WELDEN, N.A., WOLSELEY, P.A. & ASHMORE, M.R. 2018. Citizen science identifies the effects of nitrogen deposition, climate and tree species on epiphytic lichens across the UK. *Environmental Pollution* **232**: 80–89. Analysis of > 10,000 lichen records from the OPAL survey, and showing effective reconstruction of patterns in nitrogen pollution.
- ZHURBENKO, M.P. 2012. Lichenicolous fungi growing on *Thamnolia*, mainly from the Holarctic, with a worldwide key to known species. *Lichenologist* **44**: 147–177. Includes original descriptions and illustrations of *Cercidospora thamnoliae* Zhurb. (2012) and *Sphaerellothecium thamnoliae* Zhurb. (2012), both subsequently recorded from the British Isles.

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## New, Rare and Interesting Lichens

Contributions to this section are always welcome. Submit entries to Chris Hitch, Orchella Lodge, 14, Hawthorn Close, Knodishall, Saxmundham, Suffolk, IP17 1XW, in the form of species, habitat, locality, VC no, VC name, (from 1997, nomenclature to follow that given in the appendix, see BLS Bulletin 79, which is based on the Biological Record Centre for instructions for Recorders, ITE, Monks Wood Experimental Station, Abbots Ripton, PE17 2LS, 1974). Grid Ref (GR) (please add letters for the 100km squares to aid BioBase and Recorder 2000, as these are used in the database and on the NBN Gateway), altitude (alt), where applicable in metres (m), date (month and year). NRI records should now include details of what the entry represents, eg specimen in Herb. E, Hitch etc., with accession number where applicable, field record or photograph, to allow for future verification if necessary or to aid paper/report writing. Determined/confirmed by, Comments, New to/the, Finally recorder. An authority with date after species is required only 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](mailto: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.

**Please note that from summer 2017**, Grid References in NRI data should be written as follows, eg. TM12-34-, TM441.569, or TM2468.3333

### *New to the British Isles*

***Arthonia thoriana*** Ertz & Sanderson (2018): in crevices in dry bark on ten veteran *Quercus petraea* trees within old growth pasture woodland on steep slopes, Parsons Wood and Cloutsham Ball, Horner Wood NNR, VC 5, South Somerset, GR SS897.441, SS897.438, SS897.439, SS894.436 & SS897.437, alt 110 – 180 m, February & September 2016. Thallus thick, white, cracked, scurfy in places, non-lichenised, with negative reactions. Apothecia, emarginate, 0.12–0.30 mm diam, pallid brown, with a thin layer of white pruina covering at least some parts of the surface. Ascospores  $\pm$ clavate, hyaline, (1–2)3-septate, (8–)9–12  $\times$  3.0–3.5(–4.0) $\mu$ m. Associated species include *Chaenotheca trichialis*, *Chrysothrix candelaris*, *Inoderma subabietinum* (*Lecanactis subabietina*), *Dendrographa decolorans* (*Schismatomma decolorans*), *Opegrapha xerica* and *Cresponea premnea*. Known only from Horner Combe, Somerset, but should be looked for at other sites with large populations of veteran *Quercus* in the southwest. For a full description and illustrations see Ertz, Sanderson, Łubek & Kukwa in *The Lichenologist* **50**: 61–172 (2018). **BLS No. 2714.** N.A. Sanderson

***Didymocyrtis consimilis*** Vain. (1921): parasitic on the apothecia of *Caloplaca cerina* on a twig of *Fraxinus excelsior* in riverine woodland, Buzzards Wood, Southend, Tiverton, VC4, North Devon, GR SS911.111, alt 121 m, April 2017. Herb. Bacciu. Determined by B.J. Coppins. This fungus was present as the anamorph with pycnidia immersed in

the hymenium which appeared darker than normal. For a recent full description see Ertz et. al. (2015) in *Fungal Diversity* **73**. **BLS No. 2708**.  
N.G.Bacciu

***Endococcus protoblasteniae*** Diederich (1999): on thallus of *Protoblastenia rupestris* on low crumbling wall in former mine workings, Priddy Pools SSSI, VC 6, North Somerset, GR ST545.505, alt 250 m, October 2017, Coppins 25207 (E). Characterized by its brown pycnidial wall that turns distinctly greenish in K, an unusual feature for this genus. Ascospores pale brown, smooth-walled, 9.5–14 x 4.5–5 µm. For original description see Sérusiaux et al. in *Lejeunia* **162**: 27–28 (1999). **BLS No. 2705**

B.J. Coppins

***Lichenochora hyperphysciae*** Etayo (2011): lichenicolous on *Hyperphyscia adglutinata*, initially located on *Aesculus* sp., but also present on nearby veteran *Quercus*, Cowick Barton playing field, VC 3, South Devon, GR SX911.914, alt 32 m, March 2018. Herb. Bacciu. The *Lichenochora* generated small galls within the thallus which were more obvious when the thallus was wet. For a full description of this species see Etayo, J. *Lichenochora hyperphysciae*, a new lichenicolous fungus found in Mexico and Spain. *Bibliotheca Lichenologica* **106**: 53–56. Confirmed from photographs by J. Etayo. **BLS No. 2715**  
N.G. Bacciu

***Lichenopeltella santessonii*** (P.M. Kirk & Spooner) R. Sant. (1993): on the underside of moribund thalli of *Peltigera membranacea*, Breney Down, VC 2, East Cornwall, GR SX055.613, February 2018, P.F. Cannon P3516 (K(M)). Similar to *L. peltigericola* but with larger fruit-bodies (100–160 µm versus 50–70 µm diameter), with convergent rather than divergent setae around the ostiole. The type comes from Sweden but according to the Hawksworth et al. *Lichenic Key* it is widespread in central and northern Spain. For full description (as *Micropeltopsis santessonii*) see Spooner & Kirk, in *Mycol. Res.* **94**: 223–230 (1990), and <http://fungi.myspecies.info/all-fungi/lichenopeltella-santessonii>. **BLS No. 2717**  
P.F. Cannon

***Placopyrenium trachyticum*** (Hazsl.) Breuss (1987): on concrete of mainly brick-lined gutter, at base of south wall of church (St Thomas) Harty, Isle of Sheppey, VC 15, East Kent, GR TR023.663, November 2017. Herb. Powell 4534. Determined by M. Powell. Somewhat resembling an exuberant *P. fuscillum* but lacking carbonaceous pigmentation in the lower part of the algal units. Breuss (2009) in *Biblioth. Lichenol.* **99**: 93–112, distinguished the var. *subtrachyticum* which differs from the typical variety (var. *trachyticum*) only in having 1-septate ascospores. The specimen cited here has predominantly 1-septate ascospores so belongs to the var. *subtrachyticum*. For further details see Krzewicka (2012) in *Polish Botanical Studies* **27**: 3–143. **BLS No. 2704**.

I. Blatchley, J. Pitt

***Sphaerellothecium cinerascens*** Etayo & Diederich (1998): (i) parasitising *Cladonia parasitica* on dead *Quercus* stool on boundary bank round *Quercus petraea* woodland, Cod Wood, Fingle Woods, Moretonhamstead, VC 3, South Devon, GR SX7943.8858,

alt 110m, November 2017, N.A. Sanderson; (ii) parasitising *Cladonia incrassata* and *Cladonia parasitica* on old *Quercus* stumps, within old growth *Fagus* – *Quercus robur* grazed high forest, Burley Old Inclosure, New Forest, VC 11, South Hampshire, GR SU2473.0415 & SU2473.0415, alt 40m, December 2017, N. A. Sanderson, A. M. Cross. Forms tiny subglobose black perithecia 40-70 µm diameter on *Cladonia squamules*, however, the most noticeable feature is that the host's squamules are given a distinctive grey-blue tinge over large areas. The spores are 1-septate (rarely 3-), brown and 9-11.5 x 3-4 µm. Previously known only from oceanic woods in the western Pyrenees in Spain and France on *Cladonia parasitica*. *Cladonia incrassata* appears to be a new host. The grey-blue staining of the host thallus is striking, and often extensive, making this otherwise small lichenicolous fungus very noticeable. Since the discovery in Devon, intensive searching in the New Forest, where the main host is common, has found only a single site. This suggests that *S. cinerascens* is rather rare. For a full description and illustrations see Etayo & Diederich in *The Lichenologist* **30**: 114–116 (1998). **BLS No. 2702**  
N.A Sanderson & A.M. Cross

***Trichonectria pertusariae*** Etayo & van den Boom (2005): (i) on thallus of *Pertusaria albescens* var. *corallina* on *Quercus*, Allt Nathrach, Kinlochleven, VC 97, Westernness, GR NN16-62-, October 2016 (E); (ii) on thallus of *Pertusaria amara* on *Betula*, Black Wood of Rannoch, VC 88, Mid-Perthshire, GR NN5564.5496, alt 360 m, September 2017 (E). Both confirmed by B.J. Coppins. On somewhat moribund host thalli. Perithecia pinkish to red-brown, 0.01–0.13 mm diameter, sessile, ±barrel-shaped, with an apical fringe of tiny hairs around the ostiole. Hairs concolorous with the perithecial wall (dull orange), thickish walled, 15–20(–30) x 3–4 µm, with rounded apices. Paraphyses absent. Asci subcylindrical, 29–40 x 6–9 µm, 8-spored. Ascospores hyaline, narrowly ellipsoid to fusiform, sometimes slightly curved, 1-septate, 8–12 x 2–3 µm. When fully mature, upper cell slightly broader, and spore slightly constricted at the septum. For original description and illustrations see Etayo & Diederich in *Nova Hedwigia* **81**: 157–162 (2005). The type collection was on *Pertusaria ophthalmiza* from the Canary Islands. Interestingly, all the aforementioned hosts belong to the group of *Pertusaria* s. lat. recently segregated as the genus *Lepra*. As hinted at by the original authors, *T. pertusariae* may be better placed in the genus *Nectriopsis*. **BLS No. 2699**.

A. Acton

***Trichosphaeria lichenum*** P. Karst. & Har. (1890): (i) on moribund *Peltigera* thallus, Cairngorm, VC 96, Easternness, GR NH984.050, October 2017, (E). Determined by B.J. Coppins; (ii) on moribund thallus of *Peltigera malacea*, Findhorn Dunes, VC 95, Morayshire, GR NJ0557.6416, November 2017, (E). Determined by B.J. Coppins. Measurements from Cairngorm collection: perithecia sessile, black, 90–150 µm diam., collapsing when dry, with non-septate, blackish setae, 44–74 µm long, 4–5 µm wide at mid-point; asci subcylindrical, 22–27 x 3–4 µm, 8-spored; ascospores colourless, fusiform, 0–1-septate, 6–8 x 2 µm. A little studied fungus that almost certainly belongs in the genus *Niesslia*. **BLS No. 2712**.  
H. Paul

### **Other records**

***Abrothallus caerulescens***: lichenicolous on *Xanthoparmelia conspersa*, Crockern Tor, Dartmoor, VC 3, South Devon, GR SX615.757, January 2017. Herb. Bacciu. Second record of this species for VC 3 and strangely the first record of it for Dartmoor, considering the frequency of *Xanthoparmelia conspersa* there. *N.G. Bacciu*

***Agonimia allobata* s. str.**: on two *Quercus petraea* on edge of gorge with relic veteran *Quercus* surviving from old deer park, Tollymore Forest Park, H38, Down, GR J3421.3224 & J3424.3232, alt 50 & 60 m respectively, March 2018. Second known Irish site for the species and new to the Vice-county. *N.A. Sanderson*

***Agonimia flabelliformis***: on two *Quercus petraea* on edge of gorge with veteran old *Quercus* surviving from old deer park, Tollymore Forest Park, H38, Down, GR J3469.3231 & J3483.3230, alt 20 m and 30 m respectively, March 2018. First record for Ireland of a species only recently separated. *Agonimia allobata* and *Agonimia allobata* s. str. were also recorded from this site. *N.A. Sanderson*

***Antennulariella lichenisata***: on humid, dry bark, on northeast-side of old *Betula pubescens* in bowl of wet woodland on east-facing hillside, below Warren, c.1.5 km northwest of Lampeter, VC 46, Cardiganshire, GR SN554.504, alt 185 m, April 2018. Herb. SPC. New to Wales. *S.P. Chambers*

***Arthenia peltigerina***: (i) lichenicolous on *Peltigera hymenina*, Bovey Heath, Devon Wildlife Trust Reserve, VC 3, South Devon, GR SX820.767, October 2013; (ii) at Teigngrace Meadow, Devon Wildlife Trust Reserve, VC 3, South Devon, GR SX841.759. First and second records of this species for Devon *N.G. Bacciu*

***Arthonia cinnabarina***: on *Corylus* within *Corylus* stand by St. Margaret's Burn, Cleish Hills, VC 85, Fife, GR NT0412.9660, alt 145 m, April 2017. 12 thalli seen in the area, specimen in (E). New to the Vice-county. *P. Aspen*

***Arthonia cinnabarina***: tiny colonising thallus on mature stem of old *Corylus* stool, Big Wood, Hampstead Garden Suburb, VC 21, Middlesex, GR TQ25-88-, December 2017. Herb. Powell 4541. New to the Vice-county. *M. Powell*

***Arthonia cinnabarina***: small colonising thallus on pole-sized *Fraxinus* trunk, Aspbury's Copse, Catherine de Barnes, VC 38, Warwickshire, GR SP191.805, April 2018. Herb. Powell 4602. New to the Vice-county. Taken in combination with the recent record in Middlesex, see above, *A. cinnabarina* may be invading the Midlands and Home Counties *M. Powell*

***Arthonia muscigena***: extensive colony on stems of mature *Sambucus*, North Park, Dunham Massey, VC 58, Cheshire, GR SJ734.876, November 2017. Herb. Powell 4530. New to the Vice-county. *M. Powell*

***Arthonia parietinaria***: lichenicolous on *Xanthoria parietina* on twig of *Fraxinus excelsior*, Stoke Climsland School, VC 2, East Cornwall GR SX360.744, alt 142 m, November 2017. Herb. Bacciu. New to the Vice-county. *N.G. Bacciu*

***Arthonia phaeophysciae***: lichenicolous on *Phaeophyscia orbicularis* on *Acer pseudoplatanus*, Miller's Crossing, Exeter, VC 3, South Devon, GR SX912.928, alt 11 m, December 2016. Herb. Bacciu. New to the county. *N.G. Bacciu*

***Arthonia subfuscicola***: lichenicolous on apothecia of *Lecanora carpineae*, on branches of *Quercus robur* in parkland, Netherby Hall, VC 70, Cumberland, GR NY39-71-, January. 2018. Herb, *P.F. Cannon* P3428 (K(M)), during the BLS Carlisle post-AGM field trip. New to England (by around 500m!). Previously reported only from the same host on *Populus tremula*, in the Cairngorms [*The Lichens of Great Britain and Ireland* (2009)]. See also <http://fungi.myspecies.info/all-fungi/arthonia-subfuscicola> *P.F Cannon*

***Arthonia thelotrematis***: parasitising *Thelotrema lepadinum* over large area of thallus on old *Ilex*, within *Quercus* – *Fagus* – *Ilex* pasture woodland, by Brately Water, north of Gutter Heath, Busketts Wood area, New Forest, VC 11, South Hampshire, GR SU3055.1046, alt 25 m, November 2017. Second record of this species for the New Forest and lowland England. *N.A. Sanderson*

***Arthopyrenia nitescens***: on branch of ancient *Ilex*, Sloden Inclosure, New Forest, VC 11, South Hampshire, GR SU2129.1247, alt 90 m, December 2017. First record from the north of the New Forest, for a species confined to the New Forest in the lowlands. *N.A. Sanderson & the Wessex Lichen Group*

***Aspicilia caesiocinerea***: on Bradenham 'sarsen' stone in Stoney Meadow, Bradenham, VC 24, Buckinghamshire, GR SU831.973, February 2018. New to the Vice-county *P. Shipway*

***Aspicilia grisea***: on sandstone headstone in churchyard, (St Margaret) Felbrigg VC 27 East Norfolk, GR TG197.390, March 2018. Determined by M. Powell. New to the Vice-county. *P.W. Lambley & M. Powell*

***Bacidia arceutina***: on *Fraxinus* trunk, Aspbury's Copse, Catherine de Barnes, VC 38, Warwickshire, GR SP191.805, April 2018. Herb. Powell 4602. New to the Vice-county. *M. Powell*

***Bacidia friesiana***: on stems of mature *Sambucus*, North Park, Dunham Massey, VC 58, Cheshire, GR SJ734.876, November 2017. Herb. Powell 4530. New to the Vice-county *M. Powell*

***Bacidia friesiana***: two small thalli, on horizontal upperside of collapsed trunk of *Sambucus nigra* by patch of open scrub in wet pasture, c. 250 m north of Pont Llyndu,

1 km northeast of Cockshead, VC 46, Cardiganshire, GR SN634.536, alt 145 m, March 2018. Herb. SPC. New to the Vice-county. *S.P. Chambers*

***Bacidia fuscoviridis***: on shaded trunk of old *Malus*, Luxmoore's Garden, Eton College, Eton, VC 24, Buckinghamshire, GR SU967.777, February 2018. Field record. *B. fuscoviridis* is common on shaded stonework, but very rarely recorded as a corticolous species. New to the Vice-county. *B.J. Coppins & M. Powell*

***Bacidia squamellosa***: on c. four *Betula* trunks within wet *Quercus* – *Betula* Atlantic woodland, northeast of Gwndwn-isaf, Cwm Camlan, above Coed Ganllwyd, VC 48, Merionethshire, GR SH715.244, alt 240 m, October 2017. Herb. SPC. New to the Vice-county. *S.P. Chambers & CENNAD lichen apprentices*

***Bagliettoa calciseda***: three records from VC 46, Cardiganshire; (i) on mortar render on south-facing wall of chapel, Capel y Bryn, Cwrtnewydd, GR SN491.476, alt 160 m, May 2016; (ii) on sloping oolitic limestone windowsill on entrance porch of church, (St Mary), Cardigan, GR SN180.460, alt c. 5 m, September 2017. Confirmed by I. Blatchley & M. Powell; (iii) two thalli on dry side of calcareous headstone in graveyard (St Michael), Penbryn, GR SN293.521, alt 75 m, September 2017. Field records. New to the Vice-county. *S.P. Chambers*

***Biatoridium delitescens***: on trunk of *Fraxinus excelsior* in mixed woodland, Farley Water, VC 4, North Devon, GR SS744.458, alt 258 m, July 2017. Herb. Bacciu. New to Devon and a species rarely recorded outside Scotland. *N.G. Bacciu*

***Buellia erubescens***: on two veteran *Fagus* within very open *Fagus* – *Quercus robur* pasture woodland, Denny Wood, New Forest, VC 11, South Hampshire, GR SU3362.0631 & SU3365.0587, alt 30m, February 2018. First two records from the east of the New Forest, for a species which is very rare in England. *N.A. Sanderson*

***Buellia hyperbolica***: frequent on lignum on large fallen *Quercus* trunk, in grassland within parkland, in the landscape park, Arlington Court, VC 4, North Devon, GR SS6077.4011, 130 m, October 2017. A Vulnerable RDB and section 42 lichen, which is new to southwest England. The tree is known to have fallen over in the 1990s. *N.A. Sanderson*

***Calicium diploellum***: in lenticel within an old *Ilex* in *Quercus* – *Fagus* – *Ilex* pasture woodland, Hinchleslea Wood, New Forest, VC11, South Hampshire, GR SU2717.0082, alt 55 m, September 2017. New 10 km record for what is proving to be a rare, but widely scattered species in the New Forest, confined to woods with ancient *Ilex*. *N.A. Sanderson & A.M. Cross*

***Carbonea aggregantula***: on *Lecanora soralifera* on siliceous boulder on top of drystone wall by upland stream, c. 500 m east of Gau Graig, Cadair Idris, VC 48,



Merionethshire, GR SH751.145, alt 325 m, October 2017. Herb. SPC. New to the Vice-county. *S.P. Chambers*

***Celothelium ischnobelum***: on *Corylus* in *Corylus* stand by St. Margaret's Burn, Cleish Hills, VC 85, Fife, GR NT042.965, alt *c.* 160 m, May 2017. With pycnidia only, specimen not retained. New to the Vice-county. *B.J. Coppins*

***Cetrelia monachorum***: on *Corylus* and *Sorbus aucuparia*, within relic pasture woodland, high on valley side, Banagher Glen NNR, H40, Co. Londonderry, GR C6733.0425 & C6728.0427 respectively, alt 160 – 170 m, March 2018. New to Ireland. *N.A. Sanderson*

***Chaenotheca stemonea***: on lignum of veteran *Quercus*, Dunham Massey Park, VC 58, Cheshire, GR SJ737.870, November 2017. Herb. Powell 4531. New to the Vice-county. *M. Powell*

***Chaenotheca stemonea***: on dry bark on two leaning veteran *Quercus petraea*, one a former pollard, within relic *Quercus* – *Betula* – *Corylus* pasture woodland stands, Banagher Glen NNR, H40, Londonderry, GR C6722.0434 and C6706.0446 respectively, alt 130 – 150 m, March 2018. Second Irish location and new to the Vice-county. *N.A. Sanderson*

***Chaenothecopsis nigra***: on lignum of veteran *Quercus*, Dunham Massey Park, VC 58, Cheshire, GR SJ737.870, November 2017. Herb. Powell 4531. New to the Vice-county. *M. Powell*

***Chaenothecopsis retinens***: parasitic on *Sporodophoron cretaceum* (*Schismatomma cretaceum*) on old *Quercus robur* by glade within *Quercus* – *Fagus* – *Ilex* pasture woodland, Eaves Hill, Busketts Wood, New Forest, VC 11, South Hampshire, GR SU3090.1129, alt 30 m, December 2017. This species appears to be internationally rare, with only a single modern record published outside Great Britain, in Switzerland (where it parasitises *Inoderma byssaceum* (*Arthonia byssacea*)). Only the fourth modern site recorded in Britain. New for the Vice-county. *N.A. Sanderson*

***Cladonia peziziformis***: very locally frequent, in open patches of humic soil in low productivity *Ulex gallii* – *Molinia caerulea* – *Erica cinerea* heath and on open better drained banks and tussocks within drier areas of *Schoenus nigricans* – *Molinia caerulea* – *Ulex gallii* wet heath, Bloody Bridge and the lower slopes of Crossane, Mourne Mountains, Co. Down, GR J386.269, J382.270, J378.270 & J379.270, alt 30 – 160 m, March 2018. A known location was refound low down by the Bloody River, but in addition, a large new colony was found higher up the hill. This find is the largest colony reported recently from Ireland or Britain and is in an extensive area of a similar habitat, which was not explored and which might contain further colonies of the species. *N.A. Sanderson*

***Cladonia rangiformis***: on grassy bank in former mine workings, Priddy Pools SSSI, VC 6, North Somerset, GR ST5461.5108, alt 250 m, October 2017, Coppins 25208 (E). An unusual morph with convex, white soralia, c. 1–3 mm diam. This has been named as var. *sorediophora* (Nyl.) Vain., although probably does not merit taxonomic recognition. New to the Vice-county. B.J. & A.M. Coppins

***Cladonia stereoclada***: on humus in crevices, ledges, between boulders and in gaps in heather canopies, within exposed to very exposed coastal heathland on quartzite, Crummie's Bay, Urris Hills, H34, East Donegal, GR C291.400, C290.400, C289.400, C288.399 & C288.400, alt 10 – 50m, March 2018. This highly oceanic species is likely to be much overlooked on the western Irish coast and should also be searched for on exposed western coasts in Scotland, Wales and England. The first record from the north west of Ireland. New to the Vice-county. N.A. Sanderson

***Cladonia uncialis subsp. uncialis***: very rare amongst mosses and lichens as a carpet between *Calluna* on resurrected heathland from clear-felled conifer forest, Brandon Park, Brandon, VC 26, West Suffolk, GR TL77-84-, September 2017. Herb Hitch (J11). Confirmed by B.J. Coppins. New to the county. C.J.B. Hitch

***Clauzadea metzleri***: on chalk fragment in small outcrop of loose chalk on the vallum bank of Devil's Ditch, VC 29, Cambridgeshire, GR TL613.621, October 2017. Herb. Powell 4525. New to the Vice-county. M. Powell

***Collema fragrans***: on lignum of damaged *Ilex* trunk, within *Fagus* – *Quercus robur* – *Ilex* pasture woodland, Brinken Wood, New Forest, VC 11, South Hampshire, GR SU2756.0586, alt 20 m, February 2018. Appears to be the first record from *Ilex*, for this very threatened species. N.A. Sanderson

***Cornicularia normoerica***: on gritstone boulders below outcrops, on southeast-facing slope, Grinah Stones, Upper Derwent Valley, VC 57, Derbyshire, GR SK13-96- and SK12-96-, alt 550-580 m, August 2017. Photographs by S.G. Price. With 10 thalli on 2 boulders in SK13-96- and 13 thalli on 3 boulders in SK12-96-. The previous record from the area for the species was in 1993, on the VC 63, South West Yorkshire, side of the valley. New to the Vice-county. S.G. Price

***Corticifraga fuckelii***: parasitic on *Peltigera didactyla* growing on a bonfire site in heathland, Ferny Crofts, New Forest, VC 11, South Hampshire, GR SU3686.0528, alt 15 m, January 2018. Closely accompanied by mounded galls formed by *Hawksworthiana peltigericola*. On the largest galls, the *Hawksworthiana peltigericola* was replaced by *Corticifraga fuckelii* apothecia, suggesting the possibility that *Hawksworthiana peltigericola* is a conidial stage of *Corticifraga fuckelii*. New to the Vice-county. N.A. Sanderson

***Cresporhaphis wienkampii***: on expanded bark crevices on northern side of sloping *Salix* by stream in grassy area, Post Office Road, Knodishall, VC 25, East Suffolk, GR

TM433.609, June 2015. Herb. Hitch (T16). Field observation by P. M. Earland-Bennett, confirmed in the lab. by C.J.B. Hitch. New to the county.

*C.J.B. Hitch & P.M. Earland-Bennett*

***Dibaeis baeomyces***: abundant and frequently fertile in short grazed humid heath, in less disturbed area of heathland used as an airfield in the Second World war, Jainsmoor Plain, New Forest, VC 11, South Hampshire, GR SU2435.1304, alt 11 m, December 2017. First recent record of fertile material for this species in Hampshire.

*N.A. Sanderson*

***Didymocyrtis ramalinae***: lichenicolous on moribund *Ramalina fastigiata* on *Crataegus* twig, East of Lulworth Cove on calcareous grassland VC 9, Dorset, GR SY835.796, January 2017. Herb. Bacciu. New to the Vice-county.

*N.G. Bacciu*

***Didymocyrtis ramalinae***: lichenicolous on moribund *Ramalina fastigiata* on *Fraxinus excelsior* branch, Tapeley Park, VC 4, North Devon, GR SS480.289, alt. 69 m, April 2018. Herb. Bacciu. New to the Vice-county.

*N.G. Bacciu & Devon Lichen Group*

***Didymocyrtis ramalinae***: on *Ramalina fastigiata* on *Crataegus* twigs, along east-facing edge of spinney adjacent to arable field, southeast of Barford Park Farm, Downton, VC 8, South Wiltshire, GR SU187.221, alt 60 m, April 2018. Coppins 25210 (E). As the teleomorph stage. New to the Vice-county.

*B.J. & A.M. Coppins*

***Didymocyrtis slaptoniensis***: as teleomorph, on thallus and apothecial discs of *Xanthoria parietina* on twigs of two ornamental *Crataegus* planted in estate grounds, c. 20 m east of the tennis courts, Plas Gogerddan mansion, VC 46, Cardiganshire, GR SN631.837, alt 25 m, October 2017. Herb. SPC. Second record of the species for the Vice-county and Wales.

*S.P. Chambers & H.F. Clow*

***Didymocyrtis slaptoniensis***: lichenicolous on *Xanthoria parietina* on *Fraxinus excelsior* twig, Tapeley Park, VC 4, North Devon, GR SS470.289, alt 19 m, December 2017. Herb. Bacciu. New to the Vice-county.

*N.G. Bacciu, T. Holwill & M. Putnam*

***Didymocyrtis slaptoniensis***: on thallus of *Xanthoria parietina* on *Sambucus* twigs, south of walled garden, Amisfield Park, Haddington, VC 82, East Lothian, GR NT534.741, alt 43 m, April 2018. Coppins 25215 (E). With pycnidia only. New to Scotland.

*B.J. Coppins*

***Diplotomma hedinii***: on flat upperside of marble memorial headstone in burial yard (St Carannog), Llangranog, VC 46, Cardiganshire, GR SN316.540, alt 45 m, September 2017. Material consumed in identification. Second record of this species for the Vice-county.

*S.P. Chambers*

***Diplotomma pharcidium***: on *Fraxinus* twig, Thurlestone DBWPS Reserve, VC3, South Devon, GR 20(SX)/685.421, August 2016. Herb. Bacciu. New to Devon and the second record for southern England. N.G. Bacciu

***Enterographa brezhonega***: parasitic on *Dimerella lutea* on mature *Quercus petraea* within relict strip of old *Quercus* woodland in conifer plantation, Houndsmoor Wood, Fingle Woods, Moretonhamstead, VC 3, South Devon, GR SX7603.8915, alt 250m, November 2017. This apparently internationally rare species is usually parasitic on *Porina rosei* but was noted as possibly also parasitising other crustose lichens with a *Trentepohlia* photobiont in the original description. This specimen matched the diagnostic characters of *Enterographa brezhonega* and confirms that this lichenicolous fungus can be found on lichens other than *Porina rosei*. New to southwest England. N.A. Sanderson

***Enterographa elaborata***: all New Forest, VC 11, South Hampshire, (i) on flushed bark on old *Fagus* within *Quercus – Fagus – Ilex* pasture woodland, by the Brately Water north of Gutter Heath, Busketts Wood area, GR SU3050.1039, alt 25m, November 2017; (ii) on flushed bark on small suppressed *Fagus* in grove of ancient *Fagus*, within pasture woodland, east of Wooson's Hill, Mark Ash Wood, GR SU2619.0778, alt 50m, December 2017; (iii) on flushed bark on old *Fagus* within *Quercus – Fagus – Ilex* pasture woodland, Bignell Wood, GR SU278.11279, alt 55m, December 2017. Significant new trees in the New Forest for this internationally rare lichen. N.A. Sanderson

***Enterographa sorediata***: on bases of two ancient *Quercus petraea* stools on cliff in old woodland, Every Wood, Ness Wood Country Park, H40, Londonderry, GR C5104.1058, 50 m, March 2018. The most northerly European record of both *Enterographa sorediata* and *Syncesia myrticola*. (*Enterographa sorediata* is now known to be a sterile sorediate morph of *Syncesia myrticola*). New to the Vice-county. N.A. Sanderson

***Enterographa sorediata***: on dead and alive stems of *Hedera*, growing up overhanging sandstone cliffs, Correl Glen NNR, H33 Fermanagh, GR H0747.5434, H0741.5435, H0734.5437, H0732.5438, H0730.5438 & H0730.5437, 150 m, March 2018. (*Enterographa sorediata* is now known to be a sterile sorediate morph of *Syncesia myrticola*). A new habitat for *Enterographa sorediata*. N.A. Sanderson

***Eopyrenula avellanae***: on smooth-barked stem of old *Corylus* stool, Worley's Wood, VC 30, Bedfordshire, GR TL028.639, January 2018. Herb. Powell 4573. New to the Vice-county. M. Powell

***Eopyrenula grandicula***: on smooth-barked stem of old *Corylus* stool, Big Wood, Hampstead Garden Suburb, VC 21, Middlesex, GR TQ25-88, December 2017. Herb. Powell 4541. New to the Vice-county. M. Powell

***Epicladonia sandstederi***: lichenicolous on *Cladonia coniocrea*, Haldon Forest, VC 3, South Devon, GR SSX877.847, alt 194 m, December 2017. Herb. Bacciu. New to Devon and the southwest peninsula.  
N.G. Bacciu

***Fellhanera subtilis***: on leaves of evergreen shrub in garden, Tylney Park, VC 12, North Hampshire, GR SU710.551, alt 85 m, September 2017. New to the Vice-county.  
N.A. Sanderson

***Gyalecta derivata***: both New Forest, VC 11, South Hampshire, (i) on wound track on ancient *Fagus*, within *Fagus – Ilex* pasture woodland, Warwick Slade, Hollidays Hill, GR SU2684.0684, alt 25 m, December 2017. N.A. Sanderson; (ii) on wound track on old *Ilex*, Sloden Inclosure, SU2125.1250, alt 95 m, December 2017. N.A. Sanderson & the Wessex Lichen Group. Two new records of a species with rather few recent records from England.  
N.A. Sanderson and Wessex Lichen Group

***Gyalecta jenensis***: on oolitic limestone on north wall of church (St Margaret), Felbrigg, VC 27, East Norfolk, GR TG197.390, March 2018. First record of this species in the county since 1800.  
P.W. Lambley & M. Powell

***Hypotrachyna sinuosa***: on branch of fallen *Alnus* at woodland edge, Knowles Farm, Roby Mill, VC 59, South Lancashire, GR SD 515.068, alt 195 m, May 2017. Specimen in E. Confirmed by B.J. Coppins. First post-1960 record for this species for northwest England. New to the county.  
P. Barnett

***Illosporium carneum***: lichenicolous on *Peltigera rufescens*., Blackmoor SSSI, VC 6, North Somerset, GR ST505.559, alt 244 m, March 2018. Herb. Bacciu. Confirmed by N.G. Bacciu. New to the Vice-county.  
M.P. Prince

***Lecanora sambuci***: on twig of *Sambucus nigra* by coastal path, Dizzard, VC 2, East Cornwall, GR SX167.989, alt 159 m, March 2018. Herb. Bacciu. New to the Vice-county.  
N.G. Bacciu

***Lecanora sarcopidooides***: on top of sawn tree stump, Little Gaddesden, VC 20, Hertfordshire, GR SP997.137, January 2018. Herb. Shipway. Confirmed by Mark Powell. New to the Vice-county.  
P. Shipway

***Lecanora sinuosa***: single thallus on well lit mature *Fagus* in acid grassland on edge of pasture woodland, Long Beech Hill, New Forest, VC 11, South Hampshire, GR SU2503.1288, alt 110 m, December 2017. Second location in Hampshire. New for the New Forest.  
N.A. Sanderson

***Lecidea lichenicola***: growing on trampled chalk fragments in middle of path on top of the vallum bank of Devil's Ditch, VC 29, Cambridgeshire, GR TL611.621, October 2017. Herb. Powell 4524. Normally recorded from loose chalk pebbles, and also

subsequently found on trampled chalk fragments embedded in a path at Fleam Dyke, GR TL54.54, suggesting that this may be an overlooked habitat. *M. Powell*

***Lepraria elobata***: on leg of table tomb, Torphichen Preceptory, VC 84, West Lothian, GR NS968.724, July 2016, Coppins 25075 (E). Determined by P. Harrold using TLC. New to the Vice-county. *B.J. Coppins, M. Powell & J.D. Douglass*

***Leprocaulon calcicola***: several colonies on the mortar courses of the medieval priory walls, Priory Country Park, Bedford, VC 30, Bedfordshire, GR TL06.49, March 2018. Herb. Powell. Previously found elsewhere in the Home Counties and East Anglia, in mortar courses of walls built mainly of flint. However, the wall supporting *L. calcicola* at Priory Country Park is predominantly of limestone. In places *L. calcicola* is also present on the stems of dead ivy and mosses. In the field, this species looks very similar to *Lepraria lobificans* (which is common on the old priory walls) and it is necessary to demonstrate the presence of usnic acid and to observe the distinctive ‘computer mouse’ haustoria to distinguish it from *L. calcicola*. New to the Vice-county. *M. Powell*

***Leptogium biatorinum***: forming crusts on consolidated chalk soil at the edge of the path on top of the vallum bank of Devil’s Ditch, VC 29, Cambridgeshire, GR TL611.621, October 2017. Herb. Powell 4522. New to the Vice-county *M. Powell*

***Leptogium palmatum***: locally frequent on steep, north-facing bank of colliery spoil with established lichen and bryophyte-rich acid grassland, Rhosaman, VC 41, Glamorganshire, GR SN7306.1379, alt 80 m, December 2016. B. Stewart. Determined by N.A. Sanderson. The occurrence in a post industrial site is a rather different habitat to the described habitats in *The Lichens of Great Britain and Ireland* (2009). It has, however, also previously been recorded colonising a newly created habitat in some abundance in a gravel pit in Hampshire. This lichen appears to be an occasional colonist of low productivity lower plant rich habitats in post industrial sites. New to the Vice-county. *N.A. Sanderson & B. Stewart*

***Leptogium palmatum***: on iron-rich slag, Bynea, Llanelli, VC 44 Carmarthenshire, GR SS5603.9857, alt 5 m, December 2017. B. Stewart. Determined by N.A. Sanderson. The second record for the species from a post-industrial site in South Wales. New to the Vice-county. *N. A. Sanderson & B. Stewart*

***Leptogium subtile***: small colony growing amongst moss on coping of old priory wall, Priory Country Park, Bedford, VC 30, Bedfordshire, GR TL069.491, March 2018. Herb. Powell. New to the Vice-county. *M. Powell*

***Leptorhaphis maggiana***: on smooth-barked stem of old *Corylus* stool, Big Wood, Hampstead Garden Suburb, VC 21, Middlesex, GR TQ25.88, December 2017. Herb. Powell 4541. New to the Vice-county. *M. Powell*

***Leptorhaphis maggiana***: on smooth-barked stem of old *Corylus* stool, Keysoe Park Wood, VC 30, Bedfordshire, GR TL053.623, January 2018. Herb. Powell 4564. New to the Vice-county. M. Powell

***Leptorhaphis maggiana***: on *Corylus* on edge of Cell Barnes Orchard, Highfield Park, St. Albans, VC 20, Hertfordshire, GR TL171.059, January, 2018. New to the Vice-county. P. Shipway

***Lichenchora obscuroides***: on *Phaeophyscia orbicularis* on veteran *Acer campestre*, Little Gaddesden, VC 20, Hertfordshire GR SP993.139, January 2018. Herb. Shipway. Identified by Mark Powell. New to the Vice-county. P. Shipway

***Lichenochora obscuroides***: lichenicolous on *Phaeophyscia orbicularis*, Barnstaple, Rock Park, VC 4, North Devon, GR SS562.319, alt 10 m, March 2018. Herb. Bacciu. New to the Vice-county. N.G. Bacciu & Devon Lichen Group

***Lichenochora obscuroides***: lichenicolous on *Phaeophyscia orbicularis* on *Sambucus nigra*, by coastal path, Dizzard, VC 2, East Cornwall, GR SX168.990, alt 156 m, March 2018. Herb. Bacciu. New to the Vice-county. N.G. Bacciu

***Lichenochora weillii***: lichenicolous on *Physconia grisea* on *Tilia* sp., Lydiard Park, Swindon, VC 7, North Wiltshire, GR SU103.848, alt 113 m, March 2017. Herb. Bacciu. New to the Vice-county. N.G. Bacciu

***Lichenochora weillii***: lichenicolous on *Physconia grisea* on *Fraxinus excelsior* trunk, St Thomas Pleasure Ground, VC 3, South Devon, GR SX911.918, alt 9 m, April 2018. Herb. Bacciu. New to Devon. N.G. Bacciu

***Lichenodiplis lecanorae***: lichenicolous on apothecia of *Caloplaca cerinella*, on twig of *Juglans*, in churchyard (All Saints), Teversham VC 29, Cambridgeshire, GR TL496.585, January 2018. Herb. Powell 4583. Determined by M. Powell. New to the Vice-county. P. Findlay & Cambridge Lichen Group

***Marchandiomyces aurantiacus***: on young thallus of *Melanohalea laciniatula* on branch of *Fraxinus excelsior* on field bank, north flank of Trychrug Hill, c. 2 km east of Cilcennin, VC 46, Cardiganshire, GR SN543.603, alt c. 265 m, January 2018. Field record. First record of this lichenicolous fungus on *M. laciniatula*, possibly a novel host. S.P. Chambers

***Melanohalea laciniatula***: on *Fagus* trunk in Ravenglass Campsite, VC 70, Cumberland GR SD08.96, October 2017. New to the Vice-county. P. Shipway

***Microcalicium ahlneri***: on ancient *Quercus petraea* with exposed lignum on edge of gorge with relic veteran *Quercus*, surviving from old deer park, Tollymore Forest

Park, VC H38, Down, GR J3424.3226, alt 40 m, March 2018. Second record for Ireland. New to Northern Ireland. *N.A. Sanderson*

***Micarea adnata***: on lignum on *Castanea* stump within old growth *Fagus* wood, Burley Old Inclosure, New Forest, VC 11, South Hampshire, GR SU2497.0437, alt 40 m, December 2017. Third lowland record for this largely upland species. The second record of it for the New Forest. *N.A. Sanderson & Wessex Lichen Group*

***Micarea curvata***: on sandstone headstone in churchyard (St Margaret), Felbrigg VC 27, East Norfolk, GR TG197.390, March 2018. Determined by M. Powell. New to the Vice-county. *P.W. Lambley & M. Powell*

***Micarea micrococca***: on dead branch in Frithsden Beeches, Ashridge Estate, VC 20, Hertfordshire, GR SP999.102, December, 2017. Herb. Shipway. Confirmed by Mark Powell. New to the Vice-county. *P. Shipway*

***Micarea viridileprosa***: on lignum of fallen *Quercus* trunk, Big Wood, Hampstead Garden Suburb, VC 21, Middlesex, GR TQ25-88-, December 2017. Herb. Powell 4541. New to the Vice-county. *M. Powell*

***Microcalicium ahlneri***: on ancient *Quercus petraea* with exposed lignum on edge of gorge with relic veteran *Quercus* surviving from old deer park, Tollymore Forest Park, VC H38, Down, GR J3424.3226, alt 40 m, March 2018. Second record for the species in Ireland. New to Northern Ireland. *N.A. Sanderson*

***Muellerella lichenicola***: lichenicolous on *Lecanora campestris* and *Caloplaca flavescens* on gravestones in churchyard (St. Mary), Lydiard Park, Swindon, VC 7, North Wiltshire, GR SU103.847, alt 119 m, March 2017. Herb. Bacciu. New to the Vice-county *N.G. Bacciu*

***Muellerella lichenicola***: lichenicolous on *Caloplaca flavovirescens* on concrete dam wall, Wistlandpound Reservoir, VC 4, North Devon, GR SS643.414, alt 250 m, October 2017. Herb. Bacciu. New to the Vice-county. *N.G. Bacciu*

***Mycocalicium subtile***: on decaying lignum on south side of decorticate standing dead *Pinus contorta* in strip of part-coniferised riparian woodland, south bank of Afon Ystwyth west of Hafod, c. 0.75 km upstream of Pontrhydygroes, VC 46, Cardiganshire, GR SN749.728, alt 140 m, April 2018. Herb. SPC. New to the Vice-county and second record for Wales. *S.P. Chambers*

***Nectriopsis indigens***: lichenicolous on *Xanthoria parietina* on *Crataegus monogyna*, Taw Marsh, VC 4, North Devon, GR SX620.921, alt 352 m, October 2017. Herb. Bacciu. This fungus is characterised by sessile pink perithecia with hyaline 1-septate spores. Using the key to lichenicolous species growing on *Xanthoria* s.str by Tsurykau and Etayo in the *Lichenologist* 49(1), in water the upper range of the spore dimensions was



often larger (20-21 x 10-12 µm) than those quoted in the key. A rarely recorded species, new to England and Wales. *N.G. Bacciu*

***Nectriopsis indigens***: lichenicolous on *Xanthoria parietina* on twig of *Fraxinus excelsior*, Deer Park Farm, VC 3, South Devon, GR SX900.697, alt 100 m, November 2017. Herb. Bacciu. Microscopic details as per Taw Marsh material. New to the Vice-county. *N.G. Bacciu*

***Nectriopsis indigens***: lichenicolous on moribund *Xanthoria parietina* on twig of *Fraxinus excelsior*, Stoke Climsland School, VC 2, East Cornwall, GR SX360.744, alt 142 m, November 2017. Herb. Bacciu. Microscopic details as per Taw Marsh material. New to the Vice-county. *N.G. Bacciu*

***Ochrolechia arborea***: a large colony on trunk of ornamental *Prunus*, growing with *Lecanora albella* and *L. pulicaris*, Luxmoore's Garden, Eton College, Eton, VC 24, Buckinghamshire, GR SU967.777, February 2018. Field record. New to the Vice-county. *B.J. Coppins & M. Powell*

***Ochrolechia frigida***: single thallus on moss on gritstone boulder, Grinah Stones, Upper Derwent Valley, VC 57, Derbyshire, GR SK1309.9613, alt 560 m, August 2017. Photograph by S. G. Price. Previously recorded in 1976 from an outcrop 13 km south in same valley. Second record of this species for the Vice-county *S.G. Price*

***Opegrapha physciaria***: parasitic on *Xanthoria parietina* on twig of *Fraxinus excelsior*, Stoke Climsland School, VC 2, East Cornwall, GR SX360.744, alt 142 m, November 2017. Herb. Bacciu. New to the Vice-county *N.G. Bacciu*

***Opegrapha viridipruinosa***: on flushed bark where it grades in to dry bark on veteran *Quercus petraea* within woodland in park, Tollymore Forest Park, VC H38, Down, GR J34687.235, alt 30 m, March 2018. New to Ireland. *N.A. Sanderson*

***Paralecanographa grumulosa***: associated with *Dirina massiliensis* f. *sorediata* on north and east walls of church, Fordwich, VC 15, East Kent, GR TR181598, alt 5 m, April 2018, Coppins 25212 (E). A new site for this rare species. *B.J. & A.M. Coppins*

***Paranectria superba***: lichenicolous on *Peltigera hymenina*, Cymystwyth Mine, VC 46, Cardiganshire, GR SN805.746, February 2017. Herb. Bacciu. Second record for Wales of this rare British species. *N.G. Bacciu*

***Parmelia submontana***: on three *Salix*, Bonehill Down, VC 3, South Devon, GR SX737.779, alt 376 m, October 2017. Second site in the southwest for this species and close to the original site at Emsworthy Mire. *N.G. Bacciu*

***Parmotrema pseudoreticulatum***: on *Fagus* twig fallen from canopy within old growth Beech wood, Burley Old Inclosure, New Forest, VC 11, South Hampshire, GR

SU2506.0456, alt 40 m, December 2017. The first convincing material found in Hampshire. Interestingly all the material on old trunks in the New Forest seen so far, is *Parmotrema reticulatum* and the occurrence of *Parmotrema pseudoreticulatum* in a more dynamic habitat in the canopy is consistent with observations in other areas of England.

N.A. Sanderson and Wessex Lichen Group

***Parmotrema robustum***: c. 4 thalli on east-facing mossy rockface within fragment of relict *Quercus* – *Corylus* Atlantic woodland, c. 100 m east-northeast of Gwndwn-isaf, Cwm Camlan, above Coed Ganllwyd, VC 48, Merionethshire, GR SH715.243, alt 250 m, October 2017. Herb. SPC. Fourth record for Wales and fifth for Great Britain.

S.P. Chambers & CENNAD lichen apprentices

***Pertusaria coccodes***: fertile thallus on ancient *Fagus*, within *Fagus* – *Ilex* pasture woodland, Holidays Hill, New Forest, VC 11, South Hampshire, SU2723.0699, alt 30m, December 2017. A rare occurrence of apothecia on this normally sterile lichen

N.A. Sanderson

***Pertusaria melanochlora***: c. 2 weak thalli on damp sides of two boulders at edge of channel of upland stream on north flank of Mynydd Gwerngraig, c. 0.5 km east of Gau Graig, Cadair Idris, VC 48, Merionethshire, SH754.146, alt 280 m, October 2017. Herb. SPC. Recorded only once before in this Vice-county by H. Holl (pre-1900) and a different hectad.

S.P. Chambers

***Phacothecium varium*** (syn. *Opegrapha physciaria*): on *Xanthoria parietina* on *Alnus glutinosa* branch within copse in dunes, Kenfig NNR, VC 41, Glamorganshire, GR SS787.825, alt c. 5 m, June 2017. Herb. SPC. New to the Vice-county.

S.P. Chambers

***Phacothecium varium*** (syn. *Opegrapha physciaria*): on *Xanthoria parietina* on dry branch of *Taxus baccata* in burial yard (St Mary), Cardigan, VC 46, Cardiganshire, SN180.460, alt c. 5 m, September 2017. Specimen in Herb. Powell. Second record of this species for the Vice-county.

S.P. Chambers

***Phaeographis smithii***: on west-facing twig of *Crataegus monogyna* in garden, Orchella Lodge, Knodishall, VC 25, GR TM437.606, August 2015. Herb. Hitch (X21). Determined by M. Powell. Second record of this species in Suffolk

C.J.B. Hitch

***Phaeographis smithii***: single thallus on smooth-barked trunk of *Castanea* in coppiced woodland, northwest of Higham Farm, Fordwich, VC 15, East Kent, GR TR1971.5999, alt 10 m., April 2018, Coppins 25214 (E). First modern record of the species for Kent. New to the Vice-county.

B.J. & A.M. Coppins

***Phylloblastia inexpecta***: on leaves of *Buxus sempervirens* in Cobbler's Pits, Aston Clinton, VC 24, Buckinghamshire, GR SP88-11-, December 2017. New to the the Vice-county.

P. Shipway

***Physcia tribacioides***: on roadside *Fagus* sp., Clifton Down Road, VC 34, West Gloucestershire GR ST565.735, alt 78 m, April 2018. Herb. Bacciu. A northerly extension to its range. New to the Vice-county. *N.G. Bacciu*

***Placidium squamulosum***: growing on trampled chalk soil of path at Devil's Ditch, VC 29, Cambridgeshire, GR TL624.610, October 2017. Field record. New to the Vice-county. *M. Powell*

***Polyblastia dermatodes***: on limestone kerb in churchyard (St Margaret), Felbrigg, VC 27, East Norfolk, GR TG197.390, March 2018. Determined by M. Powell. New to the Vice-county *P.W. Lambley & M. Powell*

***Polyblastia philaea***: growing on trampled chalk soil of path at Devil's Ditch, VC 29, Cambridgeshire, GR TL624.610, October 2017. Herb. Powell 4521. New to the Vice-county *M. Powell*

***Porina byssophila***: on old *Corylus*, in woodland southeast of church, Alderbury, VC 8, South Wiltshire, GR SU184.268, alt 95 m, April 2018. Specimen examined but not retained. New to the Vice-county *B.J. Coppins*

***Porina hibernica***: large patch on base-rich flushed bark on single stem of multi-stemmed old *Quercus petraea* on the edge of gorge with relic veteran *Quercus* surviving from old deer park, Tollymore Forest Park, VC H38, Down, GR J3423.3225, alt 50, March 2018. First record of this species for Northern Ireland. *N.A. Sanderson*

***Pronectria anisospora***: on *Hypogymnia physodes* on twig within *Salix-Betula* carr, Cors Llyn Coethlyn, Dyfnant Forest, VC 47, Montgomeryshire, GR SJ0112.1415. November 2017. Herb. A. J. Hotchkiss. Confirmed by S.P. Chambers. Second record for this species in Wales. New to the Vice-countyA *.J. Hotchkiss*

***Pronectria anisospora***: on thallus of *Hypogymnia physodes* on *Betula* twig in *Molinia* carr, west of Bryn-y-maen, c. 2 km west of Llangeitho, VC 46, Cardiganshire, GR SN627.587, alt 150 m, February 2018. Herb. SPC. Second record of this species for the Vice-county and third for Wales *S.P. Chambers*

***Pronectria fissuriprodiens***: lichenicolous on *Lobaria pulmonaria* on *Quercus petraea*, within *Quercus* woodland, Dizzard, VC 2, East Cornwall, GR SX170.991, alt 105 m, March 2018. Herb. Bacciu. Confirmed by B.J. Coppins. First modern record of this species outside Scotland. New to the Vice-county. *N.G. Bacciu*

***Pronectria pertusariicola***: lichenicolous on *Pertusaria pertusa*, Carn Gafallt, Elan Valley, VC 43, Radnorshire, GR 22(SN)/ 934. 649, February 2017. Herb. Bacciu. Second record of this species for Wales. New to the Vice-county *N.G. Bacciu*

***Punctelia borreri***: one thallus with single immature apothecium, on upperside of *Acer pseudoplatanus* bough on valley floor hedgeline, near Cnwc yr Onnen, Cwmhowni, Blaenporth, VC 46, Cardiganshire, GR SN264.495, alt 70 m, December 2017. Herb. SPC. First fertile record of *P. borreri* in the Vice-county. *S.P. Chambers*

***Pycnothelia papillaria***: on heathland near Dry Bridge, Shilstone, Exmoor, VC 4, North Devon, GR SS75-45-, alt 336 m, January 2018. Herb. Putnam. New to the Vice-county. *M. Putnam*

***Pyrenidium actinellum***: parasitic on *Ionopsis lacustris* on regularly inundated metamorphic rocks by River Tavy, Horndon Bridge, VC 3, South Devon, GR SX523.795, alt 210 m, July 2017. Herb. Bacciu. An unusual host for this species. *N.G. Bacciu*

***Pyrenochaeta xanthoriae***: lichenicolous on *Xanthoria parietina* on twig of roadside *Sambucus nigra*, Winterbourne Monkton, VC 7, North Wiltshire, GR SU100.719, alt 159 m, March 2018. Herb. Bacciu. New to the Vice-county. *N.G. Bacciu*

***Pyrenula coryli***: on *Corylus* in hazel stand by St. Margaret's Burn, Cleish Hills, VC 85, Fife, GR NT042.965, alt c. 160 m. May 2017. Specimen not retained. New to the Vice-county. *B.J. Coppins*

***Ramalina fraxinea***: detached thallus, lobes to 55mm long, found on ground under *Fraxinus* and *Alnus cordata*. Near Stutton House, Stutton, VC 25, Suffolk. GR TM163.345, alt 5 m, August 2016. Photographs by J. F. Skinner. Confirmed by B.J. Coppins. Herb. BM (barcode ref. BM 001089651). The first recent record for this species in Suffolk *J.F. Skinner*

***Ramonia nigra***: on lignum inside hollow ancient *Ilex* trees, within *Ilex* dominated pasture woodland and *Fagus* – *Quercus robur* – *Ilex* pasture woodland, Sloden Inclosure and Mallard Wood, New Forest, VC 11, South Hampshire, GR SU2181.1286 & SU3161.0881, alt 110 m & 25m respectively. New locations for this very rare Section 41 species. *A. Sanderson & A.M. Cross*

***Rinodina aspersa***: on Bradenham 'sarsen' stone with *Xanthoparmelia conspersa* and *Aspicilia caesiocinerea*, Stoney Meadow, Bradenham, VC 24, Buckinghamshire, GR SU831.973, February 2018. An inland record for this more usual coastal species. New to the Vice-county. *P. Shipway*

***Rinodina bilocolata***: on nitrophile assemblage on twigs of *Abies nordmanniana* planted on boundary bank of church (St. Vitalis), Dihewyd, VC 46, Cardiganshire, GR SN483.562, alt 225 m, October 2017. Material used up in identification. An interesting occurrence on a non-native coniferous phorophyte, of this increasing species. *S.P. Chambers*

***Rinodina flavosoralifera***: frequent small thalli dispersed up southwest-facing side of trunk of ancient *Quercus* on field-wood boundary, Y Wern, c. 250 m northeast of Deri-Garon, 1.5 km east of Stags Head, VC 46, Cardiganshire, GR SN656.595, alt 180 m, March 2018. Herb. SPC. Second record of this species for the Vice-county.

*S.P. Chambers*

***Rosellinula haplospora***: on *Aspicilia cinerea* agg.? on Castle Rock, Valley of Rocks near Lynton, VC 4, North Devon, GR SX704.497, re-examination of specimen taken in June 2013 during BLS Exmoor and Quantock meeting. Herb. Holwill. The only recent record for this species for England. New to the Vice-county. *T. Holwill & M. Putnam*

***Sarcopyrenia gibba***: on upper southwest-facing side of weathered marble headstone in churchyard (St Mary), Maestir, VC 46, Cardiganshire, GR SN553.493, alt 195 m, September 2017. Field record. *S.gibba* was thought to be extinct in the Vice-county after the removal of the concrete gatepost on which it grew at its original site. *S.P. Chambers*

***Skyttella mulleri***: parasitic on *Peltigera praetextata*, at eight locations in oceanic ravine woodland, Banagher Glen NNR, VC H40, Londonderry, GR C671.049, C676.042, C677.042, C678.042 and C673.039, alt 110–160 m. A rare species of oceanic woodlands. New to Ireland. *N.A. Sanderson*

***Solenopsora vulturiensis***: two church records for VC 46 Cardiganshire; (i) locally frequent on south wall of church (St Cynwyl), Aberporth, GR SN256.510, alt 55 m, August 2017. SPC & H.F. Clow; (ii) abundant on decorative course of dark sandstone around wall of church (St Mary), Cardigan, GR SN180.460, alt c. 5 m, September 2017. SPC & I. Blatchley. Field records. New to the Vice-county, with records from a non-natural habitat. *S.P. Chambers*

***Spiloma auratum***: associated with *Dirina massiliensis* f. *sorediata* on north walls of church, Fordwich, VC 15, East Kent, GR TR181598, alt 5 m, April 2018, Coppins 25212 (E). A new site for this rare species. *B.J. & A.M. Coppins*

***Stenocybe nitida***: parasitic on liverwort *Plagiochila punctata*, on *Alnus* and *Betula*, within *Alnus* dominated pasture woodland on floodplain, above Tuckers Bridge, Arlington Court, VC 4, North Devon, GR SS6094.3961 and SS6094.3953, 110 m, October 2017. A new site for this fungus, which has very few records from England. This, only the second record for this species outside Dartmoor. *N.A. Sanderson*

***Stenocybe pullatula***: on *Alnus* twigs beside Afon Banwy, Llanfair Caereinion, VC47, Montgomeryshire. GR SJ10-06-, March 2018. Herb. A. J. Hotchkiss. New for the species in 100 km square SJ. and second Vice-county record. *A.J. Hotchkiss*

***Stenocybe pullatula***: all VC 40 Shropshire, April 2118, (i) on *Alnus* twigs below Hazler Hill, Church Stretton, GR SO46-92-; (ii) beside the River Onny in Horderley, GR

SO40-87-; (iii) Plowden, GR SO38-88-. Herb. A. J. Hotchkiss. New to the Vice-county.

*A.J. Hotchkiss*

***Sticta canariensis***: large colony of fertile independent green algal morph thalli, on mossy rock face (largest patch approx. 100 x 50 cm) with more on nearby *Quercus*, beside small waterfall, Cutiau, VC 48, Merionethshire. GR SH63-71-. December 2017. A significant new population of this important conservation priority, and first record of it fertile in Wales.

*A. J. Hotchkiss*

***Stigmidium peltideae***: lichenicolous on moribund thalli of *Peltigera membranacea*, Breney Down, VC 2, East Cornwall, GR SX055.613, February. 2018. Herb. P.F. Cannon P3516 (**K(M)**). On the same collection as *Lichenopeltella santessonii* (see above). Third record for the species in England (the first two from VC 5 South Somerset). See also <http://fungi.myspecies.info/all-fungi/stigmidium-peltideae>. New to the Vice-county.

*P.F. Cannon*

***Strigula phaea***: on edge of wound tracks on two veteran *Aesculus* in parkland by edge of wood, by lower gate to The Wilderness, Arlington Court, VC 4, North Devon, GR SS6091.3996, 130 m, October 2017. Second record of this species for Devon.

*N.A. Sanderson*

***Syzygospora physciacearum***: on *Physcia tenella* in Ravenglass Campsite, VC 70, Cumberland, GR SD08-96-, October 2017. New to the Vice-county.

*P. Shipway*

***Taeniolella phaeophysciae***: lichenicolous on *Phaeophyscia orbicularis* on twig of *Fraxinus excelsior*, Stoke Climsland School, VC 2, East Cornwall GR SX360.744, alt 142 m, November 2017. Herb. Bacciu. New to the Vice-county.

*N.G. Bacciu*

***Taeniolella phaeophysciae***: lichenicolous on *Phaeophyscia orbicularis*, Barnstaple, Rock Park, VC 4, North Devon, GR SS562.319, alt 10 m, March 2018. Herb. Bacciu. New to the Vice-county.

*N.G. Bacciu & Devon Lichen Group*

***Taeniolella toruloides***: parasitic on *Thelotrema lepadinum*, on *Corylus* and *Fraxinus*, by glade in pasture woodland in a valley bottom, above Tuckers Bridge, Arlington Court, VC 4, North Devon, GR SS6094.3951, 110 m, October 2017. A recently described obligate parasite of *Thelotrema* species. New to the county.

*N.A. Sanderson*

***Taeniolella toruloides***: parasitic on *Thelotrema lepadinum*, on suppressed mature *Quercus petraea*, above river in gorge, with relic veteran *Quercus* surviving from old deer park, Tollymore Forest Park, VC H38, Down, GR J3422.3222, alt 40 m, March 2018. A recently described obligate parasite of *Thelotrema*. New to Ireland.

*N.A. Sanderson*

***Teloggalla olivieri***: lichenicolous on *Xanthoria parietina* on twig of *Fraxinus excelsior*, Stoke Climsland School, VC 2, East Cornwall, GR SX360.744, alt 142 m, November 2017. Herb. Bacciu. New to the Vice-county. *N.G. Bacciu*

***Teloggalla olivieri***: lichenicolous on *Xanthoria parietina* on *Fraxinus excelsior* twig, Halsdon Nature Reserve, VC 4, North Devon, GR SS554.130, alt 105 m, April 2016. Herb. Bacciu. New to the Vice-county. *N.G. Bacciu*

***Thelidium minutulum***: on wall of old barn, West Down, Ilfracombe, VC 4, North Devon, GR SS51-42-, February 2018. Herb. Putnam. Second and only recent record for this species for the Vice-county. *M. Putnam*

***Toninia subfuscae***: on *Lecanora campestris* slightly above ground level, on flat upperside of siliceous basal plinth, receiving calcareous downwash from marble memorial, in burial yard (St Michael), Penbryn, GR SN293.521, alt 75 m, September 2017. Herb. SPC & duplicate in Herb. Powell. Determined by M. Powell. New to Wales. *S.P. Chambers & M. Powell*

***Trapeliopsis pseudogranulosa***: fertile, on bare damp soil exposed on west-side of fieldbank eroded by livestock, in wet pasture c. 0.75 km southeast of Bryn-hir, c. 6 km southwest of Tregaron, VC 46, Cardiganshire, GR SN628.572, alt 160 m, February 2018. Field record. First fertile record of this species in the Vice-county. *S.P. Chambers*

***Usnea cornuta***: on branch of fallen *Alnus* branch at woodland edge, Knowles Farm, Roby Mill, VC 59, South Lancashire, GR SD515.068, alt 195 m, May 2017. Specimen not retained. Confirmed by B.J. Coppins. New to the county. *P. Barnett*

***Usnea flavocardia***: several tufts on dead twigs of *Prunus spinosa* in low, mossy heap of decaying hedge trimmings, at edge of wet field, Esgair-Wilym, Cwmhowni, Blaenporth, VC 46, Cardiganshire, GR SN262.492, alt c. 85 m, December 2017. Herb. SPC. New to the Vice-county. *S.P. Chambers*

***Verrucaria ochrostoma***: two churchyard records from VC 46, Cardiganshire; (i) a single, small thallus on calcareous stone block in west-wall of entrance porch of church, (St Carannog), Llangranog, GR SN316.540, alt 45 m, September 2017. Field record. Determined by M. Powell; (ii) on face of Pwntan sandstone block on southwest-facing wall of church (St Cynwyl), Aberporth, GR SN256.510, alt 55 m, September 2017. Field record. S.P. Chambers. Confirmed by M. Powell. New to the Vice-county. *M. Powell & S.P. Chambers*

***Vouauxiomyces truncatus***: on *Punctelia borreri* on branch of *Acer pseudoplatanus*, in open hedgerow in subcoastal valley, near Cnwc yr Onnen, Cwmhowni, Blaenporth, VC 46, Cardiganshire, GR SN264.495, alt 70 m, December 2017. Herb. SPC. Seemingly the first report of either anamorph or teleomorph, of this lichenicolous fungus on the genus *Punctelia*. *S.P. Chambers*

***Wadeana minuta***: on base-rich bark of veteran *Quercus x rosacea*, within open *Quercus petraea* high forest pasture woodland, Frame Wood, New Forest, VC 11, South Hampshire, GR SU3525.0310, alt 40 m, April 2017. The first record of this Section 41 species from the wood and the New Forest since 1996. *N.A. Sanderson*

***Xerotrema quercicola***: frequent on lignum on two large fallen *Quercus* trunks, in grassland, in the landscape park, Arlington Court, VC 4, North Devon, GR SS6077.4011 & SS6072.4017, alt 130-140 m, October 2017. Both trees are known to have fallen over in the 1990s. New to the county. *N.A. Sanderson*

**Corrigendum**: I wish to thank P. M. Earland-Bennett for pointing out an error that occurred with *Leprocaulon calcicola*. In *Bulletin* 121, Winter 2017 under *New to the British Isles*, p 114, seven lines up and in *The Lichenologist* 49(3) p 187, bottom line of right hand column, the grid references TQ999.250 and 51/999.250 respectively, should read TL999.250 and 52/999.250.

## British Lichen Society Field Meetings & Workshops Programme 2018 / 2019



**Field Meetings Secretary**: Steve Price, Woodlands, Combs Road, Combs, High Peak, Derbyshire SK23 9UP  
email [fieldmeetings@britishlichensociety.org.uk](mailto: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 FIELD MEETING - Borrowdale, Lake District, Cumbria**

**Sunday 22nd to Sunday 29<sup>th</sup> July 2018**

Field-sites organiser: Allan Pentecost

This meeting based at the head of Borrowdale will study near-by upland areas, lowland areas of North Cumbria and the Borrowdale valley.

### ***Meeting Base***

Glaramara House, Seatoller, Borrowdale, Nr Keswick, Cumbria, CA12 5XQ

Tel: 017687 77222

Fax: 017687 77198

Email: [info@glaramara.co.uk](mailto:info@glaramara.co.uk)

See <http://www.glaramarahouse.co.uk/> to view the accommodation and facilities.

### ***Accommodation and costs***

The BLS has reserved a number of single and twin en-suite rooms and a meeting room at Glaramara House. The hotel is geared-up to accommodate groups such as ours involved in outdoor activities.

The cost per person for the week is £539 (£77 per night) for dinner, bed, breakfast and packed lunch. This cost includes the provision of the meeting room.

Other accommodation in the area includes camp-sites, bunk-barns and a Youth Hotel at Honister.

### ***Booking***

Attendees should book onto the meeting with the Field Meetings Secretary, Steve Price, email: [fieldmeetings@britishlichensociety.org.uk](mailto:fieldmeetings@britishlichensociety.org.uk) or by post to Woodlands, Combs Road, Combs, High Peak SK23 9UP and send him a £50 deposit per person, cheques payable to 'The British Lichen Society' (not 'BLS' please). The balance of the costs will be requested in May 2018.

If members prefer to pay by bank transfer please request details from the Field Meetings Secretary.

The bedrooms are being held for us until April 2018. Subject to availability rooms will be able to be booked after this date. Please advise of any special dietary needs.

### ***Microscope Work***

Microscope work will take place in the Fell View function room of which we have exclusive use.

Bring your own microscopes if you can. The BLS stereo and compound microscope will also be available for communal use. If possible please bring your own consumables (microslides / cover slips / razor blades / chemicals)

### ***Timetable***

Rooms are available from 15.00hrs on Sunday 22 July. The meeting will run from the evening of the 22nd when we will gather in the Fell View room after dinner for an introductory meeting. We vacate the accommodation before 10.00hrs on the Sunday 29th.

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

### ***Maps of the area***

OS Explorer 1:25,000 - OL4 - The English Lakes - North Western  
British Geological Survey 1:50,000 Sheet 29 - Keswick

## **BLS AUTUMN FIELD MEETING - Suffolk**

**Friday 5th to Monday 8th October 2018**

Local organisers: Peter Lambley & Chris Hitch

The eastern coastal fringe of Suffolk has a diverse range of habitats and it is expected that the meeting will explore some of the richest ones for lichens. A highlight will be a visit to the extensive shingle spit of Orfordness, once the site for testing Britain's nuclear trigger now a nature reserve with extensive areas of shingle plus some artificial habitats. It is also hoped to visit one or more parklands, which have some of the largest lichen floras in Eastern England. In addition we intend to visit some of the magnificent medieval churches for which Suffolk is famous.

### ***Meeting Base***

Field Studies Council Flatford Mill Field Centre, East Bergholt, Suffolk CO7 6UL

Tel: 01206 297110

Website: <http://www.field-studies-council.org/centres/flatfordmill.aspx>

### ***Timetable***

The meeting will start at a field-site on the morning of Friday 5<sup>th</sup> October. There will be an option to join the meeting at lunchtime on Friday. The meeting will finish at lunchtime on Monday 8<sup>th</sup> October.

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

### ***Accommodation and costs***

For the three nights Friday 5<sup>th</sup> Saturday 6<sup>th</sup> and Sunday 7<sup>th</sup> the BLS has reserved 20 bed spaces in mostly single accommodation, there will be a twin option for those wishing to share. The booking is for dinner, bed, breakfast and packed lunch.

The cost of the stay at Flatford Mill is:

£220.00 plus VAT per person for single accommodation (inc. VAT at 20% = £264) and;

£360.00 plus VAT for a couple in a twin room (inc. VAT at 20% = £432).

Flatford Mill is unable to offer accommodation for the group on the night of Thursday 4<sup>th</sup> October. If attendees wish to stay overnight before joining the meeting on the morning of Friday 5<sup>th</sup> they will need to arrange their own accommodation for that one night.

Flatford Mill may have some limited overnight accommodation available for the night of Thursday 4<sup>th</sup> but this will not be known until the first or second week in September. Enquiries, bookings and payments for any extra nights should be made directly with Flatford Mill and not through the BLS Field Meetings Secretary.

### ***Booking***

Attendees should book onto the meeting with the Field Meetings Secretary, Steve Price, email: [fieldmeetings@britishlichensociety.org.uk](mailto:fieldmeetings@britishlichensociety.org.uk) or by post to Woodlands, Combs Road, Combs, High Peak SK23 9UP and send him a £35 deposit per person, cheques payable to 'The British Lichen Society' (not 'BLS' please). The balance of the costs need to be paid by August 2018. Should the VAT rate change from 20% attendees will be asked to pay the difference or be due a refund.

When booking please advise of any special dietary needs.

If members prefer to pay by bank transfer please request details from the Field Meetings Secretary.

### ***Microscope Work***

Two adjacent workrooms have been reserved for microscope work.

Bring your own microscopes if you can. The BLS stereo and compound microscope will also be available for communal use. If possible please bring your own consumables (microslides / cover slips / razor blades / chemicals).

**Note:** In November 1959 the second ever field meeting of the BLS was based at Flatford Mill - see *The Lichenologist* 1(3) p.119 and *The Lichenologist* 1(4) pp.203 - 206). There have been two subsequent meetings based in Suffolk: in September 1982 at Staverton (not written-up); and in November 1985 at Sudbury - see *BLS Bulletin* no. 57 pp.19-20.

### ***Maps of the area***

The following OS 1:50000 scale Landranger maps will be useful:

No. 156 - Saxmundham, Aldeburgh & Southwold

No. 169 - Ipswich, The Naze

## **BLS AGM 2019 Field Outing**

**Sunday 27<sup>st</sup> January 2019**

A one day field outing is being planned to follow the AGM which is being held at Kew Gardens, London.

Further details will appear in the BLS Bulletin and will be posted on the BLS website.

## **BLS WINTER WORKSHOP 2019 – Cloughton, Scarborough**

### ***Bring along more problems***

**Friday 1<sup>st</sup> – Sunday 3<sup>rd</sup> March 2019**

Tutors: Brian Coppins and Mark Powell

Following on from the success of the '*Bring along your problems*' weekend in 2018 this workshop will provide members with a further opportunity to air and share their lichen identification problems and their problems in using techniques needed to aid identification.

Look out those problematic specimens which have been haunting you; most likely they are nameable. Problems with techniques can include issues with microscopes / chemical tests / staining etc. Problems and their solutions will be shared throughout the group. No problem is too small! The bulk of the time will be spent in

the adequately sized meeting room. The grounds of Cober Hill and its environs offer plenty of opportunity to take a short walk and to find more question-posing material.

### ***Meeting Base***

The meeting will be residential at Cober Hill, Cloughton, Scarborough, North Yorkshire YO13 0AR

tel: 01723 870310 email: [enquiries@coberhill.co.uk](mailto:enquiries@coberhill.co.uk)

See [www.coberhill.co.uk](http://www.coberhill.co.uk) to have a look at the accommodation and facilities.

### ***Accommodation and costs***

Accommodation for 20 people in single and twin en-suite rooms has been reserved and a deposit paid by the BLS. These bed spaces are being held for us until the end of August 2018 (6 months before the meeting date). Subject to availability rooms will be able to be booked after this date.

Full-board accommodation (incl. dinner, breakfast and sit-down lunches) for the two nights is £177.50 per person (inc. VAT at 20%). This price includes the hire of the meeting room from early evening on Friday until late Sunday afternoon. The group package is for the 2 nights and there is no reduction for a shorter stay.

The earliest check-in time for rooms is 15.00. Dinner is at 19.00.

### ***Booking***

Attendees should book their rooms with the Field Meetings Secretary, Steve Price, email: [fieldmeetings@britishlichensociety.org.uk](mailto:fieldmeetings@britishlichensociety.org.uk) or by post to Woodlands, Combs Road, Combs, High Peak SK23 9UP and send him a £50 deposit, cheques payable to 'The British Lichen Society' (not 'BLS' please).

If members prefer to pay by bank transfer please request details from the Field Meetings Secretary.

The deposit once paid by BLS to Cober Hill, will be non-refundable.

Cancellation of places less than 16 weeks before the meeting will incur extra charges, therefore the balance (£127.50) needs to be paid by the end of October 2018.

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

### ***Microscope work***

A very large meeting room has been reserved for the duration of the meeting for microscope work and presentations. The BLS microscopes will be available for communal use.

### ***Timetable***

Meet for dinner on Friday 1st at 19.00hrs. We need to vacate the bedroom accommodation after breakfast on Sunday 3rd and the meeting room by 16.00hrs on the Sunday afternoon. Lunch is provided on the Sunday.

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

## **BLS SPRING FIELD MEETING - Morvern, Argyll, Scotland**

**Tuesday 23 to Tuesday 30 April 2019**

***Field-sites organiser:*** Andy Acton

This meeting is based in the village of Lochaline on the west coast of highland Scotland. The main habitats to be studied include Atlantic oak woodland and hazel woods with their uniquely rich *Graphidion* and *Lobarion* lichen communities. Some excursions to heavy-metal and upland sites are also being investigated.

Following the productive and enjoyable 2017 meeting on Öland, Sweden, members of the Svensk Lichenologisk Förening (Swedish Lichenological Society) are being invited to join us here.

### ***Meeting Base***

Lochaline Dive Centre & O2 Café, Lochaline, Morvern, Argyll, Scotland PA80 5XT

Tel. 01967421627 (m) 07407183670 website: <http://www.lochalinedivecentre.co.uk/>

For a map of the area have a look at:

<http://www.streetmap.co.uk/map.srf?X=168027&Y=743305&A=Y&Z=120>

### ***Accommodation and costs***

The BLS has booked the whole of the Lochaline Dive Lodge for the week -12 en-suite bunk rooms, each sleeping two persons. The cost is £210 per person for the week. Breakfast £6.50, dinner £16.

Self catering facilities are available at the accommodation and any food brought for lunches etc can be stored in the fridges.

Attendees are asked to advise when booking what, if any, meals they wish to take and to advise of any special dietary needs. The cost of meals are to be settled up directly with the Dive Centre at the time of the meeting.

Other accommodation is available in Lochaline including the Lochaline Hotel, B&B guest-houses and self-catering cottages. Attendees wanting to use these need to make their own arrangements.

### ***Booking***

Attendees should book onto the meeting with the Field Meetings Secretary, Steve Price, email: [fieldmeetings@britishlichensociety.org.uk](mailto:fieldmeetings@britishlichensociety.org.uk) or by post to Woodlands, Combs Road, Combs, High Peak SK23 9UP and send him a £35 deposit per person, cheques payable to 'The British Lichen Society' (not 'BLS' please). If attendees wish to pay by bank transfer details will be sent on request.

### ***Microscope Work***

Microscope work will take place in the Café which we have use of from 4pm to 8am.

*Note:* We cannot leave anything in the Café outside of those times.

Bring your own microscopes if you can. The BLS stereo and compound microscope will also be available for communal use. If possible please try to bring your own consumables (microslides / cover slips / razor blades / chemicals).

### ***Timetable***

The meeting will run from Tuesday 23rd when we will gather in the Café after dinner for an introductory meeting. We vacate the accommodation in the morning of Tuesday 30th.

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

### ***Transport to the meeting***

Lochaline is accessible by car and by public transport.

Using public transport, trains from Glasgow to Oban connect with the ferry from Oban to Craignure, Mull. The No. 495 bus connects with the ferry at Craignure and travels to Fishnish for the short ferry journey across the Sound of Mull to Lochaline.

see <https://www.calmac.co.uk/oban-craignure-mull-ferry-summer-timetable>

see <http://www.westcoastmotors.co.uk/timetables/oban-isle-of-mull/>

see <https://www.argyll-bute.gov.uk/lochaline-fishnish-ferry-timetable>

### ***Transport during the meeting***

It is anticipated that there will be enough car transport to move attendees around for the field visits. If ahead of the meeting it is recognised that there will be a shortage then the additional cars may be hired.

### ***Relevant publications***

Sandy and Brian Coppins, 2012, *Atlantic Hazel - Scotland's Special Woodlands*, Atlantic Hazel Action Group see <http://sites.google.com/site/atlantichazelgroup/>

Plantlife, 2008, *Lichens of Atlantic Woodlands, Guide 1: Lichens on ash, hazel, willow, rowan and old oak*, a fold-out field guide.

Plantlife, 2008, *Lichens of Atlantic Woodlands, Guide 2: Lichens on birch, alder and oak*, a fold-out field guide.

The two Plantlife guides above can be downloaded in pdf format from: <http://www.plantlife.org.uk/scotland/our-work-scotland/projects-scotland/celtic-rainforests>

### ***Maps of the area***

The following maps may be useful and dependent upon the location of field sites additional maps may also be recommended.

OS Explorer Series 1:25,000 scale

sheet 383 - Morvern & Lochaline (meeting base on this map)

sheet 374 - Isle of Mull North & Tobermory

sheet 375 - Isle of Mull East

OS Landranger Series 1:50,000 scale

sheet 49 - Oban & East Mull (meeting base on this map)

sheet 47 - Tobermory & North Mull

British Geological Survey 1:50,000

Sheet 52W - Tobermory

Sheet 52E - Strontian

Sheet 44W and part 44E - Eastern Mull



## **BLS SUMMER FIELD MEETING - Holy Island, Anglesey, Wales**

Friday 19 to Friday 26 July 2019

**Local organiser:** Tracey Lovering

This meeting is based on Holy Island on the very north-west corner of Wales. The complex geology of Anglesey offers a range of interesting lichen habitats, including disused copper mines. There is of course plenty of coastal habitat to study, including rocky shore, dunes, coastal heath, streams and the Menai Straits. The majority of the coastline is accessible via the All Wales Coastpath. As well as collecting new records for the Island, we will re-visit a selection of previously well-recorded sites supporting interesting records, to record change. Site visit options will also include churchyard and woodland. Lots of interest for everyone.

### ***Meeting Base***

Anglesey Outdoors, Porthdafarch Road, Holyhead, Anglesey LL65 2LP

Tel. 01407 769 351

website: <http://www.angleseyoutdoors.com/index.html>

For a map of the area have a look at:

<http://www.streetmap.co.uk/idld.srf?X=223787&Y=380706&A=Y&Z=115&lm=1>

### ***Accommodation and costs***

The BLS has booked for exclusive use the whole of the Main Centre and the Maris accommodation at Anglesey Outdoors. The 12 bedrooms of varying capacities have been allocated to provide 22 bed-spaces for our group.

We have booked on a full-board basis.

The costs are:

Single accommodation £447 per person for the week (there are four single-occupancy rooms available)

In twin accommodation £387 per person for the week (there are six twin-occupancy rooms available)

In triple accommodation £352 per person for the week (there are two triple-occupancy rooms available)

Attendees are asked to advise when booking of any special dietary needs.

Anglesey Outdoors has camping facilities and a range of other accommodation is available on Holy Island. Attendees wanting to book these facilities need to make their own arrangements.

### ***Booking***

Attendees should book onto the meeting with the Field Meetings Secretary, Steve Price,  
email: [fieldmeetings@britishlichensociety.org.uk](mailto:fieldmeetings@britishlichensociety.org.uk) or by post to Woodlands, Combs Road, Combs, High Peak SK23 9UP and send him a £50 deposit per person, cheques payable to 'The British Lichen Society' (not 'BLS' please). If attendees wish to pay by bank transfer details will be sent on request.

### ***Microscope Work***

Microscope work will take place in the lounge and dining areas of the Main Centre. Bring your own microscopes if you can. The BLS stereo and compound microscope will also be available for communal use. If possible please try to bring your own consumables (microslides / cover slips / razor blades / chemicals).

### ***Timetable***

The meeting will run from Friday 19th when we will gather after dinner for an introductory meeting. We vacate the accommodation in the morning of Friday 26th.

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

### ***Transport to the meeting***

Holyhead is the terminus station of a mainline railway. The train station is less than 2km from the meeting base.

### ***Maps of the area***

The following maps may be useful and dependent upon the location of field sites additional maps may also be recommended.

OS Explorer Series 1:25,000 scale

sheet 262 - Anglesey West / Gorllewin Yns Môn (meeting base on this map)

sheet 263 - Anglesey East / Dwyrain Yns Môn

OS Landranger Series 1:50,000 scale

sheet 114 - Anglesey / Yns Môn (meeting base on this map)

British Geological Survey 1:50,000

Special Sheet - Anglesey

*Although it is extremely rare for anything to go wrong with the arrangements for our field meetings and workshops, it has happened. In 2015 the hotel we had booked for accommodation cancelled without warning and at short notice. The BLS is not liable for such actions, and will not reimburse participants for losses out of the Society's control. Attendees on our meetings are advised to at least consider holiday insurance (note that for insurance purposes our meetings are best classified as themed holidays).*

*The Society does not arrange such cover although it does of course have Public Liability Insurance.*

*In the unfortunate event of an unforeseen cancellation, participants should be diligent in keeping receipts of all expenditure they incur as a result of such action. The case for re-imburement may depend on the production of receipts.*

## **Minutes of the ANNUAL GENERAL MEETING**

Tullie House Museum, Carlisle - Saturday 20th January 2018

**Welcome** by the President Allan Pentecost

**Members present:** Andy Acton; Judith Allinson; Rod Ashwell; Aniya Barker; Ishpi Blatchley; Graham Boswell; Richard Brinklow; Paul Cannon; Heather Colls; Ginnie Copsey; Peter Crittenden; Amanda Davey; Simon Davey; Carrie Hedges; Les Knight; Sue Knight; Dave Lamacraft; Tracey Lovering; Fay Newbery; Heather Paul; Allan Pentecost; Steve Price; William Purvis; Maxine Putnam; David Richardson; Mark Seaward; Neil Sanderson; Janet Simkin; John Skinner; Fiona Spence; Eluned Smith; April Windle; Rebecca Yahr

**Apologies for absence:** Juliet Bailey; Brian Coppins; Sandy Coppins; Frank Dobson; Bryan Edwards; Esther Gaya; David Genney; Theresa Greenaway; Mary Hickmott; Peter Lambley; Peter O'Neill; Mark Powell; Sheila Quin; Paul Whelan; Tim Wilkins; Pat Wolseley; Ray Woods

**Obituary:** Mark Seaward gave a short eulogy on the late Professor Otto Lange who died aged ninety years in the Summer of 2017. He was an Honorary Life Member of the BLS and a senior ecophysiologicalist. A fuller obituary will be in the Bulletin and Lichenologist.

The **Minutes of the AGM held in the NHM on 21<sup>st</sup> January 2017** were proposed by John Skinner and seconded by Ishpi Blatchley and passed unanimously.

**Matters arising:** none.

## Officers and committee chairs reports:

### **The President's Report** by Allan Pentecost

Allan gave a brief but entertaining account of his final year as President of the BLS, likening the Society to a ship currently sailing in reasonably calm waters. He described the role of President as being a spokesman for and Captain of the Society ship, while underlining the importance of planning ahead because of the unpredictability of the sea. He thanked Peter Crittenden and his team for the continued success of the profitable *Lichenologist*, and John Skinner for keeping the finances of the Society so healthy. We have had a 24% increase in assets over the past two years.

During his term in office, Allan has advanced the new Constitution, planned our new Flora, helped revise and reprint 'Lichens - an illustrated guide to the British and Irish species', among many other activities. He thanked Paul Cannon for his help as Vice President and wished him well in taking the ship forward. Allan hopes that in coming years he can return to more experimental ecology such as had inspired him and other lichen enthusiast friends fifty years ago when a group of them went lichen hunting in Ireland. Allan raised laughs describing how he (or rather Brian Coppins) had lost his geological hammer (is there any replacement forthcoming Brian?!) and then their tent blew away in a storm on Achill Island, but that they had found four interesting species of *Lobaria*!

Looking to the future, Allan has helped enable Simon and Amanda Davey to start Twitter and Facebook accounts for the Society and promises to get to grips with the social media that could draw in more members and spread the enjoyment and study of lichens to more people.

### **Secretary** - Eluned Smith

The President praised and thanked the retiring Secretary, Pat Wolseley, and welcomed Eluned Smith who will share the secretarial role with Sandy Coppins. Eluned will be responsible for writing the Minutes (henceforth the Council Secretary [ehsbiol@hotmail.co.uk](mailto:ehsbiol@hotmail.co.uk)) and Sandy is responsible for general communications to the BLS ([secretary@britishlichensociety.org.uk](mailto:secretary@britishlichensociety.org.uk)), and will be known as the Communications Secretary.

### **Treasurer** - John Skinner

Income from charitable activities for the year was £133,726 and after deduction of costs of £119,710 associated with fund raising the Society was left with a surplus of £14,016.

Principal sources of income for the Society are members' subscriptions (£15,294, down from £18,065 the previous year) and the Proprietor's share of *The Lichenologist*. Profit from the Proprietor share of *The Lichenologist* (Vol. 48 for 2016) was £35,751, a sum which includes income of £2,528 from sales of digitalised journal content.

As far as expenditure goes, there was a significant increase in grants made (£13,139 compared to £5,400 in the previous year) because of a number of grants made to members, both UK and overseas, to attend the IAL conference in Helsinki. Assets of the Society stood at £480,142 (£466,126 for 2016), almost entirely represented by cash at bank.

The Trustees' Report & Accounts was put to members for adoption (proposed Skinner, seconded Price) and unanimously agreed. The Treasurer then thanked the American Treasurer, Jim Hinds, for his work in the US and members of BLS Council for their support.

The full Trustees' Report & Accounts are available on the Charity Commission website or, with the Summary Accounts, from the Treasurer by either post or email.

### ***Membership*** - Andy Stephens and Eluned Smith

Andy Stephens, supported by Claire Young and Mark Leach, is in charge of BLS membership matters, administered on our behalf by the Royal Society of Biology, London. The total number of active BLS members in late 2017 is 593, up from 572. There are 110 lapsed members, down from 115 in mid-2017. Andy reports that the relationship between the BLS, CUP and RSB is working well. There are 74 online-only Lichenologist subscribers and 307 print and online subscribers, totalling 381. Subscribers can access the online version via the mySociety portal.

Standing orders, cheques and credit card payments from BLS members are sorted early in the year. Andy and John Skinner are concerned about those 40 or so who underpay with out-of-date standing orders, who are then contacted to pay the difference, but either ignore the contact or pay the difference but don't change their standing order. Andy will send a form asking BLS members who pay by SO to convert to Direct Debits. Council has decided that subscriptions of new members joining after 1<sup>st</sup> October each year will be valid until the end of the following year.

*Comments from the Floor:* Maxine Putnam observed that a member who did not use email had had problems receiving the Bulletin. Janet Simkin said that Sandy Coppins had been helpful in resolving this. Several members reported that their dealings with RSB by telephone had been pleasant and efficient.

### ***Conservation Committee*** – Neil Sanderson, (from a report provided by Bryan Edwards)

Firstly, many apologies for not being with you in person, and thanks to Neil for stepping in.

The major task in 2017 has been the revision of the SSSI Guidelines overseen by Tim Wilkins (Natural England), Sam Bosenquet (Natural Resources Wales) and Dave Genney (Scottish Natural Heritage). The lichen section was drafted by Neil Sanderson with input from many members of the Conservation Committee; particular thanks go to Vince Giavarini, Janet Simkin and Pat Wolesley for their contributions.

Up until now we had published only Indices for assessing epiphytic habitats, but now we have Indices for Heathland & Moorland, Maritime rocky coasts, Limestone habitats, Aquatic habitats and Metalliferous habitats. I am currently working on lists for chalk grassland and other coastal habitats. The next stage is to start analysing data on the database for those sites for which we have recent data, and drawing up thresholds. Some habitats or particular areas have had little recent survey work and gaps will need to be filled.

Other issues include the ongoing spread of Ash dieback, which poses a significant threat to a number of rare and threatened lichens, including some of those already impacted severely by Dutch Elm Disease, including *Bacidia incompta* and *Wadeana dendrographa* which have been put forward for assessment on the Global Fungal Red List Initiative. The BLS was asked to comment on potential planting guidance for alternatives to Ash.

In January Neil attended a very useful workshop on 'We need to talk about Nitrogen' convened by Plantlife and PLink. The accompanying report can be downloaded from the Plantlife Website.

A big thank you to the Committee for all their work over the past year, and to Tim Wilkins (Natural England), Dave Genney (Scottish Natural Heritage), Dave Lamacraft (Plantlife), and Tracey Lovering (Plantlife Cymru).

### ***Data Committee*** - Les Knight

Les thanked his Committee and said that 2017 had been a very busy year in six main areas. There are now over 2.4 million lichen records in the database with 30 000 more added annually. Members are encouraged to submit their lichen records on the new Excel spreadsheet with as much habitat and spatial information as possible, rather than on cards or iRecord.

There have been changes in the technical support for our recording package Recorder 6 which will have minor ongoing financial implications for the Society from 2019. All our records will continue to be safe so please go out recording and send the details in on the spreadsheet.

The NBN Atlas has replaced the NBN Gateway and there have been a few problems. Please contact Janet Simkin for up to date mapping data.

Over 12 000 mapping scheme cards have been scanned and Mark Seaward is happy to assist with the interpretation of the more difficult and/or historical ones. Les can email PDFs of these data to interested members. The *Cladonia* multi-attribute key is now two years old and although it was developed using LUCID, it now works much better since Les has copied the data into Excel. Nigel Chadwick was warmly thanked for writing a general user-interface, which can potentially be built up over the next few years into a portable, electronic key for all UK species.

*Questions from the Floor:* Ishpi Blatchley wondered if any lichenologists still use the mapping cards, and Les replied that it was still common practice in churchyards and the field but that he would prefer records to be submitted on the general Excel spreadsheet to Janet Simkin. Mark Seaward observed that he was re-recording 700 churchyards in Lincolnshire but that such a lot of time was spent typing details into the computer.

***Education and Promotions Committee*** - Fay Newbery

Fay thanked her Committee for all the work put in during the year especially at a working weekend when 12 members gave 140 voluntary hours on projects, including revising the Member's Handbook which will be published in 2018.

She thanked Simon and Amanda Davey for setting up the BLS Twitter and Facebook accounts which are engaging the public with lichens. Fay and the Committee plan to develop 'mix and match' and other educational materials in the coming year, helped by Tracey Lovering using material from the CENNAD scheme.

***Bulletin*** - Paul Cannon

Paul Cannon thanked Maxine Putnam and Tony Holwill for co-editing the large and colourful Summer and Winter 2017 Bulletins so competently. He is retiring from the Editorship of the Bulletin and wishes them well for taking it over jointly from 2018. Members are reminded to send in 'fresh copy' to Maxine at any time of the year and she thanked all contributors. Council thanked Paul very much for all his time and work on the Bulletin during these past few years.

***Lichenologist*** - Peter Crittenden

Peter is very grateful to all who have worked on the *Lichenologist* in 2017 for their hard work and support: the members of the Editorial Board, Margaret Crittenden (Managing Editor), Justine Fox (Copy Editor) and the proof readers Kathryn Challis, Brian Coppins and Tony Braithwaite. There were six issues published in 2017 and another six issues planned for 2018, with a backlog of papers waiting in the queue for copy editing, which is all good news. As Peter has said many times before, running *The Lichenologist* is a team effort. He announced that Leena Myllys, one of the Editorial Board members, has agreed to become the co-Senior Editor in 2020 which is very good news.

Margaret Crittenden will be retiring from the very important part-time post of Managing Editor in 2020 and the Editorial Board will be seeking a paid replacement soon. Peter thanked all the contributors and administrators involved in making *The Lichenologist* the and also the Treasurer John Skinner for organising the finances so ably with Cambridge University Press and reporting to Council. Peter was warmly thanked by Allan Pentecost on behalf of the BLS.

***Website*** - Janet Simkin

Janet reminded the society that the website has remained largely unchanged now for five years, but its role has recently been reviewed in the light of the development of social media and other websites. News items, photographs and species accounts are now well catered for elsewhere, and it seems that our website is successfully meeting some of the other needs of members and casual enquirers.

A recent analysis of site visitors showed that it is particularly well used by students needing information for projects and essays, and also by casual enquirers curious to find out more about lichens. BLS members use different parts of the website, mainly the taxon dictionary, events calendar, maps and other downloads. Feedback is always welcome, and we are responding to recent comments by changing the home page and menus to make it easier to find some of the other resources that are less used.

We would like to get more people involved in keeping content up to date, particularly for the Lichens of Wales website, but getting people together for training sessions is difficult. We hope to progress this and to produce a brief guide to editing the websites to help people get started. The President thanked her very much for all the time and work she puts into this difficult job.

### ***Field Meetings*** - Steve Price

Steve Price reported that five meetings were held in 2017. These were at Abney Park Cemetery in London in January, a photographic workshop held at Kew in February, Malham Tarn Field Study Centre in April, Sweden in June, and an Autumn Field meeting in Epping Forest in September. Courses, workshops and local meetings run by other bodies had been promoted on the BLS website.

There are six meetings in 2018 and two already being planned for 2019 in western Scotland and Anglesey. All the details are on the website and in the Bulletins and Steve will send details to Amanda Davey for inclusion on our social media pages. Steve asked BLS members to send him any details of forthcoming lichen outings being organised by Natural History Societies and local lichen groups which he can advertise on the website.

The President thanked Steve warmly for all his work on organising these field meetings and also for the health and safety aspects and background administration. Steve thanked all the attendees, tutors and local organisers for their time and skills.

*Comments from the Floor:* David Richardson wondered whether the sites at Newton Stewart could be revisited after twenty years as the trip was not written up. Steve said that there was a 2018 April field trip there. Steve asked whether any members had records of the first ever BLS Field Meeting to Chagford, and if so could they contact him. He has maintained a full record since then which is available on the website.

### ***Librarian*** - Ray Woods and Theresa Greenaway

Use of the Library throughout 2017 continued to be low. Dr Peter Thrower kindly donated ten more books from the library of the late Dr Stella Thrower. Apart from visits by Ray and Theresa, the local artist Julie Ann Sheridan has visited the library this year, conducting research on lichens to inform her artworks. She will be holding an exhibition of her artwork from 20<sup>th</sup> January to 20<sup>th</sup> March 2018 in the Oriel yr Ardd Gallery, National Botanic Garden of Wales. The launch of this on 20<sup>th</sup> January will coincide with the launch of two small bilingual booklets, one funded by the Welsh Government National Science Academy on the Rock Lichens and one funded by the BLS on Tree Lichens of the Botanic Gardens, co-written by Ray and Theresa. There



is also a 6-page Rock of Ages Lichens Report 2013 and a Lichen List of the Gardens in the Library and on the NBGW website.

Pressure on the space available for the BLS Library within the library of the NBGW has eased somewhat in 2017. More could be done if necessary to reduce the space taken up by a planned disposal of at least some of the duplicate books, or a re-location of some of the less relevant journal runs, but these do not seem to be priority issues at present.

More imperative is the need to consider radically improving the access to grey literature in the library. Abstracts and a considerable amount of grey literature is currently arranged alphabetically in folders, but this resource is rapidly becoming 'historic', with little or no new material being added – and so is far from complete. There is an abundance of information on the web relating to archiving, aimed at both the D-I-Y approach and the employment of professionals. It is becoming increasingly difficult to retrieve copies of past surveys from commissioning organisations as they either reinvent themselves or eliminate such documents from their websites.

### ***Archivist*** - Mark Seaward

Mark stated that the Archive is a valuable and useful resource both to members and non-members who have an interest in the historical and social aspects of nineteenth and twentieth century lichenology. He said that it would be good to have a building to store the Archives which need cataloguing and be made more accessible. Although Mark would like to continue as Archivist, as his services are regularly called upon, there was an urgent need to find a home for most of the Archives and this should be discussed by Council in 2018.

The President thanked Mark for all his help in maintaining the Archives and this was warmly acknowledged from the floor. Tracey Lovering said that the NBG Wales has a considerable Archive and wonders if it could be stored in the National Museum of Wales in Cardiff.

### ***Herbarium*** - Richard Brinklow

The Society's Herbarium has had a fairly quiet year with only a small number of loans being sent out, but I am pleased that it has also been used by the Tayside Lichen Group.

I would like to remind members that they are welcome to borrow specimens from the Herbarium. Although not comprehensive, it does contain about 800 taxa of British Lichens. 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](mailto:herbarium@britishlichensociety.org.uk)).

The Herbarium contains mainly of bequest material and many crustose species are still poorly represented. I would therefore be particularly pleased to receive donations of the more challenging crustose species to the Herbarium.

### **Election of Officers and Committee Chairs**

Three officers are retiring from Council: Allan Pentecost is retiring as President, Paul Cannon is retiring as Vice President and Editor of the Bulletin, and Pat Wolseley is retiring as Secretary. Joining Council at the end of this AGM will be the new Vice President Rebecca Yahr and the new Editors of the Bulletin, Maxine Putnam and Tony Holwill, and new Minutes Secretary Eluned Smith. Paul Cannon will continue to serve on Council as President. These officers were proposed by Allan Pentecost and seconded by Janet Simkin and unanimously elected to Council to become Trustees.

Three Members of Council retired namely Ishpi Blatchley, Neil Sanderson and Richard Brinklow and they were warmly thanked for serving Council in many ways. The three new members of Council are Esther Gaya, proposed by Paul Cannon and seconded by Peter Crittenden. Esther is a member of Staff at Kew working on the phylogenetics and evolution of *Teloschistaceae*. Judith Allinson was also proposed by Allan Pentecost and seconded by Peter Crittenden. Judith is a botanist interested in grasses and photography and lives in North Yorkshire. The third member of Council will be Janet Simkin, proposed by Allan Pentecost and seconded by Peter Crittenden. Janet was introduced to Council by Frank Dobson and has served on Council in various capacities for the past eighteen years.

### **Proposal for Incorporation and the new BLS Constitution**

Allan Pentecost explained that a new draft Constitution based on a template from the Charities Commission has been prepared with the help of an external consultant, Nigel Scott. This will change the Society's legal status to an Incorporated charity. The draft will be circulated to the Trustees for discussion and an amendment in April 2018, and made available for consultation and comment by the Society members in summer 2018. It will hopefully be ratified by the members of the BLS at the AGM in January 2019, and submitted to the Charities Commission in early 2019.

### **Subscription Fees 2018**

No changes to annual membership are suggested for this year.

### **AOB**

The National Botanical Garden of Wales has thanked the BLS for funding the publication of *Discovering Tree Lichens* pamphlets written by Ray Woods and Theresa Greenaway.

Amanda Davey said that the point of using social media is to reach a different audience and that she had sent live tweets from this AGM during the afternoon. A first for the BLS!

Steve Price proposed thanks to the retiring Editor of the Bulletin, Paul Cannon, and there was clapping from the floor.

Paul Cannon then gave thanks to Allan Pentecost for having looked after the affairs of the BLS so safely during the past two years. He thanked Council, Maxine Putnam and Tony Holwill, Rebecca Yahr and the retiring Council members.

He said that the BLS has a very special way to thank a member who has given outstanding service to the BLS and named John Skinner as the recipient of the Ursula Duncan Award.



John has been a very competent Treasurer for the past eleven years, dealing with banks, accountants, invoices and auditors. He has also done splendid lichen work particularly in Epping Forest teaching beginners and budding experts alike. Paul presented John with a polished piece of serpentine rock, and the whole meeting applauded. Mark Seaward said that Ursula Duncan was an excellent mountaineer and would be very pleased to see the Award go to such a worthy recipient.

#### **Date and place of the AGM 2019**

Paul Cannon proposed that the 2019 AGM should be in London on the 26<sup>th</sup> January 2019 at Kew Gardens. Seconded by Steve Price.

## **GDPR Compliance**

You will probably by now be heartily sick of messages about the European Data Privacy legislation (GDPR). We will not add to the onslaught of fine print except to reassure you that we take your personal information very seriously. If you do want to know more about this subject, please refer to the Privacy Statement and Data Policy (both can be found on the BLS website under the “The Society” and then “Legal Matters” tabs). Alternatively, please contact the BLS membership admin service, the contact details for which are inside the front cover of this Bulletin. For those of you that have agreed to be contacted by email, we very occasionally send you messages that we hope will be of interest. You can change your options via the “My Society” web page, or by contacting the membership admin as before. Email is by far the quickest and cheapest way for the Society to contact you, so please choose this option if you are able.

## **NOTICE OF ANNUAL GENERAL MEETING 26 January 2019**

The 2019 BLS AGM will be held in the Jodrell Laboratories, Royal Botanic Gardens, Kew, Surrey TW9 3AB on Saturday 26th January starting at 10 AM.

Further details will be provided in the Winter Bulletin.

## **The BLS and constitutional change**

The current legal status of the British Lichen Society is a Charitable Unincorporated Organization. This arrangement has served us well for many years. However, in the eyes of the law the Society is not a legal entity in itself, but rather a group of like-minded individuals working together to promote the study of lichens. This has a number of major limitations. For example, we cannot employ individuals to carry out work for the Society (but only provide grants in support of such work), and Trustees are currently personally liable financially for debts incurred by the Society.

Many charitable organizations in the UK are therefore converting to Incorporated status, the arrangement favoured by the UK Charities Commission – the Government body that oversees us – and the BLS is also intending to become a Charitable Incorporated Organization (CIO). This will allow us to let formal contracts for work in support of the Society’s charitable aims, and to employ people directly if that proves necessary in the future. It also means that the BLS Trustees have some protection, as they have ‘limited liability’ and any claim is made against the CIO rather

than the individual trustees. Of course, their overarching responsibilities to govern the Society wisely and to oversee financial matters will continue as before.

Our new Constitution as a CIO will closely follow a model recommended by the Charities Commission. It is intended to be a more or less permanent document that defines the governance processes and the acceptable actions of its Trustees in much more detail than in our current Constitution. It would be altered only if there was a substantial change in the Society's objectives or methods of operation. The new constitution also makes a clear distinction between *Trustees* (who are ultimately responsible for the operation of the Society as a charitable institution according to its constitution), and *Officers* (who are responsible for running the Society on a day-to-day basis).

The new Constitution is a top-level document that does not include many of the rules and regulations included in our current constitution. These will therefore be addressed in **Rules of the Society**, which explain how we operate on a day-to-day basis and give more detail on its objectives. It would be expected that the Rules will be modified from time to time, but the process for changing them will be simplified and the changes will be voted on by the membership as at present. In no circumstances will the Standing Orders take precedence over the Constitution: in any areas of conflict the Constitution will be considered as the definitive document under which the Society operates.

## What happens now?

The new draft **Constitution** and **Rules of the Society** were signed off by Council at its meeting in Carlisle on 22 April 2018. The drafts are now open to consultation by the membership, and can be found via a link on the front page of the Society's website. If anyone is unable to access the documents in this way, they can contact the BLS Membership Administration service at c/o Royal Society of Biology, Charles Darwin House, 12 Roger Street, London WC1N 2JU (telephone 020 3793 7852) to be sent a paper copy of the drafts.

Members are encouraged to consult the draft documents, and to send comments to the President ([president@britishlichensociety.org.uk](mailto:president@britishlichensociety.org.uk)) or via the Membership Administration service. In order that Council can review the comments and make changes accordingly, the **deadline for comments is 10 September**. Final drafts of the documents will be made available as before, and promulgated via the Winter 2018 *Bulletin*.

The constitutional changes will be debated and voted upon at the British Lichen Society AGM at Kew on 26 January 2019, with a two-thirds majority required for change. Members will be invited to give the Trustees the authority to make the necessary legislative changes. This will involve registration of a new Charitable Incorporated Organization by the Charities Commission, transfer of the Society's financial and other assets to the new entity, and finally dissolving the old organization.

*Paul Cannon*

[president@britishlichensociety.org.uk](mailto:president@britishlichensociety.org.uk)

# Data protection and the BLS database

To meet the requirements of the General Data Protection Regulation (GDPR) and the Data Protection Act 2018, we have rewritten our Data Policy to make it clearer and introduced the requirement that those submitting records to the database opt in to us holding any personal data they contain. Nothing else has changed, but data providers, whether individuals or organisations, will now be asked to agree to these Terms and Conditions (by email to [records@britishlichensociety.org.uk](mailto:records@britishlichensociety.org.uk)), and we will keep a register of those who have agreed.

In accordance with good practice we will also seek agreement from those who submitted records before that date, but this will not always be practical and historic records and those already in the database will continue to be used and shared unless removed from the database.

Any queries should be directed to Janet Simkin on; [records@britishlichensociety.org.uk](mailto:records@britishlichensociety.org.uk).

## BLS Data Policy

The British Lichen Society maintains a database of records of lichens and lichenicolous fungi to which members and others are encouraged to submit their data. Records should include the taxon name, location, date and recorder, and may include additional information on habitat, identification and herbarium specimens.

By submitting records for inclusion in the BLS database you or your organisation agree to the following Terms and Conditions:

a) Record ownership

The record content and any supporting information is yours, or you have the permission of the owner to submit it to the BLS. This is not always possible for collations of historic records, but for these you will have done whatever is reasonable and practical to ensure that you have permission.

b) Validation and verification

To ensure the highest standards of data quality we may occasionally have to redetermine records or correct errors in such details as the date or location.

c) Personal data

We have your permission to hold recorder and determiner names as part of the record, together with details of the location and date, and to share these with others as part of the record. Names are needed to provide provenance and traceability. Spatial data will be shared at the supplied resolution and this may lead to personal information such as your location on a particular date being supplied, so if this is a problem please supply the record at lower resolution.

d) Use and sharing of data

We have your permission to use the records and to share them with others without restriction for purposes of research, education, conservation, planning, and any other use the society deems appropriate. Data users who may request

access to your records include government organisations, national agencies, conservation organisations, local authorities, ecological consultancies, academic researchers, experts, and members of the public.

e) National and international records databases

The BLS has your permission to make the records publicly available at full resolution on the NBN Atlas and the Global Biodiversity Information Facility (GBIF), and other databases may access them from there.

f) Acknowledgement

You understand that your name cannot always be credited with uses of the data, but your authorship will be acknowledged when practical and appropriate.

g) Contact details

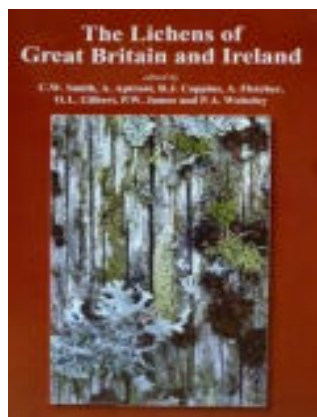
Those managing the BLS database may keep contact details for recorders and those submitting records to enable them to follow up on queries and provide feedback. Occasionally these will also be used to circulate information relevant to lichen recorders.

h) Right to personal information

You have the right to ask us at any time for details of all the personal information we hold on you, including a full list of the records on which you are named as recorder or determiner. You also have the right to ask us to remove your records from the BLS database, or to exclude them from subsequent updates of the NBN Atlas and GBIF. Please contact [records@britishlichensociety.org.uk](mailto:records@britishlichensociety.org.uk) to do either of these.

Version 2, issued 25 May 2018

## ***The Lichens of Great Britain and Ireland ride again....***



Edition  
3  
in  
progress!

The first edition of our major lichen reference work was published in 1992 following the successful conclusion of a NERC-sponsored project, and the second appeared in 2009 – the result of an in-house BLS project. Very substantial changes have occurred in our understanding of lichen systematics and evolution in the period since (leading inevitably to associated name changes), and around fifty species are already newly recognized or newly recorded for our islands. The BLS Council has accordingly

agreed to take steps towards publication of a third edition, with a planned lead time of around four years.

A new Editorial Board was convened in Autumn 2017 to carry out a pilot project to look at the complexities of revising genus accounts from Edition 2, and to produce a more user-friendly Glossary for use by contributors to the new edition. The current membership of the Editorial Board (in alphabetical order) is Paul Cannon, Brian Coppins, Alan Orange, Mark Powell, Janet Simkin and Becky Yahr. A short report on the pilot phase was presented to Council in April 2018, and it was agreed that the pilot phase would transform into the main project. It was also considered appropriate that while compilation of the new genus accounts would be voluntary activities, the administrative aspects of the project should be remunerated.

As new genus drafts are prepared, they will be posted on the BLS website (see <http://www.britishlichensociety.org.uk/content/lgbi3-draft-accounts>). There are thirteen already, including *Pectenaria* (the currently accepted name for *Degelia*), *Thelotrema* with its segregates *Crutarndina* and *Leucodecton*, *Mycoblastus* and *Violella*, and a completely new account of *Trapelia* in line with Alan Orange's recent monograph in the *Lichenologist*. We would very much welcome comments on the drafts, and with your support they will surely be improved upon.

The Editorial Board will soon be inviting contributors to author revisions of the genera in Edition 2, either alone or in collaboration with others, and we hope that we shall receive accounts from a wide range of experts. In some cases completely new accounts will be appropriate, but formatted MS Word versions of the text in Edition 2 will be provided which will make the task relatively painless. Offers of help will be appreciated. LGBI3 will be a major project for the Society – please be patient!

*Paul Cannon and the Editorial Board*

## **Eagle Hill announcements**

### **Announcing five Eagle Hill Institute lichenology programs in 2018**

Eagle Hill lies right on the coast of Eastern Maine, between Acadia National Park and Petit Manan National Wildlife Refuge.

May 27 – Jun 2 ... Introduction to Bryophytes and Lichens ... Fred Olday  
Jun 3 - 9 ... Sterile Crustose Lichens Unveiled ... James Lendemer  
Jun 24 - 30 ... Lichens and Lichen Ecology ... David Richardson and Mark Seaward  
Aug 26 – Sep 1 ... Independent Study: Pyrenolichens ... Richard Harris  
Oct 26 - 28 ... Crustose and Foliose Lichens ... Fred Olday



The following general flyer has links to individual lichenology program flyers:

<https://madmimi.com/p/824fbb?fe=1&pact=429973-144174433-7501261478-20090a01de8023c1c2cadde1ccf225b5e24b7b28>



[Seminars 2018 #03 -lichenology](#)

madmimi.com

Lichenology programs at Eagle Hill 2018 Eagle Hill lies right on the coast of eastern Maine between Acadia National Park and Petit Manan National Wil...

For general information ... <https://www.eaglehill.us/programs/nhs/nhs-calendar.shtml>

[Art and Natural History Seminars, Courses, and Workshops ...](#)

[www.eaglehill.us](http://www.eaglehill.us)

seminars, workshops, courses, natural history, scientific, Maine, neotropical, ecological restoration, art, humboldt, professional, advanced

[office@eaglehill.us](mailto:office@eaglehill.us) ... 207-546-2821 Ext 4

*Joerg-Henner Lotze*

Director, Eagle Hill Institute

PO Box 9, 59 Eagle Hill Road, Steuben, ME 04680-0009 United States

[joerg@eaglehill.us](mailto:joerg@eaglehill.us)

Phone: 207-546-2821 Ext. 4. Cell: 718-715-2824. FAX: 207-546-3042.

<http://www.eaglehill.us>

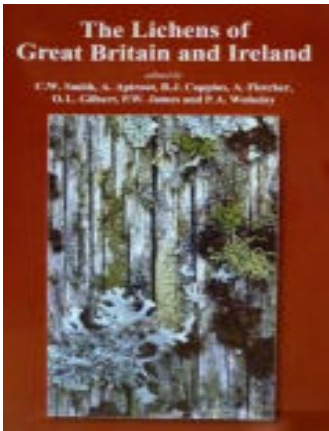
## Request

Dr Francis Rose was a great naturalist, as well as a fine lichenologist. He was extremely generous with his knowledge and his time. I would be most grateful for any anecdotes, especially amusing ones for a book I am preparing about him. I am short of photographs, and any that could be considered for inclusion, I would be most grateful to see. Anything that people wish to help with could be sent by e-mail to [SRDavey@globalnet.co.uk](mailto:SRDavey@globalnet.co.uk).

*Simon Davey*

## Publications and other items for sale

Please contact The Richmond Publishing Co. Ltd, The Cottage, Allerds Road, Slough, SL2 3TJ, tel. (+44) (0)1753 643104, email [rpc@richmond.co.uk](mailto:rpc@richmond.co.uk) to purchase these items and to enquire about overseas postage prices outside of Europe. RPC now accepts BACS transfers (account no. 90901210, sort code 20-78-58) and payments via PayPal (PayPal address [rpc@richmond.co.uk](mailto:rpc@richmond.co.uk)).



**Cat.1. The Lichens of Great Britain & Ireland.** Ed. Smith et al. (2009). Hardback, 700pp. **NOW BACK IN PRINT!**

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 £10.00 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.

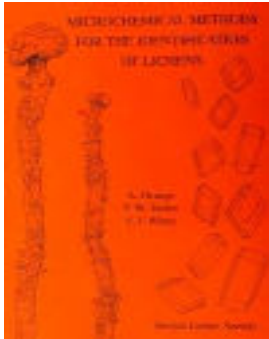
**Cat.4. Fascicle 4:** *Cavernularia*, *Degelia*, *Lepraria*, *Leproloma*, *Moelleropsis*, *Pannaria*, *Parmeliella*. (36 spp) 1999.

**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 and non-members at a special price of £3.00 each, (approximately half price). Postage & Packing £3.50 UK, 10.00 overseas, per fascicle.

**Cat.7. Fascicles 3 to 6 for £9.00** (Buy 3, get one free!). per fascicle. Postage and packing £8.50 UK, £25.00 overseas.



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

2<sup>nd</sup> edition, with two colour plates. Full of useful information on pigments, crystals, colour tests with reagents and TLC.

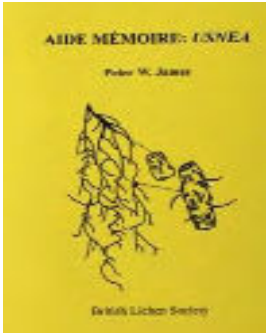
Price £9 members, £11 non-members.

Postage & Packing £4.00 UK, £9.00 Europe



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

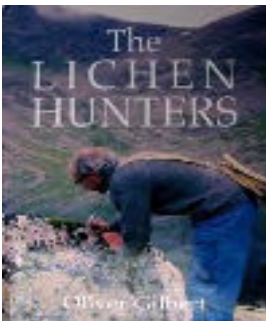
An update and revision of the 2003 edition and now extended to include lichenicolous fungi. Provides a comprehensive catalogue of threat statuses. Also included are lists of specially protected species in England, Scotland and Wales and those species for which Britain has an internationally important population. It is no. 13 of the JNCC's Species Status volume series. A4 paperback 155pp. £7.00. Postage and Packing £5.00, £12.50 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.

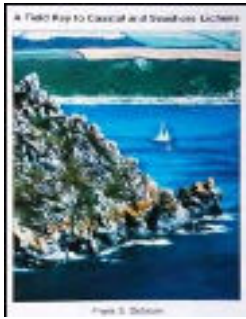
BLS members £8.95, non-members £9.95. Postage & Packing £2.50 UK, £6.50 overseas.



**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) £5.00 UK, £7.00 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**  
12 cm peels off easily  
Recognise fellow members in the car park



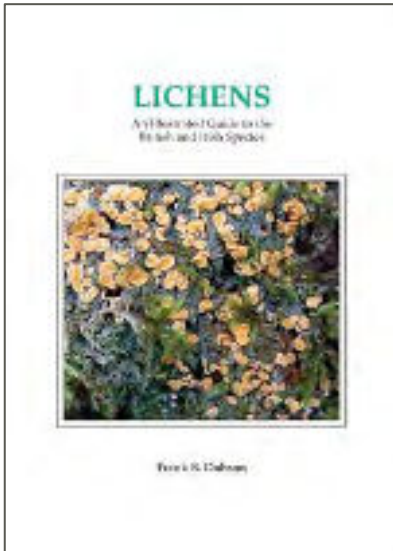
**Cat. 29 Enamel badge**  
2.5cm diam. Pin fixing  
Matt finish. A well made attractive badge



**Cat. 30 Fabric badge**  
6cm diam. Ideal for sewing onto a rucksack or a cap

Cat. Nos. 28, 29 and 30  
£1.00 each. Postage & Packing £1.00 UK, £2.50 Europe, £3.00 rest of the world (exception: Cat. 29 £1.50 UK)

## Cat.31 Lichens – An Illustrated Guide to the British and Irish Species 7<sup>th</sup> Edition



The new edition 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 7<sup>th</sup> edition conforms with the nomenclature of 'Lichens of Great Britain and Ireland' (LGBI) ed. Smith, C. W. et al (2009) and more recent changes. Over 1,000 species are treated.

This new edition includes many species not currently in LGBI and a section by Mark Powell on lichenicolous fungi on *Physcia* and *Xanthoria*.

Entries consist of a description of each species, a photograph, notes on habitat, chemical tests and line drawings of microscopic and other diagnostic features. Help is also provided in separating similar species. The popular generic lateral key has been retained and enlarged together with a section on sterile species. A generic synopsis is included to assist the more experienced lichenologist.

**Publication due June 2018. Available to pre-order from The Richmond Publishing Co. Ltd.**

### **Publication of the Winter 2018 Bulletin**

**Copy for the Winter 2018 Bulletin should reach the editors (contact details on the inside front cover) by 1 October 2018**







# British Lichen Society Bulletin no. 122

## Summer 2018

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