British Lichen Society *Bulletin* no. 125 Winter 2019

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**no. 125: Winter 2019**

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Welcome to the Winter 2019 *Bulletin* and a sincere thank you to all who have contributed articles and newsworthy snippets providing us with a varied and interesting magazine. It is a familiar sentiment among our members that by the time autumn arrives the backlog of work resulting from long days in the field means that time available for writing up is limited. I am particularly grateful to those of you who have found the time to share your discoveries in the *Bulletin.*

Some of the Society's members are working hard to teach, train and encourage young people to become the field lichenologists, surveyors and habitat managers of the future and Plantlife in particular is putting resources behind this aim. The Lake District programme, LOST (Looking Out for Small Things) led by April Windle, has inspired one apprentice and his account of assessing the condition of woodlands appears in this issue. In addition, we are fortunate to have a glimpse into the artistic work of another apprentice – one who was involved in Plantlife's Welsh training scheme, Cennad, led by Tracey Lovering.

This education theme is continued in Janet Simkin's account of the Northern England Epiphytic Lichen Survey (NEELS) - which uses an app on a smartphone to empower people to be able to produce lichen records after very little training. It has long been a concern that distribution maps show a bias towards less common lichens and the clever methodology used in the NEELS may do something towards redressing this in the north of England at least.

Although the British Lichen Society's accounts on social media are enjoyed by relatively few of the members they are continuing to extend awareness across the world. The BLS Twitter account now has in excess of 2,600 followers and the top class photographs are a delight. Yet more excellent lichen photographs appear in the Dutch book reviewed in this issue which also has the advantage of introducing many of the changes in nomenclature which have recently been adopted.

Members may recall that the Society is committed to changing its status from that of a Registered Charity to that of Charitable Incorporated Organisation (CIO). This action was approved at the 2019 AGM and by the time you receive this Bulletin the application will have been submitted to the Charity Commission.

As some of you may already be aware my co-editor, Tony Holwill, died suddenly in September and will be greatly missed by all who knew him. He was a long-standing member of the Society and gave his time generously to recording and teaching and helping me with the Bulletin over the last few years.

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**Front cover:** *Cetrelia olivetorum* showing pseudocyphellae and marginal soralia, growing amongst moss on oak at Rydal Park, Cumbria, BLS recording meeting September 2019. Photo © M. Putnam.

# Lichens at the Royal Horticultural Society garden at Wisley

A survey by Mark Powell and Fay Newbery


## Summary

- 113 confirmed taxa were recorded during a survey which lasted one day. Of these, seven are lichenicolous fungi, three are bark fungi traditionally recorded by lichenologists and the remainder are lichenized fungi (lichens). One lichen (*Ochrolechia arborea*) is IUCN Near Threatened while another (*Strigula taylorii*) is one that Britain has International Responsibility for. Three of the taxa are Nationally Rare and 13 are Nationally Scarce (see Table 1).
- No truly notable taxa were found but some of the lichen communities at Wisley are valuable and several rarely recorded lichens are present. Hotspots of lichen diversity include the trees and shrubs in Oakwood (Wild Garden) and the lignum of interpretive boards and bench seats. A few old trees have lichens that we interpret as being relics from the days before historic atmospheric pollution rendered most of the region a 'lichen desert'.
- Current management is suitable to preserve the lichens found at RHS Wisley. The colonisation by ivy on the oldest trees should be prevented (those trees already heavily covered are not a priority). Where possible worked timber in the form of old interpretive boards and wooden bench seats should be preserved and not rigorously cleaned nor treated with varnish or other wood treatments. The wooden seats in the more formal parts of the garden appear to be regularly cleaned and support little lichen interest and this cleaning can continue without affecting the lichen diversity of the garden.


## General introduction to lichens

Lichens are curious dual organisms, a close association between a fungus and a photosynthetic partner (usually a green alga). This association is so intimate that Victorian biologists argued about whether lichens were a single organism or a partnership. One school of thought maintained that the microscopic green cells within them were organelles produced by the fungus while others argued that the green cells were algae that had been entrapped by the fungus. We now know that the latter is correct but the degree to which the algae are exploited is still a matter for debate.

## The survey - methods

All lichens and lichenicolous fungi that were encountered were recorded along with those non-lichenized fungi which are currently recorded by lichenologists (see for example the BLS Taxon Dictionary: http://www.britishlichensociety.org.uk/resources/lichen-taxon-database). The survey was conducted with the aid of a x10 hand lens and a set of three spot chemicals. A handheld GPS provided accurate location of certain features within site.



## 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.

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

Table 1 lists all taxa found at Wisley 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 published (paper publication) Conservation Evaluation of British lichens and lichenicolous fungi.

## 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} = 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: DD** = Data Deficient, **LC** = Least Concern, **NE** = Not Evaluated, **NT** = Near Threatened, **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).

| | | | | |
|---|---|---|---|---|
| 113 | *Aspicilia contorta subsp. hoffmanniana* | 0 | LC ns | |
| 2503 | *Caloplaca albolutescens* | 0 | LC NS | |
| 316 | *Catillaria nigroclavata* | 0 | LC ns | |
| 911 | *Cyrtidula hippocastani* | {F} | LC NS | |
| 305 | *Fellhanera bouteillei* | 0 | LC NS | |
| 1704 | *Halecania viridescens* | 0 | LC ns | |
| 2240 | *Heterocephalacria physciacearum* | {LF} | LC ns | |
| 1707 | *Lecania inundata* | 0 | LC ns | |
| 754 | *Lecanora albella* | 0 | LC NS | |
| 2121 | *Lecanora barkmaniana* | 0 | LC ns | |

| | | | | |
|---|---|---|---|---|
| 621 | *Lecanora hagenii* | 0 | NE | |
| 610 | *Lecanora semipallida* | 0 | LC ns | |
| 1537 | *Leptorhaphis maggiana* | {F} | LC NS | |
| 949 | *Ochrolechia arborea* | 0 | NT NR | |
| 2511 | *Parmotrema pseudoreticulatum* | 0 | NE ? | |
| 1614 | *Porina byssophila* | 0 | DD nr | |
| 1378 | *Strigula taylorii* | 0 | LC ns IR | |
| 2260 | *Unguiculariopsis thallophila* | {LF} | LC ns | |
| 2621 | *Verrucaria squamulosa* | 0 | NE nr | |

## An illustrated guide to lichens at RHS Wisley

Fig. 1. One of the richly lichen-clad ornamental trees and shrubs in Oakwood (Wild Garden) at TQ06367.58305.

Of particular note on this shrub is *Parmotrema pseudoreticulatum* (see Fig. 2).

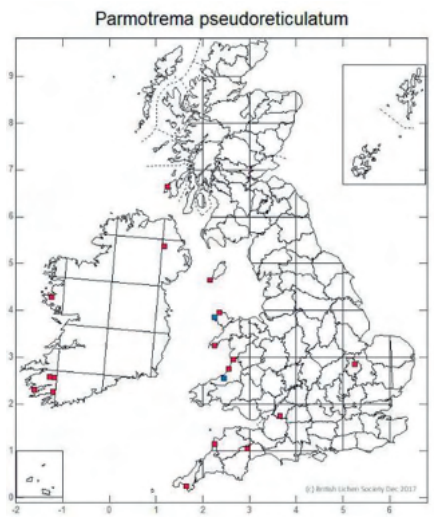


Fig. 2. Distribution map of *Parmotrema pseudoreticulatum* (BLS database, August 2018).



Fig. 3. The sheltered but open conditions in Oakwood, combined with a wide range of tree and shrub species, make this area into a hotspot for corticolous (bark-inhabiting) lichens.

Fig. 4. This area at TQ0644.5879 has a sparse grass sward due to the light soil and 'stress halos' around the circle of influence of conifer trees. Terricolous lichens are sparse.

Fig. 5. Old *Quercus* tree on bank near riverside (TQ06395.58845). This tree has a small colony of the minute 'pin-lichen' *Chaenotheca trichialis* in bark crevices near its base. *C. trichialis* is thought to have limited ability to spread over long distances and it is here probably as a relic of the days before coal burning turned much of lowland England into a lichen desert. Note the presence of incipient ivy which has the potential to smother the *C. trichialis* if allowed to grow.

Fig. 6. Wooden bench seat at TQ06422.58817.

Wooden seats tend to be hotspots of lichen diversity if they are not regularly cleaned nor treated with varnish or other treatments. The horizontal slats support numerous thalli of *Lecanora barkmaniana*, a species described as new to science as recently as 1999. It is very rarely found fertile but several of the thalli on this seat have apothecia.



Another wooden seat at TQ0649.58635 supports the minutely beautiful *Caloplaca cerina*.

Fig. 7. A fertile thallus of *Lecanora barkmaniana* on the wooden seat shown in Fig. 6. The foliose lichen in lower right is *Physconia enteroxantha*.

Fig. 8. Interpretive board in the Jubilee Arboretum at TQ06458.57824. Weathered lignum is an increasingly rare habitat in the modern landscape and the wooden frame of this board supports a rather remarkable community of lichens including *Lecanora albella*, *L. pulicaris*, *Micarea nitschkeana* and *Ochrolechia arborea*.

Fig. 9. *Ochrolechia arborea* on the wooden frame of the interpretive board shown in Fig. 8.

In the upper left corner is *Lecanora symmicta* and *L. pulicaris* is at upper right.

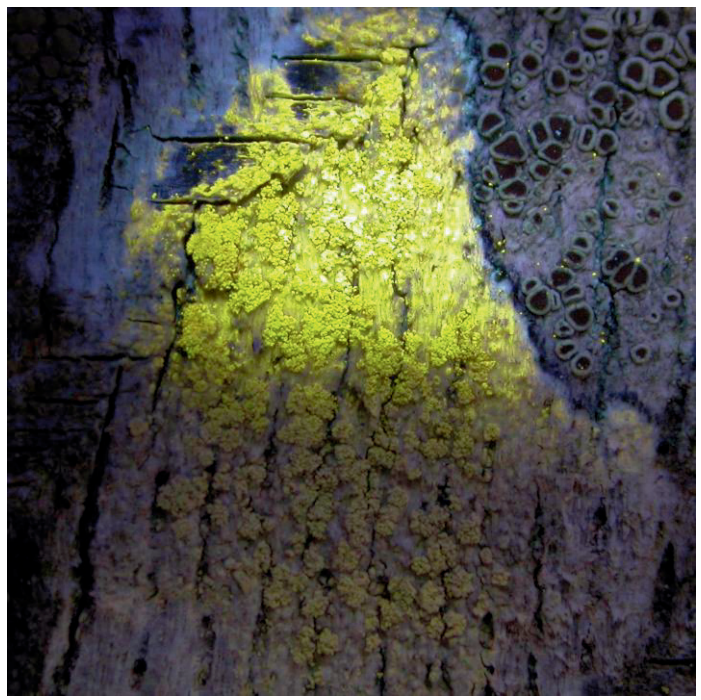

Fig. 10. The thallus of *Ochrolechia arborea* shown in Fig. 9, showing the intense yellow fluorescence under UV light which is diagnostic for this rarely recorded species.



Fig. 11. The trees of the orchard were examined and found to be very sparsely colonised by lichens. In contrast, the trained fruit trees shown in the foreground are quite heavily colonised by lichens. If the main orchard is treated with fungicides and other sprays, this might account for the dearth of lichens. This observation is provided as an interesting speculation and does not imply that we recommend any changes to the current regimes.

Fig. 12. Ornamental rock features and stone troughs in the Alpine Garden support a range of saxicolous lichen species though no notable species were discovered.

Fig. 13. The Rock Garden provides extensive habitat for saxicolous lichens. Only the most distinctive species were recorded; the production of a comprehensive and reliable list of lichens in the Alpine and Rock Gardens would require the collection of numerous specimens and would be a time-consuming exercise. The large cubic rock in the foreground of this photograph supports *Verrucaria squamulosa* on its upper surface.

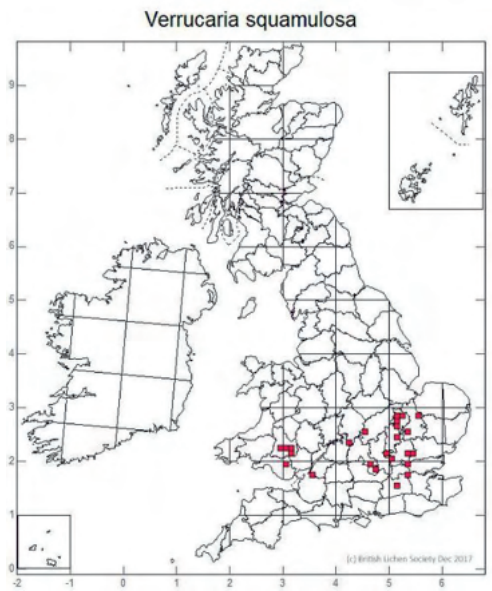


Fig. 14. Distribution map of *Verrucaria squamulosa* (BLS database, August 2018). The distribution might tell us more about where certain lichenologists who know this species have been recording rather than about the distribution of the lichen.



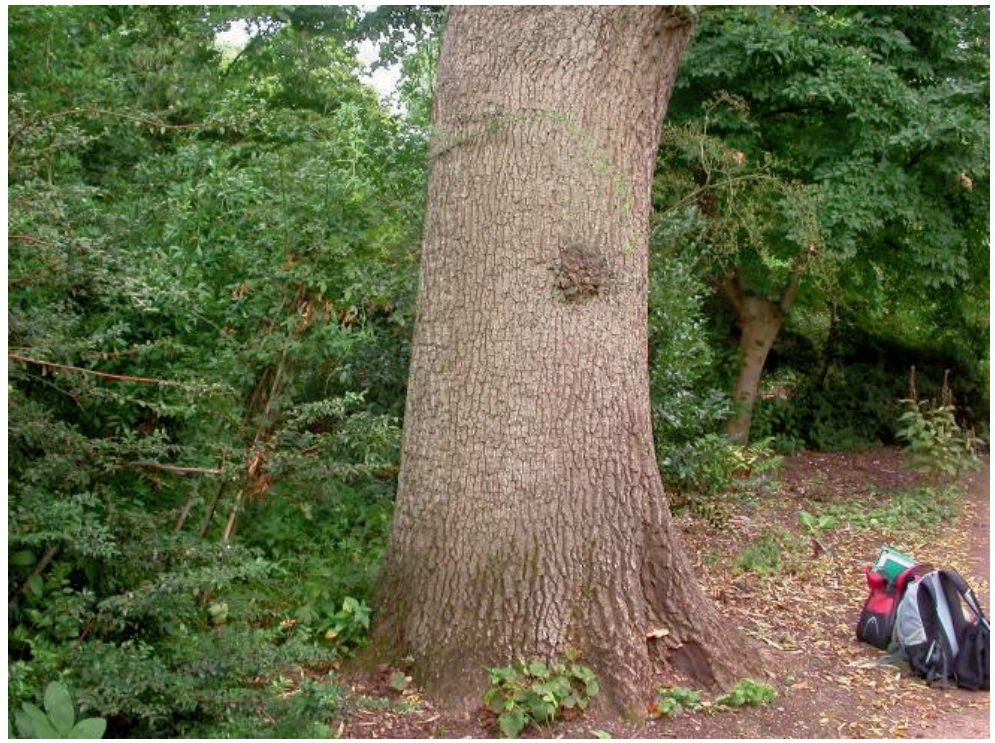

Fig. 15. Old *Quercus* tree at TQ06220.58352. The legacy of historic atmospheric pollution and the lack of any ancient trees mean that notable lichen communities have not been found on the old trees at RHS Wisley. The old trees do support a few lichens that may be relics of pre-pollution days. The tree shown here has large colonies of *Scoliciosporum pruinosum* in its crevices. Other old trees in the strip of woodland between the car parks and Wisley Lane support *Graphis scripta* and *Lecanactis abietina* but such species are present on only a very few trees and present in small quantity.

## Table 2.
## Lichens recorded at RHS Wisley

Nomenclature follows Smith *et al.* (2009) except for some recent changes to species concepts and name changes.
In front of the species name is the standard British Lichen Society number.
Column C indicates whether the taxon is a lichenized fungus = 0, or a lichenicolous fungus = {LF}.
Column D gives the IUCN and restricted distribution designations (LC = Least Concern, NE = Not Evaluated, NR = Nationally Rare, NS = Nationally Scarce).
Column E gives the substratum on which the lichen was growing: Cort = corticolous (growing on bark), Lic = lichenicolous (a parasitic fungus growing on a lichen), Lig = lignicolous (growing on decorticated wood).
Column F gives more detail about the habitat using standard BLS codes.

| | | | | | |
|---|---|---|---|---|---|
| 212 | *Amandinea punctata* | 0 | LC | Cort | CQ,CTr |
| 49 | *Anisomeridium polypori* | 0 | LC | Cort | |
| 70 | *Arthonia spadicea* | 0 | LC | Cort | CQ,CTr |
| 1542 | *Arthopyrenia punctiformis* | {F} | LC | Cort | CAl,CTw |
| 107 | *Aspicilia contorta subsp. contorta* | 0 | LC | Sax | SCo |
| 113 | *Aspicilia contorta subsp. hoffmanniana* | 0 | LC NS | Sax | SLm |
| 207 | *Buellia griseovirens* | 0 | LC | Lig | LWT,PSe |
| 2503 | *Caloplaca albolutescens* | 0 | LC NS | Sax | |
| 241 | *Caloplaca cerina var. cerina* | 0 | LC | Lig | LWT,PSe |
| 242 | *Caloplaca cerinella* | 0 | LC | Cort | CPp,CTw |
| 249 | *Caloplaca crenulatella* | 0 | LC | Sax | SCo |
| 2315 | *Caloplaca flavocitrina* | 0 | LC | Sax | SCo |
| 2527 | *Caloplaca holocarpa s. str.* | 0 | LC | Lig | LWT,PFr |
| 2607 | *Caloplaca limonia* | 0 | LC | Sax | SMo |
| 2461 | *Caloplaca oasis* | 0 | LC | Sax | SCo |
| 271 | *Caloplaca obscurella* | 0 | LC | Lig | LWT,PSe |
| 289 | *Candelaria concolor* | 0 | LC | Cort | |
| 297 | *Candelariella reflexa* | 0 | LC | Cort | CQ,CTr |
| 298 | *Candelariella vitellina f. vitellina* | 0 | LC | Lig | LWT,PFr |
| 306 | *Catillaria chalybeia var. chalybeia* | 0 | LC | Sax | |
| 316 | *Catillaria nigroclavata* | 0 | LC NS | Cort | |
| 344 | *Chaenotheca ferruginea* | 0 | LC | Cort | CQ,CTr |
| 349 | *Chaenotheca trichialis* | 0 | LC | Cort | CQ |
| 384 | *Cladonia fimbriata* | 0 | LC | Cort | CBt |
| 389 | *Cladonia furcata subsp. furcata* | 0 | LC | Terr | |
| 440 | *Collema crispum var. crispum* | 0 | LC | Sax | |
| 459 | *Collema tenax var. tenax* | 0 | LC | Sax | |
| 911 | *Cyrtidula hippocastani* | {F} | LC NS | Cort | CCs,CTw |
| 2108 | *Erythricium aurantiacum* | {LF} | LC | Lic | Z1120 |
| 511 | *Evernia prunastri* | 0 | LC | Cort | CQ,CTw |
| 305 | *Fellhanera bouteillei* | 0 | LC NS | Cort | |
| 987 | *Flavoparmelia caperata* | 0 | LC | Cort | CQ,CTr |
| 521 | *Fuscidea lightfootii* | 0 | LC | Lig | LWT,PFr |
| 533 | *Graphis scripta* | 0 | LC | Cort | CCs,CTw |
| 1704 | *Halecania viridescens* | 0 | LC NS | Lig | LWT,PSe |



| | | | | | |
|---|---|---|---|---|---|
| 2240 | *Heterocephalacria physciacearum* | {LF} | LC NS | Lic | Z1120 |
| 1125 | *Hyperphyscia adglutinata* | 0 | LC | Cort | CFg |
| 582 | *Hypogymnia physodes* | 0 | LC | Cort | CQ,CTw |
| 2468 | *Hypotrachyna afrorevoluta* | 0 | LC | Cort | |
| 2577 | *Hypotrachyna revoluta s. str.* | 0 | LC | Cort | |
| 2667 | *Laetisaria lichenicola* | {LF} | 0 | Lic | Z1112 |
| 592 | *Lecanactis abietina* | 0 | LC | Cort | CQ,CTr |
| 613 | *Lecania cyrtella* | 0 | LC | Cort | CPp,CTw |
| 1707 | *Lecania inundata* | 0 | LC NS | Sax | SLm |
| 159 | *Lecania naegelii* | 0 | LC | Cort | CPp,CTw |
| 1708 | *Lecania rabenhorstii* | 0 | LC | Sax | SCo |
| 754 | *Lecanora albella* | 0 | LC NS Sc | Lig | LWT |
| 627 | *Lecanora albescens* | 0 | LC | Sax | SCo |
| 640 | *Lecanora antiqua* | 0 | LC | Sax | SBr |
| 2121 | *Lecanora barkmaniana* | 0 | LC NS | Cort | |
| 635 | *Lecanora campestris subsp. campestris* | 0 | LC | Lig | LWT,PFr |
| 636 | *Lecanora carpinea* | 0 | LC | Cort | CPp,CTw |
| 639 | *Lecanora chlarotera* | 0 | LC | Cort | CQ,CTw |
| 641 | *Lecanora confusa* | 0 | LC | Cort | |
| 643 | *Lecanora conizaeoides* | 0 | LC | Lig | LWT |
| 646 | *Lecanora dispersa* | 0 | LC | Lig | LWT,PFr |
| 649 | *Lecanora expallens* | 0 | LC | Cort | CQ |
| 621 | *Lecanora hagenii* | 0 | NE | Cort | CPp,CTw |
| 661 | *Lecanora muralis* | 0 | LC | Lig | LWT,PFr |
| 667 | *Lecanora polytropa* | 0 | LC | Sax | |
| 672 | *Lecanora pulicaris* | 0 | LC | Lig | LWT |
| 610 | *Lecanora semipallida* | 0 | LC NS | Sax | SCo |
| 688 | *Lecanora symmicta* | 0 | LC | Lig | LWT,PFr |
| 2474 | *Lecidea grisella* | 0 | LC | Sax | |
| 797 | *Lecidella elaeochroma f. elaeochroma* | 0 | LC | Cort | CQ,CTw |
| 803 | *Lecidella stigmatea* | 0 | LC | Sax | SCo |
| 1974 | *Lepraria incana s. str.* | 0 | LC | Cort | CQ |
| 1604 | *Lepraria vouauxii* | 0 | LC | Sax | SMo |
| 1537 | *Leptorhaphis maggiana* | {F} | LC NS | Cort | CCo |
| 1020 | *Melanelixia subaurifera* | 0 | LC | Lig | LWT,PFr |

| | | | | | |
|---|---|---|---|---|---|
| 993 | *Melanohalea elegantula* | 0 | LC | Cort | |
| 885 | *Micarea nitschkeana* | 0 | LC | Lig | LWT |
| 887 | *Micarea prasina s. lat.* | 0 | | Lig | LWT,LTs |
| 892 | *Milospium graphideorum* | {LF} | LC NS | Sax | SBr |
| 21 | *Myriospora rufescens* | 0 | LC | Sax | |
| 949 | *Ochrolechia arborea* | 0 | NT NR | Lig | LWT |
| 954 | *Opegrapha ochrocheila* | 0 | LC | Cort | CFg |
| 964 | *Opegrapha varia* | 0 | LC | Cort | CFg |
| 1022 | *Parmelia sulcata* | 0 | LC | Lig | LWT,PFr |
| 1008 | *Parmotrema perlatum* | 0 | LC | Cort | CQ,CTr |
| 2511 | *Parmotrema pseudoreticulatum* | 0 | NE ? | Cort | |
| 1107 | *Phaeophyscia orbicularis* | 0 | LC | Cort | CQ,CTr |
| 1110 | *Phlyctis argena* | 0 | LC | Cort | |
| 1112 | *Physcia adscendens* | 0 | LC | Cort | CQ,CTw |
| 1120 | *Physcia tenella* | 0 | LC | Cort | CQ,CTw |
| 1126 | *Physconia enteroxantha* | 0 | LC | Lig | LWT,PSe |
| 1373 | *Piccolia ochrophora* | 0 | LC | Cort | CSx |
| 1167 | *Polysporina simplex* | 0 | LC | Sax | |
| 1168 | *Porina aenea* | 0 | LC | Cort | |
| 1614 | *Porina byssophila* | 0 | DD NR Sc | Cort | CAp |
| 1690 | *Porpidia soredizodes* | 0 | LC | Sax | |
| 1189 | *Protoblastenia rupestris* | 0 | LC | Sax | SCo |
| 1989 | *Punctelia jeckeri* | 0 | LC | Cort | |
| 2070 | *Punctelia subrudecta s. str.* | 0 | LC | Lig | LWT,PFr |
| 1234 | *Ramalina farinacea* | 0 | LC | Cort | |
| 1235 | *Ramalina fastigiata* | 0 | LC | Cort | CQ |
| 1266 | *Rhizocarpon reductum* | 0 | LC | Sax | |
| 1289 | *Rinodina oleae* | 0 | LC | Lig | LWT,PFr |
| 1306 | *Sarcogyne regularis* | 0 | LC | Sax | SCo |
| 1321 | *Scoliciosporum pruinosum* | 0 | LC | Cort | CQ |
| 1378 | *Strigula taylorii* | 0 | LC NS Sc IR | Cort | CAp |
| 2242 | *Taeniolella phaeophysciae* | {LF} | LC | Lic | Z1107 |
| 1431 | *Trapelia coarctata* | 0 | LC | Sax | |
| 1432 | *Trapelia glebulosa* | 0 | LC | Sax | |
| 2260 | *Unguiculariopsis thallophila* | {LF} | LC NS | Lic | Z0639,CQ,CTw |



| | | | | | |
|---|---|---|---|---|---|
| 1507 | *Verrucaria muralis* | 0 | LC | Sax | SMo |
| 1510 | *Verrucaria nigrescens f. nigrescens* | 0 | LC | Sax | SCo |
| 2514 | *Verrucaria nigrescens f. tectorum* | 0 | LC | Sax | |
| 2621 | *Verrucaria squamulosa* | 0 | NE NR | Sax | |
| 1518 | *Verrucaria viridula* | 0 | LC | Sax | |
| 1530 | *Xanthoria parietina* | 0 | LC | Cort | CQ,CTw |
| 1531 | *Xanthoria polycarpa* | 0 | LC | Cort | |
| 2272 | *Xanthoriicola physciae* | {LF} | LC | Lic | Z1530 |

## References

**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.

**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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# Northern England Epiphytic Lichen Survey

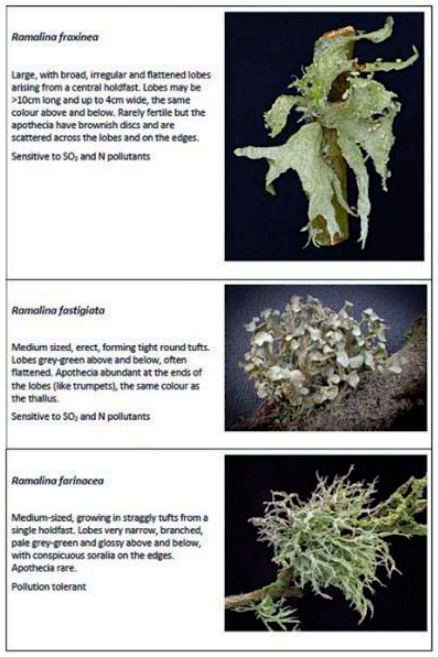
The rapid spread of *Ramalina fastigiata* and *R. fraxinea* in northern England over the last few years has been noticeable, even to non-lichenologists, but there have been other less obvious changes during the same period as well.

*Hypogymnia physodes*, once so common that we didn't bother to record it, almost disappeared for a while but is now recovering. *Bryoria fuscescens* is declining fast across the region, while *Usnea subfloridana* is being to re-establish in city centre parks. *Arthonia radiata* is spreading like a weed and *Xanthoria parietina* now colours the twigs of our roadside trees orange. Even *Evernia prunastri* and *Ramalina farinacea* are getting in on the act, each increasing in some areas while being replaced by the other elsewhere.

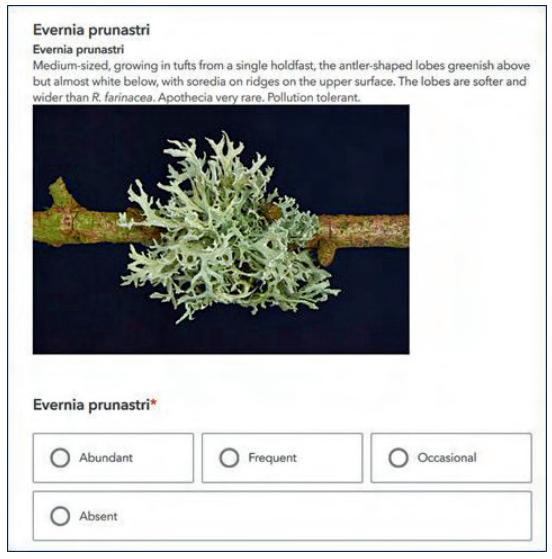
This pattern of change is complex, with some species increasing while others are in decline, and it can vary over just a few miles. This is perhaps not surprising, as lichens are sensitive to atmospheric pollutants as well as to humidity, rainfall, exposure, shade and other factors. Sensitivity varies by species, and each has a range of conditions that it can tolerate and a narrower range where it will do best.

There is much that we don't understand here, and records in the BLS database don't really help. We need modern records from across the region, not just from interesting lichen sites but from the full range of urban, suburban, rural and upland situations, and from individual trees rather than larger sites. The lichen flora of this area is relatively species-poor so that is quite achievable, and even lichen novices can do surveys accurately after a short training session.

It is all done in the field. A single, isolated tree is selected and identified, and the surveyor then works through a list of the 20 most common lichens on trees, marking each one as absent, occasional, frequent or abundant on the tree as a whole (binoculars help!). All this is done while at the tree using a smartphone app (iphone or android), and the app includes pictures and a brief description of each lichen as a reminder.



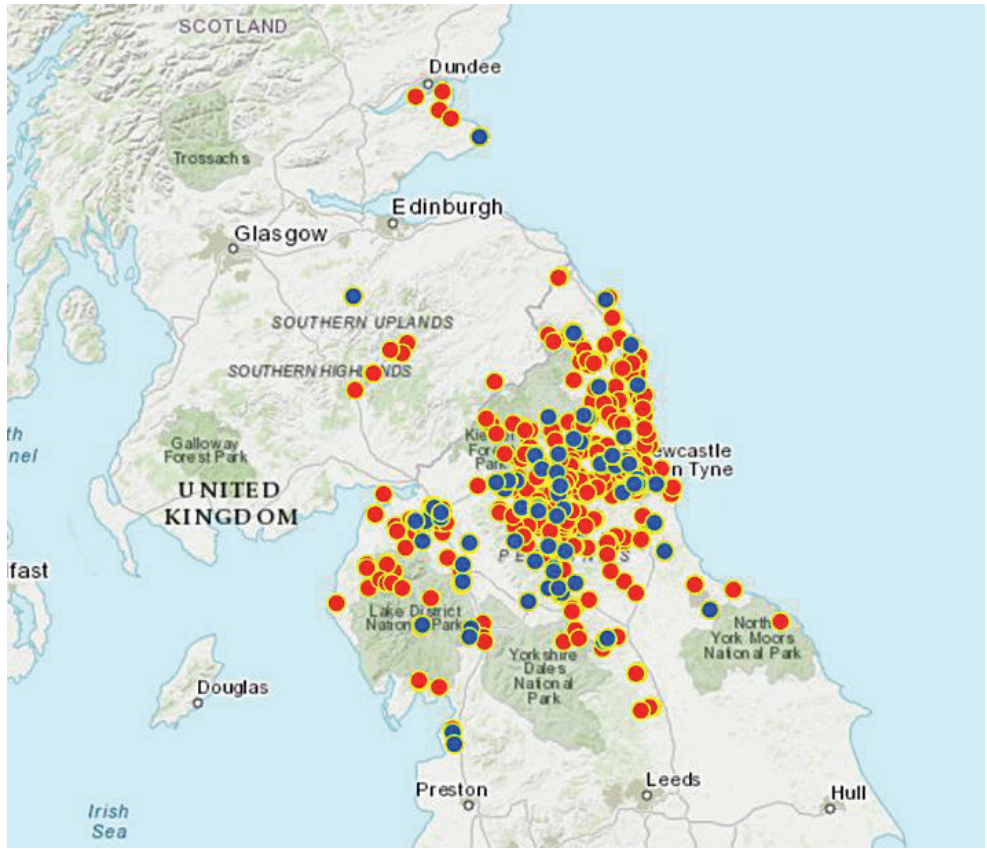

ID guide to the 20 target species which can be printed or used on a phone or tablet




Record input using the Smartphone app



A few that are not so easy for beginners to identify are optional and can be skipped, but most people do them all and the more experienced lichenologists can add anything else they find on the tree to the end of the list. Each survey takes only 5-10 minutes. As soon as it has been submitted by the app it appears on a GIS map that all the surveyors can view online.

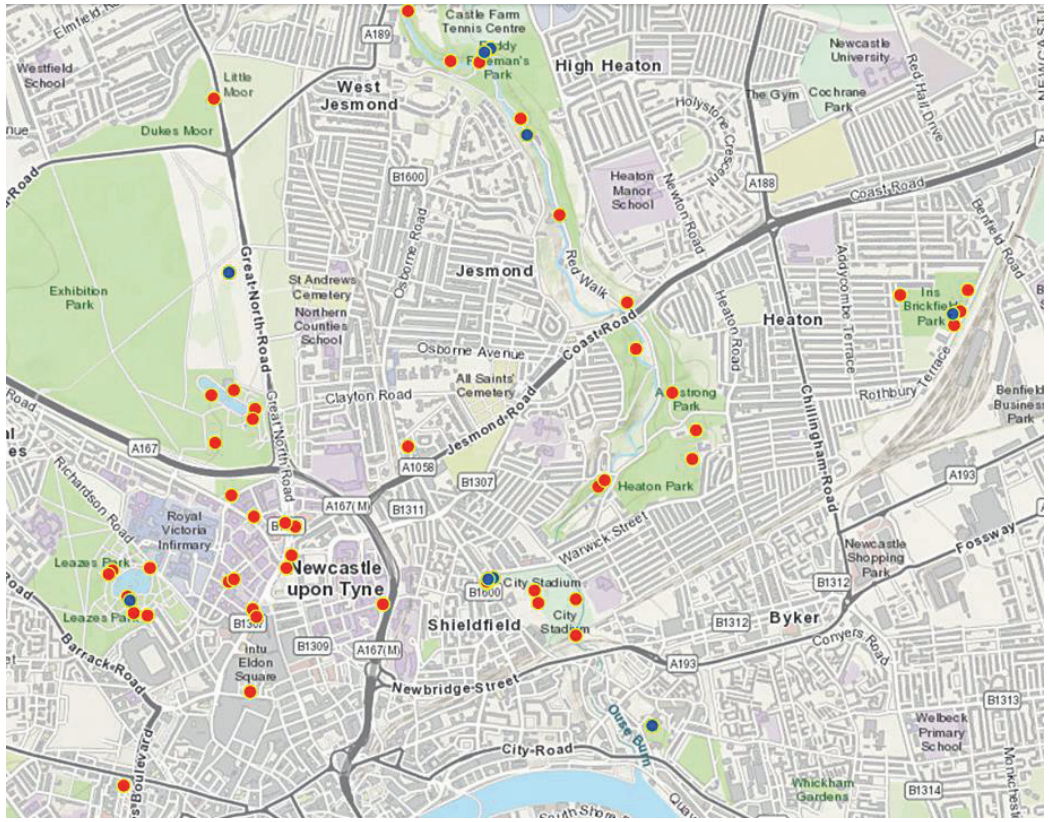



GIS map for northern England showing Phase 1 survey records in red and Phase 2 records in blue

So far we have about 650 surveys in, mostly for oak, ash, hawthorn and sycamore, but we need several hundred more from across the region. We will then be able to analyse the lichen communities present by tree host and relate these to environmental factors such as rainfall and atmospheric pollutants. This should tell us a lot about the ecology of these common and often overlooked species and may make it easier in the future to monitor change.

As well as gathering valuable data, which will of course end up in the BLS database and on the NBN Atlas and GBIF, this survey has already had another benefit which was not anticipated. Since March this year about 60 people have now submitted records, and only a very few of those had recorded or even looked at lichens before. The others are local naturalists, academics and students (undergraduate and

postgraduate), discovering lichens for the first time and finding that they can identify them



GIS map of records from Newcastle city centre. Each dot can be clicked on to show details.

and make a useful contribution to research at the same time. of these common, but often overlooked, species and may make it easier in future to monitor change.

We are taking a broad view of the north of England, so if you live in or visit anywhere from roughly Derbyshire to Aberdeen, we need your help! Email me at the address below and I will send you the survey instructions, ID guide, and the link to download the app.

**Acknowledgements**

I am most grateful to staff and students of Newcastle University for their support of this project, and to the Environmental Records Information Centre (ERIC NE) who developed the app for us.

*Janet Simkin*
*records@britishlichensociety.org.uk*



# Lichen wonderland – Yellowknife, Canada

Canada has invested in Arctic research by opening CHARS (Canadian High Arctic Research Station) in Cambridge Bay, Victoria Island (69°07′02″N 105°03′11″W). It is a world-class research station, demonstrating state-of-the-art design excellence that serves as a model for similar polar facilities around the world and to establish major research programmes in the cold, dry centre of Canada. To reach Cambridge Bay one normally flies from Yellowknife, a city about 850 km to the south. Yellowknife is on the Canadian Shield, which was scoured down to rock during the last ice age (*Wisconsin* glaciation) which ended about 11000 years ago. The surrounding landscape is very rocky and slightly rolling, with many small lakes in addition to the larger Great Slave Lake. The scouring action of inland glaciers left ridge tops and steeper slopes nearly till free and lower slopes and valleys with a shallow overburden of coarse glacial till. Trees such as spruce and birch are abundant in the area but these are almost completely confined to sites with glacial till so that within the forest are large areas of elevated, smoothed, bare granite (Figure 1).

Fig. 1. The typical landscape near Yellowknife on the Ingraham Trail, a mixture of lakes, forest and exposed granite.

These granitic rocky areas have a very rich lichen cover. The dominant species on large rocks and surfaces are *Umbilicaria hyperborea* (Ach.) Hoffm., *Umbilicaria polyphylla* (L.) Fr. and *Lasallia* species which can reach almost 100 % cover (Figure 2).

Fig.2. Well-developed umbilicate lichens: *Lasallia papulosa* and *Umbilicaria polyphylla*

Intermixed are many other species such as *Melanelia stygia* and *Melanelia hepatizon.* In the small water runnels and gullies with organic soils are dense covers of fruticose lichens such as *Cladonia pyxidata* (L.) Hoffm., *Cladonia mitis* Sandst., *Cladonia rangiferina* (L.) Weber ex F.H. Wigg., *Cladonia carneola* (Fr.) Fr., *Cladonia amaurocraea* (Flörke) Schaer., *Stereocaulon* spec. and *Flavocetraria nivalis* (L.) Kärnefelt (Figure 3). The overall effect is of massive lichen cover.

Fig. 3. A flamboyant fruticose species, *Flavocetraria nivalis* (L.) Kärnefelt. and *Cladonia amaurocraea*



The vast majority of lichen vegetation descriptions for northern Canada were made by John W. Thomson, with the nearest to this site being to the west of Yellowknife and the Great Slave Lake (Thomson *et al*. 1969). He refers to it as "this vast and highly interesting region" and a total of 343 species are recorded with about 60 being epiphytic. Thomson collected and published extensively from the 1950s to 1990s and there has been little added since then.

Fig. 4. The typical mixture of fruticose lichens on the organic soil *(Cladonia stellaris* (Opiz) Pouzar & Vězda) and foliose (*Arctoparmelia* spec. and *Xanthoparmelia* spec.) and umbilicate lichens on rock surface (*Umbilicaria* spec. mixture) with a very high cover.

However, there is a strong lichen programme at the Canadian Museum of Nature, Ottowa, led by Troy McMullin, and at Calgary, where Toby Spribille, University of Alberta, is well known for his work on extra lichen mycobionts.

Fig.5. Rock covered with the foliose lichens: *Arctoparmelia* spec. and *Xanthoparmelia* spec. and the umbilicate lichens: *Lasallia papulosa* (Ach.) Llano and *Umbilicaria polyphylla* (L.) Fr.



Fig. 6. The typical view when on the exposed granite surfaces with the fruticose lichens in the hollows: various *Cladonia* species: *Cladonia mitis*, *Cladonia rangiferina*, *Cladonia amaurocraea* (Flörke) Schaer. and *Stereocaulon* species.

*Allan Green*
*thomas.green@waikato.ac.nz*
*Ian Hogg*
*Roman Türk*

## The LOST project; Rapid Woodland Assessments and lichen counts

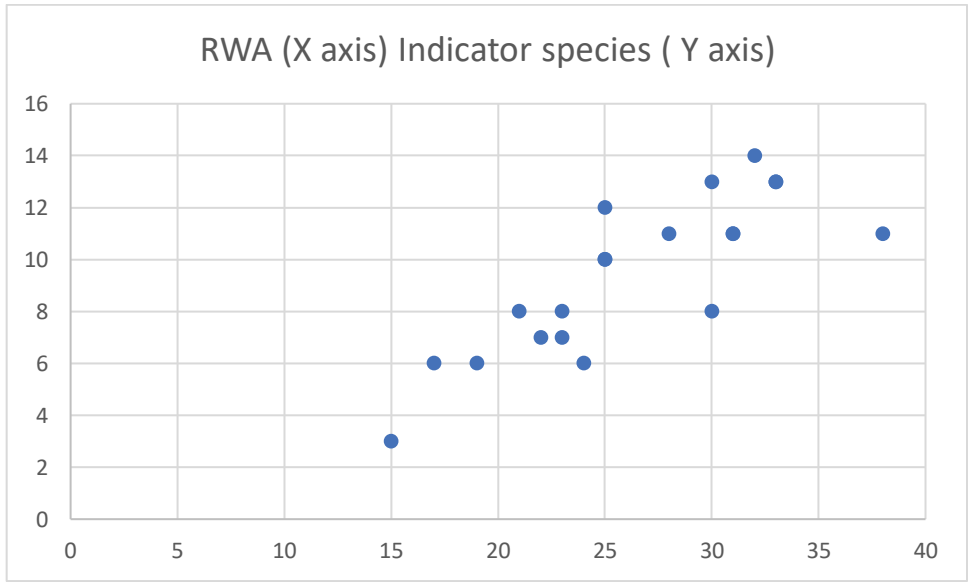
Many of us starting with lichens find it difficult to keep up the initial momentum: I'm not alone in losing my way after a couple of FSC courses so I leapt at the opportunity to become a "New Generation Botanist" on Plantlife's LOST (Looking out for the Small Things) project in Cumbria. There was an encouraging group and possibilities to refresh my knowledge. Good as it was though, the project team only met irregularly. What I needed was to get out more to practise my identification skills.

The LOST project had introduced me to Plantlife's Rapid Woodland Assessment (RWA) as a way of estimating a wood's lichen interest but it all seemed a bit vague. Had anyone actually used it? I decided to conduct these assessments in woods in the southern Lake District, whilst at the same time doing a 90 minute "survey" to see how many of the Plantlife LOST project "indicator species" I could find. (These were lichens of the Parmelion and Lobarion communities).

I reckoned that there were 4 aims for this:

1) to see if the RWA "worked as a technique" for identifying lichen-rich woods
2) to explore my "hunch" that the most important factor determining whether a Lake District woodland was rich in lichens was whether it had been subjected to coppicing in the past
3) to provide a focus for looking at lichens in local woodlands
4) to improve my lichen identification skills.

Last winter I visited 20 woodlands. Plotting the number of indicator species against the RWA score gave the graph below (note there are two pairs of identical readings that don't show up on the excel graph).




The graph tells the story: there is a positive correlation between RWA score and indicator species found in 90 minutes (an excel correlation score of .824). So the answer to aim 1) is a pretty much an unequivocal "yes", though this is not perhaps surprising given the nature of the RWA questions.
As for aim 2), whilst three of the four highest scoring (for species) woods had little or no indication of past coppicing, most of the other woods did, at least in part. However, in some fairly high scoring woods it was the old and obviously coppiced sections that



contained the lichens. The mean number of species for woods, obviously coppiced in the past, was 7.4, and for not obviously coppiced was 10.5. But for those coppiced in part, the mean number was 11.3! It's obviously a complicated relationship that requires further study!

With regard to 3), the difficulty for a beginner, or near beginner such as myself, is to have the impetus to go looking but not be overwhelmed by the complexity of lichens in an area. I have become quite addicted to my quick woodland explorations: "Just popping out to do a wood" I say at home. The variety (both between and within woods) has surprised and pleased. A myriad of possible explanations for patterns is suggested: the outlying high RWA scoring wood in the graph for instance is partly explained by many of its trees being old alders. But is it just that the Plantlife indicator species list doesn't contain the species that grow on alders? Further study is needed of local woodland history. More visits to these (and other) woods will be made because out there, I know, are gems waiting to be discovered. I've already found a new wood with *Sticta limbata* and a new valley with *Icmadophila ericetorum.*

Which brings me to 4). Yes, I have become more competent at identifying white crusts. I am more confident with *Parmotremas* and *Hypotrachynas*. This has been a very useful exercise, getting to grips with lichens in a gentle way, with the parameters set; of making a contribution to understanding without (yet) knowing a great deal.

So I am hooked. The microscope beckons. This little survey has focussed me, contributed (I hope) something useful, and set me up with a much better understanding of what I should be looking for, and where. Similar surveys would be good projects for anyone new to lichens to undertake.

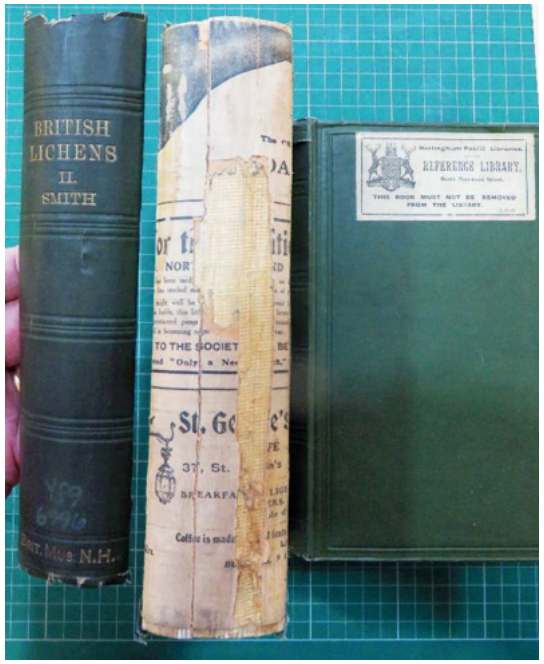
*Pete Martin*
*thorncottage@hotmail.com*

# The story of a Book

This is the story of a book I possess and the journey it took me upon. What started as an exercise in bookbinding led to an interest in its author and finally to its content.

The book concerned is 'A Monograph of British Lichens' by Annie Lorrain Smith in two volumes, Part One published in 1918 and Part Two published seven years previously in 1911. It was published by the British Museum (Natural History), now called the Natural History Museum, in London.

In December 2016 I took these two volumes, which were falling to bits, to a bookbinding course at Flatford Mill in Suffolk with the aim of restoring them to a condition in which they could be handled. The spines were removed leaving the boards (hard covers) in place. The spine backings which originally held the sewn sections close together were not doing their job and were removed.



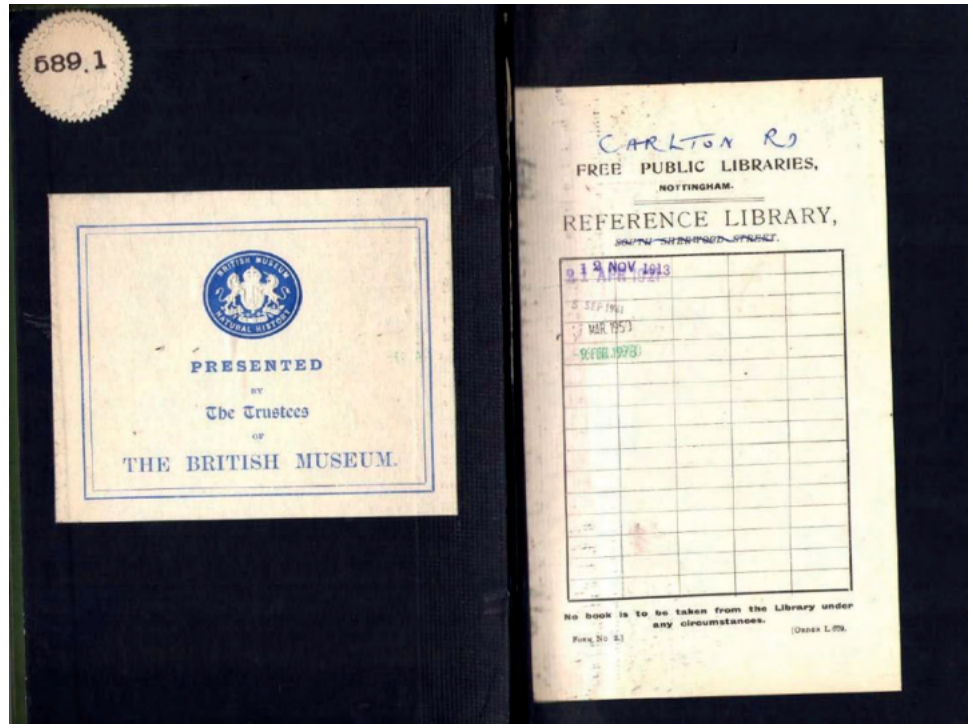

Spine removed from Part 2 and cover of Part 1 (right)

Magazine illustration (soap advertisement) revealed on spine of Part 1

Interestingly, the backings were found to be made from papers from old magazines, complete with an advertisement for soap. The spines were re-backed with 'Fraynot' and Japanese tissue and the original spine covers replaced. This is a précis of quite an involved operation which resulted in two volumes that could be read normally.
It would have been possible to replace the covers and endpapers with modern materials but the various labels and markings on the books would have been lost.

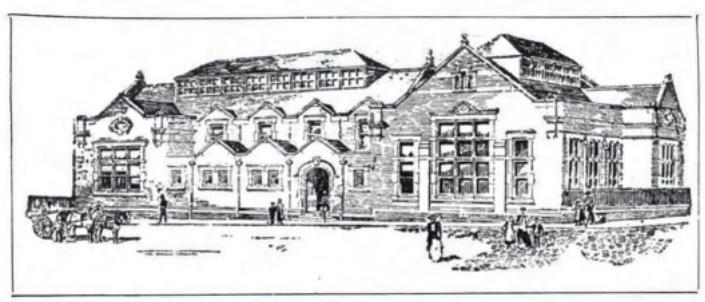


Book collectors regard 'ex library' with a certain disdain, preferring pristine copies. This is perfectly understandable but I felt that the stamps and labels were part of the book's history and should be preserved. Once the restoration was complete I tried to piece together the history of these particular volumes.




Endpapers of Part 2

A label inside the front cover of each volume reads 'Presented by the Trustees of the British Museum', the label of the older book being embossed and rather more grand. This will be a familiar label to anyone who loves secondhand books as British Museum publications were given to public libraries, presumably those over a certain size. As public libraries have trimmed their stock, books bearing this label are now often for sale.



CARLTON ROAD AND DISTRICT LENDING LIBRARY AND READING ROOMS (Opened in 1901.)

The other labels on the books show that both volumes were originally housed in the Reference Library of the South Sherwood Street branch of Nottingham Public Libraries. They were then moved to the Carlton Road branch, in existence

by 1893, which became, in 1901, the first lending library open to the public in Nottingham.
The books have date stamps which show they were occasionally borrowed, most recently in 1978. Sometime after that the books were deleted from Nottingham Public Libraries stock and given to the British Library store at Boston Spa. Such books were distributed under the Booknet scheme to interested organisations and these volumes were donated to the museum at Southend-on-Sea in the 1980s. They were then discarded again in 2014 when the natural history member of staff retired (and was not replaced). It was then that I 'rescued' them.

The 'Monograph' has a somewhat convoluted publication history which is described in detail by Hawksworth and Seaward (1977) from which the following brief summary is taken. It is essentially built upon the work of the Rev. James Morrison Crombie (1831-1906) who was the major figure in British lichenology in the 1870s and 1880s. In 1894 he produced the first part of 'A Monograph of Lichens found in Britain', published by the British Museum (Natural History) and listing all British lichen specimens in its herbarium at that time. Unfortunately he died before completion of Part Two and this was written by Annie Lorrain Smith (although apparently largely the work of Crombie) and published in 1911. She then turned her attention to producing a second edition of Part One, published in 1918, and finally a second edition of Part Two, published in 1926.

Annie Lorrain Smith, a studio portrait for a Carte de Visite
(Photo by permission of the Linnean Society of London)

Annie Lorrain Smith (1854-1937) worked for 46 years at the Natural History Museum as an 'unofficial worker', as women were not officially admitted into the Civil Service.
She published many papers on fungi and was twice President of the British Mycological Society.

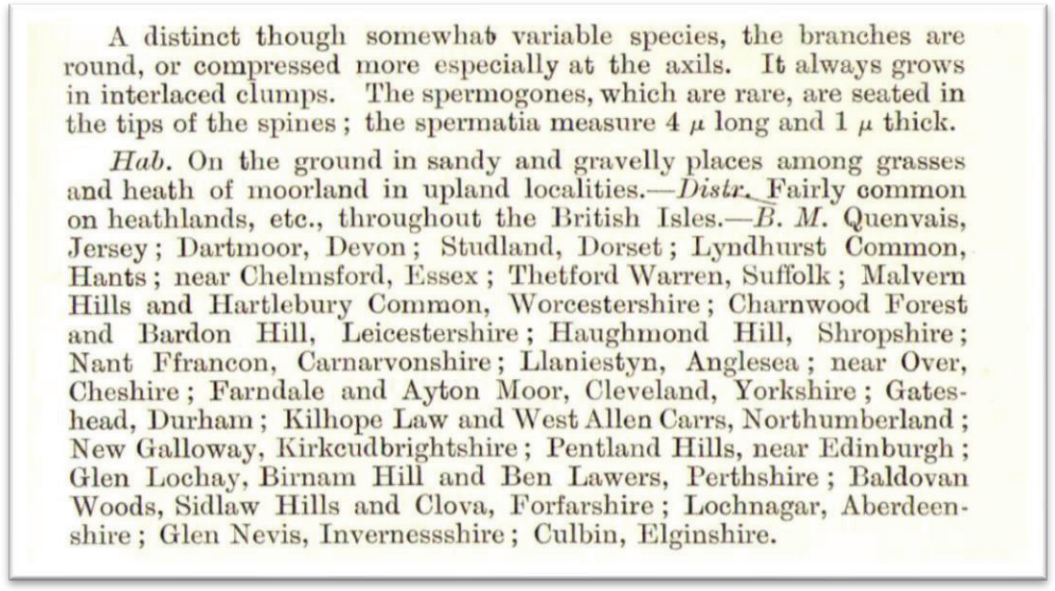
She supported the emancipation of women and was known as a suffragist (the law-abiding equivalent of the suffragettes). My interest in her is that, apart from being author of the Monograph, she was a member of the Essex Field Club and attended and led some of their field meetings. There are only a few photographs of field meetings in the Essex Field Club archive and only one names Annie, unfortunately a blurry face in the background.



Is her Monograph of any use and interest today in our world of beautiful identification guides and the internet? I think the answer is a qualified 'yes', mainly for what it tells us about lichen localities, rather less so as an aid to identification.

The Monograph is taxonomically arranged with only the briefest keys to genera within each family section. Each species is described with references to its original description and synonyms. The description is followed by brief notes to assist identification, on habitats and distribution. Finally are listed specimens in the Natural History Museum (BM) with localities listed from south to north and then the same for the island of Ireland.

To amateurs like me, the lists of localities are of particular interest, giving fascinating insights into past lichen distributions. As far as my patch, Essex, is concerned, the lists are often just a cause for lament but in areas less ravaged by air pollution in the past, localities might be places worth searching.



A distinct though somewhat variable species, the branches are round, or compressed more especially at the axils. It always grows in interlaced clumps. The spermogones, which are rare, are seated in the tips of the spines; the spermatia measure 4 $\mu$ long and 1 $\mu$ thick.

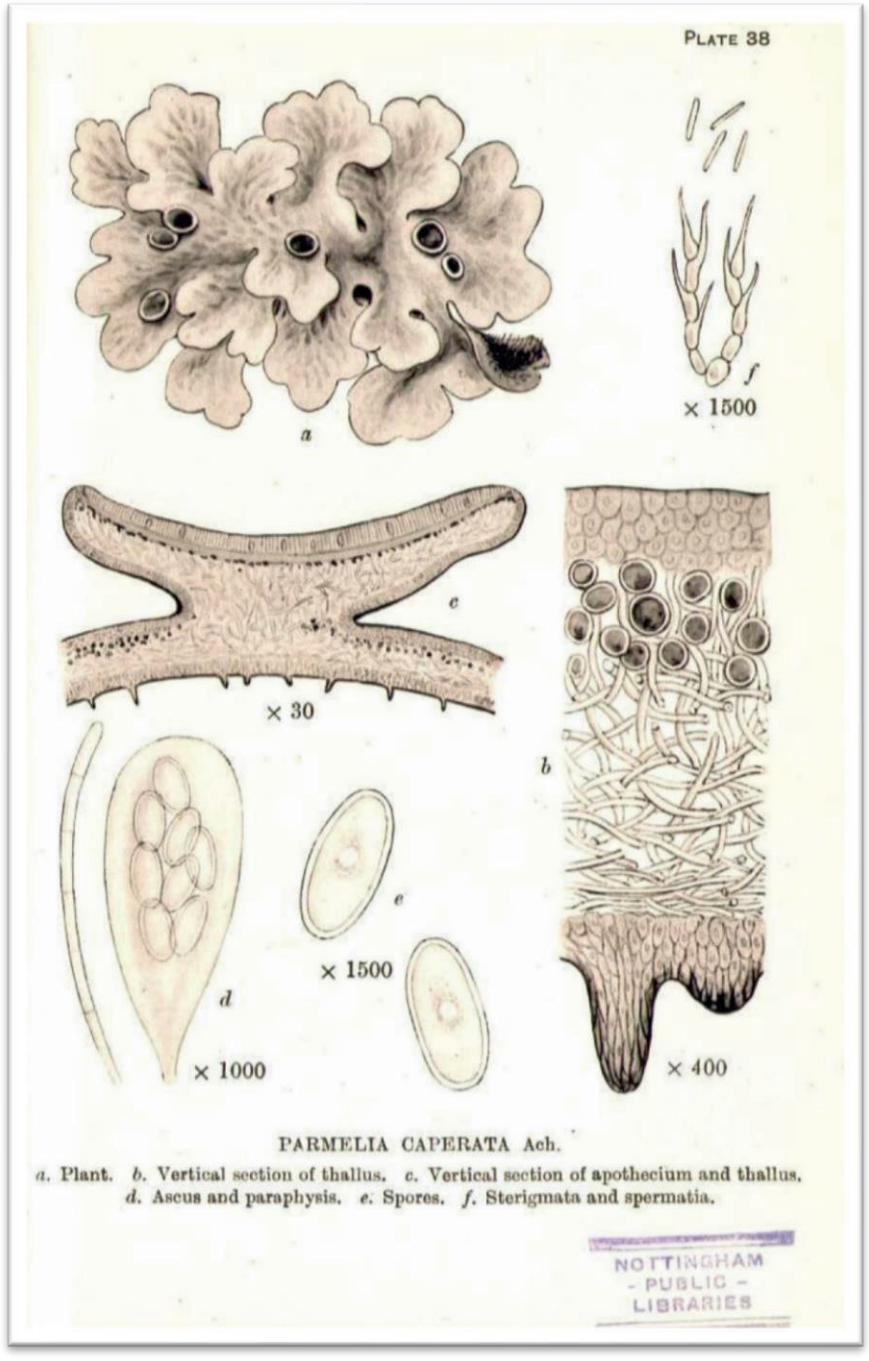
*Hab.* On the ground in sandy and gravelly places among grasses and heath of moorland in upland localities.—*Distr.* Fairly common on heathlands, etc., throughout the British Isles.—*B. M.* Quenvais, Jersey; Dartmoor, Devon; Studland, Dorset; Lyndhurst Common, Hants; near Chelmsford, Essex; Thetford Warren, Suffolk; Malvern Hills and Hartlebury Common, Worcestershire; Charnwood Forest and Bardon Hill, Leicestershire; Haughmond Hill, Shropshire; Nant Ffrancon, Carnarvonshire; Llaniestyn, Anglesea; near Over, Cheshire; Farndale and Ayton Moor, Cleveland, Yorkshire; Gateshead, Durham; Kilhope Law and West Allen Carrs, Northumberland; New Galloway, Kirkcudbrightshire; Pentland Hills, near Edinburgh; Glen Lochay, Birnam Hill and Ben Lawers, Perthshire; Baldovan Woods, Sidlaw Hills and Clova, Forfarshire; Lochnagar, Aberdeenshire; Glen Nevis, Invernessshire; Culbin, Elginshire.

Part of the entry for *Cetraria aculeata* in the Monograph showing the list of localities of specimens in the BM

To me, the illustrations in the Monograph have a strange quality. Crombie's volume was sparingly illustrated by tiny line drawings which are rather well done. The illustrator is not named in the text, the only clue being that many drawings bear the initials W.G.S. SG. Annie Smith's volumes have a series of 130 half-tone plates at the rear of each, 59 in Part One, 71 in Part Two. The illustrator was Percy Highley who worked at the Natural History Museum between 1897 and 1917.

The lichens illustrated are each given a full page with a habit drawing (sometimes two) and several drawings of microscopic features. Personally, I find the habit drawings have a rather cartoon-like quality, nothing approaching the realism of drawings by, say, Claire Dalby or Alan Orange. Highley's best work, as far as I can

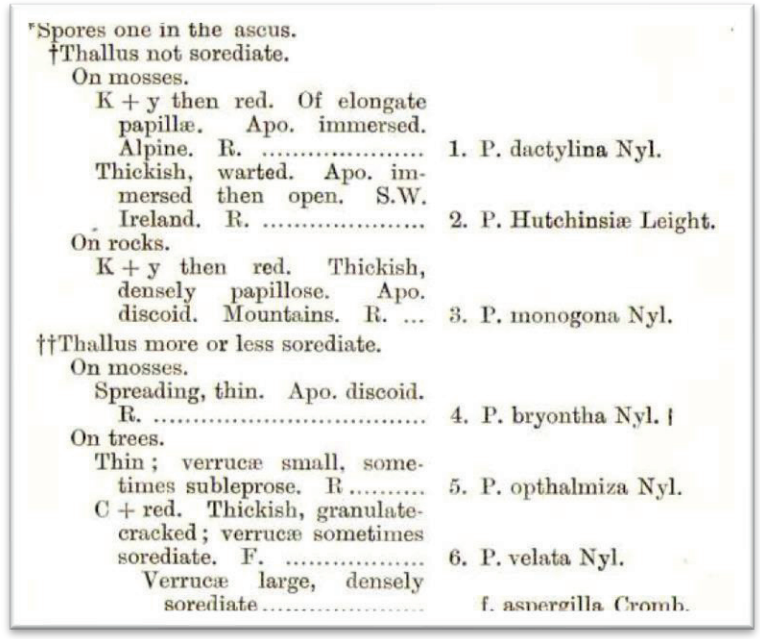
see, was with marine invertebrates. Presumably, he was not familiar with lichens in the field and I think this shows. The microscopic features are rather beautifully drawn.




The plate for *Flavoparmelia caperata* in Part One of the Monograph



There are no keys to species in the Monograph and in 1921, Annie Smith produced 'A Handbook of British Lichens', again published by the Museum. This comprises keys to all British lichens then known and was intended as a 'portable guide', in fact an early field guide. Because of many taxonomic changes it is not really usable in the field today but one can marvel at the conciseness of the keys, some 1400 species keyed in a book of just 158 pages. It includes line drawings by Highley, re-drawn from plates in the Monograph.



| | |
|---|---|
| *Spores one in the ascus. | |
| †Thallus not sorediate. | |
| On mosses. | |
| K + y then red. Of elongate papillæ. Apo. immersed. Alpine. R. ..... | 1. P. dactylina Nyl. |
| Thickish, warted. Apo. immersed then open. S.W. Ireland. R. ..... | 2. P. Hutchinsiæ Leight. |
| On rocks. | |
| K + y then red. Thickish, densely papillose. Apo. discoid. Mountains. R. ... | 3. P. monogona Nyl. |
| ††Thallus more or less sorediate. | |
| On mosses. | |
| Spreading, thin. Apo. discoid. R. ..... | 4. P. bryontha Nyl. † |
| On trees. | |
| Thin; verrucæ small, sometimes subleprose. R ..... | 5. P. opthalmiza Nyl. |
| C + red. Thickish, granulate-cracked; verrucæ sometimes sorediate. F. ..... | 6. P. velata Nyl. |
| Verrucæ large, densely sorediate ..... | f. aspergilla Cromb. |

A section of the key to *Pertusaria* in Annie Lorrain Smith's Handbook

In conclusion, if your interest is solely in putting a name to what you find in the field, the books described above will not really help you. A copy of Dobson and 'The Lichens of Great Britain and Ireland' will suffice for some while. However, if you are interested in seeing how scientific knowledge advances in incremental steps and understanding the amount of work that has gone into reaching where we are today, then you will find much of interest in old books such as those I describe. And for those working on county floras, there are treasures to be unearthed.

## Reference

Hawksworth, D.L. & Seaward, M.R.D. (1977). *Lichenology in the British Isles 1568 – 1975*. Richmond: Richmond Publishing.

*John Skinner*
*johnskinner082@gmail.com*

# Mapping lichen distributions for free using QGIS

As part of the 'Tomorrow's Biodiversity' (2013-2018) project (funded by the Esmée Fairburn Foundation) an extension to the freely available, general purpose, QGIS mapping software was developed aimed at simplifying the mapping of biological data, including lichens. Using QGIS with the 'TomBio' extension it is simple to plot the distribution of your lichens against topographic backgrounds such as Ordnance Survey data and tailor these to your specific needs. The best way to show what can be achieved is through a number of examples.

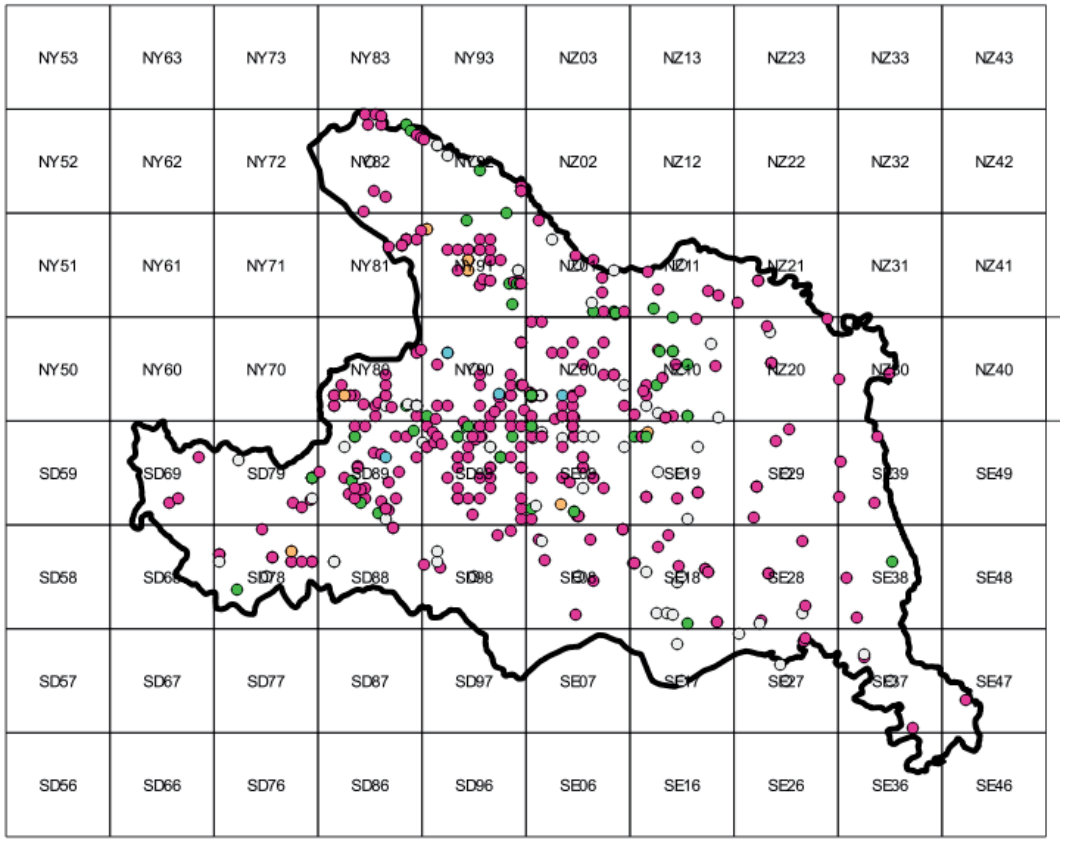



Figure 1. Distribution of records of *Parmelia saxatilis* colour coded by substrate (green = corticolous; red = saxicolous; yellow = lignicolous; white = no substrate recorded). The thick line is the VC 65 boundary and a 10km OS grid is included.

Figure 1 is a map of the distribution of *Parmelia saxatilis* in VC 65 (North West Yorkshire), colour coded by the substrate on which the lichen was found. The vice county boundary and a 10km grid are included for reference. Using TomBio you can plot data for a single species, two or more species, one or more genera or the entire dataset with equal ease. Furthermore, you can colour code the points using any of the



attributes in the data, e.g. year, recorder, substrate, small scale habitat, altitude etc, etc. Of course, you can pan and zoom your map as required.

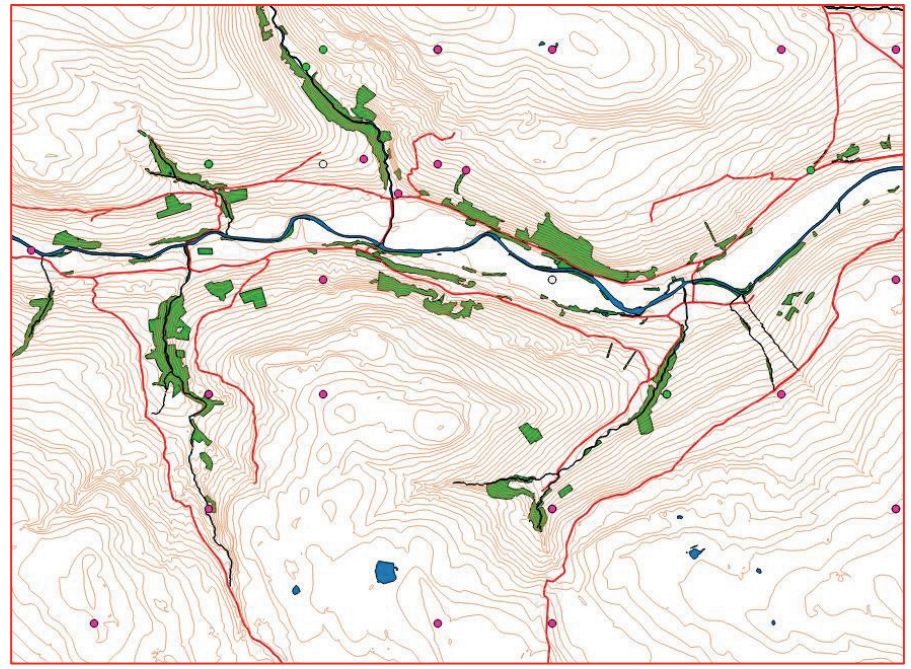


Figure 2. Zoomed image of *Parmelia saxatilis* distribution as above with roads (red), rivers (blue), woodlands (green) and contours (brown) taken from the Ordnance Survey.

Figure 2 shows the same data zoomed in around our home in which data from the Ordnance Survey, showing rivers, trees, contours and roads is shown. You can also display data across all of Great Britain and with a little more care include data for Ireland as well.

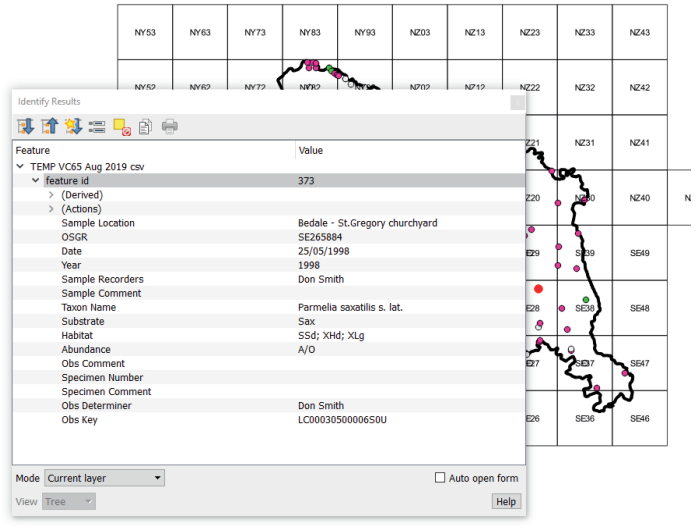



Figure 3. Pop up window that shows all the details for a specific record that has been selected by pointing the mouse at a lichen occurrence on a distribution map. The selected point is shown as an enlarged red dot just to the right of the box.

QGIS is not just a mapping tool but it is a Geographic Information System (GIS). To illustrate this if you point at any point on the map a window opens that shows you all the information available for that point, i.e. it displays the lichen record in full. If there are more records at the same point it will show these as well, see Figure 3. This is a very powerful feature and makes your data come alive.

A very useful feature provided by TomBio is to display those grid squares in which lichens have been recorded. Data in such displays is aggregated, so that you display either the 'Abundance' i.e. the total number of records in the square, basically a measure of recording activity, or the 'Richness' i.e. the number of different lichen taxa in the square, which is a measure of lichen diversity. This is a very useful tool to plan future lichen surveys.

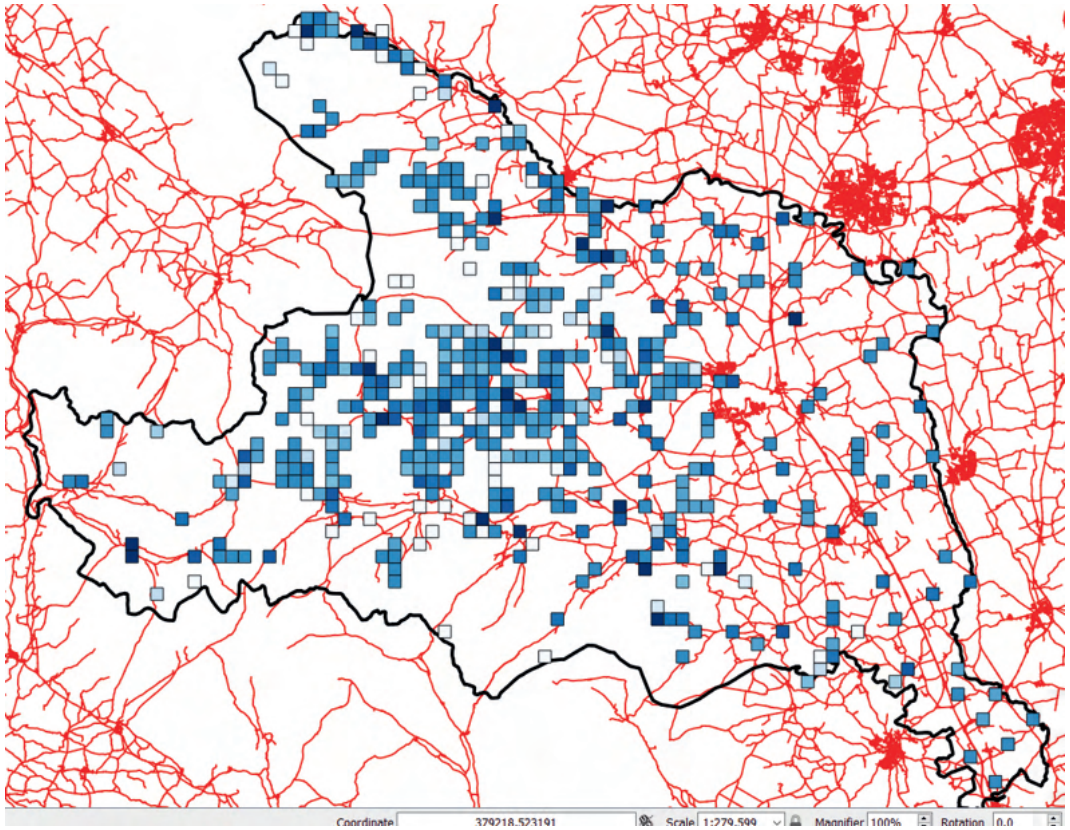


Figure 4. 1km squares in which lichens have been recorded in VC65. The squares are colour coded by the Richness (number of different lichens recorded in the square). The Ordnance Survey road network is superimposed (red) and the vice county boundary (black).

Figure 4 is an example of 1km squares colour coded by Richness with roads added. It is obvious from this where there have never been any lichen recording most likely due to the remoteness from any road of many areas in the west of the vice county.

Of course you can change the appearance of any of the features in the mapping as you feel fit. All of the above is available for free. To start using QGIS you need to do three things. Firstly, download and install QGIS onto your computer. There are versions for PCs running Windows, Linux and for Macs. Install the TomBio 'plugin' to extend the capability of QGIS. Lastly, you need to ask Janet Simkin for a download of all the records you want from the BLS Recorder 6 database. This should be delivered in a format which can be read by TomBio directly. To make things easy I have prepared a detailed step by step guide on how to install and run QGIS and TomBio and where to get Ordnance Survey data etc. For a copy please email me at the address below.

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## Advocating for Lichens at the National Botanic Garden of Wales

We both work at the National Botanic Garden of Wales and we'd like to share a few experiences we've been having with lichens.

**Bruce Langridge, Head of Interpretation**

People come to me with all the Garden's enquiries about fungi but I used to steer clear of lichens – far too complicated. Recently I've been lucky to have had support from two local lichenologists, Ray Woods and Theresa Greenaway. They first helped me in the interpretation of our Rock of Ages geological display in 2011.

Ray Woods inspecting the translocated tree lungwort

This led to the production of a small booklet on our rock lichens and a few short lichen-themed films featuring Ray, which can be seen on the Garden's website www.botanicgardenwales.

Whilst overseeing the installation of the BLS library in the Garden's Science Centre, Ray began an experiment in conserving the endangered *Lobaria pulmonaria* (lungwort lichen) on an old goat willow tree in the Garden. This has proven to be successful both in terms of the actual conservation of the endangered lichen but also in raising awareness of lichens. A BLS-funded sign next to the tree has been really popular with visitors.

In 2017 Ray and Theresa followed this up with a Tree Lichen booklet focused on trees at the Garden. At the same time, I programmed an exhibition of lichen paintings by artist Julie Ann Sheridan in the Garden's Oriel Yr Ardd Gallery and my colleagues ran a week-long series of lichen-themed family activities for school half term. Over 1000 kids took part. Using knowledge passed onto us from Ray and Theresa, work colleague Peter Lee Thompson and I also had a go at running lichen walks for visitors. These drew surprisingly large crowds and have led Manon to not only take up an interest in lichens but to give guided tours herself.

**Manon Williams, Regency Apprentice**
Manon gave her lichen tour of the National Botanic Garden of Wales on the Wales Fungus Day event on 13th October 2019, 3-3.45pm.

Lichen tour at The National Botanic Garden of Wales

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# Fertile *Peltigera leucophlebia*

Caz Walker and I 'discovered' lichens last year. First, Caz volunteered to be trained up as a lichenologist in the New Generation Botanist scheme, part of the Plantlife 'Looking Out for the Small Things' project which was particularly looking at the Atlantic woodlands of the Lake District and Cumbria. Then I was drawn into this exciting (small) world, opening my eyes to new features of places I thought I knew, and helping us find places to explore that we had by-passed before.

We live on the edge of the Lake District within easy reach of Haweswater. The area includes has a varied geology with different rock types, and lichens such as *Umbilicaria* and *Massalongia carnosa* amongst others can be found on the fells. Beside Haweswater are the old-ish woods at Naddle Forest and Mirkside which seem to be the easternmost remaining patches of temperate rainforest with species such as *Lobaria pulmonaria* and *Bunodophoron melanocarpum*.

However, our local patch is Knipe Scar, common land north-west of Shap, a heavily grazed limestone fell with areas of limestone pavement. Looking in the NBN Atlas, Caz found that the only lichen records for *Peltigera leucophlebia* were six figure grid references recorded by local lichenologist, David Clarke. (See *BLS Bulletin* no.**124** pp 56-57). Eventually we spotted some and, once we got our eye in, found quite a few more patches in short grass in thin soil over rock.

On 15th June 2019, Caz found a patch of *P. leucophlebia* that was fertile, which we understand is rare in the UK and probably a first for Cumbria. On the following day further patches were found close by, starting at NY54141 18479 i.e. in the southern section next to Shapbeck Quarry. David Clarke visited and confirmed the sighting a few days later. To our knowledge no other fertile colonies have been seen elsewhere this year to date.

*P. leucophlebia* apothecia on recurved lobe edges

*Peltigera leucophlebia* is green with dark wart-like cephalodia on its upper surface, and distinct veins and dark rhizines on the underside, paler towards the margin. The first fertile colony had a few apothecia, subsequent patches having multiple fertile lobes. When fertile, *P. leucophlebia* has red-brown apothecia on the upper surface of tongue-like lobe-ends. In the examples found, the lobes were strongly recurved, revealing characteristic green corticate patches on their undersides and concealing the apothecia. The apothecia themselves were round to oblong with smooth to crenulated margins.

We have been recording our lichen sightings and even managed to submit some spreadsheets. The 'coincidence map' of records for Cumbria shows that it is mostly blank space i.e. no records for most monads – a lot of work to do! Hopefully our records will literally get lichens on the map and encourage others to find what's there.

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# Hunting for *Graphidaceae* lichens in Morvern, Scotland

The BLS Spring Meeting was based in Morvern, Westerness, Scotland. This was my first visit to the fabled west coast of Scotland, to experience the lichens of the Scottish Atlantic rain forest. I have studied the Graphidion lichens in South and South East Asian tropical forests, so was excited and curious to see how they compared to those of Atlantic rain forests. Lichens of the *Graphidaceae* (including *Thelotremataceae*), are major components of the Graphidion community; they are crustose lichens found on the smooth bark of trees and can be found world-wide. They are a wonderfully diverse group and a delight to study. They are crucial as ecosystem indicators as they respond to the minutest changes in the environment.

It was also good to be in company with other members of the BLS, and I was especially delighted that Brian Coppins was present, as he has also made a speciality of the Graphidion lichens, especially those growing on hazel, *Corylus avellana*. So, it was a hugely valuable and useful exercise to be in these woodlands and with experts like Brian, searching in the field, but also back at the lab, looking at details under the microscope.

Looking at the Graphidion, Morvern  Photo © G.Weerakoon

Under his guidance I made some valuable collections and several species will be candidates for phylogenetic analysis. These will be curated and studied to revise the *Graphidaceae* in the new edition of The Lichens of Great Britain and Ireland. Once the revision work is completed, specimens will be incorporated into the NHM (BM) collection.

In my role as Curator of lichens at the Natural History Museum (BM) I am fully appreciative of the immense value of herbarium specimens. An herbarium is like a library of lichens, and you can take out and examine whole volumes of folders of species, genera and families from collections made around the world, and compare and begin to see and understand similarities and differences, often very subtle. This is the fascination of the herbarium. There is the immediate excitement of fieldwork, seeing the lichens *in situ*, but, in the quiet of the herbarium, other things become apparent; we can reassess previous species' identifications and refine these by comparing specimens. Combining both fieldwork experiences and herbarium studies helps us to improve our understanding of the biological, geographical and topographical boundaries and evolutionary linkages of individual species and populations. Nevertheless, before a specimen ever becomes a dot on a map, it has to be discovered, identified and curated.

I was especially happy to be part of the Morvern Meeting, as it coincided with Brian Coppins' 70th birthday celebrations.

Brian's 70th birthday celebrations Photo © G. Weerakoon

My participation of the meeting was partly supported by the British Lichen Society.



**Acknowledgement**
To Brian and Sandy Coppins for their kind assistance.

*Gothamie Weerakoon*-Senior Curator of Lichens and Slime Moulds, the Natural History Museum of London.

# Skokholm Island: lichens on rabbit bones

For more than 25 years photographer, mineralogist and lichenologist, John Jones, has been visiting Skokholm Island, introducing many groups of naturalists to the rich diversity of lichens on this beautiful island.

Skokholm (Skokum) Island lies about 4km off the south west tip of Pembrokeshire, 4km to the south of Skomer Island and is separated from Skomer by a stretch of very turbulent water. Gigantic swells roll eastwards across four thousand miles of Atlantic Ocean and the Devonian sandstone cliffs are battered by one of the windiest climates in the world. It is a 240 acre nature reserve with SSSI designation managed by the Wildlife Trust of South and West Wales.

The island was the first ever Bird Observatory in Britain. Many species of seabirds return every spring to breed on the old red sandstone cliffs and in burrows on the grassy plateaus. It is an internationally recognised centre for breeding seabirds, particularly Manx shearwaters, puffins and storm petrels.

Photo © John Jones

The colony of some 178,000 Manx Shearwaters (*Puffinus puffinus*) is the third largest in the world, and the island also has about a fifth of the European population of storm petrels (*Hydrobates pelagicus*) which nest in the old stone walls constructed hundreds of years ago.

From Norman times onwards, Skokholm was used as a profitable rabbit warren, being free from ground predators such as weasels, stoats, polecats and foxes. Currently, there are hundreds of rabbits (*Oryctolagus cuniculus*) which graze the grass to a very short sward and their bones litter the landscape.

Photo © John Jones

The following lichens, as determined by Dr. Anthony Fletcher, have been found growing on the bones:
*Caloplaca arcis*
*Lecania cyrtella*
*Lecanora saligna*
*Physcia tenella,*
*Rinodina oleae*
*Xanthoria parietina*.

It is surmised that traces of nitrogen-rich compounds would remain on the bones after the body of the rabbit had decayed, and the rough, porous nature of the bone surface may facilitate colonisation by nitrophilous lichens.



Photo © John Jones

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## ‘Moss Wall’

Eliasson’s ‘Moss Wall’ at the Tate Modern

Olafur Eliasson is a Danish-Icelandic artist with a strong concern for society and the environment. He is perhaps best known for his installations, always on an impressive scale. In 2003, over 2 million people basked in the light of a giant artificial sun, ‘The Weather Project’ in the Tate Modern’s Turbine Hall; in 2018 he brought huge chunks of ice from Greenland, displayed as they slowly melted in a work entitled ‘Ice Watch’.

Now, in a retrospective exhibition, again at the Tate Modern, there is an item of interest to lichenologists. His 1994 work, ‘Moss Wall’, a 20 metre wall of Reindeer Moss (*Cladonia*, *Cladina* group) from Finland, is on display. As the publicity states, ‘Eliasson adds an unexpected material from outdoors to the controlled indoor space of the museum. The aroma and texture of the work affects the senses too’.

The exhibition runs until 5 January 2020.



## 'The Hawthorn at Gilfach'

This lichen watercolour, ‘The Hawthorn at Gilfach’, won an award at the Society of Botanical Artists 'Plantae' Exhibition at the Mall Galleries in London, in June earlier this year. The artist, Claire Kathleen Ward was awarded a Certificate of Botanical Merit by a Kew botanist and artist. Claire had been an apprentice on Plantlife’s successful training scheme, Cennad, led by Tracey Lovering.


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## *Roccella* by Post

Walking in Pembrokeshire not far inland from the St. David's Lifeboat Station I had a few stamped and ready-to-go holiday postcards getting creased in my pocket. So was pleased, when strolling along a very narrow lane through the farmstead of Rhosson, to come across a post-box in the road-side wall. And then a wow moment! The post-box was surrounded by *Roccella phycopsis*.

Post-box at Rhosson, Pembrokeshire Photo © Steve Price

On stepping back from the box it was obvious that an impressive 30ft by 4ft section of this north-facing wall was grey and furry, covered in a dense carpet of this Near Threatened, Nationally Scarce lichen.

As has since been observed the location is rather more accessible than climbing up the tower of St. David's cathedral. With the lichen being in such quantity it did surprise me to find that the site had not previously been recorded. But these days who walks for the sake of walking and if in a car there would be no space let alone a reason to stop – I mean, what sort of person still sends postcards?



*Roccella phycopsis* Photo © Steve Price

Sandy Coppins spotted in the photo the rare Edward VII post-box. King Edward VII died in 1910. Should this then lead us to consider the longevity and stability of the site and thus its suitability to support this lichen?

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## Autumn Field Meeting in Suffolk October 2018

The autumn field meeting took place between the 5th October and 8th October with 20 people in attendance including André Aptroot and Maaike Vervoort from the Netherlands which gave an international perspective on our findings. The meeting was based at the beautiful and historic Flatford Mill Field Studies Council centre, which is renowned for its connection with the artist Constable. It was also the base for the second British Lichen Society field meeting, the first having been held in the autumn of 1959. If only the participants of that meeting could have foreseen how much progress in British lichenology there had been in the intervening 49 years!

Suffolk is a well recorded county largely thanks to Chris Hitch, one of the two organisers, but the number of new finds shows that there is still much for lichenologists to do. The field meeting covered a wide variety of the habitats, which are present in Suffolk including churches, shingle, parkland and wood pasture woodland.

*Standing from left*: Paul Cannon, Peter Lambley, Graham Boswell, Heather Colls, Steve Price, Ginnie Copsey, John Skinner, Nicola Bacciu, Paula Shipway, David Hill, André Aproot, Maaike Vervoort.
*Seated*: Chris Hitch, Maxine Putnam, Mark Powell, Doug McCutcheon, Ishpi Blatchley, Shirley Hancock.
*Not present for photo*: Ivan Pedley, Matt Prince. Photo © Paul Cannon

**Friday 5th October**
**Copdock (St Peter) Church TM120415**

This church was chosen as it lies close to the junction of the A14 and A12 but despite this proximity it is in a peaceful location. A fairly large neat building originally built in the 15th century it was almost entirely refurbished in late Victorian times. It is built as most Suffolk churches are of flint with limestone buttresses of oolitic limestone. The monuments in the churchyard are mostly headstones, which are of oolitic limestone, granite or sandstone (probably from the carboniferous of northern England). There were a few trees to add variety. Eighty-nine species were recorded in the morning of which one of the more notable was *Rhizocarpon geographicum* which occurred on the roof. Whilst this species is not rare in East Anglia it has a rather scattered distribution mostly on church roofs, but occasionally on tombstones and tops of brick walls. *Lecania hutchinsiae* occurred on the base of a sandstone headstone. Once thought as being rather rare in East Anglia it is actually fairly frequent especially low on sandstone headstones where it benefits from salts percolating up from the soil. Another species,



*Lecanora horiza*, was not known in East Anglia until a few years ago, because of confusion with *Lecanora campestris*. It is now known to be quite frequent.

*Lecanora sulphurea* parasitizing *Tephromela atra* on a headstone Photo © M. Putnam

Five of the 89 species recorded were lichenicolous fungi, reflecting the growing interest in these taxa. These included *Arthonia diploiciae* which forms small brown patches on its host *Diploicia canescens*, *Arthonia parietinaria* on *Xanthoria parietina* and *Intralichen baccisporus* found by Paul Cannon on *Arthonia lapidicola*. The final total of 89 species illustrates the importance of churchyards in a county with no natural hard rock outcrops. After lunch we then moved on to a church close to Flatford Mill.

**East Bergholt (St Mary) Church TM070343**

This is a magnificent church, a testimony to the wealth generated by the wool industry. It is late perpendicular in style with a stunning exterior of stone (oolitic limestone and flintwork), with a cluttered graveyard of limestone and sandstone headstones with some table tombs. A number of uncommon species were found in the East Anglian context; of particular interest to many was the newly described *Leprocaulon calcicola*, growing amongst flints and mortar on the west wall of the church, its preferred habitat.

*Leprocaulon calcicola* on west wall of East Bergholt church Photo© Peter Lambley

It forms a greenish leprose crust distinguished by a K+ y reaction best shown with filter paper. The churchyard is also notable for its colonies of *Xanthoparmelia conspersa* which grow on a number of table tombs, otherwise a very rare species in East Anglia. Other species of note included *Protoblastenia lilacina* on a limestone drip course on the south wall of the church. Additionally, species such as *Polyblastia dermatodes* and *Thelidium pyrenophorum*, which tend to be under recorded were noted. Small black dots on *Dirina* were identified by André as *Verrucocladosporium dirinae*. With all the expertise present and effort it perhaps not surprising that a total of 108 species were recorded reflecting the large number of small scale of habitats within the churchyard.

In the evening Peter Lambley gave a talk on the changing lichen flora of East Anglia. (For images of *Caloplaca* species found during the meeting see page 58, photo © Paul Cannon).



**Saturday 6th October**

The day began dry but rain was forecast later. We set off on a long drive from the south to the north-east of the county using the impressive Orford Bridge en route to Sotterley, which lies south of Beccles. We drove into the park and parked close to the church. Whilst most members opted for the parkland, Ivan Pedley was attracted by the call of his natural habitat, the church and yard.

**Sotterley (St Margarets) Church TM459852**

This church is set in the heart of Sotterley Park and is Norman, but largely rebuilt in the 13th or early 14th centuries. It is built of flintwork with limestone buttresses like most other Suffolk churches. The interior is notable for having the largest number of figure brasses in the county. The churchyard as with most Suffolk churches has the usual range of mostly limestone and sandstone headstones. Ivan recorded 69 species; although there were no notable species it had a good range including *Botryolepraria lesdainii, Caloplaca chrysodeta, Lecania hutchinsiae, L. rabenhorstii, L. turicensis,* and *Lecidella carpathica.*

**Sotterley Park TM458848**

This is the best park in East Anglia for corticolous lichens and notified as an SSSI on that basis. It is owned by the Barne family who have lived there since the 18th century. Oliver Rackham (pers. comm.) considered that it was essentially enclosed countryside rather than a deer park of ancient origins. However, it has been associated with families of influence back to at least the 15th century and has the feel of one long established. The lichen interest was first identified by Francis Rose when he visited with one of the authors (PWL) in March 1971. At that time *Normandina pulchella* was found on a walnut near the house, the first record for it in East Anglia and *Ramalina fraxinea* on sycamores. These along with a number of other species have now gone. The splendid walnut was felled in a gale, whilst the sycamores still stand. Nevertheless, the park remains very rich and continues to provide surprises, as we found during this visit. The parkland is grazed by cattle and sheep and studded with oaks including many large growth trees together with some ash and sycamore. It is also notable for the large number of old hornbeams which are near their natural northern limit in East Anglia. The park, unlike many other parklands in East Anglia, seems to have escaped the worst of the effects of nitrogen pollution in its various forms, probably because of its size and also because it is sheltered all round by a belt of new plantation woodland.

Because of the extent of the park and the forecast of heavy rain by mid-afternoon, the party decided to focus on the large area south of the house. A large dead oak provided the first interest as the lower part of the trunk on the south side was covered in a distinctive yellow-green crust characteristic of *Cyphelium notarisii*. However, without fruits it is very difficult to distinguish it from *Cyphelium tigillare* so that there remains some uncertainty whether the identification is correct. Elsewhere

in East Anglia *Cyphelium notarisii* is known only from worked wood e.g. fence rails, gates etc. and appears to be declining. Another species which has declined very significantly, in this case with the demise of mature elms, is *Pleurosticta acetabulum,* which was found on one sycamore along with *Caloplaca obscurella*.

*Pleurosticta acetabulum* on sycamore at Sotterley Park Photo © Maxine Putnam

*Bacidina adastra* was found on the base of an oak trunk with a few fruits embedded in a greenish algae-like crust. Another *Bacidia*, *B. incompta,* once not uncommon on elms was found on the inside of the trunk of a field maple. This is classified as vulnerable in the Red Data Book. Also present on the tree was *Bacidia rubella* which again is now rare in East Anglia. An old hornbeam had *Pyrenula chlorospila* and confirmed an earlier record of this species which is very rare in East Anglia. Old oaks had *Cresponea premnea* and *Pachnolepia pruinata* in abundance and one tree supported *Lecanographa lyncea* (the same one as recorded by Rose and Lambley in 1971) together with its lichenicolous fungus, *Milospium graphideorum*. All these species are old growth indicators. Pin-head lichens found included *Chaenotheca brunneola,* recorded by Steve Price, (second modern Suffolk record), *C. trichialis* and *Chaenothecopsis nigra*. Another species of note found by Paul Cannon was *Chaenothecopsis savonica* which again is new to East Anglia. Paul also found *Arthopyrenia nitescens* on an oak twig. This was also new to the region.
By mid-afternoon the forecasted rain started to fall heavily and members reluctantly retreated back to their cars and the rather long journey back to Flatford.



After our evening meal, Mark Powell gave a fascinating talk about his pioneering findings using a powerful UV torch in conjunction with chemical tests.

**Sunday 7th October**
**Orfordness TM43-58- (together with adjacent 1 km squares)**
This site provides a complete contrast to Sotterley Park with habitats which are uncommon in the British Isles and more broadly western Europe. Orfordness is Europe's largest vegetated shingle spit and is approximately16km long and covers 900ha. of which 40% (370 ha.) is shingle, the rest being tidal areas, mudflats, sandflats, lagoons and grassland. For many years it was a highly restricted area used by the military to test the nuclear trigger in the British hydrogen bomb, this taking place in a great concrete structure often called the Pagoda. There was also an early warning radar system called Cobra-mist involving a network of aerials and arrays. In time the military use for the site ended and it was passed on to the National Trust, who now manage the site. Whilst it is connected with the land by a narrow neck at the northern end, access normally involves taking a ferry-crossing across the Alde.

Crossing the Alde by ferry Photo © Peter Lambley

It was with anticipation that the party travelled to Orford to catch this ferry. Though the journey for some was delayed by traffic streaming into a rugby club event by a very

minor road we all gathered eventually on the quay for the short ferry-crossing to the Ness itself. Whilst the early arrivals were waiting, we were richly entertained by the filming of a short pop video of a band performing on a boat. Once we were all gathered, we were soon underway on the short ferry-crossing across the River Alde, then transferring to vehicles which took us down to the area of old military buildings. We then had a safety briefing from National Trust staff and were left with radios in case of emergency. Since acquiring the site, the National Trust has had a policy of leaving the buildings and doing relatively little tidying up, as they view these structures as being integral to the history of the site. This has proved good for terricolous and saxicolous lichens because it provides a variety of substrates ranging from natural areas of flint shingle to concrete and brick. At present it seems there is what has been called 'stable instability' i.e. there is limited measure of disturbance which creates some open ground for colonisation, but not too much so that lichens
cannot colonise, an ideal state for terricolous lichens.

Getting down to work on both small and large scale habitats Photo © Peter Lambley

Searching for lichens on such a site involves a lot of crawling on hands and knees but it produces results. The intertidal community is very limited because there are no hard rock outcrops and the tidal areas are very silty but *Verrucaria ditmarsica* was found on pebbles in places clear of silt. Nearby *Lecanora zosterae* was found on *Armeria* and André found *Lecania cyrtella* parasitised by *Taeniolella delicata* on *Silene maritima*. Amongst the



bricks, rubble and concrete associated with the buildings were species such as *Caloplaca albolutescens* and *C. chlorina*. *Cladonia s*pecies form a *Cladonia* heath with *Cladonia arbuscula* subsp. *squarrosa, C. ciliata* var. *ciliata*, *C. ciliata* var. *tenuis, C. foliacea* and *C. portentosa*. A feature of these habitats is the presence at times of species normally thought of as corticolous e.g. *Evernia prunastri* and *Flavoparmelia caperata.* Other species occurred in slightly different habitats in areas nearer the buildings e.g. *Cladonia cariosa, C. ramulosa*, *C. rangiformis* and *C. squamosa* var. *subsquamosa.* The record for *C. cariosa* was the first fruiting record in recent decades. *Leptogium gelatinosum* and *L. turgidum* were found in the damper hollows.

Discussing some finds Photo © Peter Lambley

A number of important finds were made on the shingle including *Aspicilia intermutans*, a coastal species not previously recorded in Suffolk. Another species associated with this habitat, *Rinodina aspersa* was also found, which is locally fairly frequent. *Xanthoparmelia mougeotii* also favoured the shingle which may be its natural habitat. Small dots on the shingle were considered to be *Amandinea lecideina*. A specimen thought to be *Bacidina scopulicola* was later redetermined by Mark Powell as *Bacidina egenula*.

A search of a lone elder was productive with *Arthonia muscigena*, *Caloplaca cerinelloides, C. ulcerosa, C. phlogina, Rinodina pityrea* and *Strangospora pinicola* being added to the list.

Careful examination of *Peltigera* species growing on soil and plant debris over concrete resulted in the finding of three new lichenicolous fungi for the British Isles. *Phaeoseptoria peltigerae* was found by Paul Cannon on the moribund thallus of *Peltigera neckeri*. *Pseudorobillarda peltigerae* was found by Nicola Bacciu on a moribund thallus of *Peltigera rufescens* and identified by André Aptroot, whilst André noted *Knufia peltigerae* on a *Peltigera sp.* In addition, Nicola found the second Suffolk record for *Lasiosphaeraeriopsis salisburyi* on a moribund thallus of *Peltigera rufescens*; it was also only the third English record. This perhaps emphasises the importance of the National Trust policy of not over tidying the site and therefore leaving microhabitats for lichens and associated lichenicolous fungi. (For images of the lichenicolous fungi found on *Peltigera* during the meeting see page 59, photo © Paul Cannon).We were fortunate that the weather was good throughout, so that it was a happy group of explorers which finally left on the ferry at the end of the day.

**Monday 8th October**

**Staverton Park and Thicks. TM35-50-**

Our final site visit was to Staverton Thicks and Park, a site of known importance for lichens and woodland history in general. This lies in the east of the county quite close to the sea on very light sandy soils. Like Sotterley Park it is notified as a SSSI and additionally under the Habitats Directive as a Special Area of Conservation (SAC). It covers c. 80 ha of which the park consists of an open canopy wood pasture largely of over mature pollarded oaks, some of great age. In addition, there are also some birch (*Betula pendula* and *B. pubescens*), holly and rowan. The woodland is cattle-grazed
The Thicks in contrast is an area of about twenty hectares of dense, closed canopy holly wood. Many of these hollies have attained great size in height and girth of their boles and are reputed to be the largest in Britain. Embedded within these holly groves are some oaks of great age along with some rowan**.**

Cattle grazing at Staverton Park Photo © Peter Lambley



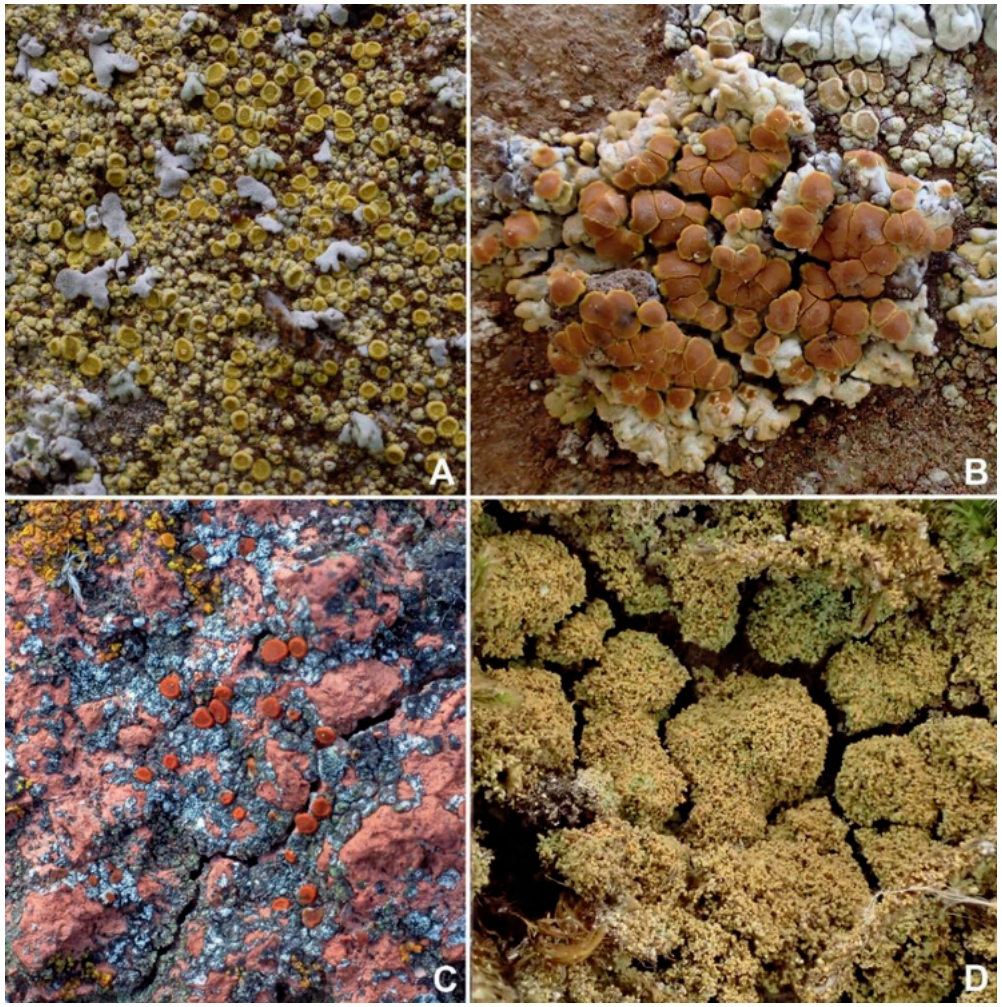
The site had recently been surveyed for Natural England by Mark Powell who had made a number of new discoveries. Lying close to the coast it escaped some of the worst of the sulphur dioxide levels in the 1960s and 70s, but is more exposed to nitrogen pollution in its various forms. This was emphasised by the adjacent field being used for intensive pig rearing. We started by exploring the Park area which in reality is woodland rather than a park. There we found *Cladonia parasitica* on a fallen dead trunk. Old oaks had *Enterographa crassa, Cresponea premnea* and *Lecanographa lyncea*. Later we moved on to the Thicks where Mark showed us the tree with *Inoderma (Lecanactis) subabietina* which he had found earlier in the year. Initially because of its C- reaction with the pycnidia it was assumed to be *Opegrapha vermicellifera,* but in examining the specimen he realised that it gave a distinct K/UV + mauve fluorescence which in due course was to prove a new test for confluentic acid, and

Exploring the dead wood habitat at Staverton Park Photo © Peter Lambley

therefore helps to separate *I. subabietina*. So far this is its only known East Anglia site and well out of its previously known range, but it raises the question whether it has been overlooked elsewhere.

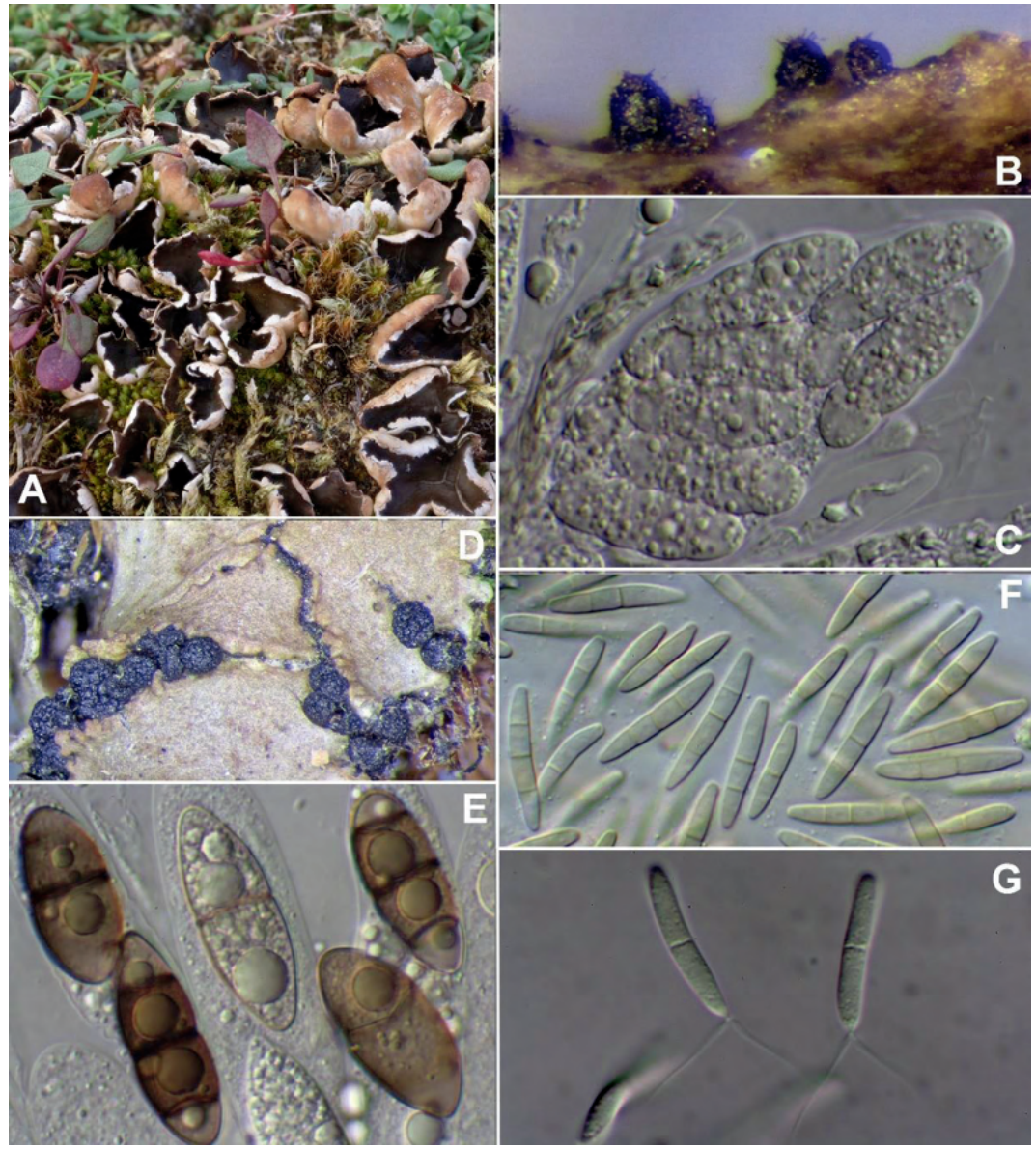
A foliicolous lichen was found by Paula Shipway on a holly leaf which was identified as *Phylloblastia cf. bielczykiae*, a name which has been applied to it currently. Another find was a lirellate lichen on a twig of rowan, which proved to be *Graphis inustuloides*, (formerly *Graphina anguina*), previously known in Suffolk from Sotterley, where it grows on hornbeam but also at Staverton where it was found on a fallen holly. A crust

on dead wood was subsequently identified as *Loxospora elatina*, uncommon in East Anglia. The weather remained kind all morning and the meeting ended at lunchtime when members went their separate ways.




*Caloplaca* s.l. species from the Suffolk field meeting. The group has been subject to substantial revision in recent years using phylogenetic techniques, but there is no current consensus on a new taxonomic arrangement. Some British taxa have not been sequenced at all (including *C. ruderum* and *C. albolutescens* below), and there is a need to confirm species concepts as used in Great Britain and Ireland. A. *Caloplaca ruderum*, amongst tiny thalli of *Diploicia canescens*. From Copdock churchyard. B. *Caloplaca* (*Calogaya*) *saxicola*, from the same locality. C. *Caloplaca albolutescens*, from an old brick on Orford Ness. D. *Caloplaca* (*Leproplaca*) *chrysodeta*, on the wall of East Bergholt church.






*Peltigera neckeri* and its parasites, from material collected on Orford Ness. A. *Peltigera neckeri*, growing on mossy ground over concrete near the old testing facilities. B, C. *Knufia peltigerae*, new to GBI. The species has tiny setose perithecia (B) and is morphologically similar to *Capronia* but has colourless ascospores (C) and is phylogenetically distinct. D, E. *Lasiosphaeriopsis salisburyi*, second record for England. The perithecia (D) are very coarsely warted, and the ascospores (E) usually have three septa with the end cells paler, although they are very variable in this collection. F. Pale brown septate conidia of *Phaeoseptoria peltigerae*, new to GBI. G. Conidia of *Pseudorobillarda peltigerae* with basal setae, also new to GBI.

During the meeting 271 taxa were recorded including lichenicolous fungi, an impressive number for a four-day meeting in the dry east of the country. It also showed that after 49 years since the last field meeting based in Suffolk the Society has gone from strength to strength not only in expertise but also enthusiasm and comradeship.

**Acknowledgements**

We would like to thank John Blair and his staff at the Flatford Mill Field Studies Centre for their hospitality and help in ensuring that the accommodation and arrangements for the meeting were so efficient and of a high standard.

Also to the landowners who gave us permission to visit their land including Miles Barne, (Sotterley Park), Wantisden Estates, (Staverton Park and Thicks) and David Fincham and his National Trust Orfordness staff.

We also thank Steve Price as Field Meetings Secretary for his help in liaising with the Flatford Field Centre.

## Species recorded at the Flatford Mill field meeting

Site 1 Copdock (St Peter) Church, TM120415, 5th October 2018
Site 2 East Bergholt (St Mary) Church, TM070343, 5th October 2018
Site 3 Sotterley (St Margarets) Church, TM459852, 6th October 2018
Site 4 Sotterley Park, TM458848, 6th October 2018,
Site 5 Orfordness, TM43-58- (with adjacent 1 km. squares), 7th October 2018
Site 6 Staverton Park and Thicks, TM35-50-, 8th October 2018
Key * = lichenicolous fungus, 1= new to British Isles, 2 = new to East Anglia, 3 = new to Suffolk

| BLS No. | Species | 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|---|---|
| 10 | *Acarospora fuscata* | + | + | + | | | |
| 36 | *Acrocordia salweyi* | | + | | | | |
| 38 | *Agonimia tristicula* | | + | + | | | |
| 1292 | *Amandinea lecideina* | | | | | + | |
| 212 | *Amandinea punctata* | + | + | | + | + | + |
| 48 | *Anisomeridium biforme* | + | | | + | | + |
| 2009 | *Arthonia diploiciae* * | | | | | | |
| 64 | *Arthonia lapidicola* | + | | | | | |
| 1700 | *Arthonia muscigena* | | | | | + | |
| 2683 | *Arthonia parietinaria** | + | | | | | |
| 68 | *Arthonia punctiformis* | | + | | + | | |
| 69 | *Arthonia radiata* | + | | | + | | |
| 1605 | *Arthopyrenia nitescens* (2) | | | | + | | |
| 102 | *Aspicilia caesiocinerea* | | | | | + | |
| 103 | *Aspicilia calcarea* | + | + | | | | |
| 107 | *Aspicilia contorta* ssp. *contorta* | | + | | | | |
| 113 | *Aspicilia contorta* ssp. *hoffmanniana* | | + | | | | |
| 112 | *Aspicilia grisea* | | + | | | | |
| 114 | *Aspicilia intermutans* (2) | | | | | + | |
| 153 | *Bacidia incompta* | | | | + | | |
| 164 | *Bacidia rubella* | | | | + | | |
| 2384 | *Bacidina adastra* | | | | + | | |
| 145 | *Bacidina egenula* | | | | | + | |
| 161 | *Bacidina phacodes* | | | | | | + |
| 165 | *Bilimbia sabuletorum* | | + | + | | | |
| 1628 | *Botryolepraria lesdainii* | | | + | | | |
| 200 | *Buellia aethalea* | + | + | + | | | |
| 207 | *Buellia griseovirens* | + | + | + | + | | |
| 219 | *Buellia ocellata* | + | | + | | | |
| 2503 | *Caloplaca albolutescens* | | | | | + | |
| 2442 | *Caloplaca arcis* | + | | | | + | |
| 239 | *Caloplaca aurantia* | + | + | | | + | |
| 242 | *Caloplaca cerinella* | | | | + | | |
| 279 | *Caloplaca cerinelloides* (3) | | | | + | + | |
| 263 | *Caloplaca chlorina* | | | | | + | |
| 825 | *Caloplaca chrysodeta* | | + | + | | | |
| 247 | *Caloplaca citrina s. lat.* | | | + | | | |
| 249 | *Caloplaca crenulatella* | | + | + | | + | |
| 285 | *Caloplaca dalmatica* | + | | | | | |
| 2443 | *Caloplaca dichroa* | + | + | | | | |
| 259 | *Caloplaca flavescens* | + | + | | | | |
| 2315 | *Caloplaca flavocitrina* | + | + | + | + | + | |
| 261 | *Caloplaca holocarpa s. lat.* | | | | + | | |
| 2527 | *Caloplaca holocarpa s. str.* | | + | + | | | |
| 2607 | *Caloplaca limonia* | + | + | | | | |
| 264 | *Caloplaca marmorata* | + | | | | | |
| 2461 | *Caloplaca oasis* | + | + | + | | + | |
| 271 | *Caloplaca obscurella* | | | | + | | |
| 2317 | *Caloplaca phlogina* | | | | | + | |
| 275 | *Caloplaca ruderum* | + | + | | | | |
| 277 | *Caloplaca saxicola* | + | + | + | | | |
| 281 | *Caloplaca teicholyta* | + | + | + | | | |
| 283 | *Caloplaca ulcerosa* | | | | | + | |
| 826 | *Caloplaca xantholyta* | | + | | | | |
| 289 | *Candelaria concolor* | | | | + | | |
| 291 | *Candelariella aurella f. aurella* | + | + | + | | + | |
| 296 | *Candelariella medians f. medians* | | + | + | | | |
| 297 | *Candelariella reflexa* | | + | + | + | | |
| 298 | *Candelariella vitellina f. vitellina* | + | + | + | | + | |
| 306 | *Catillaria chalybeia var. chalybeia* | | + | + | | + | |
| 311 | *Catillaria lenticularis* | + | | + | | | |
| 2025 | *Cercidospora epipolytropa** | | | | | + | |
| 430 | *Cetraria aculeata* | | | | | + | |
| 341 | *Chaenotheca brunneola* | | | | + | | |
| 349 | *Chaenotheca trichialis* | | | | | | |
| 1831 | *Chaenothecopsis nigra* | | | | + | | |
| 1832 | *Chaenothecopsis savonica* (2) | | | | + | | |
| 354 | *Chrysothrix candelaris* | | | | + | | + |
| 360 | *Cladonia arbuscula* subsp. *squarrosa* | | | | | + | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 366 | *Cladonia cariosa* | | | | | + | |
| 371 | *Cladonia chlorophaea s. lat.* | | + | + | | | |
| 372 | *Cladonia ciliata var. ciliata* | | | | | + | |
| 373 | *Cladonia ciliata var. tenuis* | | | | | + | |
| 375 | *Cladonia coniocraea* | + | | | + | + | + |
| 384 | *Cladonia fimbriata* | | + | | | + | |
| 387 | *Cladonia foliacea* | | | | | + | |
| 373 | *Cladonia furcata subsp. furcata* | | | | | + | |
| 376 | *Cladonia humilis* | | | | | + | |
| 396 | *Cladonia macilenta* | | | | | + | + |
| 404 | *Cladonia parasitica* | | | | | | + |
| 408 | *Cladonia polydactyla var. polydactyla* | | | | | | + |
| 409 | *Cladonia portentosa* | | | | | + | |
| 359 | *Cladonia ramulosa* | | | | | + | |
| 412 | *Cladonia rangiformis* | | | | | + | |
| 417 | *Cladonia squamosa var. subsquamosa* | | | | | + | |
| 429 | *Cliostomum griffithii* | | + | | + | | + |
| 433 | *Collema auriforme* | | + | | | | |
| 440 | *Collema crispum var. crispum* | | | | | + | |
| 460 | *Collema crispum var. ceranoides* | | | | | + | |
| 751 | *Clauzadea monticola* | + | | | | | |
| 605 | *Cresponea premnea* | | | | + | | + |
| 475 | *Cyphelium notarisii* | | | | + | | |
| 1315 | *Dendrographa decolorans* | | | | + | | + |
| 491 | *Diploicia canescens* | + | + | + | + | | |
| 494 | *Diploschistes muscorum* | | + | | | | |
| 495 | *Diploschistes scruposus* | | + | | | | |
| 496 | *Diplotomma alboatrum* | + | + | + | | | |
| 500 | *Dirina massiliensis f. sorediata* | + | + | + | | | |
| 504 | *Enterographa crassa* | | | | + | | + |
| 511 | *Evernia prunastri* | | + | + | + | + | |
| 305 | *Fellhanera bouteillei* | | | | | | + |
| 587 | *Flavoparmelia caperata* | | + | | + | + | + |
| 521 | *Fuscidea lightfootii* | | | | + | | |
| 529 | *Graphis inustuloides* | | | | | | + |
| 532 | *Graphis elegans* | | | | | | + |
| 533 | *Graphis scripta* | | | | + | | |
| 555 | *Haematomma ochroleucum var. porphyrium* | + | + | + | | | |
| 2239 | *Heterocephalacria bachmannii** (2) | | | | | + | |
| 2240 | *Heterocephalacria physciacearum** | | | | + | | |
| 1125 | *Hyperphyscia adglutinata* | | + | | + | | |
| 578 | *Hypocenomyce scalaris* | | | | + | | + |
| 582 | *Hypogymnia physodes* | | + | + | + | + | |
| 583 | *Hypogymnia tubulosa* | | | | + | | |
| 2577 | *Hypotrachyna revoluta s. str.* | | + | | | | |
| 606 | *Inoderma subabietina* (2) | | | | | | + |
| 2424 | *Intralichen baccisporus** | + | | | | | |
| 2019 | *Intralichen christiansenii** | + | | | | | |
| 2723 | *Knufia peltigerae** (1) | | | | | + | |
| 2078 | *Lasiosphaeriopsis salisburyi** | | | | | + | |
| 592 | *Lecanactis abietina* | | | | + | | + |
| 600 | *Lecanographa lyncea* | | | | + | | + |



| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 613 | *Lecania cyrtella* | | + | | | + | + |
| 616 | *Lecania erysibe s. str.* | + | | | | | |
| 1625 | *Lecania hutchinsiae* | + | | + | | | |
| 1707 | *Lecania inundata* | + | | | | | |
| 1708 | *Lecania rabenhorstii* | + | | + | | | |
| 1691 | *Lecania turicensis* | + | | | | | |
| 627 | *Lecanora albescens* | + | + | + | | + | |
| 640 | *Lecanora antiqua* | | + | | | | |
| 2121 | *Lecanora barkmaniana* | | | | + | | |
| 635 | *Lecanora campestris ssp. campestris* | + | + | + | | + | |
| 636 | *Lecanora carpinea* | | + | | + | | |
| 639 | *Lecanora chlarotera* | + | + | | + | | |
| 1996 | *Lecanora compallens* | | | | + | | |
| 643 | *Lecanora conizaeoides* | | + | | + | + | |
| 644 | *Lecanora crenulata* | | + | | | + | |
| 644 | *Lecanora dispersa* | + | + | + | | + | |
| 649 | *Lecanora expallens* | + | + | + | + | + | |
| 621 | *Lecanora hagenii* | | | | | + | |
| 1764 | *Lecanora horiza* | + | + | | | | |
| 661 | *Lecanora muralis* | | + | + | + | + | |
| 757 | *Lecanora orosthea* | + | + | + | | | |
| 1836 | *Lecanora persimilis* | | | | + | | |
| 667 | *Lecanora polytropa* | + | + | | | + | |
| 677 | *Lecanora sambuci* (2) | | | | + | | |
| 679 | *Lecanora soralifera* | | + | | | | |
| 783 | *Lecanora sulphurea* | + | + | + | | | |
| 2287 | *Lecanora zosterae* | | | | | + | |
| 2474 | *Lecidea grisella* | | + | | | | |
| 796 | *Lecidella carpathica* | | + | + | | | |
| 797 | *Lecidella elaeochroma f. elaeochroma* | + | + | + | + | + | |
| 649 | *Lecidella elaeochroma f. soralifera* | | | | + | | |
| 802 | *Lecidella scabra* | + | + | + | | | |
| 803 | *Lecidella stigmatea* | + | + | + | | | |
| 1713 | *Lepraria eburnea* | | | | | | + |
| 1629 | *Lepraria finkii* | | + | | | | |
| 1974 | *Lepraria incana s. str.* | | + | + | + | | + |
| 1604 | *Lepraria vouauxii* | + | + | | | | |
| 2691 | *Leprocaulon calcicola* | | + | | | | |
| 846 | *Leptogium gelatinosum* | | | | | + | |
| 849 | *Leptogium turgidum* | | | | | + | |
| 2092 | *Lichenoconium lecanorae** | + | | | | | |
| 2077 | *Lichenodiplis pertusariicola** | | | | + | | |
| 551 | *Loxospora elatina* | | | | | | + |
| 998 | *Melanelixia fuliginosa* | + | + | + | + | + | |
| 997 | *Melanelixia glabratula* | | + | + | + | + | + |
| 1020 | *Melanelixia subaurifera* | + | + | + | + | | |
| 993 | *Melanohalea elegantula* | | | | + | | |
| 1698 | *Micarea doliiformis* | | | | | | + |
| 892 | *Milospium graphideorum** | | | | + | | + |
| 2116 | *Muellerella lichenicola* * | | + | | | | |
| 1428 | *Mycocalicium subtile* (2) | | | | + | | |
| 921 | *Ochrolechia androgyna* | | | | + | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 949 | *Ochrolechia arborea* (2) | | | | + | | |
| 938 | *Opegrapha atra* | | | | + | + | + |
| 953 | *Opegrapha niveoatra* | | | | | | + |
| 965 | *Opegrapha vermicellifera* | | | | + | | |
| 2441 | *Opegrapha viridipruinosa* | | | | + | | |
| 943 | *Opegrapha vulgata* | | + | | + | | + |
| 63 | *Pachnolepia pruinata* | | | | + | | |
| 1015 | *Parmelia saxatilis s. lat.* | + | + | | + | | |
| 1022 | *Parmelia sulcata* | + | + | + | + | + | + |
| 1008 | *Parmotrema perlatum* | | + | + | + | | |
| 1039 | *Peltigera canina* | | | | | + | |
| 1043 | *Peltigera hymenina* | | | | | + | |
| 1047 | *Peltigera membranacea* | | | | | + | |
| 1048 | *Peltigera neckeri* | | | | | + | |
| 1051 | *Peltigera rufescens* | | | | | + | |
| 1056 | *Pertusaria albescens var. albescens* | | | | + | | |
| 1057 | *Pertusaria albescens var. corallina* | | | | + | | |
| 1058 | *Pertusaria amara f. amara* | | | + | + | | |
| 1064 | *Pertusaria coccodes* | | | | + | | |
| 1076 | *Pertusaria hymenea* | | | | + | | |
| 1079 | *Pertusaria leioplaca* | | | | + | | + |
| 1087 | *Pertusaria pertusa* | | | | + | | + |
| 1107 | *Phaeophyscia orbicularis* | | + | + | + | | |
| 2721 | *Phaeoseptoria peltigerae* * (1) | | | | | + | |
| 1110 | *Phlyctis argena* | | | | + | | + |
| | *Phylloblastia cf. bielczykiae* | | | | | | + |
| 1112 | *Physcia adscendens* | + | + | + | + | + | |
| 1114 | *Physcia caesia* | | + | + | | | |
| 1125 | *Physcia tenella* | + | + | + | + | + | |
| 1130 | *Physconia distorta* | | | | + | | |
| 1127 | *Physconia grisea* | + | + | + | + | | |
| 1492 | *Placopyrenium fuscellum* | + | + | | | | |
| 1735 | *Placynthiella dasaea* | | | | | | + |
| 732 | *Placynthiella icmalea* | | | | + | + | |
| 982 | *Pleurosticta acetabulum* | | | | + | | |
| 1153 | *Polyblastia dermatodes* | | + | | | | |
| 2165 | *Polycoccum pulvinatum** | | + | | | | |
| 1167 | *Polysporina simplex* | + | | | | | |
| 1171 | *Porina chlorotica f. chlorotica* | | | | | + | |
| 1181 | *Porina leptalea* | | | | | | + |
| 1690 | *Porpidia soredizodes* | + | + | | | + | |
| 572 | *Porpidia tuberculosa* | + | + | + | | | |
| 2173 | *Pronectria robergei** | | | | | + | |
| 2413 | *Protoblastenia lilacina* | | + | | | | |
| 1189 | *Protoblastenia rupestris* | + | + | + | | + | |
| 1793 | *Protoparmelia oleagina* | | | | + | | |
| 2722 | *Pseudorobillarda peltigerae** (1) | | | | | + | |
| 1637 | *Psilolechia leprosa* | | + | | | | |
| 1200 | *Psilolechia lucida* | + | + | + | | | |
| 2179 | *Pyrenidium actinellum** | | + | | | | |
| 1989 | *Punctelia jeckeri* | | + | + | + | | |
| 2070 | *Punctelia subrudecta s. str.* | + | + | + | + | + | |



| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1221 | *Pyrenula chlorospila* | | | | + | | |
| 1228 | *Pyrrhospora quernea* | + | | | | | |
| 1230 | *Ramalina canariensis* | | | | + | | |
| 1234 | *Ramalina farinacea* | + | + | | + | | |
| 1235 | *Ramalina fastigiata* | | + | | + | | |
| 1257 | *Rhizocarpon geographicum* | + | | | | | |
| 1266 | *Rhizocarpon reductum* | | | + | | + | |
| 201 | *Rinodina aspersa* | | | | | + | |
| 1289 | *Rinodina oleae* | + | | | + | + | |
| 1932 | *Rinodina pityrea* | | | | | + | |
| 1298 | *Rinodina sophodes* (2) | | | | | | + |
| 1300 | *Rinodina teichophila* | + | | | | | |
| 1306 | *Sarcogyne regularis* | + | + | | | | |
| 1320 | *Scoliciosporum chlorococcum* | + | | | | | |
| 1322 | *Scoliciosporum umbrinum* | + | | + | | | |
| 1374 | *Strangospora pinicola* | | | | | + | |
| 2241 | *Taeniolella delicata** | | | | | + | |
| 2068 | *Telogalla olivieri* | | | | | + | |
| 630 | *Tephromela atra var. atra* | + | + | + | | | |
| 1395 | *Thelidium pyrenophorum* | + | + | | | | |
| 1410 | *Thelotrema lepadinum* | | | | | | + |
| 1415 | *Toninia aromatica* | + | + | + | | | |
| 1431 | *Trapelia coarctata* | + | + | + | | | |
| 1432 | *Trapelia glebulosa* | | + | | | | |
| 1595 | *Trapelia placodioides* | + | + | + | | | |
| 692 | *Trapeliopsis flexuosa* | | | | + | + | |
| 1480 | *Verrucaria calciseda* | + | + | | | | |
| 1486 | *Verrucaria ditmarsica* | | | | | + | |
| 1495 | *Verrucaria hochstetteri* | + | + | + | | | |
| 1519 | *Verrucaria macrostoma f. furfuracea* | + | + | | | | |
| 1502 | *Verrucaria macrostoma f. macrostoma* | | + | | | | |
| 1510 | *Verrucaria nigrescens f. nigrescens* | + | + | + | | | |
| 2514 | *Verrucaria nigrescens f. tectorum* | + | + | | | | |
| 8281 | *Verrucaria obfuscans* | | + | | | | |
| 1511 | *Verrucaria ochrostoma* | | | | | + | |
| 1820 | *Verrucaria polysticta* | | + | | | | |
| 1518 | *Verrucaria viridula* | + | | | | | |
| 2486 | *Verrucocladosporium dirinae** | | + | | | | |
| 2267 | *Weddellomyces epicallopisma** | | + | | | | |
| 988 | *Xanthoparmelia conspersa* | | + | | | | |
| 1005 | *Xanthoparmelia mougeotii* | | + | + | | + | |
| 1526 | *Xanthoria calcicola* | + | | | | + | |
| 1530 | *Xanthoria parietina* | + | + | + | + | + | |
| 1531 | *Xanthoria polycarpa* | + | + | + | + | | |
| 950 | *Xanthoria ucrainica* | + | | | + | | |
| 2272 | *Xanthoriicola physciae** | | | | + | + | |

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# British Isles List of Lichens and Lichenicolous Fungi

***September 2019 update to list***

The fully corrected list is available on the BLS web site, www.britishlichensociety.org.uk

**Please note** that a copy of the current Taxon Dictionary can be obtained as a spreadsheet by clicking on the "csv" tab in the bottom left-hand corner of the Lichen Taxon Dictionary page: http://www.britishlichensociety.org.uk/resources/lichen-taxon-database . It sometimes takes a minute or two to respond. To obtain a list of currently accepted names filter for "Y" in column D – "Is current name?".

**Synonyms**. In the downloaded csv file, the most encountered synonyms for a given species are provided in Column F – "Synonyms". However, to obtain a full list of synonyms for a species, filter for its BLS number in Column G – "BLS Number".

We are indebted to Nicola Bacciu, Paul Cannon, Paul Harrold, Alan Orange, Zdeneck Palice, Heather Paul, Neil Sanderson, Jan Vondrák and other checklist users, for bringing several of the required changes to our notice. Anyone encountering difficulties or errors regarding nomenclature or BLS code numbers, please contact one of us, as below.

E-mail contacts (with main responsibilities):
*Brian Coppins* (nomenclature, BLS and NBN species dictionaries, spelling, authorities, dates of publication) <lichensel@btinternet.com>
*Mark Seaward* (allocation of BLS numbers and abbreviations)
<m.r.d.seaward@bradford.ac.uk>
*Janet Simkin* (Recorder and spreadsheet species dictionaries)
<janetsimkin@btinternet.com>

| **Add:** | | | |
|---|---|---|---|
| 2747 | Arthonia lepidophila # | Arthon lepido # | |
| 2740 | Calicium pinastri | Cali pina | |
| 2738 | Capronia hypotrachynae # | Capronia hypo # | |
| 2733 | Dactylospora parasitaster # | Dact parasitast # | |
| 2724 | Didymocyrtis cladoniicola # | Didymoc clad # | |
| 2726 | Dinemasporium strigosum # | Dine stri # | 1 |
| 2736 | Endococcus parmeliarum # | Endococ parm # | |
| 2725 | Eonema pyriforme # | Eone pyri # | 1 |
| 2723 | Knufia peltigerae # | Knuf pelt # | |
| 2745 | Lecanora hypoptoides | Lecanora hypoptoid | |
| 2744 | Lecidea phaeophysata | Lecidea phaeophys | |



| | | | |
|---|---|---|---|
| 2737 | Lichenochora physciicola # | Lichenochora phys # | |
| 2739 | Loxospora christinae | Loxo chri | |
| 2748 | Micarea isidioprasina | Mica isid | |
| 2735 | Micarea pseudomicrococca | Mica pseudomicr | |
| 2732 | Micarea sambuci | Mica samb | |
| 2729 | Myriolecis massei | Myriol mass | |
| 2734 | Ochrolechia incarnata | Ochr inca | |
| 2721 | Phaeoseptoria peltigerae # | Phaeosep peltigerae # | |
| 2722 | Pseudorobillarda peltigerae # | Pseudorob pelt # | |
| 2746 | Rinodina furfuracea | Rino furf | |
| 2727 | Sphaerellothecium icmadophilae # | Sphaerell icma # | |
| 2731 | Synarthonia ochracea # | Synart ochr # | |
| 2730 | Taeniolella pertusariicola # | Taeniolel pert # | |
| 2728 | Trapelia sitiens | Trapelia siti | |
| 2741 | Usnea barbata | Usnea barb | |
| 2742 | Usnea perplexans | Usnea perp | |
| 2743 | Usnea praetervisa | Usnea prae | |

| **Change of genus (sometimes also species epithet):** | | | | | | |
|---|---|---|---|---|---|---|
| Change from: | | | Replace with: | | | Notes |
| 1687 | Arthonia astroidestera | Arthon astr | 1687 | Synarthonia astroidestera | Synart astr | |
| 2384 | Bacidia adastra | Baci adas | 2384 | Bacidina adastra | Bacidina adas | |
| 132 | Bacidia arnoldiana | Baci arno | 132 | Bacidina arnoldiana | Bacidina arno | |
| 2411 | Bacidia brandii | Bacidia bran | 2411 | Bacidina brandii | Bacidina bran | |
| 137 | Bacidia caligans | Baci cali | 137 | Bacidina caligans | Bacidina cali | |
| 139 | Bacidia carneoglauca | Baci carneogl | 139 | Aquacida antricola | Aqua antr | |
| 144 | Bacidia delicata | Baci deli | 144 | Bacidina delicata | Bacidina deli | |
| 145 | Bacidia egenula | Baci egen | 145 | Bacidina egenula | Bacidina egen | |
| 154 | Bacidia inundata | Baci inun | 154 | Bacidina inun | Bacidina inun | |

| | | | | | | |
|---|---|---|---|---|---|---|
| 130 | Bacidia neosquamulosa | Baci neos | 130 | Bacidina neosquamulosa | Bacidina neos | |
| 161 | Bacidia phacodes | Baci phac | 161 | Bacidina phacodes | Bacidina phac | |
| 1593 | Bacidia saxenii | Baci saxe | 1593 | Bacidina saxenii | Bacidina saxe | |
| 1732 | Bacidia squamellosa | Baci squa | 1732 | Bacidina squamellosa | Bacidina squa | |
| 2502 | Bacidia sulphurella | Baci sulp | 2502 | Bacidina sulphurella | Bacidina sulp | |
| 170 | Bacidia trachona | Baci trac | 170 | Aquacidia trachona | Aqua trac | |
| 1583 | Bacidia viridifarinosa | Baci viridif | 1583 | Aquacidia viridifarinosa | Aqua viridif | |
| 474 | Cyphelium inquinans | Cyph inqu | 474 | Acolium inquinans | Acol inqu | |
| 1865 | Cyphelium marcianum # | Cyph marc # | 1865 | Acolium marcianum # | Acol marc # | |
| 475 | Cyphelium notarisii | Cyph nota | 475 | Calicium notarisii | Cali nota | |
| 1545 | Cyphelium sessile # | Cyph sess # | 1545 | Acolium sessile # | Acol sess # | |
| 476 | Cyphelium tigillare | Cyph tigi | 476 | Calicium tigillare | Cali tigi | |
| 1990 | Cyphelium trachylioides | Cyph trac | 1990 | Calicium trachylioides | Cali trach | |
| 2000 | Dactylospora ophthalmizae # | Dact ophth # | 2000 | Sclerococcum ophthalmizae # | Sclerococ ophth # | |
| 2504 | Fellhanera duplex | Fellhanera dupl | 2504 | Puttea duplex | Putt dupl | |
| 2488 | Frutidella pullata | Frut pull | 2488 | Frutidella furfuracea | Frut furf | |
| 624 | Lecanora actophila | Lecanora acto | 624 | Myriolecis actophila | Myriol acto | |
| 625 | Lecanora agardhiana | Lecanora agar | 625 | Myriolecis agardhiana | Myriol agar | |
| 627 | Lecanora albescens | Lecanora albescens | 627 | Myriolecis albescens | Myriol albe | |
| 629 | Lecanora andrewii | Lecanora andr | 629 | Myriolecis andrewii | Myriol andr | |



| | | | | | | |
|---|---|---|---|---|---|---|
| 640 | Lecanora antiqua | Lecanora antiq | 640 | Myriolecis antiqua | Myriol antiq | |
| 642 | Lecanora congesta | Lecanora cong | 642 | Myriolecis congesta | Myriol cong | |
| 644 | Lecanora crenulata | Lecanora cren | 644 | Myriolecis crenulata | Myriol cren | |
| 646 | Lecanora dispersa | Lecanora disp | 646 | Myriolecis dispersa | Myriol disp | |
| 652 | Lecanora fugiens | Lecanora fugi | 652 | Myriolecis fugiens | Myriol fugi | |
| 621 | Lecanora hagenii | Lecanora hagen | 621 | Myriolecis hagenii | Myriol hagen | |
| 2585 | Lecanora invadens | Lecanora inva | 2585 | Myriolecis invadens | Myriol inva | |
| 1836 | Lecanora persimilis | Lecanora pers | 1836 | Myriolecis persimilis | Myriol pers | |
| 670 | Lecanora pruinosa | Lecanora prui | 670 | Myriolecis pruinosa | Myriol prui | |
| 676 | Lecanora salina | Lecanora salina | 676 | Myriolecis salina | Myriol sali | |
| 677 | Lecanora sambuci | Lecanora samb | 677 | Myriolecis sambuci | Myriol samb | |
| 610 | Lecanora semipallida | Lecanora semi | 610 | Myriolecis semipallida | Myriol semi | |
| 681 | Lecanora straminea | Lecanora stram | 681 | Myriolecis straminea | Myriol stram | |
| 2287 | Lecanora zosterae | Lecanora zost | 2287 | Myriolecis zosterae | Myriol zost | |
| 731 | Lecidea hypopta | Lecidea hypopta | 731 | Lecanora phaeostigma | Lecanora phaeo | 2 |
| 1772 | Lecidea sanguineoatra | Lecidea sang | 1772 | Bryobilimbia sanguineoatra | Bryobil sang | |
| 958 | Opegrapha rufescens | Opeg rufe | 958 | Pseudoschismatomma rufescens | Pseudosch rufe | |
| 967 | Opegrapha zonata | Opeg zona | 967 | Enterographa zonata | Ente zona | |
| 1554 | Melaspilea lentiginosa # | Melasp lenti'sa # | 1554 | Stictographa lentiginosa # | Stictog lent # | |
| 1955 | Phaeopyxis punctum # | Phaeopyx punc # | 2016 | Bachmanniomyces punctum # | Bachm punc # | |

| | | | | | | |
|---|---|---|---|---|---|---|
| 1964 | Phaeopyxis varia # | Phaeopyx varia # | 1964 | Bachmannio myces varius # | Bachm vari # | |
| 1984 | Phoma lobariae # | Phoma lobariae # | 1984 | Abrothallus lobariae # | Abro loba # | |
| 1150 | Polyblastia cruenta | Polyblastia crue | 1150 | Sporodictyon cruentum | Sporodic crue | |
| 1158 | Polyblastia melaspora | Polyblastia mela | 1158 | Henrica melaspora | Henr mela | |
| 1162 | Polyblastia schaererianum | Polyblastia scha | 1162 | Sporodictyon schaererianum | Sporodic scha | |
| 1161 | Polyblastia terrestris | Polyblastia terr | 1161 | Sporodictyon terrestre | Sporodic terr | |
| 2495 | Polyblastia theleodes | Polyblastia thel | 2495 | Henrica theleodes | Henr thel | |
| 1317 | Schismatomma niveum | Schis nive | 1317 | Snippocia nivea | Snip nive | |
| 2234 | Stigmidium pumilum | Stig pumi # | 2234 | Sphaerellothecium pumilum # | Sphaerell pumi # | |
| 2309 | Taeniolella beschiana # | Taeniolel besc # | 2309 | Talapellis beschiana # | Tala besc # | |
| 1406 | Thelomma ocellatum | Thelomma ocel | 1406 | Pseudothelomma ocellatum | Pseudoth ocel | |

| **Change of specific epithet:** | | | | | | |
|---|---|---|---|---|---|---|
| Change from: | | | Replace with: | | | Notes |
| 2016 | Bachmanniomyces uncialicola # | Bachm unci # | 2016 | Bachmanniomyces punctum # | Bachm punc # | |
| 297 | Candelariella reflexa | Candeliel refl | 297 | Candelariella xanthostigmoides | Candelariel xant'oid | 3 |

| **Change of number and/or abbreviation:** | | | | | | |
|---|---|---|---|---|---|---|
| Change from: | | | Replace with: | | | Notes |
| 299 | Candelariella xanthostigma | Candeliel xant | 299 | Candelariella xanthostigma | Candelariel xant'a | |



| | | | | | | |
|---|---|---|---|---|---|---|
| 1973 | Dactylospora parasitica # | Dact paras # | 1973 | Dactylospora parasitica # | Dact parasitica # | |
| 761 | Lecidea phaeops | Lecidea phae | 761 | Lecidea phaeops | Lecidea phaeops | |
| 2611 | Myriospora dilatata | Myri dila | 2611 | Myriospora dilatata | Myriosp dila | |
| 2601 | Myriospora myochroa | Myri myoc | 2601 | Myriospora myochroa | Myriosp myoc | |
| 2455 | Myriospora rhagadiza | Myri rhag | 2455 | Myriospora rhagadiza | Myriosp rhag | |
| 21 | Myriospora rufescens | Myri rufe | 21 | Myriospora rufescens | Myriosp rufe | |
| 31 | Myriospora scabrida | Myri scab | 31 | Myriospora scabrida | Myriosp scab | |
| 25 | Myriospora smaragdula | Myri smar | 25 | Myriospora smaragdula | Myriosp smar | |
| 2674 | Myriospora tangerina | Myri tange | 2674 | Myriospora tangerina | Myriosp tange | |
| 1318 | Sporodophoron cretaceum | Sporod cret | 1318 | Sporodophoron cretaceum | Sporodop cret | |

| **Change of taxonomic rank:** | | | | | | |
|---|---|---|---|---|---|---|
| Change from: | | | Replace with: | | | Notes |
| 241 | Caloplaca cerina var. cerina | Calo cerina ceri | 241 | Caloplaca cerina | Calo cerina | |
| 1991 | Caloplaca cerina var. chloroleuca | Calo cerina chlo | 1991 | Caloplaca stillicidiorum | Calo stil | |
| 369 | Cladonia cervicornis subsp. cervicornis | Clad cerv cerv | 369 | Cladonia cervicornis | Clad cerv | |
| 308 | Cladonia cervicornis subsp. pulvinata | Clad cerv pulv | 308 | Cladonia pulvinata | Clad pulv | |
| 370 | Cladonia cervicornis subsp. verticillata | Clad cerv vert | 370 | Cladonia verticillata | Clad vert | |

| | | | | | | |
|---|---|---|---|---|---|---|
| 1382 | Thamnolia vermicularis var. subuliformis | Thamnol verm | 1382 | Thamnolia vermicularis | Thamnol verm | |

| **Moved into synonymy:** | | | | | | |
|---|---|---|---|---|---|---|
| Change from: | | | Replace with: | | | Notes |
| 1955 | Phaeopyxis punctum # | Phaeopyx punc # | 2016 | Bachmanniomyces punctum # | Bachm punc # | |
| 2479 | Phoma lobariicola # | Phoma lobariic # | 2476 | Catillaria lobariicola # | Catil loba # | |
| 2264 | Vouauxiomyces ramalinae # | Vouauxiom rama # | 2006 | Abrothallus suecicus # | Abro suec # | |

**Notes**

1 – facultatively lichenicolous species, also found on higher plant remains. Only lichenicolous occurrences should be reported to the BLS Database.

2 – probably belongs to *Fuscideaceae*

3 – *Candelariella reflexa* is not correctly reported from the British Isles.

*B.J. Coppins, M.R.D. Seaward & J. Simkin*



# Literature pertaining to British lichens – 65

*Lichenologist* **51**(3) was published on 13 June 2019, **51**(4) on 25 August 2019, and **51**(5) on 4 November 2019.

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.

BELINCHÓN, R., ELLIS, C.J. & YAHR, R. (2018). Climate-woodland effects on population genetics for two congeneric lichens with contrasting reproductive strategies. *FEMS Microbial Ecology* **94:** fiy159. Molecular analysis of Scottish populations of *Nephroma laevigatum* and *N. parile*, showing contrasting gene pools structured along climatic gradients, genetic diversity affected by habitat connectivity, and with higher clonality than might be expected for *N. laevigatum*, and higher recombination than might be expected for *N. parile*, respectively. The population genetics of the species is therefore more similar than has been assumed from field observation of their dominant reproductive modes.

CHAPMAN, S. (2000). Laser technology for graffiti removal. *Journal of Cultural Heritage* **1:** S75–S78. Describes graffiti removal from sarsen stones at Stonehenge and Avebury, with attempts to do least harm to both the stones and the lichens upon them.

ECKMAN, S., TØNSBERG, T. & JØRGENSEN, P.M. (2019). The *Sticta fuliginosa* group in Norway and Sweden. *Graphis Scripta* **31:** 23–33. A useful follow-up to what has been previously written about this group, including a key and anatomical sections of cyphellae and the upper cortex. *Sticta fuliginoides* is found to be the most widely occurring species, *S. fuliginosa* s. str. mostly occurs along the coast, and *S. ciliata* is confined to the most oceanic areas of the west coast.

ELLIS, C.J. (2019). Interactions of climate and solar irradiance can reverse the bioclimatic response of poikilohydric species: an experimental test for *Flavoparmelia caperata*. *The Bryologist* **122:** 98–110. Study showing that climate change leading to warmer and wetter winters can increase lichen physiological activity, but in winter low-light favouring respiration over photosynthesis, can cause a potential risk even to thermophilic species.

ELLIS, C.J. & EATON, S. (2018). The biogeography of climate change risk for Scotland's woodland biodiversity: epiphytes. *Scottish Geographical Journal* **134:** 257–267. Maps showing risk to lichen epiphytes with respect to (i) climate change and (ii) the isolation/connectivity of woodland habitat, which can weaken species response to climate change. Species in north-eastern Scotland are most sensitive to climate warming but occur in a landscape with larger extents of woodland that may provide refugia. Species in western Scotland are threatened by the small extent, low connectivity and relative isolation of native woodland.

ELLIS, C.J., YAHR, R. & COPPINS, B.J. (2018). Quantifying the Anthropocene loss of bioindicators for an early industrial region: an equitable baseline for biodiversity restoration. *Biodiversity & Conservation* **27:** 2363–2377. Analysis asking whether lichen species found on timbers, poles and wattles from pre-industrial bark samples (vernacular buildings) occur in places where they no longer can, e.g. because of pollution. Results suggest there has been a 75% loss of lichen diversity in certain regions of England, highlighting the scale of the challenge in recovering biodiversity.

FITZGERALD, R. (2018). The Somerset Herbarium. *Exmoor Magazine* **85:** 86–89. A delightful article on Dr Walter Watson (1872–1960) and the history of his herbarium, including the find of a box of his lichens in a garage in 2011.

FRYDAY, A.M. & VAN DEN BOOM, P.P.G. (2019). *_Lecidea phaeophysata_: a new saxicolous lichen species from western and southern Europe with a key to saxicolous lecidioid lichens present on Atlantic coasts. *Lichenologist* **51:** 193–204. Description of a new European species reported from Ireland (Galway), supplemented by a key to saxicolous lecidioid lichens on European Atlantic coasts.

GUZOW-KRZEMIŃSKA, B., SÉRUSIAUX, E., VAN DEN BOOM, P.P.G., BRAND, A.M., LAUNIS, A., ŁUBEK, A. & KUKWA, M. (2019). Understanding the evolution of phenotypical characters in the *Micarea prasina* group (*Pilocarpaceae*) and descriptions of six new species within the group. *MycoKeys* **57:** 1–30. Six new species in the *Micarea prasina* group are described from Europe. [One of these, *M. isidioprasina* Brand, van den Boom, Guzow-Krzemińska, Sérus. & Kukwa, has subsequently been reported from the British Isles, and several others are likely to occur.]

JØRGENSEN, P.M. (2019). The troublesome genus *Thamnolia* (lichenized Ascomycota). *Lichenologist* **51:** 221–226. Following recent findings from molecular data, a nomenclatural reconsideration results in the British populations being called *Thamnolia vermicularis*. The species is considered to have two subspecies in addition to subsp. *vermicularis*, but neither occurs in the British Isles. *Thamnolia vermicularis* subsp. *subuliformis* is considered a synonym of *T. vermicularis* subsp. *vermicularis*.

JØRGENSEN, P.M. & NIMIS, P.L. (2019). On the typification of the lichen genus *Lepra* Scop. *Taxon* **68:** 132–136. The typification of *Lepra* is confirmed as being based on *Lepra albescens* (Huds.) Hafellner (*Pertusaria albescens*), and there are no longer any objections to the use of this generic name.

LÜCKING, R., MONCADA, B. & HAWKSWORTH, D.L. (2019). Gone with the wind: sequencing its type species supports inclusion of *Cryptolechia* in *Gyalecta* (*Ostropales: Gyalectaceae*). *Lichenologist* **51:** 287–299. *Cryptolechia carneolutea* is included in the recently broadened genus of *Gyalecta* as *G. carneolutea* (Turner) H. Olivier (1884).

McCUNE, B., DI MEGLIO, E., TØNSBERG, T. & YAHR, R. (2019). Five new crustose *Stereocaulon* species in western North America. *Bryologist* **122:** 197–218. Includes citations of some Scottish material and photos of *S. tornense* from Scotland, as well as a key to all known crustose *Stereocaulon* species.

MITCHELL, R.J., BELLAMY, P.E., ELLIS, C.J., HEWISON, R.L., HODGETTS, N.G., IASON, G.R., LITTLEWOOD, N.A., NEWEY, S., STOCKAN, J.A. & TAYLOR, A.F.S. (2019). Collapsing foundations: the ecology of the British oak, implications of its decline and mitigation options. *Biological Conservation* **233:** 316–327. Analysis of c. 2300 species associated with oak in the UK, and which might be affected by oak decline, including lichens mined from the BLS database as have been recorded on oak. Of 30 alternative tree species assessed, none supported a high proportion of oak-associated diversity, while the best substitute was ash, which is already in decline.

MORSE, C.A. & LENDEMER, J.C. (2019). A new *Biatoridium* from eastern North America with comments on the disposition of species of *Biatorella sensu* Magnusson. *Bryologist* **122:** 1–9. Includes a key to *Biatorella sensu* Magnusson and similar species.

NAVARRO-ROSINÉS, P.C., ROUX, C. & HAFELLNER, J. (2018). *Sphaerellothecium pumilum* comb. nov. (lichenicolous fungus, Dothideomycetes), a priority name over *S. aipolium*. *Revista Catalana de Micologia* **39:** 117–127. *Stigmidium pumilum*, a parasite of *Physcia* spp., is transferred to *Sphaerellothecium*.

NIMIS, P.L., HAFELLNER, J., ROUX, C., CLERC, P., MAYRHOFER, H., MARTELLOS, S. & BILOVITZ, P.O. (2018). The lichens of the Alps – An annotated checklist. *MycoKeys* **31:** 1–634. *Porina guentheri* var. *lucens* is newly combined as *Pseudosagedia lucens* (Taylor) Hafellner. [The use of *Pseudosagedia* is not widely adopted, pending a thorough phylogenetic review of *Porina* s. lat., and so is not adopted in the BLS Taxon Dictionary].

SHIPWAY, P. (2014.) The lichens of Tring Park. *Trans. Herts. Nat. Hist. Soc.* **46**(2): 152–158. An annotated list of 105 lichens includes *Chaenotheca brachypoda* on *Acer campestre* and *Thelotrema lepadinum* on *Tilia*.

SHIPWAY, P. (2018). The diverse world of lichens. *Country-Side* **35**(1): 20–22. ISSN No.0011-023X. Well-illustrated popular article.

VAN DEN BROECK & ERTZ, D. (2018). *Enterographa confusa* sp. nov. (Roccellaceae, Arthoniales) discovered by chance in type material of its host lichen *Arthonia ochracella*, described more than a century ago. *Phytotaxa* **343:** 89–93. Includes a key to all known lichenicolous species of *Enterographa*, with one British example (*E. brezhonega*).

WILLIAMS, L. & ELLIS, C.J. (2018). Ecological constraints to 'old-growth' lichen indicators: niche specialisation or dispersal limitation? *Fungal Ecology* **34**: 20–27. Study suggesting that epiphyte indicators of long ecological continuity can colonise from ancient sites into areas of regenerated woodland after a period of c. 50 years, but that they show signs of dispersal limitation and do not yet fill all their available niche space.

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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, e.g. specimen in Herb. E, Hitch etc., with accession number where applicable, field record or photograph, to allow for future verification if necessary or to aid paper/report writing.
Determined/confirmed by, Comments, New to the, Finally recorder. An authority with date after species is only required when the species is new to the British Isles. Records of lichens listed in the RDB are particularly welcome, even from previously known localities. In the interests of accuracy, the data can be sent to me on email, my address is cjbh.orchldge@freeuk.com, or if not, then typescript. Copy should reach the subeditor at least a fortnight before the deadline for the Bulletin. Please read these instructions carefully.

## New to the British Isles.

***Arthonia* cf. *lepidophila*** (Anzi) Clauzade *et al.* (1989): on primary thallus lobes of rather degraded *Cladonia* cf. *cervicornis*, on peaty soil covering a large boulder, woods below Lon Breabaig, Ardtornish Estate, nr Lochaline, Morvern, VC 97, West Inverness, GR NM6984.4580, April 2019, P. Cannon P4120 (**K**(M)). In addition to host preference, it is characterized by usually 2-septate hyaline soleiform (shoe-shaped!) to clavate ascospores 10.5–13.5 × 3.5–4.5 µm in size. *A. coniocraeae* also occurs on *Cladonia* species and may rarely have ascospores with more than one septum, but they are brown and finely verrucose. The species is described in more detail by Zhurbenko & Pino-Bodas in *Opuscula Philolichenum* **16**: 188–266 (2017), in the course of a useful revision of lichenicolous fungi on *Cladonia*. More information can also be found at http://fungi.myspecies.info/all-fungi/arthonia-lepidophila. It is a widely distributed species that is also known from arctic Russia, USA and Canada, also the montane neotropics and New Zealand.
The species does not currently have a nomenclaturally correct name; *A. lepidophila* is an invalid combination based on *Abrothallus lepidophila* Anzi (1868) by Clauzade *et al.* (1989), and there is in any case considerable doubt as to whether *Abrothallus. lepidophila* and the *Arthonia* species are the same. **BLS No. 2747.** *P. Cannon*

***Lecanora hypoptoides*** (Nyl.) Nyl. (1872): on lignum of fallen veteran *Quercus* in medieval deer park, High Park SSSI, Blenheim, VC 23, Oxfordshire, GR SP4334.1553, June 2019, B.J. Coppins, N.F. Sanderson *et al.* Herb. Coppins 25498



(**E**). Confirmed by Z. Palice. This species was seen to form blackish patches on the firm lignum of the upper surface of the oak 'bone', associated with *Calicium glaucellum*, *Placynthium icmalea* and *Protoparmelia oleagina*. It has a grey thallus of irregular granular areoles *c.* 0.16–0.24 mm diam. and blackish apothecia 0.2–0.4 mm diam. The early receding thalline margin give the apothecia a lecideine appearance, but in sections the exciple is clearly seen to be lecanorine. The epithecium and outer exciple are olivaceous and devoid of the minute crystals as seen in the *L. symmicta* group. The ascospores are narrowly ellipsoid, 8–12 × 3–3.5 µm. The branched paraphyses have their apical walls olivaceous-pigmented and slightly swollen to 3(–3.5) um, and similarly sized and pigmented hyphae are seen in the outer and upper part of the exciple. Amongst the apothecia there are numerous, partially emergent black pycnidia *c.* 100–120 µm diam. For a fuller description see van den Boom & Brand in *Lichenologist* **40:** 465–497 (2008). However, the British material differs slightly in that the reported oil drops in the thallus and exciple are not obvious, and the conidia, although of similar dimensions, *c.* 3–4 × 1.5 µm, are ellipsoid and not "tear-drop" shaped. Also, the asci are said to be "*Lecanora*-type" but the apical cushion does not quite meet the ascus wall and is more akin to what is seen in *Biatora* or *Lecidella* species. **BLS No. 2745**.
*Brian Coppins*

***Micarea isidioprasina*** M. Brand, van den Boom, Guzow-Krzemińska, Sérus. & Kukwa (2019): on *Betula pubescens*, Tanygader woodlands, east of Llyn Gwernan, Dolgellau, VC48 Merioneth, GR SH7107.1598, January 2019. Herb. Alan Orange 24314 (**NMW**). Confirmed by ITS and mtSSU sequences. A recently described member of the *Micarea prasina* group (*MycoKeys* **57**: 1–30), with isidiate, often sterile thallus containing micareic acid. *Micarea prasina s. str.* differs in the granular to 'softly isidiose', often fertile thallus. The *M. micrococca* group contains methoxymicareic acid. **BLS No. 2748** *A. Orange*

***Rinodina furfuracea*** H. Magn. (1947): on trunk of young mature *Fraxinus* in medieval deer park, High Park SSSI, Blenheim, VC 23, Oxfordshire, GR SP4313.1557, June 2019. Herb. B.J. Coppins & P. Shipway. (Coppins 25504, (**E**)). Thallus whitish with clusters of dull greenish blastidia and brown apothecia with a soon receding thalline margin that sometimes bears some blastidia. The ascospores are *Physcia*-type, 15–18 × 7–8 µm. In this collection the apothecia are somewhat smaller, 0.3–0.6 vs (0.4–0.7)–1(–1.5) mm diam., than in the published descriptions, and the thallus blastidia not so abundant. However, the High Park collection is rather small and may not be fully representative. In the field, the collection was thought to be poorly developed material of *Bacidia arceutina* or *B. laurocerasi*! For full descriptions of the species see Giralt *et al.* in *Lichenologist* **27:** 3–24 (1995) and Giralt in *Bibliotheca Lichenologica* **79** (2001). **BLS No. 2746** *B.J. Coppins*

## Other Records

***Absconditella delutula***: on vertical rock face by river in valley woodland, River Calder, Lochwinnoch, VC 76, Renfrewshire, GR NS3492.5969, alt *c.* 50 m, April 2019. Herb. Coppins 25543 (**E**). New to the Vice-county. *B.J. Coppins & J.R. Douglass*

***Acarospora impressula***: on metaliferous rock at edge of stream, Ireshopone Burn, Weardale, VC 66, Durham. GR NY851.374 alt 400 m June 2019. New to the Vice-county. *D.E. McCutcheon*

***Acrocordia gemmata***: on mature *Fraxinus* by road, Ardmohr Wood, Barra, VC 110, Outer Hebrides, GR NF703.043, alt 10 m, August 2019. Herb. Coppins 25532 (**E**), sub *Bacidia phacodes*. New to the Vice-county.
*A. Acton, B.J. Coppins, J.R. Douglass, S.G. Price*

***Arrhenia peltigerina***: on *Peltigera* sp. remains on forest track. Kielder Forest, Bloody bush, VC 67, South Northumberland, GR NY575.908, alt 380 m, March 2007. Confirmed by B.J. Coppins. Strictly speaking not lichenised, but interesting because of its host. New to the Vice-county. *D.E. McCutcheon and G. Simpson*

***Arthonia anombrophila***: on bark of *Pinus* trunk, Ardmohr Wood, Barra, VC 110, Outer Hebrides, GR NF703.043, alt 15 m, August 2019. Herb. Coppins 25534 (**E**). New to the Vice-county *A. Acton, B.J. Coppins, J.R. Douglass, S.G. Price*

***Arthonia epiphyscia***: on *Physcia tenella* on twigs of *Ulmus*, Nether Whitecleuch, VC 77, Lanarkshire, GR NS836.192, alt 275 m, May 2019. Specimen not retained. Spores mostly 14 x 5 µm. New to the Vice-county. *B.J. Coppins*

***Arthonia graphidicola***: in minute amount on thallus of *Graphis scripta* on sheltered stem of *Corylus avellana* within streamside old-growth woodland, west bank of the Nant Ffynnon Geitho, *c.* 1 km north-west of Llangeitho, VC 46, Cardiganshire, GR SN614.609, alt 140 m, May 2019. Field record. The third Vice-county and fifth Welsh record for the species *S.P. Chambers*

***Arthonia parietinaria***: on *Xanthoria parietina* on branch of *Fraxinus*, Whitlawhaugh, VC 80, Roxburghshire, GR NT506.116, alt 140 m, August 2019. Specimen not retained. New to the Vice-county. *B.J. Coppins*

***Arthonia phaeophysciae***: parasitic on thallus of *Phaeophyscia orbicularis*, Town Barton Farm, East Worlington, VC 4, North Devon, GR SS777.135, alt 121 m, August 2019. Recorded by N.G. Bacciu &M. Putnam. New to the Vice-County. *B.J. Coppins*

***Arthonia* sp.**: on *Lecanora dispersa* agg. on west-facing side of calcareous sandstone headstone in churchyard, Fettercairn, VC 91, Kincardineshire, GR NO651735,



alt 72 m. Herb. Coppins 25530, sub *Lecanora horiza* (**E**). Like *A. apotheciorum*, but spores 2-septate, 12–14 × 4–5 µm *B.J. Coppins*

***Arthonia spadicea***: on bark of *Pinus* trunk, Ardmohr Wood, Barra, VC 110, Outer Hebrides, GR NF703.043, alt. 15 m. Herb. Coppins 25533 (**E**). New to the Vice-county. *A. Acton, B.J. Coppins, J.R. Douglass, S.G. Price*

***Arthonia subfuscicola***: on *Lecanora carpinea* on twigs of *Ulmus*, Nether Whitecleuch, VC 77, Lanarkshire, GR NS836.192, alt. 275 m, May 2019. Herb. Coppins 25522 (E). Spores mostly 14 × 5 µm. New to the Vice-county. *B.J Coppins*

***Arthonia subfuscicola***: on *Lecanora carpinea* on branch of *Fraxinus*, Whitlawhaugh, VC 80, Roxburghshire, GR NT506.116, alt. 140 m, August 2019. Herb. Coppins 25518 (**E**). This collection has rather short spores, (10–)11–12 × 4 µm. New to the Vice-county. *B.J. Coppins*

***Arthothelium macounii***: on *Corylus* in hazelwood, Eilean Mhic Chrion, Loch Craignish, VC 98, Argyll Main, GR NM8036. 0347, alt 40 m, June 2018. Herb. Coppins 25554 (**E**). A new site for this RDB Vulnerable species. *B.J. Coppins*

***Arthrorhaphis muddii***: on *Dibaeis baeomyces,* Honister Pass, western flank of Grey Knotts, VC 70, Cumberland, GR NY2160.1327, alt 545 m, July 2018. Herbs. S.G. Price and B.M. Collected during BLS meeting. Determined by P.F. Cannon, confirmed by B.J. Coppins. First record for the species from the north of England since the 19th century. *S.G. Price*

***Bacidia delicata***: on old shaded *Sambucus* near pond, Normans Riding Wood, Near Winlaton, VC 66 Durham. GR NZ165.609 alt 111 m, February 2009. Confirmed by B.J. Coppins. New to the county. *D.E. McCutcheon*

***Bacidia delicata***: on shaded base of *Ulmus* on streambank, Castle Eden Dene, Peterlee, VC 66, Durham. GR NZ43/39 March 2016. Confirmed by B.J. Coppins. Second record of the species for the Vice-county. *D.E. McCutcheon & A. Nisbet*

***Bacidia neosquamulosa***: on twig of *Salix* growing in roadside ditch at edge of Kielder Forest, Paddaburn Moor, VC 67, South Northumberland, GR NY64784.78598, alt 329 m. July 2013. Determined by B.J. Coppins. New to the Vice-county.
*D.E. McCutcheon*

***Bacidia sulphurella***: on old shaded *Sambucus* near pond, Normans Riding Wood, Near Winlaton, VC 66, Durham. GR NZ165.609 alt 111 m, February 2009. Determined by B.J.Coppins. Second county record for the species. *D.E. McCutcheon*

***Bacidina adastra***: on *Salix*, Menie Estate, Balmedie, VC 92, South Aberdeenshire, GR NJ9784.2065, alt 25 m, July 2019. Herb. Coppins 25529 (**E**). Fertile. New to the Vice-county. *A. Acton & B.J. Coppins*

***Bacidina phacodes***: on mature *Fraxinus* by road, Ardmohr Wood, Barra, VC 110, Outer Hebrides, GR NF703.043, alt. 10 m, August 2019. Herb. Coppins 25532 (**E**). New to the Vice-county. *A. Acton, B.J. Coppins, J.R. Douglass, S.G. Price*

***Bacidina squamellosa:*** sterile on young *Fraxinus* in valley woodland River Calder, Lochwinnoch, VC 76, Renfrewshire, NS3500.6025, alt. *c.* 70 m, April 2019. Herb. Coppins 25545 (E). New to Vice-county. *B.J. Coppins & J.R. Douglass*

***Bacidina squamellosa***: on base rich bark on veteran *Quercus petraea*, within upland pasture woodland, Coedydd Glannau & Cwm Coel, Coedydd Glannau a Cwm Coel SSSI, Elan Valley, VC 43, Radnorshire, GR SN9109.6510, SN9109.6508 & SN8968.6398 respectively, alt 290-340 m, August 2019. See <https://www.fungi.org.uk/viewtopic.php?f=16&t=2520> for pictures). New to the Vice-county. *N.A. Sanderson*

***Biatora vernalis***: recorded on 19 *Quercus* and one *Fraxinus*, three of the trees supporting fertile thalli, within neglected *Quercus petraea* dominated pasture woodland, Caban Lakeside Woodlands SSSI and Coedydd Glannau a Cwm Coel SSSI, Elan Valley, VC, Radnorshire, GR SN896.639, SN898.640, SN901.639, SN902.640, SN905.643, SN906.642, SN906.643, SN906.648, SN910.648, SN910.651, SN913.625, SN913.631 & SN914.631, alt. 260-350 m, August 2019. A rarely recorded species in Wales, possibly overlooked as a sterile thallus in the past, but this is likely to be the largest known population south of the Scottish Highlands. (See <https://www.fungi.org.uk/viewtopic.php?f=16&t=2521> for pictures and hints on identification). *N.A. Sanderson*

***Biatora ligni-mollis***: on dry bark on a huge ancient *Quercus petraea*, within neglected upland pasture woodland, Coed Gelynnen, Caban Lakeside Woodlands SSSI, Elan Valley, VC 43, Radnorshire, GR SN9144.6315, alt 260 m, August 2019. The combination of the grey-white granular thallus, orange apothecia and orange barrel shaded pycnidia is very distinctive and this is likely to be a genuinely very rare species. It should, however, be looked for on veteran oaks in other upland woodlands. (See <https://www.fungi.org.uk/viewtopic.php?f=16&t=2519> for pictures and more details.). New to Wales and the second British record for this species that appears rare across Europe. *N.A. Sanderson*

***Burgoa angulosa***: on algal scum on moribund moss on *Fraxinus* trunk, High Park, Rydal Park, VC 69, Westmorland, GR NY3724.0668, alt 240 m, September 2019. Herb. Coppins 25556 **(E)**. Plantlife/BLS survey. New to England. *B.J. Coppins*



***Bryoria bicolor***: numerous tufts over *c.* 40 x 30 cm on mossy inclined face of siliceous rock outcrop, plus another *c.* 6 thalli on a second outcrop nearby, within upland *Molinia* moorland, *c.* 250 m east of Llyn Gorast, Blaen Mwyro, VC 46, Cardiganshire, GR SN795.631, alt 470 m, July 2019. Herb. SPC. The second Vice-county record & the first for more than a quarter of a century. Perhaps the largest extant colony in Wales. *S.P. Chambers*

***Calicium hyperelloides***: present on several *Quercus*, Lower Cadworthy Farm, NT, VC 3, South Devon, GR SX550.642, alt 205 m, August 2019. The lichen seems to favour the side of the trunks facing south. New to the county. Determined by Neil Sanderson. *N.G.Bacciu*

***Calicium hyperelloides***: on moist acid bark on 10 veteran *Quercus petraea*, within neglected upland pasture woodland, Coed Gelynnen & Coed Lan-fraith, Caban Lakeside Woodlands SSSI, Elan Valley, VC 43, Radnorshire, GR SN914.631, SN914.627, SN913.625, SN913.624, SN913.631 & SN913.630, alt 260-300 m, August 2019. An unexpected range extension for this mainly tropical lichen, which is rare in Europe and was previously only recorded from southern England in Britain. In the field the thick granular this could be confused with *Calicium lenticulare*, which also grows at this site and in one of the English sites for *Calicium hyperelloides*. *Calicium lenticulare* however has a grey-green thallus as opposed to the yellowish thallus of *Calicium hyperelloides* and lacks the C and K thallus spot tests of *Calicium hyperelloides*. The C spot test is yellow-orange, rather than the orange described in the LGBI. At Elan it was noted that both the C and the K spot test's visibility is greatly enhanced with a UV light, fluorescing bright yellow and yellow-green respectively. (See <https://www.fungi.org.uk/viewtopic.php?f=16&t=2519> for pictures and more details.). New to Wales. *N.A. Sanderson*

***Caloplaca asserigena***: for details of this species, see under *Rinodina biloculata* *S.P. Chambers*

***Caloplaca alstrupii***: (i) on mature *Acer pseudoplatanus* at edge of wood, Kippielaw, Bowden, VC 80, Roxburghshire, GR NT54779.28590, alt 170 m, May 2019. Herb. Coppins 25402 (**E**); (ii) on mature *Acer platanoides* at edge of wood, GR NT54803.28511. Herb. Coppins 25403 (**E**). Both collections with apothecia. New to the Vice-county. *B.J. Coppins*

***Caloplaca cerinella***: from trunk of veteran *Quercus*, Pale Hall, VC 48, Merionethshire, GR SH981631, March 2019. Herb. Lamacraft. Second record of the species in the Vice-county. *D.M. Lamacraft*

***Calvitimela aglaea***: *c.* 3 thalli on southeast-facing slightly recessed vertical siliceous rockface on hillside outcrop *c.* 300 m south-east of Pen-y-bwlch, Blaen Mwyro, VC 46,

Cardiganshire, GR SN782.663, alt 487 m, July 2019. Field record. The third Vice-county record for this Nationally Scarce species. *S.P. Chambers*

***Carbonea aggregantula***: on *Lecanora soralifera* on top of sandstone headstone, old kirkyard, Dalmellington VC 75, Ayrshire, GR NS480.057, alt 175 m, May 2019.Herb. Coppins 25515 (**E**). New to the Vice-county. *B.J. Coppins & J.R. Douglass*

***Carbonea vitellinaria***: on thallus of *Candelariella vitellina* growing on the monument, Shorngate Cross Near Allenheads which is on the county border just in V C66, Durham, GR NY871450, alt 540 m, April 2004. Confirmed by B.J. Coppins. New to the Vice-county. *D.E. McCutcheon*

***Celothelium ischnobelum***: on *Corylus* within valley woodland, River Calder, Lochwinnoch, VC 76, Renfrewshire, GR NS3498.5980, alt *c.* 50 m, April 2019. Herb. Coppins 25547 (**E**). New to the Vice-county. *B.J. Coppins & J.R. Douglass*

***Cetrelia olivetorum* s. lat.**: on *Sorbus aucuparia* at edge of conifer plantation, by B742, 1 km northeast of Clawfin, Dalmellington, VC 75, Ayrshire, GR NS514.078, alt 290 m, May 2019. Herb. Coppins 25516 (**E**). Medulla C–. New to the Vice-county *B.J. Coppins*

***Chaenotheca brachypoda***: on fissured bark of *Quercus*, Derwent Gorge, VC 66 Durham. GR NZ04-49l-, alt 160 m, April 2017. Determined by D.E. McCutcheon. First record of this species for 40yrs. *North East lichen group*

***Chaenotheca hispidula***: on fissured bark of *Quercus*, Great Wood, Eggleston, VC66, Durham. GR NZ00-21-, alt 200 m, March 2017. Determined by D.E. McCutcheon. Second record of this species from the same site. *North East lichen group*

***Chaenotheca hispidula***: on lignum on standing dead *Fagus*, at edge of parkland grove, within ancient parkland, Knole Park, Sevenoaks, VC 16, West Kent, GR TQ5356.5453, alt 130 m, July 2019. New to the Vice-county. *N.A, Sanderson*

***Chaenotheca hispidula***: on dry bark of veteran *Quercus petraea*, within neglected upland pasture woodland, Coed Gelynnen, Caban Lakeside Woodlands SSSI, Elan Valley, VC 43, Radnorshire, GR SN9139.6307, alt 280 m, August 2019. New to the Vice-county. N*.A. Sanderson*

***Chaenotheca stemonea***: on dry bark on two veteran *Quercus petraea*, within groves in ancient parkland, Knole Park, Sevenoaks, VC 16, West Kent, GR TQ5370.5436 and TQ5364.5447 respectively, alt 145–150 m, July 2019. New to the county *N.A. Sanderson*



***Chaenothecopsis pusilla***: on lignum at five locations on three dead *Quercus* and on exposed lignum on two living *Quercus*, within neglected upland pasture woodland, Coed Gelynnen in Caban Lakeside Woodlands SSSI and in Coedydd Glannau and Cwm Coel in Coedydd Glannau and Cwm Coel SSSI, Elan Valley, VC 43, Radnorshire, GR SN9144.6315, SN9108.6513, SN9109.6514, SN9082.6470 & SN8982.6402 respectively, alt 260-300 m, August 2019. New to the county. *N.A. Sanderson*

*C**haenothecopsis savonica***: on standing dead *Quercus* within neglected *Quercus petraea – Corylus* pasture woodland, Coed Gelynnen, Caban Lakeside Woodlands SSSI, Elan Valley, VC 43, Radnorshire, GR TSN9141.6337, alt 260 m, August 2019. New to the county. *N.A. Sanderson*

***Cladonia callosa***: on bare patch in moss dominated ground flora within acid *Fagus* pasture woodland, Mark Ash Wood, New Forest, VC 11, South Hampshire, GR SU2463.0728, alt 75 m, December 2018. A new habitat for this species in Hampshire. Previously this species had only been recorded within Beech pasture woodland in Epping Forest. *N.A. Sanderson*

***Cladonia callosa***: on small exposed soil banks on eroded slope with parched acid grassland, in glade within ancient parkland, Knole Park, Sevenoaks, VC 16, West Kent, GR TQ5359.5434 and TQ5360.5433, alt 135 m, July 2019. New to the county. *N.A. Sanderson*

***Cladonia incrassata***: on large rotten *Quercus* stump, within neglected *Quercus petraea* pasture woodland, Coed Gelynnen, Caban Lakeside Woodlands SSSI, Elan Valley, VC 43, Radnorshire, GR SN9141.6337, alt 260 m, August 2019. New to the county. *N.A. Sanderson*

***Cladophialophora parmeliae***: on *Hypotrachyna afrorevoluta* on *Quercus* branch, High Park, Rydal Park, VC 69, Westmorland, GR NY3724.0643, alt 205 m, September 2019, Coppins 25557 (**E**). Plantlife/BLS survey. New to England and second British record of the species. *B.J. Coppins*

***Collema crispum* var. *metzleri***: on bryophytes and limestone boulder, Peak Quarry Nature Reserve, a disused dolomitic limestone quarry last worked in the1980's, Longcliffe, VC 57, Derbyshire, GR SK23-55-, alt 350 m. June 2018. Herb. S.G. Price. Determined by B.J. Coppins. New to the Vice-county. *S.G. Price*

***Cyphelium sessile:*** on *Pertusaria coccodes* on *Fraxinus*, Menie Estate, Balmedie, VC 92, South Aberdeenshire, GR NJ9745.2025, alt 25 m, July 2019, Coppins 25524 (**E**). New to the Vice-county. *A. Acton & B.J. Coppins*

***Didymellopsis pulposi***: (i) on *Collema tenax* var. *ceranoides* and *Collema tenax* var. t*enax*,

on sand dune, Morfa Dyffryn, VC 48, Merionethshire, SH55-24-; (ii) Morfa Harlech, Merionethshire, VC48, SH56-63-, June 2019. Herb. Lamacraft. New to the Vice-county. *D.M. Lamacraft*

***Didymocyrtis epiphyscia***: as the anamorph, parasitising the apothecia of *Physcia aipolia*, Wheatland Farm, Winkleigh, VC 4, North Devon, GR SS646.100, alt 172 m, June 2019. New to the Vice county. *N.G. Bacciu & M. Putnam*

***Didymocyrtis ramalinae:*** on *Ramalina fastigiata* on *Salix*, Menie Estate, Balmedie, VC 92, South Aberdeenshire, GR NJ9784.2065, alt 25 m, July 2019. Herb. Coppins 25528 (**E**). New to the Vice-county. *A. Acton & B.J. Coppins*

***Dimerella lutea***: on twig of *Sorbus aucuparia* widely overhanging Bells Burn, Kielder Forest, VC 80, Roxburgshire. GR NY598934, alt 288 m, April 2014. Confirmed by B.J. Coppins. The stream forms the border between England and Scotland and because the tree is rooted on the Scottish bank, it is claimed for Scotland. New to the Vice-county. *D.E. McCutcheon*

***Dinemasporium strigosum***: on *Peltigera horizontalis*, Drywell Farm, VC 3, South Devon, GR SX7010.7523, alt 288 m, November 2018. *N. G. Bacciu*

***Dinemasporium strigosum***: parasitising the decaying thallus of *Peltigera canina*, Holkham NNR, VC 28, West Norfolk, GR TF863.455, alt 4 m, January 2019. New to the county. *N.G. Bacciu*

***Diplolaeviopsis symmictae***: in apothecia and on thallus of *Lecanora symmicta* on old railway sleeper used as a gate post, Allt nan Luch, North Uist, VC 110, Outer Hebrides, GR NF886.723, alt 3 m, May 2019. Herb. Lamacraft in **E**. Determined by B.J. Coppins. Only pycnidia present, containing the characteristic tadpole-shaped conidia, *c.* 8–9 × 3 µm. New to the vice-county and second British record. *C. Johnson*

***Diploschistes muscorum***: on stabilised stony soil associated with manganese mine, Llanengan, VC 49, Caernarvonshire, GR SH293.267, March 2019. Last noted in VC 49 in 1992 when recorded by Oliver Gilbert, probably at this same locality. *D.M. Lamacraft*

***Echinodiscus lesdainii:*** on *Lecania cyrtella* on *Sambucus*, Little Cumbrae, VC 100, Clyde Isles, GR NS1551, May 2019. Herb. Coppins 25540 (E). Recorded during FSC lichen course. New to the Vice-county. *B.J. Coppins*

***Eiglera flavida***: on top of large emergent limestone boulder in stream, Elph Cleugh, Swinhope Moor, VC 66, Durham. GR NY889.342, alt 480 m, May 2019. New to the county. *D.E. McCutcheon*



***Eiglera flavida***: on limestone boulder at edge of stream, Ireshope Burn, Weardale, VC 66, Durham. GR NY851.374, alt 400 m, June 2019. Second record of the species for the county. *D.E. McCutcheon*

***Fellhanera bouteillei***: on twig of *Salix* growing in roadside ditch at edge of Kielder Forest, Paddaburn Moor, VC 67, South Northumberland, GR NY64784.78598, alt 329 m, July 2013. Confirmed by B.J. Coppins. New to the Vice-county. *D.E. McCutcheon*

***Fellhanera subtilis***: on branch of old *Fraxinus* in wet woodland, Dead Wood, Redesdale, VC 67, South Northumberland. GR NY80.99, alt 200 m, January 2018. Second record of the species for the Vice-county and not seen since 1993 in nearby Keilder Forest by A. Orange. *D.E. McCutcheon*

***Fellhaneropsis vezdae:*** on moribund hepatic on *Alnus*, Ardmohr Wood, Barra, VC 110, Outer Hebrides, GR NF703.043, alt 15 m. Specimen not retained. With pycnidia only. New to the Vice-county. *A. Acton, B.J. Coppins, J.R. Douglass, S.G. Price*

***Fuscidea cyathoides* var. *sorediata***: on sloping face of acidic boulder, Black Cleugh Crags, Muggleswick Park, VC 66, Durham. GR NZ030.489, alt 305 m, May 2016. Determined by B.J. Coppins. New to the county. *D.E. McCutcheon*

***Fuscidea cyathoides* var. *sorediata***: on acid boulder, Spy Crags, Kielder Forest, VC 67, South Northumberland. GR NY 68-75-, alt 310m, May 2016. New to the Vice-county. *D.E. McCutcheon*

***Fuscidea intercincta***: on top of sloping acid boulder, one of many below crags, Ellis Crag, Kielder Forest, VC 67, South Northumberland, GR NY746.009, alt 460 m, April 2016. Determined by B.J. Coppins. First record for this species in England. *D.E. McCutcheon*

***Gyalecta truncigena***: in minute quantity on old mortar and mortar-washed siliceous block face on southwest-facing wall of church, Eglwys Llancynfelyn, *c.* 1.5 km west of Tre'r-ddol, VC 46, Cardiganshire, GR SN646.921, alt 10 m, July 2019. Herb. Chambers. The first saxicolous churchyard record of the species for the Vice-county. *S.P. Chambers*

***Gyalecta truncigena:*** on mature *Fraxinus* by road, Ardmohr Wood, Barra, VC 110, Outer Hebrides, GR NF703.043, alt 10 m, August 2019. Herb. Coppins 25532 (**E**), sub *Bacidia phacodes*. New to the Vice-county. *A. Acton, B.J. Coppins, J.R. Douglass, S.G. Price*

***Halecania viridescens***: on *Fagus* twigs, with *Catillaria nigroclavata*, High Park, Rydal Park, VC 69, Westmorland, GR NY372.066, alt 230 m, September 2019. Herb.

Coppins 25559 (**E**). Fertile. Recorded during the Plantlife/BLS survey. New to the Vice-county. *B.J. Coppins*

***Hypocenomyce friesii***: on *Betula* stump within *Betula* dominated wood, Beanley Plantation, Near Powburn, VC 68, North Northumberland, GR NU092.170, alt 170 m, September 2014. Confirmed by B.J. Coppins. New to the Vice-county. *D.E. McCutcheon*

***Hypotrachyna sinuosa***: on branch of *Salix* in damp valley near Kielder Water, Plashetts, VC 67, South Northumberland, GR NY667.915, alt 270 m, April 2012. New to the Vice-county. *D.E. McCutcheon*

***Inoderma subabietinum***: on dry side of *Quercus* on cliff above raised beach, within coastal slope woodland, Needle's Eye, Southwick Shore Nature Reserve, VC 73, Kirkcudbrightshire, GR NX9149.5617, alt 10 m, June 2019. Second record of the species for the Vice-county. *N.A. Sanderson*

***Intralichen lichenum***: parasitising the apothecia of *Catillaria lenticularis* on the limestone string course along the west wall of church, Chittlehampton, VC 4, North Devon, GR SS6358.2558, alt 100 m, August 2019. New to the county. *N G. Bacciu, B. Benfield, M. Putnam*

***Lecania cyrtellina:*** on trunk of large *Acer pseudoplatanus* near river, Lower Park, Rydal Park, VC 69, Westmorland, GR NY367.059, alt 60 m, September 2019. Specimen not retained. Recorded during the Plantlife/BLS survey. New to the Vice-county. *B.J. Coppins*

***Lecania fructigena:*** on sandstone boulder on seashore, Castle Dykes, Dunglass, VC 82, East Lothian, GR NT768726, June 2019. Herb. Coppins 25551 (**E**). New to the Vice-county. *B.J. & A.M. Coppins*

***Lecanora horiza:*** on west-facing side of calcareous sandstone headstone in churchyard, Fettercairn VC 91, Kincardineshire, GR NO651.735, alt 72 m, July 2019. Herb. Coppins 25530 (**E**). First saxicolous record of the species for the Vice-county. *B.J. Coppins*

***Lecanora hybocarpa***: on young *Sorbus aucuparia* in garden, Southerness, VC 73, Kirkcudbrightshire, GR NX977.548, alt 5 m, June 2019. New to the Vice-county and south west Scotland. *N.A. Sanderson*

***Lecanora hybocarpa***: widespread on the twigs and sometimes trunks of *Quercus*, *Fraxinus*, *Fagus*, *Populus*, *Crataegus*, *Castanea*, *Aesculus* & *Prunus avium*, in parkland Knole Park, Sevenoaks, VC16, West Kent, GR TQ5-54-, alt 125-150 m, July 2019. The species was more abundant than *Lecanora chlarotera* at this site and *Lecanora*



*hybocarpa* has very likely been much widely overlooked as *Lecanora chlarotera* in the past. It can only be certainly separated from *Lecanora chlarotera* by examining the crystal distribution in apothecial cross sections. (Further comment at <https://www.fungi.org.uk/viewtopic.php?f=16&t=2404&p=11682#p11682>). New to the county. *N.A. Sanderson*

***Lecanora hybocarpa***: (i) occasional on *Quercus* twigs and a *Sorbus aucuparia* trunk, within neglected upland pasture woodland, Coed Aberelan in Caban Lakeside Woodlands SSSI; (ii) within Coedydd Glannau in Coedydd Glannau a Cwm Coel SSSI, Elan Valley, VC 43, Radnorshire, GR SN911.636, SN910.655 & SN911.657 respectively, alt 260-270 m, August 2019. New to Wales. *N. A Sanderson*

***Lecanora phaeostigma*** (syn. *Lecidea hypopta auct. brit.*): on *Quercus* stump at edge of parkland grove, in ancient parkland, Knole Park, Sevenoaks, VC 16, West Kent, GR TQ5362.5430, alt 135 m, July 2019. A major range extension for this mainly northern lichen. New to Kent. *N.A. Sanderson*

***Lecanora polytropa***: at base of exposed *Fagus* trunk in hedgerow between two fields, West Lochridge, Kilbirnie, VC 75, Ayrshire, GR NS325.550, alt 70 m, May 2019. Herb. Coppins 25555 (**E**). Although this normally saxicolous lichen is frequently found lignicolous on worked timber, it is very rarely corticolous. *B.J. Coppins*

***Lecanora sarcopidoides***: on *Pinus sylvestris* bark, within thinned *Pinus sylvestris* stand in heathland on edge of lake, Little Frensham Pond, VC 17, Surrey, GR SU8588.4164, alt 60 m, June 2011. Originally determined as *Lecanora piniperda*, but redetermined due to the strongly KC+ yellow thallus. New to Surrey. *N.A. Sanderson*

***Lecanora sarcopidoides***: on lignum on standing dead *Quercus*, on sheltered edge of pasture woodland, Mouse's Hole, New Forest, VC 11, South Hampshire, GR SU2235.0625, alt 65 m, January 2015. First record from the New Forest since it was recorded on old posts in the 19th century by J. M. Crombie. Originally determined as *Lecanora piniperda*, but redetermined due to the strongly KC+ yellow thallus. *N.A. Sanderson*

***Lecanora sarcopidoides***: on lignum on fallen *Quercus* and standing *Quercus* in denser stands of pasture woodland within ancient parkland, Cranbourne Park, Windsor, VC 22, Berkshire, GR SU9516.7362 & SU9521.7333, alt 40 m, July 2018. New to the Vice-county. Originally determined as *Lecanora piniperda*, but redetermined due to the strongly KC+ yellow thallus. *N.A. Sanderson*

***Lecanora sarcopidoides***: on *Pinus sylvestris* bark, on slow growing *Pinus sylvestris* within glades in *Fagus* dominated pasture woodland, Wooson's Hill & Stricknage Wood, New Forest, VC 11, South Hampshire, GR SU2567.0776 & SU2615.1255, alt. 50 &

60 m, November 2018 & December 2018. Another rare species found on *Pinus* trees growing within pasture woodland glades in the New Forest. *N.A. Sanderson*

***Lecanora sarcopidoides***: on fallen *Castanea* log in parkland, Studley Park, Fountains Abbey, VC 64 Mid-west Yorkshire, GR SE2794.6934, alt. 80 m, March 2019. New to Yorkshire and northern England. This species has probably been overlooked in the past, but the combination of heavily pruinose apothecia disks and the yellowish cream KC+ yellow thallus is distinctive. See <https://www.fungi.org.uk/viewtopic.php?f=16&t=2434> for pictures and more comments. *N.A.Sanderson*

***Lecanora sarcopidoides***: on two fallen *Quercus trunks,* a *Quercus* stump and fallen *Castanea* trunk. within ancient parkland, Knole Park, Sevenoaks, VC 16, West Kent, GR TQ5359.5436, TQ5347.5439, TQ5341.5432 & TQ5352.5439 respectively, alt 125 -140 m, July 2019. A significant population of a rarely recorded species. See <http://fungi.org.uk/viewtopic.php?f=16&t=2434#p11488> for photographs and further comments. New to the county. *N.A. Sanderson*

***Lecanora sublivescens***: on veteran *Fagus* and *Acer pseudoplatanus*, within parkland grove, in ancient parkland, Knole Park, Sevenoaks, VC 16, West Kent, GR TQ5360 5444 & TQ5355 5436, alt 130–140 m, July 2019. First record of the species from Knole Park since 1988. *N.A. Sanderson*

***Lecidea promixta***: pioneering on flat pieces of peat-pickled siliceous gritstone emerging from sheep-eroded upland peat bog, Blaen Mwyro, *c.* 250 m north of Llyn Gorast, VC 46, Cardiganshire, GR SN792.634, alt 465 m, July 2019. Field record. The second Vice-county record of this species, in an identical habitat to the first. *S.P. Chambers*

***Lecidea turgidula***: on lignum on shattered dead *Quercus* within neglected *Quercus petraea* pasture woodland, in Cwm Coel in Coedydd Glannau a Cwm Coel SSSI, Elan Valley, VC 43, Radnorshire, GR SN8982.6402, alt 290 m, August 2019. This lichen was threatened with dense *Quercus* regeneration, following the removal of grazing. New to the Vice-county. *N.A. Sanderson*

***Leptogium biatorinum***: on slightly stabilised sand on edge of dune slack, Morfa Dyffryn, VC 48, Merionethshire, GR SH558249, June 2019. Herb. Lamacraft. New to the Vice-county. *D.M. Lamacraft*

***Leptogium schraderi***: on slightly stabilised sand on edge of dune slack, (i) at Morfa Dyffryn, VC 48, Merionethshire, GR SH55-24-, (ii) at Morfa Harlech, Merionethshire, VC 48, GRSH56-63-, June 2019. Herb. Lamacraft. Second record of the species for VC 48. Last recorded in 1991. *D.M. Lamacraft*



***Lichenochora aipoliae***: on *Physcia tenella* on branch of *Fraxinus*, Whitlawhaugh, VC 80, Roxburghshire, GR NT506.116, alt 140 m, August 2019. Herb. Coppins 25519 (**E**). Spores 4–6/ascus, 12–14 × 5–6 µm. New to the Vice-county. *B.J. Coppins*

***Lichenochora physciicola***: parasitising *Physcia tenella* on twig of *Fraxinus*, in churchyard, Doddiscombleigh, VC 3, South Devon, GR SX857.865, alt 103 m, March 2018. New to the vice-county. *N.G. Bacciu*

***Lichenochora physciicola***: parasitising *Physcia adscendens*, Huckford Quarry, VC 34, West Gloucestershire, GR ST656.798, alt 54 m, April 2018. New to the county. *N.G. Bacciu & Bristol Lichen Group*

***Lichenodiplis opegraphae:*** on *Opegrapha herbarum* and *O. niveoatra* on *Acer pseudoplatanus* within policy woodland, Kippielaw, Bowden, VC 80, Roxburghshire, GR NT54-28-, alt 170 m, May 2019. Specimens not retained. New to the Vice-county. *B.J. Coppins*

***Lichenodiplis pertusariicola***: on *Pertusaria* sp. on *Acer pseudoplatanus* on rocky shoreline, Garth, Rhiw, VC 49, Caernarvonshire, GR SH236.277, January 2019. Herb. Lamacraft. Confirmed S.P. Chambers. New to the Vice-county.*D.M. Lamacraft*

***Lobaria pulmonaria***: on three *Aesculus hippocastanum* within parkland, very vigorous and healthy material, Drumlanrig Castle, VC 72, Dumfriesshire, GR NX852.991, alt 80 m, June 2019. First modern record of the species from the park. *N.A. Sanderson*

***Melanohalea exasperata***: on trunk of whitebeam, BBOWT College Lake Nature Reserve, VC 24, Buckinghamshire, GR SP9267.1441 May 2019. New to the Vice-county. *P. Shipway*

***Melanohalea laciniatula***: on branch of *Acer pseudoplatanus*, northeast of Whitrope Cottage, Wauchope Forest, VC 80, Roxburghshire, GR NT531.013, alt 350 m, August 2019. Field record. New to the Vice-county. *B.J. Coppins*

***Melaspilea amota***: on veteran *Quercus* within neglected *Quercus petraea* pasture woodland, in Cwm Coel in Coedydd Glannau a Cwm Coel SSSI, Elan Valley, VC 43, Radnorshire, GR SN904.641, alt 270 m, August 2019. New to the Vice-county. *N.A. Sanderson*

***Melaspilea interjecta***: on pebble, Findhorn Dunes,VC 95, Moray, GR NJ053.645, April 2018. Herb. Paul. Confirmed by B.J. Coppins. New to the Vice-county. *H. Paul*

***Merismatium deminutum***: on limestone outcrops on stream bank, Ashgill Head, Teesdale, VC 66, Durham GR NY 80-35-, alt 550 m, March 2017. Confirmed by A. Orange. New to the Vice-county. *D.E. McCutcheon*

***Micarea adnata***: on *Quercus* trunk within valley woodland, River Calder, Lochwinnoch, VC 76, Renfrewshire, GR NS3512.6010, alt *c.* 70 m, April 2019.Herb. Coppins 25546 (**E**). New to the Vice-county. *B.J. Coppins & J.R. Douglass*

***Micaria coppinsii***: on thallus of *Fuscidea intercincta* on top of sloping acid boulder, one of many, below crags. Ellis Crag, Kielder Forest, VC 67, South Northumberland, GR NY764.009, alt 460 m, April 2016. Determined by B.J. Coppins. Second record of this species for the Vice-county. *D.E. McCutcheon*

***Micarea globulosella***: on dead wood on fallen *Quercus* within ancient parkland, Knole Park, Sevenoaks, VC 16, West Kent, GR TQ5371.5403 and TQ5352.5439, alt 130-135 m, July 2019. New to the Vice-county. *N.A. Sanderson*

***Micarea micrococca***: with *Porina leptalea* on bark of fallen trunk of *Pinus*, Ardmohr Wood, Barra, VC 110, Outer Hebrides, GR NF703.043, alt 15 m, August 2019. Herb. Coppins 25537 (**E**). New to the Vice-county.
*A. Acton, B.J. Coppins, J.R. Douglass, S.G. Price*

***Micarea misella***: on fallen decorticate trunk of *Pinus* in pasture, Kippielaw, Bowden, VC 80, Roxburghshire, GR NT5495 2857, alt 170 m, May 2019. Herb. Coppins 25405 (**E**). With apothecia and pycnidia. New to the Vice-county. *B.J. Coppins*

***Micarea misella***: on fallen *Quercus* trunk within glade and on *Quercus* stump at edge of parkland grove, in ancient parkland, Knole Park, Sevenoaks, VC 16, West Kent, GR TQ5359.5436 and TQ5362.5430, alt 35-40 m, July 2019. New to the county.
*N.A.Sanderson*

***Micarea xanthonica***: frequent on acid bark of *Quercus*, *Alnus*, *Betula* & *Larix* within upland pasture woodland, Caban Lakeside Woodlands SSSI and Coedydd Glannau a Cwm Coel SSSI, Elan Valley, VC 43, Radnorshire, GR SN89-64-, SN90-63-, SN91-62- and SN91-65-, alt 260-310 m, August 2019. New to the Vice-county.
*N.A. Sanderson*

***Muellerella hospitans***: in apothecia of *Lecanora hagenii* on twigs of *Fraxinus* within policy woodland, Kippielaw, Bowden, VC 80, Roxburghshire, GR NT54-28-, alt 170 m, May 2019. Herb. Coppins 25521 (**E**). Also seen at this locality on *Bacidia rubella*, its more usual host. New to the Vice-county. *B.J. Coppins*

***Muellerella hospitans***: in apothecia of *Lecanora hagenii* on twigs of *Populus* in car park, Lauder Burn, Lauder, VC 81, Berwickshire, GR NT530.472, alt 176 m, June 2019. Herb. Coppins 25497 (**E**). Previously recorded in the VC on *Bacidia rubella*, its more usual host. Second record of this species for the Vice-county. *B.J. Coppins*



***Mycoporum antecellens***: on mature *Fagus* within glade in grove, in ancient parkland, Knole Park, Sevenoaks, VC16, West Kent, GR TQ5359.5449, alt 135 m, July 2019. A very eastern record for this oceanic species. New to the county. *N.A. Sanderson*

***Nectriopsis rubefaciens***: parasitising the thallus of *Hypotrachyna laevigata*, Tucker's Bridge, Arlington Court NT, VC 4, North Devon, GR SS608.394, alt 118 m, April 2019. New to the county. *N.G. Bacciu*

***Nigromacula uniseptata***: on *Hypotrachyna afrorevoluta* on *Quercus* branch, High Park, Rydal Park, VC 69, Westmorland, GR NY3724.0643, alt 205 m, September 2019. Herb. Coppins 25558 (**E**). Recorded during Plantlife/BLS survey. New to northern England. *B.J. Coppins*

***Normandina acroglypta***: sterile sorediate morph on hepatics on *Alnus*, Ardmohr Wood, Barra, VC 110, Outer Hebrides, GR NF703.043, alt 15 m, August 2019. Herb. Coppins 25536 (**E**). New to the Vice-county. *Acton, B.J. Coppins, J.R. Douglass, S.G. Price*

***Opegrapha physciaria*** (*Phacothecium varium*): on *Xanthoria parietina* on ruin of windmill tower, Kippielaw, Bowden, VC 80, Roxburghshire, GR NT545.286, alt 190 m, May 2019. Herb. Coppins 25400 (**E,** sub *Sphaerellothecium parietinarium*). New to southeast Scotland. *B.J. Coppins*

***Opegrapha trochodes***: on sheltered trunk of *Fraxinus excelsior* perched on stream bank within Atlantic ravine woodland, Coed Allt Cwmsisyllt, *c.* 0.75 km west-northwest of Llangeitho, VC 46, Cardiganshire, GR SN609.601, alt 150 m, May 2019. Herb. Chambers. The tree was showing symptoms of Ash Dieback Disease. The fourth Vice-county & Welsh record for this species. *S.P. Chambers*

***Opegrapha xerica***: on dry side of *Quercus* on cliff above raised beach, within coastal slope woodland, Needle's Eye, Southwick Shore Nature Reserve, VC 73, Kirkcudbrightshire, GR NX9149.5617, alt 10m, June 2019. New to the Vice-county.
*N.A. Sanderson*

***Pachnolepia pruinata***: on old *Acer pseudoplatanus* near Brinkburn Priory, VC 68, North Northumberland. GR NZ116.984, January 2012. Confirmed by B.J. Coppins. New to the Vice-county. *D.E. McCutcheon & A. Mclay*

***Parmelia submontana***: on horizontal *Salix* branches, Heatree Activity Centre, near Manaton, Dartmoor, VC 3, South Devon, GR SX7284.8064, alt 328 m, August 2019. Third site for this lichen within the county. *N.G. Bacciu & B. Benfield*

***Peltigera neckeri***: (i) on sparsely vegetated sand dune, Morfa Dyffryn, VC 48, Merionethshire, GR SH55-24-; (ii) Morfa Harlech, VC 48, GR SH56-63-, June 2019.

Herb. Lamacraft. Locally frequent at both sites. New to the Vice-county.
*D.M. Lamacraft*

***Pertusaria ophthalmiza***: on acid bark on veteran *Quercus* within glade in neglected *Quercus petraea* pasture woodland on rocky slope, Coedydd Glannau, Coedydd Glannau a Cwm Coel SSSI, Elan Valley, VC 43, Radnorshire, GR SN9115.6575, alt 260 m, August 2019. A new site in Wales, for this rare species *N.A. Sanderson*

***Phaeographis smithii***: on trunk of Kentucky Coffee tree (*Gymnocladus dioica),* Westonbirt Aboretum, VC 7, North Wiltshire, GR ST851.893, April 2019. First record of this species for the Vice-county since 1920. *P. Shipway*

***Physcia leptalea***: on small branch of *Malus*, Brinsley Headstocks, VC 56, Nottinghamshire, GR SK46454876, November 2017. Photographs by Craig Levy. Confirmed by B.J. Coppins. C. *Levy*

***Physcia stellaris***: on branch of oak, Budby South Forest, VC56, Nottinghamshire, GR SK6203.6885, alt 60 m, May 2018. Recorded by Steve Price, Craig Levy and Nigel Chadwick during the Sorby NHS outing. New to the Vice-county. *S.G. Price*

***Porina rosei***: on moss on outcrops by river within valley woodland, River Calder, (i) at Lochwinnoch, VC 76, Renfrewshire, GR NS3493.5972, alt *c.* 50 m, April 2019. Herb. Coppins 25549 (**E**) (ii) at GR NS3513.6001, Coppins 25550 (**E**). Both collections are sterile. New to the Vice-county. *B.J. Coppins & J.R. Douglass*

***Porpidia melinodes***: (i) on siliceous boulder, Dunnet Head – Burifa Hill, south-west ridge, VC 109, Caithness, GR ND2003.7525, alt 70 m, May 2018; (i) Grey Cairns of Camster, VC109, Caithness, GR ND260.441, alt 120 m, May 2018. New to the Vice-county. *S.G. Price*

***Pronectria pertusariicola***: on *Pertusaria pertusa* on *Fraxinus* within policy woodland, Kippielaw, Bowden, VC 80, Roxburghshire, GR NT54.28, alt 170 m, May 2019. Specimen not retained. New to the vice-county. *B.J. Coppins*

***Psilolechia clavulifera***: on consolidated soil of upended root-plate, Big Wood, Wooplaw Community Woodland, VC 80, Roxburghshire, GR NT50-42-, alt *c.* 260 m, June 2019. Specimen not retained. New to the Vice-county. *B.J. Coppins*

***Pycnothelia papillaria***: (i) on peat soil, Dunnet Head – track by Northern Gatehouse, VC109, Caithness, GR ND2058.7194, alt. 35-70 m, May 2018. New to the Vice-county; (ii) Dunnet Head – Burifa Hill, south-west ridge, VC109, Caithness, GR ND2003.7525, alt 70 m, May 2018; (iii) Dunnet Head – Burifa Hill, south-west ridge, VC 109, Caithness, GR ND1994.7519, alt 70 m, May 2018. S.G. Price photos.
*S.G. Price*



***Ramalina calicaris***: on branch of *Quercus*, Budby South Forest,VC 56, Nottinghamshire, GR SK61896865, alt 60 m, May 2018. S.G. Price photo. Recorded by Steve Price, Craig Levy and Nigel Chadwick, during the Sorby NHS outing. New to the Vice-county. *S.G. Price*

***Rhizocarpon subgeminatum***: on sloping face of acidic boulder, Black Cleugh Crags, Muggleswick Park, VC 66, Durham. GR NZ030.489, alt 305 m, May 2016. First record of this species since 1977 which was from nearby Feldon Carrs and then only the second British record of it. *D.E. McCutcheon*

***Rhizocarpon subgeminatum***: on top of sandstone boulder, Dour Hill near. Byrness, Redesdale, VC 67, South Northumberland, GR NY793.028, alt 400 m, March 2012. Third record of this species for South Northumberland. *D.E. McCutcheon*

***Rhizocarpon subgeminatum***: on top of sloping acid boulder, one of many below crags. Ellis Crag, Kielder Forest, VC 67, South Northumberland, GR NY746.009, alt 460 m, April 2016. Fourth county record for this species. *D.E. McCutcheon*

***Rinodina biloculata***: associated with *Caloplaca asserigena* on old *Vaccinium myrtillus* stems in upland NVC H18 *Vaccinium myrtillus – Avenella* (*Deschampsia*) *flexuosa* heath, Pencarreg-gopa, Cwm Pemprys, VC 46, Cardiganshire, GR SN723.945, alt 380 m, June 2019. Herb. SPC. New phorophyte record for the Vice-county. *S.P. Chambers*

***Rinodina occulta***: on east-facing basalt cliff, Little Cumbrae, VC 100, Clyde Isles, GR NS150.514, May 2019. Herb. Coppins 25541 (**E**). FSC lichen course. New to the Vice-county. *B.J. Coppins*

***Rinodina sophodes***: on twig of *Quercus*, Bestwood Country Park, VC 56, Nottinghamshire, GR SK56304764, November 2017. Confirmed by. M Powell.
*C. Levy*

***Sarcogyne hypophaea***: on granite coping stone on canal bridge over the Aylesbury arm of the Grand Union Canal, Wilstone, VC 20, Hertfordshire, GR SP9047.1439, August 2019. Confirmed by B.J. Coppins. New to the Vice-county. *P. Shipway*

***Sarcogyne hypophaea***: on granite on canal bridge at Marsworth, VC 24, Buckinghamshire, GR SP916.144, August 2019 This record approximately a mile from the first record. New to the Vice-county. *P. Shipway*

***Schismatomma quercicola***: on acid bark on three veteran *Quercus* within neglected *Quercus petraea* pasture woodland, Coed Gelynnen, Caban Lakeside Woodlands SSSI, Elan Valley, VC 43, Radnorshire, GR SN9140.6277, SN9137.6313 and SN9134.6305, alt 260-300 m, August 2019. New to the Vice-county. *N.A. Sanderson*

***Scoliciosporum pruinosum***: on trunk of *Quercus,* tree, Berkhamsted Common, VC 20,

Hertfordshire, GR TL001.092, April 2019. New to the Vice-county. *P. Shipway*

***Skyttea nitschkei***: parasitic on *Thelotrema lepadinum* on veteran *Quercus* within neglected *Quercus petraea* pasture woodland, Coed Gelynnen, Caban Lakeside Woodlands SSSI, Elan Valley, VC 43, Radnorshire, GR SN914.631 and SN914.630, alt 260 m, August 2019. New to the Vice-county. *N.A, Sanderson*

***Sphaerellothecium parietinarium***: on *Xanthoria parietina* on ruin of windmill tower, Kippielaw, Bowden, VC 80, Roxburghshire, GR NT545.286, alt 190 m, May 2019. Herb. Coppins 25400 (**E**). New to the Vice-county. *B.J. Coppins*

***Sphaerellothecium propinquellum***: in apothecia of *Lecanora carpinea* on twigs of *Fraxinus* in policy woodland, Kippielaw, Bowden, VC 80, Roxburghshire, GR NT54-28-, alt 170 m, May 2019. Herb. Coppins 25520 (**E**). Apothecia also parasitized by *Lichenoconium lecanorae*. New to Southern Scotland. *B.J. Coppins*

***Sphinctrina turbinata***: on *Pertusaria pertusa* on veteran *Fagus sylvatica*, Pale Hall, VC 48, Merionethshire, GR SH981631, March 2019. Herb. Lamacraft. This species previously recorded in VC 48 in 1996. *D.M. Lamacraft*

***Staurothele hymenogonia***: on boundary wall of church, Kilkhampton, VC 2, Cornwall, GR SS252.113, alt 169 m, February 2019. Herb. Putnam. New to the county. *M. Putnam*

***Stictographa lentiginosa***: (*Melaspilea lentiginosa*): parasitic on *Phaeographis dendritica* on ancient *Fagus*, within relic pasture woodland, Franchises Wood, VC 8 South Wiltshire, GR SU2351.1699, alt 75 m, May 2019. First record from Wiltshire of this Section 41 species. *N.A. Sanderson & A.M. Cross*

***Strigula taylorii***: on *Acer pseudoplatanus* within valley woodland, River Calder, Lochwinnoch, VC 76, Renfrewshire, GR NS3495.5978, alt *c.* 50 m, April 2019. Herb. Coppins 25548 (**E**) New to the Vice-county. *B.J. Coppins & J.R. Douglass*

***Strigula taylorii***: on mature *Fraxinus* by road, Ardmohr Wood, Barra, VC 110, Outer Hebrides, GR NF703.043, alt 10 m, August 2019. Herb. Coppins 25532 (**E**, sub *Bacidina phacodes*). With pycnidia only. New to the Vice-county.
*A. Acton, B.J. Coppins, J.R. Douglass, S.G. Price*

***Taeniolella phaeophysciae***: parasitic on thallus of *Phaeophyscia orbicularis*, Dart Raffe Farm, near Witheridge, VC 4, North Devon, GR SS795.159, alt 165 m, July 2019. New to the vice-county. *N.G. Bacciu*

***Taeniolella punctata***: parasitic on *Pertusaria leioplaca* on *Corylus*, within neglected *Quercus petraea – Corylus* pasture woodland, below Henfron, Cwm Coel, Coedydd



Glannau a Cwm Coel SSSI, Elan Valley, VC 43, Radnorshire, GR SN9064.6427, 260 m, August 2019. This lichenicolous fungi normally occurs on *Graphis scripta*, as black tufts of conidiophores, but can also occur on *Pertusaria leioplaca*. It is likely to be very under recorded. New to Wales. *N.A. Sanderson*

***Trapeliopsis pseudogranulosa***: on root plate, Frithsden Beeches, Berkhamsted Common, VC20, Hertfordshire, GR SP998.104, April 2019. Determined by M. Powell. New to the Vice-county. *P. Shipway*

***Tremella parmeliarum***: parasitic on *Parmotrema reticulatum* on *Prunus spinosa* forming galls on the tips of the lobes, on north east-facing slope, Gew Graze, Lizard Downs NNR, VC1, West Cornwall, GR SW67-14-, September 2019. The first record for the UK and second for the British Isles, the first also being on *P. reticulatum* from West Cork (H. Paul 2014). *M. Putnam*

***Tubeufia heterodermiae***: on moribund central part of *Physcia aipolia* thallus on flat top of softwood fence rail around livestock pen, Rhos Cwmsaeson SSSI, c. 1 km north-east of Oakford/Derwen Gam, VC 46, Cardiganshire, GR SN464.586, alt 150 m, May 2019. Field record. The third Vice-county and fourth Welsh record for this species.
*S.P. Chambers*

***Tylophoron hibernicum***: overgrowing *Lecanactis abietina* on two veteran *Quercus*, within neglected *Quercus petraea* pasture woodland, Coed Gelynnen, Caban Lakeside Woodlands SSSI, Elan Valley, VC 43, Radnorshire, GR SN9142.6311 and SN9139.6307, alt 260-280 m, August 2019. The only other Radnor and the only extant records for known Welsh trees, having died. This is an unexpected record of a southern oceanic lichen from a high altitude wood in eastern central Wales. New to Wales.
*N.A. Sanderson*

***Umbilicaria deusta***: a single thallus, c. 2 x 3 cm across, on siliceous stone slab on top of upland drystone hill wall, Llethr Brith, c. 250 m south-east of Llyn y Gwaith, VC 46, Cardiganshire, GR SN674.505, alt 460 m, May 2019. Field record. This second Vice-county record is in an identical situation, i.e. hill wall, to the first record, but at the opposite end of the Vice-county. *S.P. Chambers*

***Unguiculariopsis lettaui***: on *Evernia prunastri* on *Salix* in wet woodland, Big Wood, Wooplaw Community Woodland, VC 80, Roxburghshire, GR NT503.421, alt 260 m, June 2019. Herb. Coppins 25496 (**E**). New to southern Scotland.
*B.J. Coppins*

***Unguiculariopsis reactiva***: on thallus of *Bilimbia sabuletorum* over mosses on sandstone headstone in Old Kirkyard, Dalmellington, VC 75, Ayrshire, GR NS480.057, alt 175 m, May 2019. Herb. Coppins 25514 (**E**). New to Scotland.
*B.J. Coppins & J.R. Douglass*

***Unguiculariopsis thallophila***: on *Lecanora carpinea* on twigs of *Ulmus*, Nether Whitecleuch, VC 77, Lanarkshire, GR NS836.192, alt 275 m, May 2019. Herb. Coppins 25523 (**E**). An interesting example where this parasite occurs abundantly on *L. carpinea*, but seemingly absent from adjacent thalli of its more usual host, *Lecanora chlarotera*. *B.J. Coppins*

***Verrucaria pinguicula***: on limestone outcrops on stream bank, Ashgill Head, Teesdale, VC 66, Durham GR NY 80.35, alt 550 m, March 2017. Confirmed by A. Orange. Last recorded in the county in 1814, but since found on several similar habitats in the Durham Dales. *D.E. McCutcheon*

***Vouauxiella lichenicola***: on *Lecanora confusa* on *Sorbus*, Menie Estate, Balmedie, VC 92, South Aberdeenshire, GR NJ9781.2031, alt 20 m, July 2019. Herb. Coppins 25525 (**E**). An unusual host with only two previous records on this host in the BLS database. *A. Acton & B.J. Coppins*

***Xylographa trunciseda***: on lignum of decorticated conifer logs on track verge. Kielder Forest, VC 67, South Northumberland, GR NY79.80, alt 300 m, June 2018. Easily overlooked as a rather dried up fungus of the Dacrymyces group but the immersed thallus is speckled with minute brown goniocysts. New to England. *D.E. McCutcheon*

***Xylographa trunciseda***: On lignum of decorticated conifer stumps at edge of track verge. Burnhope reservoir, Weardale. VC66, Durham. GR NY839.389, alt 420 m, August 2018. New to VC 66 and second English record for the species. *D.E. McCutcheon*

***Xylographa vitiligo***: on lignum of decorticated conifer logs on track verge. Kielder Forest, VC 67, South Northumberland, GR NY79.80, alt 300 m, June 2018. Second record of this species for the Vice-county. *D.E. McCutcheon*

**Corrigenda**

***Carbonicola anthracophila*** and ***Melaspilea lentiginosula.*** *Bulletin* **124** p98. My attention is drawn by B.J. Coppins, to the fact that the date should be September 2018 and not 2019.

***Dinemosporium strigosum.*** *Bulletin* **124** p90. My attention is drawn by Linda in Arcadia, to the fact that this taxon is not new to the British Isles as a paper appeared in *Graphis Scripta* **7**(1): 7-10 ,Miadlikowska, J. & Alstrup, V (1995) in which it was reported that it had been found in Wales.

***Heterocephalacria bachmannii*** *Bulletin* **124** p104. The host lichen was incorrectly identified. The material has now been redetermined to be *Cladonia rangiformis*.



***Verrucaria ochrostoma*** Bulletin **96** p86. It was noticed during researches that *V. ochrostoma* was mistakenly referred to as *V. ochrochlora.*

# British Lichen Society
# Field Meetings & Workshops Programme 2020

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

*note: Most BLS meetings and workshops are open to all members and prospective members, regardless of level of experience. All that is required is enthusiasm about lichens! Occasionally a meeting is targeted to a particular, more specialised group, but that will be made clear in the information provided for that event.*

**BLS AGM 2020- Field Outing**
**Sunday 2 February 2020**

A one-day field outing is being planned following the AGM which is being held at The Royal Botanic Garden, Edinburgh.
We plan to visit Arniston House, near Gorebridge, Midlothian (currently subject to confirmation). We will meet at 11.00 at the main car park, postcode for satnavs EH23 4RY. Full details will be given, and arrangements made for transport from Edinburgh, at the end of the AGM in the afternoon of 1st February.
The Arniston House website is https://www.arnistonhouse.com.
Should the outing to Arniston House not be confirmed revised information will be posted in the Field Meetings Programme on the BLS website.

**BLS WINTER WORKSHOP 2020** – Cloughton, Scarborough
*Bring along yet more problems*
**Friday 6 to Sunday 8 March 2020**
**(with an optional field outing on Friday 6th)**
***Workshop leaders***: Brian Coppins & Neil Sanderson
(note: Mark Powell is unable to attend and Neil has kindly offered to replace him to be joint leader with Brian)
Following on from the success of the *'Bring along your problems'* and *'Bring along more problems'* weekends in 2018 and 2019 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.

Again, 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 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.

There will also be an ***optional field outing*** during the day on Friday 6th. We will meet at 09.30 at Cober Hill; details of the outing are to be decided. If interested in this, attendees are asked to make their own arrangements for accommodation for the night of Thursday 5th by booking directly with Cober Hill or elsewhere.

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

***Accommodation and costs***
Accommodation for 20 people in single and twin en-suite rooms has been reserved and a deposit paid by the BLS. These bed spaces are being held for us until the end of August 2019 (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 £184.50 per person (incl. 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 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 (£134.50) needs to be paid by the end of October 2019.

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.
If attending the ***optional field outing on Friday 6th*** attendees are asked to book their accommodation for the night of Thursday 5th directly with Cober Hill or elsewhere.



***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 6th at 19.00hrs. We need to vacate the bedroom accommodation after breakfast on Sunday 8th and the meeting room by 16.00hrs on the Sunday afternoon. A full 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 MEETING 2020 – North Harris, Outer Hebrides**
**Saturday 2 – Saturday 9 May 2020**
***Local contact***: Tristan ap Rheinallt

The spring 2020 meeting will be on North Harris. Lichen-wise this is a much under-recorded area of Scotland. This is the first BLS meeting on the Outer Hebrides.

***Meeting base***
The meeting base is The Scaladale Centre, Ardvourlie, Isle of Harris, HS3 3AB. The Centre lies 15 miles (half an hour's drive) south of Stornoway, Lewis and 11 miles north of Tarbert, Harris.

***Accommodation and costs***
The BLS has booked the whole of the Centre. We are booked on a self-catering basis. There are 6 bedrooms of varying sizes, which are being utilised to provide up to 18 bed spaces. Because of the limited number of rooms single accommodation will not be available.
The cost for the week is £179 per person. Sheets / duvets / towels are provided.
Website: https://www.scaladale-centre.co.uk/

***Booking***
Attendees should book with the Field Meetings Secretary, Steve Price, email:.org. fieldmeetings@britishlichensociety uk or by post to Woodlands, Combs Road, Combs, High Peak SK23 9UP and send him a £35 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.

***Timetable***
The meeting will run from Saturday 2nd when we will gather after dinner for an introductory meeting. We vacate the accommodation in the morning of Saturday 9th.

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

***Transport to the meeting***

Caledonian MacBrayne operate ferries from Ullapool to Stornoway and Uig to Tarbert.

The bus service W10 (Stornoway – Leverburgh) connects Scaladale with both Stornoway and Tarbert.

***Maps***

These OS 1:25000 maps cover the field sites currently under consideration:

Explorer 456 - North Harris & Loch Seaforth (the meeting base is on this map)

Explorer 455 - South Harris

Explorer 457 - South East Lewis

Explorer 459 - Central Lewis & Stornoway

**BLS SUMMER MEETING 2020 – Aberdare, Rhondda Cynon Taf, Wales**
**Saturday 11 – Saturday 18 July 2020**

***Local contact***: Ray Woods

This is an opportunity to visit one of the most extraordinary parts of Britain that to date has been little explored for lichens. The northern part of the South Wales coalfield merges in a series of spectacularly wooded valleys with immense waterfalls into the high moorland, cliffs and screes of the Brecon Beacons. They sit cheek by jowl with the densely populated coalfield valleys and the now often lichen-rich tips and sites of the former iron and coal industry. We will visit the site of possibly the only strip-mined site in Britain, abandoned unrestored at the end of the Second World war. Celtic rain-forest and limestone and gritstone pavements are within easy reach. The transformation from a lichen desert to one of great richness is rapidly underway. *Sticta* spp. have returned to nearby woods and even *Teloschistes chrysophthalmus* turned up in the park where we will be based!

***Meeting base***

The meeting base is Dare Valley Country Park Hotel, Aberdare CF44 7RG.
Website :http://www.darevalley.com/

***Accommodation and costs***

The BLS has booked the 15 bedrooms, each of which can be for single or twin occupancy. We are booked on a full-board basis.

The cost for the week is £374.50 + VAT per person with a £10 + VAT supplement per night for single occupancy. With VAT at 20% the costs are £449.40 per person sharing and £533.40 single occupancy.



***Booking***

Attendees should book with the Field Meetings Secretary, Steve Price, email: fieldmeetings@britishlichensociety.org.uk or by post to Woodlands, Combs Road, Combs, High Peak SK23 9UP and send him a £35 deposit, 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.

***Timetable***

The meeting will run from Saturday 11th when we will gather after dinner for an introductory meeting. We vacate the accommodation after breakfast on the morning of Saturday 18th.

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

***Maps and reading***

OS 1:25000 Maps

Explorer - 166 - Rhondda & Merthyr Tydfil

Explorer Leisure - OL12 - Brecon Beacons National Park West

The article 'Colliery-spoil biodiversity of the South Wales Valleys' by Liam Olds and Richard Wistow in *British Wildlife*, December 2018, presents a fascinating overview of the richness and importance of this habitat.

**BLS RECORDING MEETING – Bredon Hill, Worcestershire (advanced notice)**

A recording meeting at Bredon Hill, Worcestershire is in the planning for the summer of 2020. This as part of the National Heritage Lottery Fund funded *Back from the Brink Ancients of the Future* project will be similar to the recording meetings at Moccas in 2018 and Rydal Park in 2019.

The main purpose of the meeting will be to record lichens. All BLS members are welcome to attend however the less experienced should not expect much time being given over to tuition.

Further details will be posted on the BLS website and published in the Summer 2020 Bulletin.

**BLS AUTUMN MEETING 2020 – Dingestow Court, Monmouthshire**
**Friday 9 – Monday 12 October 2020**

Sam Bosanquet has invited the BLS to spend time at Dingestow Court (Old Lands) in central Monmouthshire. There is parkland that needs studying and the house and grounds should keep masonry lichenologists happy. Sam has also offered to lead groups to some other areas such as the Blorenge limestone and gritstone screes.

The main purpose of this meeting is to record lichens.

For information the Dingestow Court website is https://old-lands.co.uk/
If interested in attending please inform the Field Meetings Secretary, Steve Price, email: fieldmeetings@britishlichensociety.org.uk or by post to: Woodlands, Combs Road, Combs, High Peak SK23 9UP.
Further details of the meeting will, when known, be sent out to those expressing an interest.

*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-imbursement may depend on the production of receipts.*

## Travel grants to attend IAL9 in Brazil, 2020

We are pleased to announce that the International Association of Lichenologists (IAL) has set aside €7,000 to help its members attend IAL9 in Bonito, Brazil. Similarly, The British Lichen Society has allocated £15,000 to subsidize its members' travel to this meeting. Applicants do not need to apply for these two awards separately—only one application is needed. In other words, applications for both awards will be considered together. Applicants must be a current (paid-up) member of the IAL at the time of application to be considered for an IAL award and/or a BLS member to be considered for a BLS award. All applications will be reviewed by a committee comprised of both BLS Council and IAL Council members.

To apply for a travel award, please provide the following information in an email: name; institution address and supervisor (if you are a student); whether you are a current, paid member of IAL and/or BLS; and the title and authorship of your oral or poster contribution. In addition, please attach a one-page CV, together with a one-page summary of your itinerary and approximate budget. Please send this information to Scott LaGreca (scott.lagreca@duke.edu) before 15 January 2020. Applicants will be notified by mid-March. Awards will be made available to successful applicants after the meeting by bank transfer.



## Back runs of *The Lichenologist*

I have two back runs of *The Lichenologist* from Vol. 3 to present. These might be of interest to either a library or an individual. As a minimum, shipping costs would have to be paid for (where relevant) possibly together with a small donation to the BLS. Please send expressions of interest to: pdc@nottingham.ac.uk.

*Peter Crittenden*

## Christopher Hitch

Recipient of the Ursula Duncan Award at the 2019 AGM'.

The British Lichen Society would not be such a thriving Society without the dedication and loyalty of many of its members. In Britain we are extremely fortunate to have a very thriving amateur (in the sense of unpaid) set of members who work together with our few professionals. The lichen flora is full of examples of species found by the non-professionals and our understanding of distribution owes much to them. Chris Hitch exemplifies this tradition in British lichenology.

Though perhaps not as well known to some of our members he has nevertheless made a major contribution to lichenology in the British Isles. He first became interested in lichens when in 1965 he attended a lichen course at Juniper Hall led by Peter James and followed it up with a second at Malham Tarn later that year. He went onto do a Masters on nitrogen fixation in lichens and then embarked on a PhD on the same subject during which he found internal cephalodia in *Lobaria virens*, a feature not previously known about in that species. Whilst still working on his PhD, he began, in 1975, a three-year post doc under Mark Seaward on the distribution of lichens for the mapping scheme. This led to the joint publication by Mark and Chris of the Atlas of British Lichens in 1982.

A defining moment of his life happened in 1978 when he moved to the family home at Snape in Suffolk and then more latterly to Knoddishall also in the same county. He then began work on the Suffolk lichen flora, which at that time was not very well known, and made numerous field excursions into the county with Peter Earland-Bennett, who lived in the area at that time, the late Peggy Cayton, myself and others. He did not confine himself to Suffolk though, and did quite a lot of work in Orkney then very poorly known. He also explored many other parts as I was to discover when I came across an extensive species list of lichens from South Uist made by him and Peggy Cayton, when they ventured into some quite wild and remote hill country. His friend Albert Henderson was also a companion on many trips in Yorkshire and Barbara Benfield in Devon.

All this time his inputs for the Mapping Scheme accumulated, so that Janet tells me that he has now contributed some 90,000 records. In addition this is supported by a

very large and well ordered herbarium with some 30-40000 specimens, which is threatening to take over his bungalow! (See photo below)

Chris with part of his extensive herbarium

In the course of his fieldwork he has found new species for the British Isles including *Xanthoparmelia luteonotata* and, in the Suffolk context, rarities like *Xanthoparmelia tinctina*.

However, Chris has not just been delving and researching the lichen flora, but has contributed to the Society in other ways. He has served on Council and in the 1980s he was Field Excursions Secretary. In 1997 he took over the 'New, rare & interesting lichens' slot from the late Frank Brightman and has continued this without fail for the following 25 years. Compiling this is not easy and requires a real eye for detail. Also, Chris has made a major contribution to enthusing and teaching lichenology, through running courses at Kindrogan and Flatford Mill for many years. He has also acted as an unofficial beginners' referee.

In manner, Chris does have a touch of the English gentleman about him as Oliver Gilbert mentions in his book the Lichen Hunters. For example, he has his priorities, as Oliver recounts when staying at the rather rundown hotel used as a base for the 1986 Lizard meeting, he was probably the only one to get a hot steaming bath (albeit at midnight). Also, John Skinner remembers an occasion on a field trip when Chris got out his stove and brewed a nice pot of Earl Grey tea. Even in his more mature years his enthusiasm remains undimmed as those of you who went on the autumn field meeting based at Flatford Mill will have noticed.

In summary, Chris is very deserving of the Ursula Duncan Award for his dedication to lichenology over the last fifty years for the loyalty and contributions to the work of the Society that he has shown.

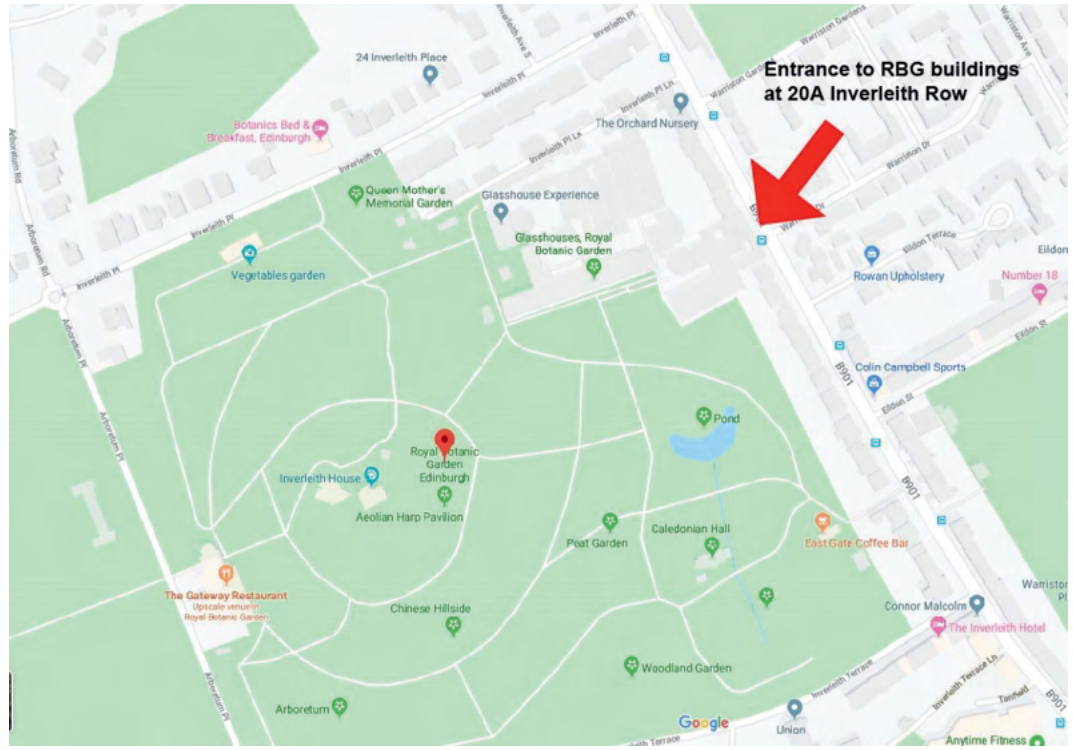
*Peter Lambley*
*plambley@aol.com*



# Notice of Annual General Meeting 2020

***Venue***

The AGM and Winter Meeting for 2020 will be held at the Herbarium Buildings, Royal Botanic Gardens, Edinburgh EH3 5LR, on Saturday 1 February 2020.



Inverleith Row is served by frequent Lothian buses nos 8, 23 and 27 from the city centre. Note that the main visitor entrance to the Garden is on Arboretum Place on the other side of the garden. There is limited, expensive and time-limited parking on surrounding streets, so public transport is recommended. Entrance will be through the black gates to the Science/Herbarium Buildings just north of 20 Inverleith Row.

### *Exhibition*

Exhibits can be put up in from 15.00 on Friday and should be ready for viewing by 17.30. They can be viewed during tea breaks until the close of the meeting on Saturday. Please advise Becky Yahr by e-mail (*r.yahr@rbge.ac.uk*) of your requirements for tables or display stands before **Monday 16 January** as these have to be ordered in advance, and arrange with her if you need access by car when bringing any bulky or heavy items.

### *Timetable*

**Friday 31 January**:

17.30 – Reception (wine and soft drinks) and Exhibition, with poster presentations.
18.30 – **Special Lecture**
**On the occasion of Professor Peter Crittenden's retirement as Editor in Chief of the *Lichenologist*, he will present a Special Lecture:**
**"Toughing it out: lichen ecology and a life in lichen research"**

19.45 – Dinner after the Special Lecture at the Little White Pig (26B Dublin Street, Edinburgh EH3 6NN), £20 for a buffet-style dinner. Drinks will be separate. Booking is essential, please see the form posted to you with this *Bulletin*.

**Saturday 1 February**:

9.45 – Coffee and tea, and poster exhibition.

**10.30 – Annual General Meeting.**

13.00 – Lunch (at own expense). Restaurants and cafes within a few minutes walking distance are situated within the gardens and around Inverleith Row.

**14.00 Winter Meeting.** Introduction – Becky Yahr, President of the Society
14.05 Looking Out for Small Things. Exploring the Atlantic woodlands of the Lake District. *April Windle*, Plantlife.
14.30 Ben Alder: inaugural meeting of the Montane Lichen Group. *Graham Boswell*, Somerset.
14.55 Epiphytic lichen communities in a time of change. *Janet Simkin*. Newcastle University.



15.20 Bringing your lichen data alive with QGIS. *Les Knight*, North Yorkshire.
15.45 Tea in Reception
16.10 Lichen surveys for the Lost and Found Fungi Project. *Paul Cannon*, RBG Kew.
16.35 BLS Field Meeting round-up. *Steve Price*, Derbyshire.
17.00 Rocks, Paper, Scissors. *Joanne Kaar*, Caithness.
17.25 Arrangements for field meeting to Arniston House, Gorebridge, Midlothian (subject to confirmation). *Becky Yahr*
17.40 Close

### *Nominations for Officers of the Society*

Nominations are invited for Officers for 2020 and for three members of Council for the period 2020–2022 (retiring at the AGM held in early 2023, subject to changes in the Society's Constitution). Proposals should be sent by e-mail or in writing to the Secretary (E.H. Smith, email *ehsbiol@hotmail.co.uk* or Tutnall House, Claines Lane, Worcester WR3 7RN) at least two weeks before the AGM. No person may be nominated without their consent. Andy Acton and Graham Boswell are due to retire from Council and are not eligible for re-election. We thank them for their service and support.

### AGM Agenda

Please sign the attendance list and write your own name badge.

1. Apologies for absence
2. Minutes of the Annual General Meeting held at the Royal Botanic Gardens, Kew, January 2019.
3. Matters arising.
4. Reports of Officers and Committee Chairs:

| | |
|---|---|
| 4.1 President | (Paul Cannon) |
| 4.2 Treasurer | (John Skinner) |
| 4.3 Conservation | (Bryan Edwards) |
| 4.4 Data | (Les Knight) |
| 4.5 Education and Promotions | (Fay Newbery) |
| 4.6 *Bulletin* Editor | (Maxine Putnam) |
| 4.7 Senior Editor, *Lichenologist* | (Peter Crittenden) |
| 4.8 Website Editor | (Janet Simkin) |
| 4.9 Social Media | (Amanda Davey) |
| 4.10Field Meetings Secretary | (Steve Price) |
| 4.11Librarian | (Theresa Greenaway) |
| 4.12Archivist | (Mark Seaward) |
| 4.13Herbarium Curator | (Richard Brinklow) |

5. Election of Officers, including three members of Council
6. Any other business
7. Date and place of AGM 2021

***Post-AGM excursion***

On Sunday 2nd February we will visit Arniston House, near Gorebridge, Midlothian (currently subject to confirmation). We will meet at 11.00 at the main car park, postcode for satnavs EH23 4RY. For more information please see the Field Meetings Programme on the BLS website.

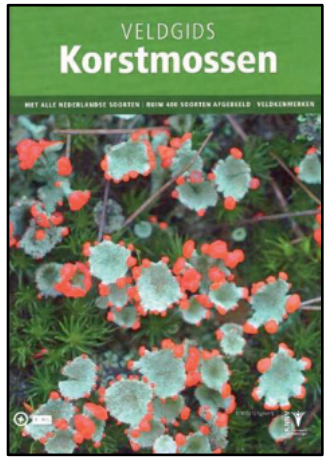
***Local Organiser***

Dr Rebecca Yahr, Royal Botanic Garden Edinburgh, 20a Inverleith Row, Edinburgh EH3 5LR, email *r.yahr@rbge.ac.uk*.

# Veldgids Korstmossen

Kok van Herk, André Aptroot and Laurens Sparrius
KNNV Uitgeverij 2017

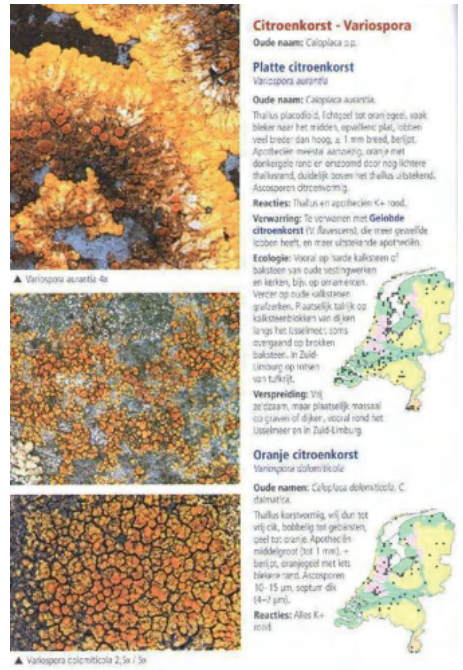
371pp, colour-illustrated
ISBN 978 90 5011 6428 c.£37, hardback




This publication, a field guide to lichens of the Netherlands, may be of interest to lichenologists working in lowland England whose lichen flora has a considerable overlap with that of Holland.

One might be put off by the fact that the text of the book is in Dutch as surely a much wider audience could be reached if it were in English? But this would be to miss the point that this series of field guides is intended to stimulate interest in nature and conservation in the Netherlands. The authors clearly wish to stimulate pride in and ownership of their country's lichen flora among their compatriots and this richly illustrated and accessible guide will certainly do that.






The first 40 pages are an introduction to lichen structure, the study of lichens and, in particular, lichen ecology. Typical saxicolous, tericolous and corticolous habitats are illustrated alongside distribution maps of the lichens found in them. The habitat photographs will certainly resonate with anyone working on lichens in lowland England. This is followed by sections on pollution, particularly nitrogen enrichment, and on climate change.

The main part of the guide is a compendium of lichens of the Netherlands. About 400 species are illustrated with a total of 650 mentioned in the text. For each species there is at least one photograph, sometimes as many as four, at different magnifications and of consistent high quality.

The accompanying text gives a brief description of macroscopic features, chemical reactions, similar (confusable) species and notes on ecology, conservation status and a distribution map.

There is no detailed identification key, rather a one-page pictorial key to the main groups treated. At first glance it looks too rudimentary to work but actually it is surprisingly effective, in tune with how most people use field guides.

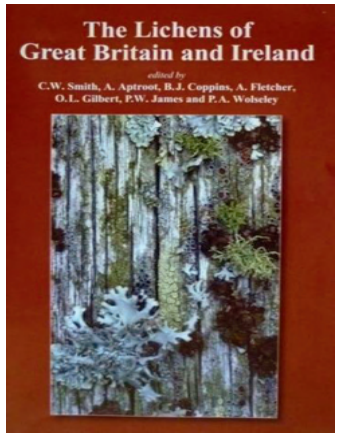
The book provides a gentle introduction to recent nomenclatural changes. Species are treated under their current (2017) latin names but old names ('oude naamen') are given and both new and old are thankfully included in the index. The Dutch common names have an easy-going exuberance. 'Girafje' for *Cladonia gracilis* needs no translation and, unsurprisingly, Horsehair lichens are *Bryoria*. Readers might like to mull over the identities of 'rice grain moss' and 'toothpaste lichens'. And Dutch chewing gum must be different to English.

In summary, this book is, to UK lichenologists, an excellent pictorial reference to lichens of lowland Britain, particularly south east England and East Anglia, with much useful information for those prepared to work on the text. It is authored by three renowned lichenologists, including the Society's most recent Honorary Member, giving one confidence that the lichens featured are correctly identified. And a real treat for naturalists in the Netherlands.

*John Skinner*
*johnskinner082@gmail.com*

# Publications and other items for sale

Please contact The Richmond Publishing Co. Ltd, The Cottage, Allerds Road, Slough, SL2 3TJ, tel. (+44) (0)1753 643104, email *rpc@richmond.co.uk* to purchase these items and to enquire about overseas postage prices outside of Europe. RPC now accepts BACS transfers (account no. 90901210, sort code 20-78-58) and payments via PayPal (PayPal address *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.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.

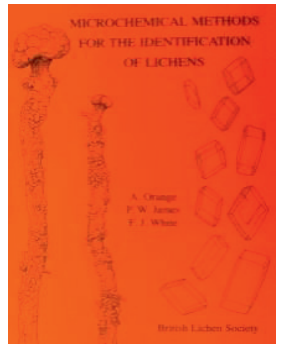
**Cat.5. Fascicle 5**: Aquatic Lichens and *Cladonia* part 2. (64 spp). 2000.

**Cat.6. Fascicle 6**: *Caloplaca*. (58 spp) 2001.



All fascicles are offered to members and non-members at a special price of £1.00 each. Postage & Packing £3.50 UK, £10.00 overseas, per fascicle.

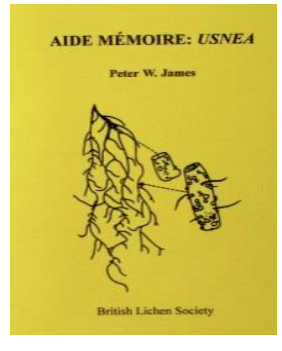
**Cat.7. Fascicles 3 to 6 for £3.00** (Buy 3 get one free!). Postage and packing £8.50 UK, £25.00 overseas.




**Cat.8. Microchemical Methods for the Identification of Lichens** by A. Orange 2010)
2nd edition, with two colour plates. Full of useful information on pigments, crystals, colour tests with reagents and TLC.

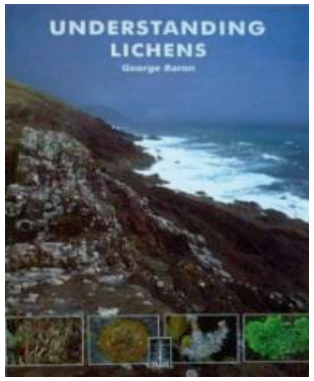
Price £9 members, £11 non-members.
Postage & Packing £4.00 UK, £9.00 Europe


**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.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.

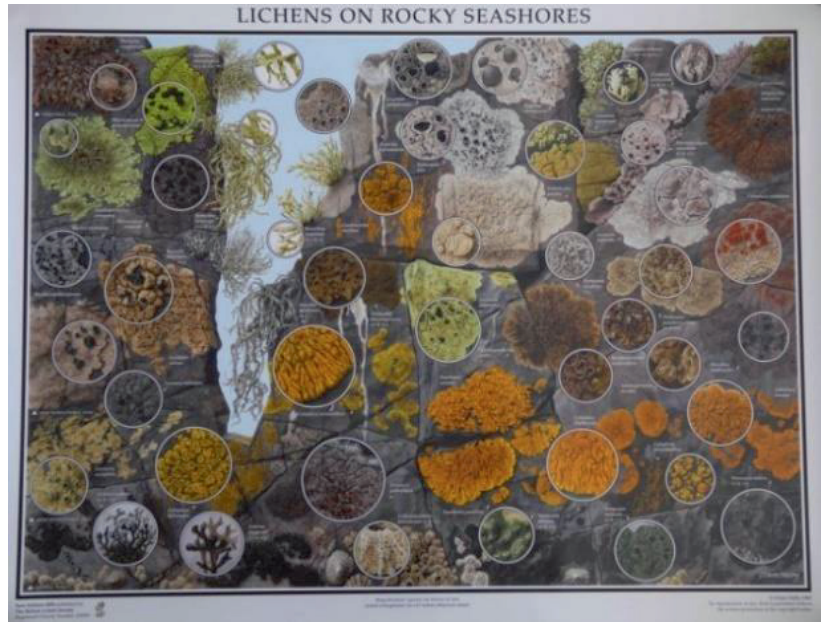

**Cat. 17. A Field Key to Coastal and Seashore Lichens by Frank Dobson (2010)**
A superb guide to over 400 species. 96 colour photographs. In the same format as **Cat. 16**.

BLS members £10.00; non-members £12.00. Postage & Packing £2.50 UK, £6.50 overseas.



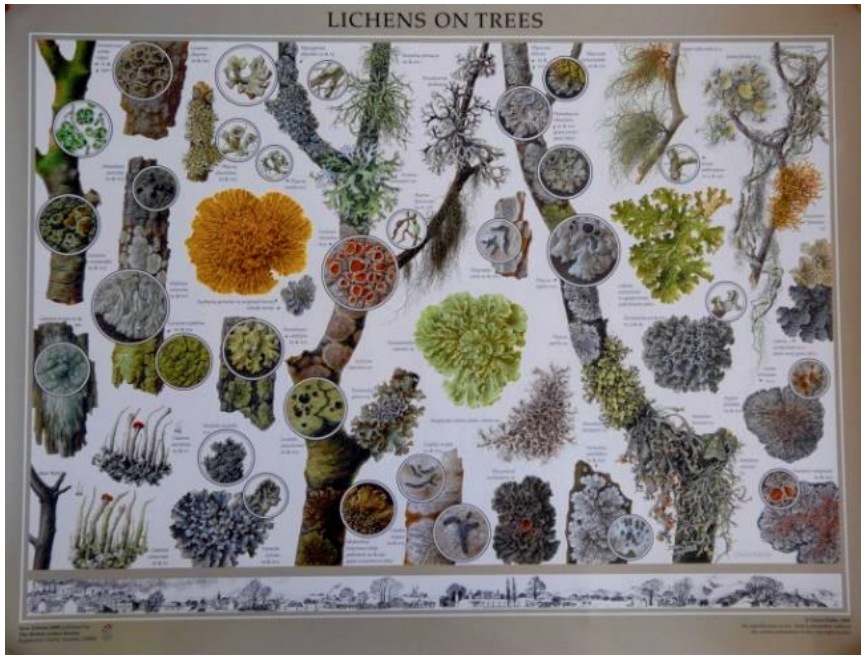

C**at. 18. A Field Key to Lichens on Trees by Frank Dobson (2013)**
A superb guide to around 500 species. 96 colour photographs. In the same format as **Cat. 16**.
16.BLS members £15.00; non-members £17.00. Postage & Packing £2.50 UK, £6.50 overseas

**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.

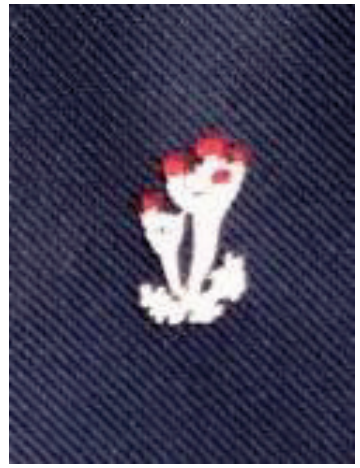
£5.00 per poster, £4.00 per poster for purchases of 8 or more. Postage & Packing (for up to two posters) £5.00 UK, £7.00 overseas.




**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.

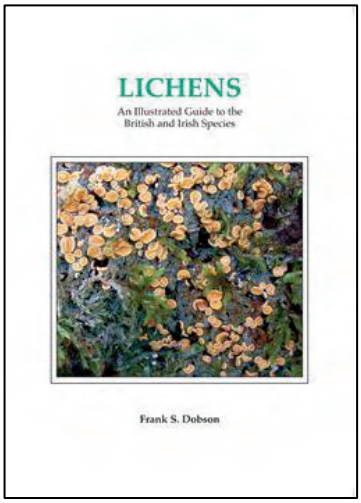
£5.00. Postage & Packing £1.50 UK, £3.00 overseas.


**Cat. 28. Enamel badge**
Diam. 2.5 cm, pin fixing, matt finish. A well -made attractive badge.


**Cat. 29. Fabric badge**
Diam. 6 cm. Ideal for sewing onto a cap or rucksack

**Cat. Nos. 28 and 29** £1.00 each. Postage & Packing £1.00 UK, £2.50 Europe, £3.00 rest of the world {exception: **Cat. 28** £1.50 UK}

## Cat.31 Lichens – An Illustrated Guide to the British and Irish Species 7th 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 7th 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.

**Price**: Paperback £30 members, £35 non- members. Hardback £45 members, £50 non-members.
**Postage & packing**: £5.00 UK, £12.00 Europe.

## Publication of the Summer 2020 Bulletin

**Copy for the Summer 2020 Bulletin should reach the editors (contact details on the inside front cover) by 1 May 2020**

# British Lichen Society Bulletin no. 125
# Winter 2019

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