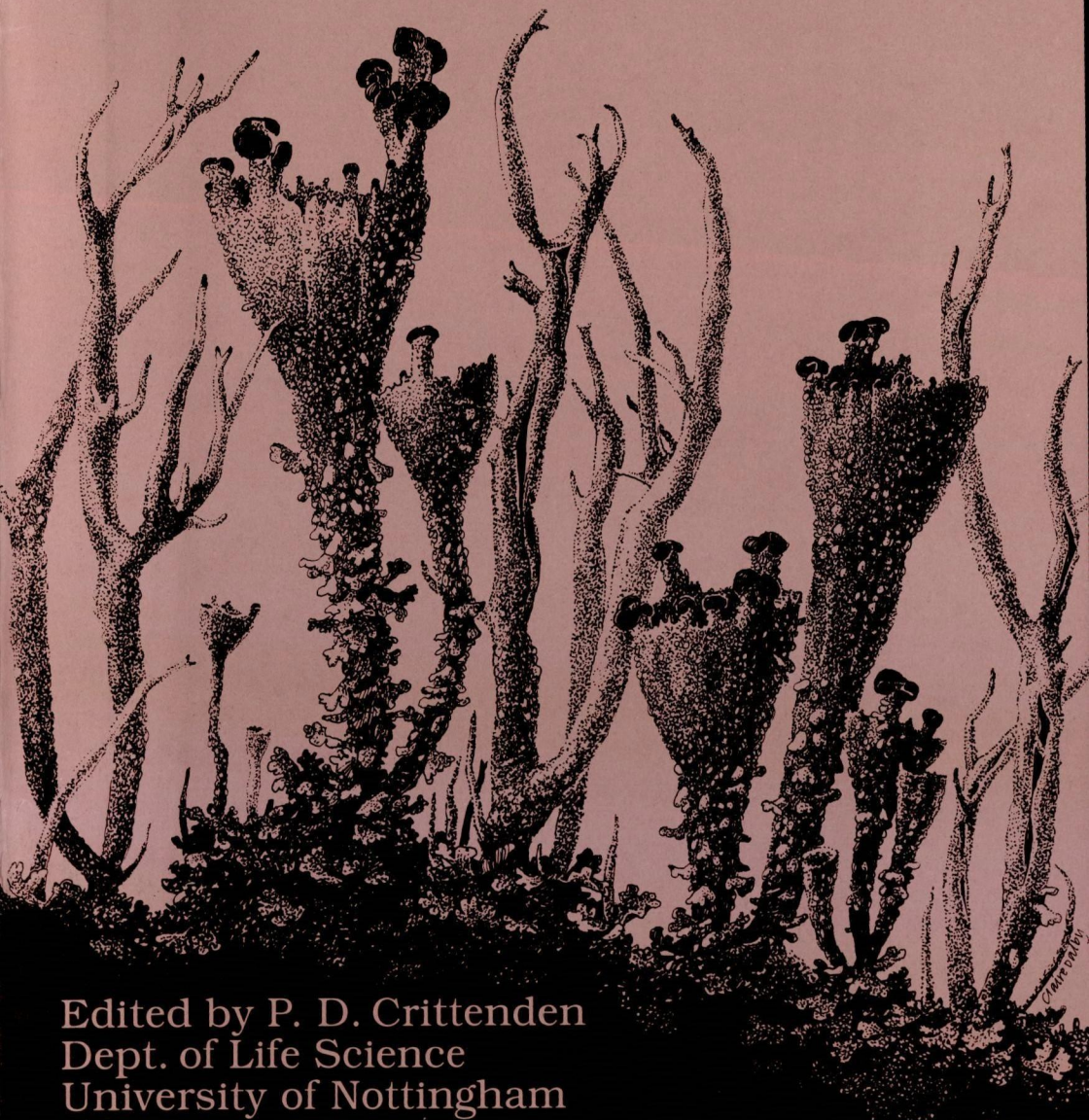


BRITISH LICHEN SOCIETY BULLETIN

No. 73 Winter 1993



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Dept. of Life Science
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FORTHCOMING BLS MEETINGS

RUTLAND

Leader: Anthony Fletcher

27-31 May 1994

Co WICKLOW & Co WEXFORD

Leader: Howard Fox

8-21 July 1994

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SUBMISSION DEADLINE

Please would intending contributors to the Summer 1994 issue of the *Bulletin* submit their copy to the Editor by 25 March. It would be helpful, but by no means essential, for authors of longer articles prepared on a word processor to supply a copy on a 3.5" floppy disc, in addition to the hard copy. This can be in MS.DOS Word Perfect or any format from an Apple Macintosh.

Cover artwork by Claire Dalby

Background

The British Lichen Society organised its first ever society field meeting in eastern Europe, the original idea of Peter Scholz (Germany) and Peter James (England) and most ably organised by Ivan Pisút and Anna Lackovičová (Institute of Botany, Bratislava). A total of seventeen participants attended the field trip at various stages including also Eva Lisická, Anna Guttová and Zuzana Kyselová (Slovakia), Urszula Bielczyk and Hanna Wójciak (Poland), Edit Farkas (Hungary), Jiří Liška and Antonín Vežda (Czech Republic), Josef Poelt (Austria), and Trevor Duke, Peter James, Sheila Murphy, William Purvis and Amanda Waterfield (England). That the BLS should be involved in this exciting new venture was all the more appropriate as this was the bicentenary of the visit 200 years ago, when the British pioneering explorer, Robert Townson recorded the first lichens from the High Tatra e.g. *Lichen tartareus* Wulf. (*Squamarina lamarckii*), *L. tauricus* Wulf. (*Thamnolia vermicularis*), *L. cucullatus* Bell. (*Cetraria cucullata*), *L. elegans* Link (*Xanthoria elegans*) and *L. miniatus* (*Dermatocarpon miniatum*).

The major objectives of the field meeting were for a mutual exchange of ideas and to form links between members of the BLS and lichenologists in Slovakia. The trip was a great success, owing to the tremendous effort of Ivan and Anna who are warmly thanked. The excellent choice of study areas and the broad range of expertise from continental to oceanic lichenology as well as the fine lodgings were bonuses. The meeting was enjoyed by all and everyone learned at least some new lichen species. Although the ravages of air pollution have certainly had a great effect on the lichen communities over the past 40 years, there remains much to be discovered and in certain sheltered, protected areas relict populations still exist that merit high conservation priority.

Itinerary

The British participants were met at Vienna Schwechat airport by Ivan and Anna and we drove the short distance to Bratislava in a hired Ford minibus 'Ad Astra' with a trailer in tow. The concrete buildings of the western boundary of Bratislava facing bleakly towards Austria appeared a trifle forbidding, particularly with the unseasonably leaden grey sky and biting wind, but this was more than compensated by our warm welcome in Slovakia. Besides, the weather improved greatly the following day and

persisted until our departure, and we were also later privileged to visit some fine old towns with beautiful architecture. A brief stop at the Slovak National Museum in Bratislava allowed us to collect essential provisions and more passengers. We continued north east to the quaint town of Svätý Jur (Sankt Georgen), where we paid homage at the great lichenologist A. Zahlbruckner's birth place and were officially welcomed by the Director of the Botanical Institute of Bratislava (Fig 1). A splendid meal was had in a nearby tavern of local sheep's cheeses and meat washed down with delicious local wine. Our final destination that day was the palatial castle, Smolenice, belonging to the Slovak Academy of Sciences, where we were to spend the next couple of days exploring lowland limestone (sites 2 and 4) and dolomite (site 3), as well as quartzite (site 5). Unfortunately, we had



Fig 1. The Director of the Institute of Botany, Bratislava and associates, and some BLS participants in front of A. Zahlbruckner's birth place, Svätý Jur (Sankt Georgen). From left to right: Fransik Hindak (Director), Trevor Duke, two associates of the Director, Anna Lackovičová, Edit Farkas (kneeling), Peter James, Sheila Murphy, the Director's wife, Anna Guttová, Amanda Waterfield, Ivan Pišút and Eva Lisická.

to vacate our sumptuous abode on 30 June owing to the imminent arrival of the President of Slovakia; our third night was thus spent in Hotel Lev (Levice). On 1 July we travelled to the High Tatra Mountains. Our itinerary was ambitious. Not only did we face a long drive (c. 300 km) but

we also had three sites, notably andesite boulders (site 6), rhyolite boulders (site 7) and a mine spoil heap (site 8) (Fig 2), to fit in *en route* before arriving at Stará Lesná, near Tatranská Lomnica, our final base. In the foothills of the High Tatra Mountains, the last European stronghold of the European brown bear (700 are said to remain), we were well situated to explore high altitude siliceous (sites 9 and 10) and calcareous substrata (site 13) as well as lowland travertine (site 11). An additional brief visit was made to Sivá Brada (site 12), a nature reserve with geysers and a spring. Although no lichen collections were made at this popular site, people queued up to collect mineral water, including some members of our group. The water was sulphurous and smelled strongly of rotting vegetable matter, but was cold and not unpleasant to taste! After a long day examining floras on travertine, we visited the well preserved ruins of Spišský Hrad castle. A brief visit was also made on another occasion to the beautiful town of Levoca where we visited the fine church of St James with its famous wooden Gothic altar, the highest in the world (18.6 m). On the penultimate evening, we were treated to a splendid farewell meal of traditional festive Slovak food (Halušky and Pirohy with Bryndza) and entertained by a slide show presented by Peter James.

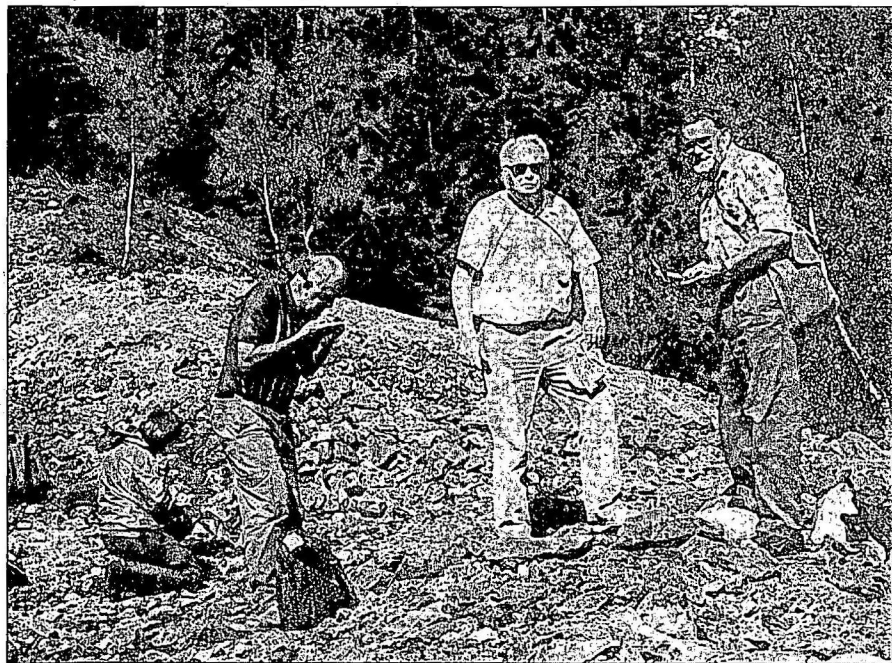


Fig 2. Examining lichens on old copper mine slag heaps above Špania Dolina village. From left to right: Edit Farkas, Josef Poelt, Antonín Vězda and Ivan Pišút.

The following account is a brief summary of the vegetation studied. Descriptive accounts of the vegetation with details of new records and fuller species lists will be published elsewhere. Here reference is made to the major communities observed, as well as to some of the more interesting species discovered. The habitats studied can be divided for convenience into lowland and montane, including calcareous and siliceous rock communities and epiphytic communities.

List of localities Visited

Malé Karpaty Mountains

1. Smolenice castle, 350 m alt., 29.6.1993.
2. Southern slopes of Pohanská hill above Plavecké Podhradie village, limestone, 300-400 m alt., 29.6.1993.
3. Holý Vrch hill 1 km northwards of Trstín village, dolomite, 250-300 m alt., 29.6.1993.

Tribecské Vrchy Mountains

4. Zoborska Lesostep protected area on south slope of Plieška hill near Nitra town, limestone, 350-400 m alt., 30.7.1993.
5. Studený Vrch hill, on quartzite, 400-450 m alt., near Jelenec village, 30.6.1993.

Pohronský Inovec Mountains

6. SE slopes of Skala hill near Kozárovce village, andesite, 180-220 m, 1.7.1993.

Stiavnické Vrchy Mountains

7. Kamenné More protected area on slopes of Kamenná hill near Vyhne village, rhyolite boulders, 330-490 m alt., 1.7.1993.

Nízke Tatry Mountains

8. Old copper mine slag heaps above Špania Dolina village, 740-770 m alt., 1.7.1993 (Fig 2).

Vysoké Tatry Mountains (High Tatra)

9. Furkotská dolina valley, granite, 1800-2200 m, 2.7.1993.
10. Bielovodská Dolina valley, granite, 100-1500 m, 4.7.1993.

Hornádska Kotlina Basin

11. Ostrá Hora protected area, travertine, 600 m alt. and Dreveník hill, travertine, 600 m alt., both near Spišské Podhradie village, 3.7.1993.

12. Sivá Brada hill near Spišské Podhradie village, travertine, 460 m,
3.7.1993

Belianske Tatry Mountains

13. Skalné Vráta, limestone, 1500-1600 m alt., 5.7.1993.

Lowland limestones, dolomite and travertine

General flora and fauna

The phanerogamic flora at many of the investigated sites was especially beautiful. Unusually, the season had been rather wet and many plants were in full flower, a diverse flora in which members of the Caryophyllaceae were prominent with *Dianthus carthusianorum*, *D. lumnitzeri*, *Petrorhagia prolifera* and *Silene otites* especially abundant. Other plants noted included *Asperula cynanchica*, *Campanula patula*, *Stachys recta*, *Eryngium campestre*, *Dictamnus albus*, *Scabiosa ochroleuca*, *Sempervivum soboliferum*, *Veronica spicata* and the beautiful blue annual delphinium, *Consolida ambigua* with several bulbous plants including *Allium flavum*. In the eastern area at Dreveník, near Spissky Hrad castle, the striking blue *Campanula carpatica* was frequent, whilst *Pulsatilla slavica* was in seed. Xerothermophilous liverworts were frequent at Zoborska Lesostep (site 4), including *Mannia fragrans* and *Riccia bischoffii*.

Amongst the animals, a splendid male lizard, *Lacerta viridis* was seen at close quarters, its vivid green-yellow breeding colour evidently designed to attract a mate. A mantid and many other insects were also observed.

Lichen communities

These were among the most diverse studied. In common with limestones in Britain, a number of faithful species were present at virtually all the sites, though each site usually supported a number of additional taxa specific to that habitat. The majority of the constantly recorded species were essentially crustose: *Acarospora cervina*, *Aspicilia radiosa*, *A. calcarea*, *Caloplaca chalybaea*, *C. coronata*, *C. decipiens*, *C. ochracea*, *C. polycarpa*, *C. saxicola*, *C. teicholyta*, *Candelariella medians*, *Fulgensia fulgens*, *Lecanora pruinosa*, *Leproplaca xantholyta*, *Placynthium nigrum*, *Rinodina bischoffii*, *R. calcarea*, *Rinodinella controversa* and *Toninia sedifolia*. *Placocarpus schaeereri*, a parasitic lichen growing initially on *Lecanora muralis*, was frequent.

Amongst the macrolichens, *Cladonia convoluta*, *C. pocillum*, *C. symphycarpa*, *C. subrangiformis*, *Squamarina cartilaginea* and *Lecanora*

muralis were frequent; the last \pm confined to limestones was unusual in habitat, as in Britain it prefers more siliceous habitats. As this species also occurs on limestones in the Alps, it is possible that there might be a genetic basis for the observed plasticity. Several xerothermophilous species were seen, notably *Cladonia magyarica* (site 4) and *Parmelia somloënsis* (sites 4 & 6), though these seemed to have decreased in abundance, possibly through a reduction in grazing pressure. *Xanthoria papillifera*, with its typically papillate thallus, was seen at site 11 at its westernmost occurrence in the Carpathian Mountains.

An unusual feature of the limestones for the British participants was the scarcity of pyrenocarpous lichens, particularly endolithic species. *Acrocordia conoidea* was, however, frequent on sheltered vertical surfaces at Ostrá Hora (site 11); species with blue-green photobionts were also rather rare.

Lowland siliceous substrata, including mine spoil

General flora

Mixed, deciduous, broad-leaved woodland with a range of phorophytes dominated by *Quercus cerris* and *Q. robur*, frequently intermixed with *Sorbus aucuparia* and *Betula pendula*, and with a species-poor ground cover comprising *Calluna vulgaris*, *Deschampsia flexuosa*, *Genista tinctoria* and *Vaccinium myrtillus* was a feature of the most siliceous habitat investigated (site 5).

Lichen communities

The lichen communities on quartzite were the least diverse of those examined, partly due to the effects of air pollution. At Studeny Vrch Hill (site 4), quartzite boulders and outcrops carried sparse communities. The best developed communities occurred on bird-perching stones supporting *Acarospora fuscata*, *Aspicilia caesiocinerea*, *Candelariella coralliza*, *Parmelia saxatilis*, *P. conspersa* and *Ramalina capitata*. Some vertical outcrops, perhaps flushed with nutrients, were moderately well covered, supporting *Hypogymnia farinacea*, *Lasallia pustulata*, *Lichenothelia scopula*, *Protoparmelia picea* and *Umbilicaria hirsuta*. Interestingly, here the *Protoparmelia* formed large thalli to several cm in diameter, possibly due to the effect of decreased competition due to air pollution. *Chrysothrix chlorina* occurred in sheltered underhangs. *Rhizocarpon geographicum* was rare. Terricolous communities included a range of *Cladonia* species, *Placynthiella icmalea* and *Pycnothelia papillaria*. Andesitic outcrops at Skala hill (site 6) were significantly richer with a higher percentage cover (c. 75%). Here *Parmelia* species were conspicuous including *P. pulla*, *P.*

verruculifera and the local speciality *P. somloënsis*. A colourful mosaic of crustose species including *Acarospora fuscoatra*, *Aspicilia praeradiosa*, *Candelariella coralliza*, *Lecanora argopholis*, *L. garovaglii*, *Lecidea fuscoatra*, *Rhizocarpon geminatum* f. *citrinum*, *R. geographicum* and *R. viridiatrum*, together with an unidentified species of *Aspicilia*, was present.

The rhyolite boulder field at Kamenné More (site 7) forms an impressive landscape. This was the best siliceous habitat examined, with a diverse flora, though crustose species dominated and fruticose lichens were rare. Amongst the macrolichens, species of *Parmelia* were well represented, including *P. conspersa*, *P. disjuncta*, *P. incurva*, *P. omphalodes*, *P. pulla*, *P. somloënsis* and *P. stygia* which were frequent and *P. panniformis* rather rare. *P. stygia* and *P. incurva* here reach their southernmost limit and the lowest altitude in the west Carpathians. Many crustose species were present, including *Buellia badia*, *Caloplaca subpallida*, *Chrysothrix chlorina*, *Lecanora orosthea*, *L. rupicola*, *Lecidea paupercula*, *L. plana*, *Miriquidica deusta*, *Pertusaria corallina*, *Psilolechia lucida*, *Rhizocarpon geographicum*, *R. lecanorinum*, *R. plicatile*, *R. viridiatrum*, *Rimulária insularis* and *Tephromela grumosa*.

The steep south-facing slopes of the mine site above Špania Dolina (site 8), appeared green from a distance owing to the abundance of *Rhizocarpon lecanorinum* and *Lecanora subaurea*. Several additional taxa characteristic of metal-rich substrata occurred, including *Acarospora montana*, *A. sinopica*, *Candelariella vitellina* (atypically brown-coloured), *Lecanora handelii*, *Lecidea fuscoatra*, *L. inops*, *L. plana*, *Porpidia tuberculosa*, and *Rhizocarpon furfurosum* (rare). Macrolichens were rare, though *Cladonia chlorophaea*, *C. macrophylla* and *C. mitis* were present. This is the type locality of *Lecanora chalcophila* described by Antonín Vezda; this species was very rare and evidently more frequent on the cooler, northern slopes, which alas we had no time to explore.

Montane siliceous communities

General flora

The granites studied in the High Tatra in Furkotská Dolina valley (site 9) and Bielovodská Dolina valley (site 10) support a relatively limited higher plant flora in common with siliceous substrata in many areas. At the upper limit of tree growth (c. 1900 m alt.) a krummholz of *Pinus mugo* gives way to a herb-rich vegetation. Frequent species were *Campanula alpina*, *Leucanthemopsis alpinae* var. *tatrae*, *Luzula alpinopilosa*, *Pedicularis*

verticillata, *Potentilla aurea*, *Pulsatilla alba* and *Soldanella carpatica*, whilst *Androsace obtusiloba*, *Armeria alpina* and *Gentiana frigida* were rare.

Lichen communities

The granites supported a predominantly crustose lichen flora including many widely distributed siliceous elements: *Aspicilia myrini*, *Fuscidea austera*, *Immersaria athrocarpa*, *Lecanora polytropa*, *Ophioparma ventosa*, *Orphniospora atrata*, *Protoparmelia badia*, *P. cupreobadia*, *Rhizocarpon alpicola*, *R. leptolepis*, *R. subgeminatum*, *Sporastatia testudinea*, *Tephromela agalaea* and *T. armeniaca*. *Micarea erratica* was locally frequent on pebbles (site 10). *Lecidea distans* was noted as parasitic on *Orphniospora atrata* (site 9). Other saxicolous species present at Furkotská, include several parmelioid species (eg *Allantoparmelia alpicola*, *Hypogymnia atrofusca*, *H. intestiniformis*, *Parmelia stygia*) and a few other macrolichens: *Cornicularia normoerica*, *Umbilicaria cylindrica*, *U. deusta*, *U. rigida*, *U. torrefacta*, though these were present mostly as rather small thalli to c. 1 cm diam.

Terricolous communities (site 9) included *Cetraria islandica*, *C. cucullata*, *C. nivalis*, *Cladonia rangiferina* and *Lecidoma demissum*. The fruticose species were mostly rather small and Jiří Liška claimed that the *Cladonia* species had become less frequent in recent years.

Montane limestones

General flora

The montane limestones (with siliceous intrusions) studied were the dramatic south-facing cliffs on Skalné Vráta (site 13), a site of restricted access. The herbaceous vegetation was diverse, at lower altitudes supporting mostly tall herbs: *Adenostyles alliariae*, *Aster alpinus*, *Campanula glomerata*, *Carex sempervirens* subsp. *tatorum*, *Cicerbita alpina*, *Cortusa mathioli*, *Delphinium oxysepalum*, *Dianthus hungaricus*, *Erysimum hungaricum*, *Gymnadenia odoratissima*, *Helianthemum grandiflorum*, *Polygonum bistorta*, *Senecio subalpinus*; whilst higher up (above c. 1600 m), *Androsace chamaejasme*, *A. lactea*, *Astragalus alpinus*, *Biscutella austriaca*, *Gentiana clusii*, *Myosotis alpestris*, *Oxytropis carpatica*, *Primula auricula*, *Saxifraga adscendens*, *Tofieldia calyculata* and *Traunsteinera globosa* occurred.

Lichen communities

The cliffs supported a diverse crustose lichen flora typical of similar habitats in the central Alps. *Caloplaca* species were well represented including *C. arnoldii*, *C. epiphyta*, *C. flavovirescens*, *C. proteus* (like a deep

red *C. cirrochroa*) and several other yet unnamed species. *Aspicilia candida*, *Catillaria lenticularis*, *Dermatocarpon intestiniformis*, *Dirina repanda*, *Lecanora agardhiana* subsp. *sapaudica*, *L. bicincta* var. *sorediata*, *L. conferta*, *Placynthium filiforme*, *Protoblastenia calva*, *Rhizocarpon pulverulentum*, *Squamarina gypsacea* var. *subcetrarioides*, and *Toninia diffracta* were frequent. Amongst lichen parasymbionts, *Buellia nivalis*, *Verrucaria elegantaria* and *V. helveticorum* were found growing on *Xanthoria elegans*, and *Verrucaria aspiciliicola* on *Aspicilia*. Rare species confined to this environment include *Squamarina lamarckii*, *Fulgensia schistidi*, and *Teloschistes contortuplicatus* overgrowing mosses, and at 1600 m *Lecanora admontensis* and *L. reuteri* were found.

Epiphytic communities

Lichen communities

The corticolous communities were in most areas the least diverse studied, owing to the widespread impact of air pollution. In the lowlands no site was specifically chosen to study corticolous communities, though in the grounds of Smolenice castle, *Physcia biziana* var. *aipolioides* was noted as being frequent. *Phlyctis argena* was observed on several occasions (e.g. site 5) on *Juglans* and *Quercus cerris*, together with *Hypocenomyce scalaris*, *Parmelia caperata*, *P. exasperatula*, *P. sulcata*, *P. tiliacea* and *Pertusaria amara*.

Bielovodská Dolina valley (site 10) in the high Tatra was however, considerably richer in epiphytic species, though even here there have been dramatic changes over the past 40 years with fruticose and foliose species becoming far less conspicuous. In this sheltered, moist valley adjacent to the Polish border, there is a variety of phorophytes. *Alnus incana* is frequent along the river and higher up there are evergreen forests with *Picea* predominant. *Alnus* supports a range of crustose species with several puzzling sterile crusts, including *Buellia griseovirens*, *Catillaria pulvereae*, *Fuscidea viridis*, *Pertusaria pupillaris* and *Trapelia corticola*. *Pertusaria ophthalmiza*, *Buellia arborea*, *Chrysothrix candelaris*, *C. chrysophthalma*, *Chaenotheca furfuracea* and *Lopadium disciforme* occur on *Picea*, as well as the continental macrolichens *Cetraria laureri*, *Evernia divaricata* and *Hypogymnia vittata*, which were local. *Usnea* species were rare, best developed stands occurring on dead or decaying *Picea*, often together with *Bryoria bicolor* and *B. nadvornikiana*. *Hypocenomyce praestabilis* and *H. sorophora* occurred on wood, whilst rotting stumps support a special flora with several species of *Cladonia*, including *C. cenotea*, and *Vaccinium myrtillus* carried *Fellhanera subtilis*. The non-lichenized *Sarea resiniae* and *Resinocephalus* occur on resin of *Picea*. *Lobaria pulmonaria* was found

on rock. Many specimens remain to be identified from this important area which must merit high conservation priority in view of the presence of a relict *Lobarion* community.

In the High Tatra at higher altitudes (c. 1900 m), on a krummholz of *Pinus mugo* (site 9), *Cetraria pinastris* and *Parmeliopsis ambigua* were frequent whilst the arctic-alpine *Anzina carneonivea* and *Cetraria sepincola* were occasional.

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William Purvis, Peter James,
Ivan Pišut, Anna Lackovičová & Joseph Poelt

OTHER OVERSEAS MEETINGS

Yokohama and Kyoto, Japan, 28 August-7 September 1993

The XV International Botanical Congress took place in Yokohama, Japan, between 28 August and 3 September (preceded by the nomenclatural sessions on 23-27 August). It was held at the Congress Centre of Pacifico Yokohama (Fig 1), a vast and impressive modern complex on the Yokohama waterfront that comfortably absorbed the 3000 or so delegates. Of the 215 symposia held three were dedicated to lichenological topics: Taxonomy and Phytogeography of Lichens (organisers: Ingvar Kärnefelt and Hiroyuki Kashiwadani), Experimental Biology of Lichens (organisers: Margalith Galun, Minoru Nakanishi and Yoshikazu Yamamoto) and Lichen Substances (organisers: Isao Yoshimura and Sigfried Huneck). There were, in addition, in excess of 20 posters on lichen topics. The lichen symposia all took place on Sunday 29, the first day of the lecture programme, and on the Sunday evening, by invitation of Isao Yoshimura, lichenologists were escorted to a local Japanese restaurant where we were treated to a succession of superb Japanese and Chinese dishes. The subsequent days at the Congress were of little lichenological interest although sessions on such topics as bryophyte biology, air pollution effects, nitrogen-fixing symbioses, climate change and tropical forest conservation attracted some

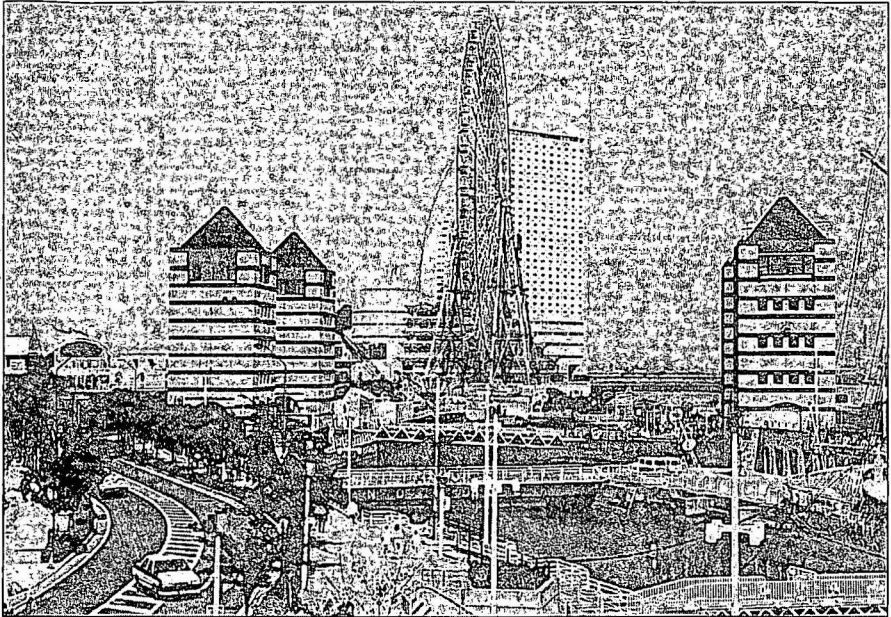


Fig 1. Pacifico Yokohama. The curved tower of the Intercontinental Hotel stands immediately above the Congress Centre overlooking Tokyo Bay. The Ferris wheel in the foreground is as big as it looks!

of us. A number of lichenologists visited the lichen herbarium of the National Science Museum, Tokyo. However, some of the collections had been moved to Tsukuba along with Dr Koshiwadani's main office, and the rest will be moved there next year.

A post-congress lichen excursion took place from 4-5 September in conjunction with the Lichenological Society of Japan. The party of 42 participants (27 from Japan, 15 from N America and Europe) was led by Kozo Yoshida and Hiroshi Harada. We travelled from Yokohama by bus into the mountain area of Shinshu (Nagano Prefecture, central region of Honshu Island), in which Mts Kinpo (2595m) and Kobushi (2483m) are particularly popular with mountaineers. A short field meeting was held in mixed forests of larch (*Larix kaempferi*) and deciduous hardwoods (eg *Betula platyphylla* var. *japonica*, *Quercus crispula*) around the Kinpo-sanso Lodge at 1570m alt in the Mawarime-daira valley, Chichibu-Tama National Park. By following a steep track up the hillside from the lodge we reached rocky outcrops which provided panoramic views over the valley. Lichens to be found in this area include *Flavoparmelia caperata*, *Lasallia pensylvanica*, *Nephromopsis ornata*, *Pannaria conoplea*, *Parmelia cochleata*,

Pertusaria violacea and *Physconia grumosa* on oak; *Bryoria nadvornikiana*, *Hypogymnia pseudophysodes*, *Nephromopsis pseudocomplicata* and *Tuckermannopsis americana* on larch; *Anaptychia japonica*, *Tuckermannopsis hepatizon*, *Melanelia predisjuncta*, *Parmelia pseudolaevior*, *P. shinanoana*, *Pertusaria composita*, *P. lactea*, *P. leucosora*, *P. subfallens*, *Phylliscum japonicum*, *Pilophorus clavatus*, *Ramalina yasudae*, *Umbilicaria cinereorufescens*, *U. esculenta*, *U. kisovana*, *Xanthoparmelia botryoides*, *X. coreana*, and *X. hirosakiensis* on rock; and on soil *Cetraria laevigata*, *Cladonia mitis*, *C. rangiferina*, *C. crispata* and *C. furcata*.

We were then taken to a lodge called *Musachino-shi-ritsu Shizen-no-mura* (meaning Musachino City's nature lodge) where we were to stay the night (Fig 2). Before evening dinner, and while the Japanese participants held the AGM of the Lichenological Society of Japan, many of us explored the grounds for interesting lichens. Before dinner we were invited to take a Japanese style hot communal bath (*ofuro*). The evening banquet began with a ceremony called *kagami-wari* in which the lid of a barrel of sake is broken by being struck with wooden mallets: this was performed by Isao Yoshimura and Ingvar Kärnefelt. Welcome speeches were made by Minoru Nakanishi (the new president of the Lichenological Society of Japan) and

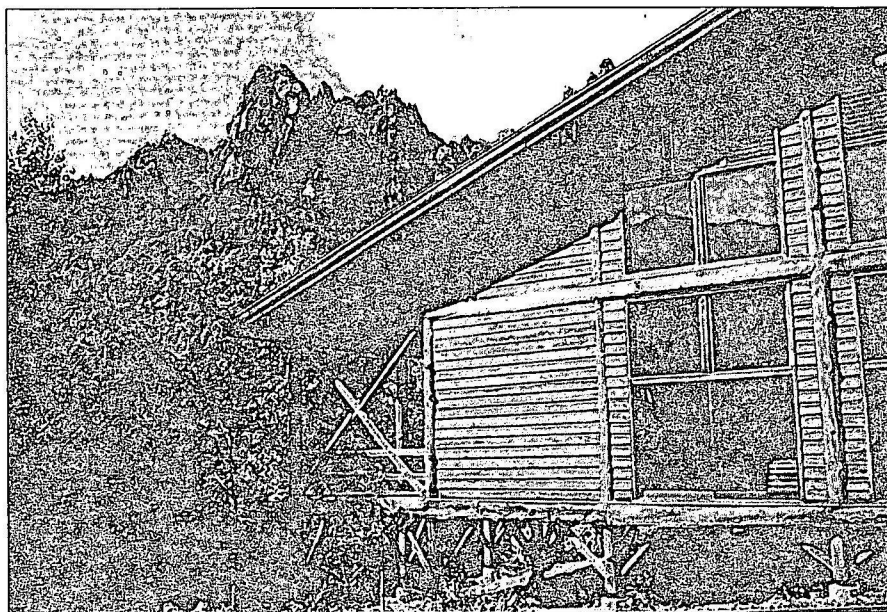


Fig 2. Musachino-shi-ritsu Shizen-no-mura (Musachino City's nature lodge) in the Chichibu-Tama National Park.

by Isao Yoshimura; foreign guests were each presented with a beautiful fan (*uchiwa*) on which was written (in Japanese) "Mount Kinpo" and "Lichenological Society of Japan". Ingvar Kärnefelt and David Richardson made brief speeches of thanks on behalf of western visitors and then we enjoyed a magnificent buffet with beer and sake. During the feast we were entertained by a local group of traditional Japanese drummers (*Kawakami-daiko*) but perhaps the highlight for many of us was a large bowl of *iwakake* (meaning rock fungus). This was *Umbilicaria esculenta* that had been marinated in soy sauce, rice vinegar and sugar. Remembering vividly the disgusting taste of the *Cetraria islandica* tea served up by Mark Seaward at a BLS AGM some years ago I cautiously took my first mouthful of this delicacy only to discover that it was delicious and I subsequently had several helpings. Teuvo Ahti recounted how he had previously eaten boiled unadulterated *U. esculenta* in China and had found it to be quite tasteless: the tastiness of our dish was presumably entirely due to the marinade. Green tea prepared in the traditional Japanese manner followed the banquet and much conversation and merriment with our hosts continued late into the evening before we retired to our dormitories.

The next day we set off westward. At around mid-morning we arrived at a lodge at Inago-yu hot spring (c1500m alt) on the east slope of the north part of the Yatsugatake Mts. Here we enjoyed a bath in the hot sulphurous spring waters and a fine lunch of rainbow trout, seafood and fungi. After lunch we spent c. 20 minutes examining the lichen flora around the lodge but because this site (and the others visited later in the day) was in the Yatsugatake-Chushin-kogen Quasi-National Park we were not permitted to collect any specimens. We then drove through the Mugikusa Pass (2120m alt) amidst well-developed subalpine coniferous forests dominated by *Abies mariesii*, *A. veitchii* and *Tsuga diversifolia*. Several brief stops were made during the afternoon on our return journey to Yokohama. It had been a beautiful sunny day which had brought many day-trippers out from the lowland urban areas. Consequently we had to negotiate long traffic jams on the highway leading into the Tokyo area but we were all in good spirits when we reached our destinations and we warmly thanked our hosts for arranging such an interesting and enjoyable excursion.

The following day (6 September) several IBC delegates set off for Kyoto to attend the Kyoto Symposium of Lichenology organised by Yoshikazu Yamamoto on behalf of the Nippon Paint Company. We were guided from Yokohama to Kyoto by Isao Yoshimura and Ryoji Hamade (Fig 3). In the afternoon we were taken to Nippon Paint's Research Centre where we were given a conducted tour of the cell and tissue culture laboratories. The



Fig 3. On Shin-Yokohama Station waiting to board the "bullet-train" (shinkansen). Left to right: David Richardson, Teuvo Ahti, Sieglinde Ott, Isao Yoshimura, Rosmarie Honegger and Ryoji Hamade.

Osaka based Company has been engaged in research on plant cell cultures since 1977, on lichen tissue cultures since 1982 and on bacterial cultures since 1985. In each case the objective is to discover new pharmaceuticals and cosmetics. Nippon Paint has a collection of over 400 lichen species in tissue culture (ie cultures in which both mycobiont and photobiont grow together on artificial media). The Company collaborates with universities and other companies in their natural products discovery programme.

The Symposium took place on the afternoon of 7th September at Kyodai Kaikan (a conference centre at Kyoto University). The programme of lectures was chaired by Dr Yamamoto and dealt mainly with the production, synthesis and biological activities of lichen products. Professor Shoji Shibata, the famous lichen product chemist, was a member of the audience and for many of us it was a great honour to meet him for the first time. After the lecture programme there was a reception at which the Vice Chairman of the Nippon Paint Company gave a welcome address and Siegfried Huneck responded with a brief speech of thanks. This rounded off a most enjoyable series of meetings. The Japanese have a reputation for being warm and generous hosts and it was easy for us to understand why.

These various lichenological events in Japan became sandwiched between a series of typhoons. Typhoon no. 12 of 1993 had hit Yokohama the week prior to IBC XV and eye-witness accounts from delegates arriving early for the conference described the wind as being of such force that it was impossible to walk outside the conference centre. Typhoon no. 13 struck southern Japan on 2 September; it was reported to be one of the most powerful of any since the war and forecast to be moving up central Honshu Island on 4 September, the first day of our lichen excursion. Many post-conference excursions were threatened with cancellation. Early on the morning of the 4th notices were posted in the reception areas in our hotels in Yokohama indicating whether excursions were cancelled, delayed or due to depart as scheduled. Fortunately by this time no. 13's trajectory had changed: the typhoon was moving north into the Sea of Japan and the "Lichens in Shinshu" trip was to depart as scheduled. Finally, on 8th September, when most overseas participants at the Kyoto symposium were starting to make their way home, typhoon no. 14 was moving northwards towards Tokyo and was predicted to disrupt air travel later that evening; but to my knowledge we all escaped in time.

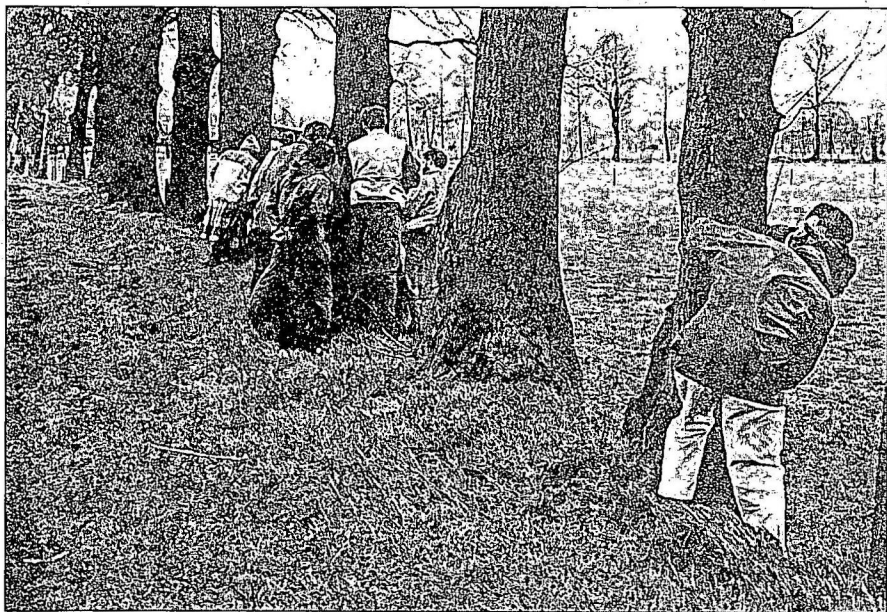


Fig 4. Examining nitrophytic lichen communities on roadside oak trees adjacent to pasture.

Wageningen, the Netherlands, 16-18 April 1993

Twenty eight delegates attended a two-day workshop on the effects of agricultural pollutants on lichens held at the Agricultural University of Wageningen. The meeting was organised by Han van Dobben and Dennis Brown with the sponsorship of EERO (European Environment Research Organisation). A brief introductory session was held on the evening of Friday 16 and on Saturday sessions were dedicated to floristic studies, biochemical responses to agricultural contamination, and sensitivity scales. Much time was devoted to discussing the potential effects on lichens of nitrogenous emissions (principally ammonia), resulting largely from intensive livestock farming and considered to be one of the major agricultural influences, and on potential interactions between ammonium and other pollutants (eg sulphur dioxide). However, the direct effects of sewage sludge deposition was also discussed and on Sunday morning there was a session on the effects of pesticides. The possibilities for future collaborations were also considered.

On Sunday afternoon André Aptroot and Kok van Herk led a field excursion through the agricultural area north of Wageningen. High concentrations of live-stock farms occur in central, eastern and southern parts of the Netherlands and the resultant ammonia emissions are regarded as a pollution problem. André and Kok have been mapping the occurrence of "nitrophytic" lichen communities on oak (*Quercus robur*) in several parts of the country (including the provinces of Overijssel, Gelderland, Drenthe and Friesland) to indicate variation in ammonia deposition. We visited five roadside stands of oak previously examined in the mapping scheme which, on the basis of the epiphytic lichens observed, are exposed to varying rates of ammonia deposition (Fig 4). "Nitrophytic" species occurring in this region include *Candelariella reflexa*, *C. vitellina*, *Lecanora dispersa*, *Phaeophyscia orbicularis*, *P. nigricans*, *Physcia adscendens*, *P. caesia*, *P. dubia*, *P. tenella*, *Xanthoria candelaria*, *X. parietina* and *X. polycarpa*. Unfortunately it rained for much of the afternoon (and quite hard at times) although this failed to completely dampen the esprit de corps usually evident at such gatherings.

The workshop ended on Sunday evening with a discussion meeting in which a synthesis of the weekends proceedings was attempted. I found the workshop enjoyable and stimulating, and the format of the final report was decided. The development and use of lichen indicators of ammonium pollution and critical loads of N deposition were identified as priorities for future work and the possibilities for setting up a trans-European collaborative project was discussed.

Although the subject matter was highly focused, much of the discussion during the weekend had wider implications for lichen nutrient relations. I'm sure that all the participants would wish to join me in thanking Han and Dennis for their efforts in organising the workshop.

Peter Crittenden

FROM THE PRESIDENT'S CHAIR

This is my last presidential report before I pass over this seat to Brian Fox. Brian has been of great support to me in his present role of Vice President and I know that the Society has made a wise choice in choosing him for its next president.

At the end of April we took over the remaining stock of 301 copies of *The Lichen Flora of Great Britain and Ireland* from the Natural History Museum. The Museum has been most helpful in ensuring that the changeover took place smoothly, forwarding orders to us and even converting the credit card payments that they received into cash for us. At the time of writing (early September) we have sold over half of the stock that we purchased and the income has already covered the purchase price and most of the subsidy that we put into the publication of this book. We are now considering what should be done when we sell out of the copies that remain in stock. Peter James has set up a *Flora* continuation subcommittee to ensure that work on the *Flora* continues and that we are ready to produce a new edition in a few years' time. In the meanwhile it is probable that a separate addendum of corrections and revisions will be published.

During my term in office I had hoped that the first tranche of Mapping Fascicles would be published. It has, however, taken longer than expected to update the maps and to obtain all the information that is required. The difficulty has been in obtaining data for certain regions to ensure that the published maps give as accurate a guide to the distribution as possible. Mark Seaward has been working hard at this and he tells me that he is nearly ready to send out this first batch of maps to the referees for checking.

I hope that as many members as possible will come to the AGM weekend. This is your main opportunity to give your views on how you think the Society should be run. A full programme has been arranged commencing with an informal gathering on the evening of Friday January 7. This will

consist of an excellent buffet meal, a book auction and members' slides. On the Saturday we have the AGM at the Natural History Museum. To enable more time to be spent on looking at the exhibits and talking to other members most of the usual verbal reports from the officers have been printed in this *Bulletin*. We have also reduced the number of afternoon talks to allow for more discussion. On the Sunday morning Francis Rose is leading a field meeting to Wimbledon Common. Jeremy Gray and I will be meeting trains at Wimbledon station (on the district and the main Waterloo lines) between 10.00 and 10.30 am. We will all meet at the Windmill car park (Grid Ref 231725) and set off at 10.30. No doubt we will finish the morning at a local pub before making our separate ways home. Those of you who came to Richmond Park last year will know that this was a very enjoyable informal field trip and Wimbledon Common should be equally interesting. We do however hope for better weather than last year.

Frank Dobson

FROM THE SECRETARY

Composition of Council

Council made a decision at the Meeting on 27 March 1992 whereby the number of Officers with voting rights at Council Meetings (the 5 cited in the rules together with the Conservation Officer and Bulletin Editor) should not directly exceed the number of directly elected members (*Bulletin* 70: 13). This issue was raised at the Annual General Meeting on 9 January 1992 (see AGM minutes). At the Council Meeting of 7 April 1993, Council agreed to adopt the decision reached at the March 1992 Council Meeting.

Grants for field work: a reminder

Members are reminded that at the AGM held on 21 February 1987 it was announced that Council would consider applications for modest financial assistance towards the cost of members attending Society Field Meetings, Lichen Workshops, Field Study Centres, etc., or incurred in lichenological projects. The object is to assist and encourage members of the Society who are students, unemployed, or others who find that costs are otherwise prohibitive. Anyone wishing to apply for a grant should do so in writing with full details, preferably well in time for discussion at a Council meeting (usually held three times a year in January / April / September).

Bequest of microscopes to BLS

The widow of the late Chris Shapland has generously donated one compound and one stereo-microscope for the use of members of the Society. Council

has agreed that these should be housed by the Field Meetings Secretary, Trevor Duke, who will arrange for them to be taken on BLS field meetings. Members are reminded that Alice Burnett left 3 microscopes (one compound and two stereo-microscopes) for the use of BLS members in the Cryptogamic Herbarium, Natural History Museum.

Flora Continuation Committee

The *Flora* is selling well and might even sell out by the end of the year! BLS Council is considering the options available for the future in terms of reprinting etc as a matter of some urgency. At this stage, a Continuation Committee is being formed to oversee corrections to the *Flora* text. We are already aware of errors and would be very grateful for users of the *Flora* to bring any errors they spot to our attention. Please, especially mention obvious mistakes as it is often these that get overlooked. We are also keen to hear about areas of confusion or those that might otherwise be improved - if only to save for a future edition!

William Purvis

OFFICERS' REPORTS

Mapping Recorder's report

Publication of the *Flora* (1992) and *Checklist* (1993) has necessitated a complete overhaul of the database for the mapping scheme. Almost 40% of the names on the existing database had to be re-arranged due to changes, rejections and additions of taxa. In the light of this, the computer database has been totally reorganised so that listings are produced alphabetically, but with taxa retaining the numbers originally assigned to them to facilitate cross-referencing. Production of the first fascicle of the *Lichen Atlas*, plans for which were outlined at the last AGM, has therefore been delayed. Furthermore, major inputs to the database, mainly as a result of the churchyard survey and work in the Midlands and Ireland, meant that the maps being considered for circulation to a specialist group of lichen mappers required significant alteration. At the time of writing (September), almost 180 maps considered suitable for publication are being prepared for this circulation so that last minute additional records can be made and rubrics compiled for each map. It is hoped that the completed maps will be on view at the next AGM and publication can go ahead in early 1994.

Mark Seaward

Senior Editor's report

Writing in September makes it impossible to provide full statistics for 1993 of manuscripts received, accepted or rejected and the countries from which they originate. The size of the 1993 volume was increased by a grant towards the publication of one large article. Plans are in hand to produce a brief Annual Index, in addition to the usual composite Table of Contents for each volume.

The flow of high quality manuscripts, both large and small, remains beyond the capacity of the current size of the journal. Rather than continue to raise acceptance standards even higher than at present, it is proposed to slightly increase the size of each volume and to publish six issues a year, starting in 1995. It is expected that this will reduce the time between acceptance and publication but, because there will be no change in the rigour with which manuscripts are impartially reviewed by the editors and many referees, the time between submission and final acceptance may remain as at present. Authors can reduce some delay by carefully following *The Lichenologist* style. Potential authors are encouraged to discuss specific problems or the suitability of the contents with the Senior Editor in advance of manuscript submission.

The Senior Editor thanks all those people (editors, referees, authors, publishers) who have helped maintain the journal's high standard of contents and presentation.

Dennis Brown

Librarian and Archivist's report

Among additions to the Library in 1993 were a number of documents dealing with the lichens of specific areas. This is one of the major ways in which the Library/Archives is becoming a valuable database for the future. Members compiling lists or reports on specific locations are encouraged to deposit copies in the Library; some help with copying costs may be possible. Access to such reports can be restricted, for the purposes of confidentiality, if specifically requested. Leaders of Field Meetings are also encouraged to deposit details with the Library.

During the year the Library had to be relocated within the Bristol Botany Department. It is regretted that this, combined with periodic absence of the Librarian abroad, unfortunately created disruption and a number of delays. An investigation is being made into why no copies of *The Bryologist*

or *Cryptogamie* were received during the year.

All members are reminded, and encouraged, to send the Librarian all items of lichenological interest, including cuttings from newspapers and magazines, photographic slides, old correspondence with eminent lichenologists, etc.

Dennis Brown

Bulletin Editor's report

Due to increased charges at the University Printing Unit, the job of printing *The Bulletin* (Vol 72 onwards) was transferred to a private firm. The task of packing and mailing *The Bulletin* has also been given to a private contractor. The majority of contributors are managing to get their articles to me before the stated deadlines. This is making a large difference not only to the efficiency with which *The Bulletin* can be produced but also to its quality since late copy often cannot be checked for errors so thoroughly. Thanks are due to Sandy O'Dare, Brian Coppins and Albert Henderson for very kindly proof-reading past volumes for me, and to Jacqui Clay for her care in word processing and formatting.

Peter Crittenden

Conservation Officer's report

Since taking over as Conservation Officer in January 1993 I have concentrated on reviewing all the Conservation Committee's activities and have prepared and circulated a statement of aims and objectives. Happily this has been well received. My general concern has been to maintain the BLS's reputation as a responsible and credible organisation within the nature conservation movement. This means working towards more efficient communications within the BLS membership and extending the lines of communication to the public at large. I have established that the Conservation Officer's role is to liaise between BLS Council and the BLS membership and the public. I am helped by the Conservation Committee which advises and supplies specialist information and takes on the various projects.

There have been two committee meetings this year. Also various working parties have held their own meetings. Specialist groups are devoted to lichen conservation in churchyards, maritime sites and woodlands. The Woodland Lichens Working Party financed by JNCC, produced a 40-page

report updating the extensive national woodland evaluation performed by ourselves in 1982. Nearly 300 new sites have been added and the computer files (and extensive document files) updated. The Maritime Survey has concentrated on preparing a site database using JNCC's "Recorder" computer package. It is hoped that all of our computer files will be transferred to this system when money becomes available. The very active Churchyard Group has produced draft leaflets advising on churchyard lichen conservation and a recording card, together with many other innovations. Other members are preparing booklets on woodland conservation. The group is advising JNCC on guidelines for SSSI selection, threatened species lists and a number of other issues.

Our main problem at the moment seems to be information overload. We welcome information at all times but need to respond quickly to advice and enquiries. To speed this up we have initiated a monthly newsletter which, if successful, will be made more widely available in the coming year. Other activities for the coming year include further evaluation of woodland sites, this time in SW England and financed once again by JNCC.

I wish to thank all the members of the Conservation Committee for their hard work over the past year, together with all the members who have contributed to the work. Finally, we are always looking for information and contacts to further the cause of lichen conservation; please contact me if you are interested.

Anthony Fletcher

Curator's report

This year has once again been a quiet one for the BLS herbarium with few members requesting to borrow specimens. One would have anticipated that the publication of *The Lichen Flora* would have resulted in an upsurge of use by members wishing to see some of the less well known species which have been keyed out and described in a very accessible form for the first time. This has not proved to be the case; three possible explanations come to mind: (i) that the descriptions in *The Flora* are so clear and complete that reference to herbarium material is considered superfluous, (ii) that the current arrangements for loans are unsuitable for members or (iii) that many members are unaware of the herbarium and the mechanism for using it.

So, firstly may I remind members of the arrangements for borrowing specimens. Any member may request a loan by sending a list of desired

species to me at Dundee Museums and Art Galleries, Albert Square, Dundee, DD1 1DA. Specimens, preferably in batches of 10-20 packets will then be sent by post. The only cost involved is the reimbursement of postage, by enclosing postage stamps when the loan is returned. Return should be within one month of receipt unless otherwise arranged.

Secondly, if members feel that these arrangements are unsuitable or can suggest ways in which the service might be improved, I would be pleased to hear from them.

Richard Brinklow

Treasurer's report

Report on the Accounts for the Year from 1/7/92 to 30/6/93

The accounts for the above period are set out on a subsequent page.

This has been a good year for the Society which has seen the largest growth in its membership for some years, led undoubtedly by increased interest in lichenology aroused by the publication of the *Flora*.

Expenditure

The net cost to the Society of the production of *The Lichenologist* is reduced thanks to a favourable change in the exchange rate and pressure on suppliers by Academic Press.

The cost of the *Bulletin* is higher this year due mainly to the publication of the *Checklist* as a supplement.

Secretarial and committee expenses are higher because of increased activity reported on elsewhere.

The planned publication of Mapping Scheme fascicles has resulted in some initial expense, and 1994 will see the first production of distribution maps for some 150 species.

The 1991/1992 expenditure on the buffet at the AGM did not include the cost of hire of the Entomological Society's premises in January 1991 as we were not invoiced until this financial year.

The cost of auditing the accounts in the previous financial year was for an 18 month period prior to changing the date of the end of the financial year to 30 June from 31 December.

A subscription of £175.00 was agreed by Council to be paid to the Institute of Biology.

The Society was fortunate in being able to purchase the Natural History Museum's stock of the *Flora* following the closure of the NHM Publications Department. Since the end of the financial year profits from sales of the *Flora* have exceeded the expenditure on the stock.

Income

As members may be aware from personal experience interest rates have not held up as we would have hoped though enquiries are in hand to explore the possibility of earning a more beneficial rate than has been possible recently. Profit on sales of stock appears considerably reduced due to a revaluation of stock held last year. It should be noted that the Society sells publications and other items as a service to members and not with the purpose of making a profit.

Although the excess of income is less on this year's balance sheet than last year, this reflects the considerable number of members who, at 30 June, had still not paid their 1993 subscription but who subsequently have renewed, or will renew, their membership.

On behalf of the Society I would thank those who have made donations to the Society as well as those Officers who have assisted me during this financial year, in particular John Sheard for looking after the considerable number of North American members and for his remarkable success in persuading them to renew their membership on time!

Subscription Rates from 1995 to 1999

Council will propose the following subscription rates for acceptance at the January 1994 AGM (dollar rates are two times sterling rates).

	Proposed rates	1994 rates
Ordinary Membership	£25.00	£20.00
Associate Membership	£18.50	£15.00
Senior Associate Membership	£7.50	£5.00
Junior Associate Membership	£5.00	£5.00
Family Membership	£5.00	£5.00
5-year Membership	£112.50	£90.00
3-year Membership	£71.50	£57.50
Life Membership	£250.00	£200.00

BRITISH LICHEN SOCIETY

EXPENDITURE & INCOME FOR THE YEAR 1/7/92 TO 30/6/93

1992	EXPENDITURE		1/7/92 to 30/6/93	1992	INCOME		1/7/92 to 30/6/93
	Printing and distributing				Subscriptions		11,647
	The Lichenologist	10,769			Add 1/5 life membership		227
8,246	Less profit sharing	(5,380)	5,389		Less refunds	(85)	
	Printing and distributing			11,441	Paid in advance	(1,530)	(1,615)
	The Bulletin and checklist	3,739		7,057	Interest received		5,114
2,344	Less receipts	(212)	3,527	345	Donations		640
510	Secretarial and committee expenses		928	1,786	Profit on sales of stock		225
-	Mapping scheme publications		200	(64)	Profit/Loss on exchange rate		183
289	Bank charges		309	-	Profit on book sale		245
	A.G.M. and buffet	447					
48	Less receipts	(252)	195	£20,565			Total £16,666
	Grants, Seminars Field trips etc.	1,176					
1	Less receipts	(1,054)	122	8,803	Excess income over expenditure		3,530
200	Accounting and audit		150				
75	Insurance		95				
49	Subscriptions paid		175				
-	Donation to Acharius memorial		500				
-	Flora subsidy, purchase (301 copies)	8,968					
	Less sales and stock at cost	(7,422)	1,546				
£11,762		Total	£13,136	£11,762			Total £13,136

BALANCE SHEET AS AT 30/6/93

LIABILITIES				ASSETS			
3,295	Sundry creditors (inc. advance subs)	3,583		79,579	Cash at Banks		81,984
1,033	Life members	906		3,183	Stock		2,438
307	Burnet/Wallace Memorial Fund	307		-	Flora		1,910
500	Royal Society Grant (Gwynedd Flora)	500		-	Debtors		121
400	B.P. International Grant	400					
	General Fund at 30/6/92	77,227					
77,227	Plus surplus for 12 months	3,530	80,757				
£82,762		Total	£86,453	£82,762			Total £86,453

The 1994 rate for Life Membership *open to persons over 60 years of age* is £200.00. If the proposed increase in subscription rates from 1995 is accepted at the January 1994 AGM this will rise to £250.00. So, if you are a sexagenarian and considering life membership of the Society, 1994 would be a good year to make the decision!

Jeremy Gray

AUDITOR'S REPORT TO THE BRITISH LICHEN SOCIETY

I have been unable to examine the Register of Members or confirm it is complete, or the account of the Royal Bank of Canada Saskatoon; neither have I checked the Imprest Account of the Secretary, however in the context of the Society's turnover the amounts involved are not material.

Subject to the foregoing, in my opinion, the attached accounts prepared under the historical cost convention and the notes thereon give a fair view of the state of affairs of the Society and the income and expenditure of the Society for the year ended on that date.

D E W Oliver, FCCA, FCIB, ATII, APMI
Certified Accountant

Notes to the Accounts

1. Managers' remuneration: no officer of the Society received remuneration and none is due in the twelve months covered by these accounts.
2. Status: the Society is a Registered Charity, number 228850.

FROM THE TREASURER

A reminder that, as sales of publications at last year's AGM were so light, only publications which have been ordered from me will be brought to the next meeting. Please do not send cash - we will settle up on the day as prices are reduced for "direct" sales.

Not included in the "Publications for Sale" at the back of the *Bulletin* are a very few volumes of *The Lichenologist* Numbers 12-20; in some cases only a single volume of each Number is left. If you were thinking of adding any of these volumes to your collection, now is the time! If not already sold they should be available at this year's prices from Academic Press.

Jeremy Gray

NOMINATIONS REQUIRED FOR COUNCIL MEMBERS

Nominations for Officers for 1994 and four members of the Council for the period 1994-1995 should be sent in writing to the Secretary, Dr O W Purvis, Department of Botany, The Natural History Museum, Cromwell Road, London SW7 5BD before 23 December 1993, please. No person may be nominated without their consent. J David, P W James, A Orange and F Rose retire from Council and are not eligible for re-election as Council members.

JANUARY MEETINGS 1994

Council Meeting

Council will meet at 14.00 on Friday 7 January 1994 in the Council Room, Royal Entomological Institute, 41 Queen's Gate, London SW7 5HU. Please let the Secretary have any items you wish Council to discuss by Friday 31 December 1993.

Evening buffet/book sale/slide show

This event will be held on the evening of Friday 7 January 1993 between 18.00 and 21.00 in the Meeting Room of the Royal Entomological Institute, 41 Queen's Gate, London SW7 5HU. The buffet will cost £9.00 which will include one glass of wine. The lichen book sale this year will include books from Pauline Topham (see article by B J Coppins). A slide show will be held and members are invited to bring 12 slides.

Please complete the enclosed tear-off form and send your cheque for £9.00 (payable to "The British Lichen Society") to Dr O W Purvis, Department of Botany, The Natural History Museum, Cromwell Road, London SW7 5BD, before Friday 31 December, so that arrangements for catering can be made.

Annual General Meeting/Exhibitions/Lecture Meeting

The Annual General Meeting will be held in the Demonstration Room of the Department of Palaeontology (ground floor), The Natural History Museum, Cromwell Road, London SW7 5BD, at 10.30 on Saturday 8 January 1994. The Museum opens to the public at 10.00. Please bring along exhibits of lichenological interest for display. Members requiring display boards should contact the Secretary by 17 December, letting him know the display area required. There are no formal arrangements for lunch, though members may eat in the Museum restaurant, entrance on the ground floor (follow signposts) in Central Hall; alternatively there are numerous restaurants, pubs, etc, in South Kensington. The afternoon will be devoted to a lecture meeting on threatened habitats .

Programme

10.00 Museum opens to public
10.30 Annual General Meeting

AGENDA

- 1 Apologies for Absence
- 2 Minutes of Annual General Meeting 8 January 1993
3. Matters arising
4. Officer's Reports
5. Meetings 1993-1994
6. Election of Officers
7. Any other business
8. Date and place of next AGM

11.30 Coffee and Exhibition Meeting
12.00 Lunch
14.15 Lecture Meeting
17.00 Close

Lecture Meeting: "Threatened Habitats"

14.15-14.45 The threat of age and succession (F S Dobson)
14.45-15.15 Is agriculture a threat? (D H Brown)
15.15-15.45 Tea
15.45-16.15 The threat to heathland (F Rose)
16.15-16.30 Discussion

William Purvis

CHURCHYARDS PROJECT: ANNUAL REPORT 1993

Progress of lowland site recording

As was pointed out in the last *Bulletin*, Phase One of the project is concentrating on the 35 vice-counties of lowland England. Whenever I look at a map of this area, I am conscious that at almost any time of the year enthusiastic individuals and small groups are carrying out surveys. Records continue to flow in regularly, and I am seldom allowed even a day's respite from the dreaded computer screen. The East Anglian group of Peggy Cayton, Peter Earland-Bennett and Chris Hitch have continued their mammoth task of attempting to visit every site in Suffolk. Further south, the combined efforts of Ishpi Blatchley, Simon Davey, Howard Matcham, Keith Palmer, Francis Rose, Ken Sandell and others have ensured that virtually all the ancient foundations of Sussex have been surveyed at least once, and many also in Kent, Surrey and Hampshire. Keith alone has visited 117 new sites within the year and revisited 35 more. He has long since left most of us behind in his enthusiasm, and come next Spring he is likely to celebrate his thousandth survey! South of the Thames, Ashurst (West Sussex), Benenden and Boughton Monchelsea (East Kent), and Dunsfold (Surrey) have joined the many sites with over 100 species, while Stopham (West Sussex) with 137 has probably taken over the number one spot from Mickleham. During the year, Don Smith has visited over 50 sites in VC 61 at the northern tip of the lowland triangle and has also made a number of excursions into more upland areas. Since 1985, he has surveyed more than 250 churchyards beyond the Phase One boundary and recently recorded 74 species at Linton which is situated in a loop of the River Wharfe. Closer to home, the Warwickshire Biological Records Centre has published John Walton's Provisional Atlas of Lichens which contains many churchyard records. He reports 61 species from Temple Balsall, an excellent total for a site so near to Birmingham. My survey work has concentrated on the northern parts of Buckinghamshire and Oxfordshire, where totals of 96 at Middleton Stoney and 93 at Rousham were reached on first visits, while at Adderbury no less than 63 species were found growing on the church itself, before even the tombs were examined! Brief excursions were made to the Soke of Peterborough and, with Ken Sandell, to the Wiltshire-Gloucestershire border. Somerford Keynes (VC 33) scored an impressive 98, and its near neighbour, Ashton Keynes, 92.

Noteworthy churchyard species

Numbered among the 1993 highlights must be the fact that an "extinct" species, *Lecanora pruinosa*, has been refound and a mystery species, *Lecanora pannonica*, has at last been given a name! Nevertheless, if a single species could lay claim to being the churchyard lichen of the year, it

would probably be *Lecanora conferta*. Hardly known twelve months ago, it has now been found in at least 56 churchyards in ten lowland and three upland vice-counties. Originally, it was thought to be confined to calcareous stone, especially mortar. More recently, however, apparently the same species with the same distinctive C+ orange reaction has been found on ironstone, brick and sandstone alongside such species as *Psilolechia lucida*. Another species in danger of losing its starring role is *Rinodina calcarea*. For some years, it was believed to be confined to a single churchyard in the middle of Northamptonshire. This summer, however, it was found in 16 churchyards in the Soke of Peterborough and on chest tombs beside the cathedral near the city centre! Ely Cathedral, the surrounding properties and park were surveyed by Oliver Gilbert, whose report lists 87 species, including *Dirina massiliensis* f. *sorediata* actually found growing inside the building on the well illuminated pillars of the triforium - a gallery over the aisle on the south side of the choir stalls.

Churchyards mapping card

As an aid and incentive to the collection of full site and species data, a Churchyards Mapping Card has been designed. It is identical in size to the current card, lists 230 species and, in addition, provides space for conservation recommendations and further site and species information. Copies should be available at the AGM. A suggested list of abbreviations to use in conjunction with the card will be featured in the next *Bulletin*. What is now urgently needed is a willing group of members to survey uncharted territories. In the lowland area in particular, many more site records are needed for VC 9, Dorset; VC 18, South Essex; VC 19, North Essex; VC 20, Herts; VC 21, Middlesex; VC 22, Berks; VC 29, Cambridge; VC 30, Bedford; VC 34, West Gloucestershire; VC 37, Worcester; VC 56, Notts. If you live in or near these vice-counties, please do what you can to fill in the gaps. A number of us would be willing to meet up with less experienced colleagues to assist with identification. Please write or ring (0280 702918) if you require help.

Species assessment

The present *Bulletin* contains a list of star-rated, lowland, saxicolous lichens. It was agreed at the last meeting of the Churchyards' Subcommittee to leave, at least for the time being, any assessment of corticolous species, and instead to focus upon lignicolous and terricolous groups.

Conservation activities

A revised leaflet "Lichens in Churchyards" is almost complete (see *Bulletin* 72: 23), and 10,000 could be in print by the end of the year. Committee

members were involved in conservation workshops and training days at Iffley (Oxford), Hangleton (West Sussex), Rusthall (Kent), and, for the Company of Vergers, at Temple Balsall (Warwickshire). Tony Fletcher contributed to a seminar at Swithland (Leicestershire) in May and ran a six session course on "Wildlife in Churchyards" at Melton Mowbray in June. I was asked to join the panel of judges for the Northamptonshire Wildlife Trust Churchyard Conservation Award. It gave me the opportunity to visit the entrants and discuss lichen conservation with them. The experience made me even more aware of the damage caused when, as a result of mowing, low tombstones are showered with grass cuttings which are then left to rot. The magnificent yard of Down Ampney in the Cotswolds has been ruined in this way, with even the tops of chest tombs smothered. At Hankerton (Wiltshire), Ken Sandell and I found the unsightly charred remains of burnt grass within the kerbed gravestones, while, at the same time, a framed Living Churchyards certificate was proudly displayed in the porch!

Educational initiatives

There is a clear need for a booklet to help beginners identify the more common churchyard lichens and schools to carry out projects. The possibility of the Society producing such a publication is being considered. A meeting will be held shortly in Banbury to discuss other educational initiatives, and these will be reported in due course.

Churchyards' Sub-committee

The full group met in Evenley on 27 July and most of the above matters were discussed at length. In fact, including a couple of short breaks for refreshments, the meeting lasted for almost eight hours! I would like to pay tribute to Keith Palmer, Ken Sandell, Don Smith and John Walton for their immense enthusiasm and hard work. In addition, I must also thank Francis Rose, a converted woodsman, for supplying me throughout the year with a constant stream of valuable information.

Tom Chester

REPORT FROM A REGIONAL REPRESENTATIVE

The Society's plan for regional representatives was an admirable and foresighted idea for bringing increased cooperation and help to its scattered membership. Tim Moxham, our Publicity Officer, set the ball rolling in 1991 and, covering Yorkshire and Lancashire, I found myself with 18 regional members. Letters were duly sent out along the lines suggested by Tim but the response was disappointing. There were just six replies from members most of whom were teachers. The major drawback to the scheme lies in the great distances involved though the increasingly heavy workload that faces teachers is a contributory factor. As an ex-teacher myself, I can sympathise. Three of the members already made use of the lower plant sections of their local natural history society or attended field courses. However, there was one positive reply from Ian Instone of Leeds and field trips were arranged. Sadly, though tremendously keen (even purchasing *The Flora* and "*Wirth*") and with a highly professional approach which kept me on my toes, this year's increased school work load has caused even Ian to forgo further trips.

However, churchyard surveying brings me into contact with a wide range of people and enables me to spread the knowledge of a lichen society via the porch notices which I leave after a visit. At this point, I must express my gratitude to the British Ecological Society for a most generous grant towards travelling expenses without which, now being a senior citizen, I would have had to curtail my visits to the more distant churchyards. Having visited over 400 churches to date I receive roughly a five percent return by way of requests for lists and information. However, the last vicar to ring me said, "I'm just interested academically, it doesn't mean that I'm going to join the British Lichen Society. The bat people already want me to count bat droppings!"

Not only incumbents but churchwardens and local people who are friends of the church also ask for information. During the last week I even had a phone call from a school girl who is taking her 'A' level exams one of which, believe it or not, concerns "Lichens in Churchyards" and who had been given my number by the incumbent whose churchyard I had surveyed.

Finally, my activities have come to the notice of a film and television company, resulting in a forthcoming site visit to Wharfedale churchyards for a short documentary. Originally they had suggested tying in lichenology with a Bronte country feature, so I visited Haworth churchyard. It was the most dismal, dark, dirty and thoroughly disappointing yard I have ever seen with a church whose masonry appeared to have been dipped in Indian

ink. Even *Lecanora polytropa* and *L. conizaeoides* struggled desperately in competition from algae, molluscs, dead leaves, detritus and a fulsome spraying of herbicides.

Don Smith

ENGLISH NATURE GOES FOR "NATURAL AREAS"

Nature conservation boundaries are undergoing a radical review. Instead of using traditional local government boundaries to define regions, policies will be developed that cover "Natural Areas". Using criteria such as landform, geology, land-use and vegetation cover, England has been divided into 76 land areas and 11 coastal regions. These each have a recognizable character and feel; for example the Chilterns with their beech woodlands, chalk grasslands and commons; Breckland - an area of pine shelter belts and rabbits; and Romney marsh which is so distinctive it has been called the sixth continent. Other familiar units are the Lake District, Yorkshire Dales, High Weald, London Basin and the Cotswolds, while some are not so well known for example Trent Valley and Levels, Coversands (Lincs), Sanderlings, Hereford Plain and Beds Greensand.

English Nature are testing the Natural Areas concept in five areas this autumn and the whole programme should be up and running by the start of 1995. This approach has much to recommend it for lichen studies. I predict that during the next century county floras will be abandoned in favour of ones based on more logical natural units. The investigation of some of the smaller units would make suitable objectives for BLS field meetings. One, The Lizard, was the venue of a week long society field meeting a few years ago: members attending were urged not to stray out of the two 10 km grid squares (both of which were at least half sea) that cover this distinctive area. The result was a detailed, sharply focused account of its lichens that should stand for some time. The autumn meeting 1994 will be centred on another of English Nature's small units, The Malvern Hills. Others that could be adequately covered by a field meeting include Warks Sandstone Plateau, Oxford Heights, Romney Marsh, Lincolnshire Coastal Plain and the Morecambe Bay limestones.

Oliver Gilbert

BRITAIN'S NORTHERNMOST NATURAL WOODLAND

Following a suggestion from Francis Rose, Claire and I made a brief visit in July this year to the famed wood at Berriedale in Hoy, Orkney. The weather might have been worse - the rain could have been heavier and the wind stronger, but the cloud cap descending from Ward Hill could hardly have been thicker. Visibility within the wood (in a narrow V-section cleft) was so minimal that we found only those lichens that really stared back at us - from the almost sunny beach below Peter Maxwell Davies' house at Rackwick, the wood site looked completely black.

The wood is a mixture of birch, rowan, willow, hazel and aspen, merging below into low willow thickets following a stream course over heather moorland. The main birch-dominated wood is about 300m in length, confined to the narrow gorge; this has steep *Luzula sylvatica*-clad slopes which often terminate upwards in vertical cliffs - exploration of these on a wet day can be hazardous. Scottish Natural Heritage in Kirkwall, and Tom Prescott of the RSPB had kindly provided a good deal of information about the area - including a list of 6 lichens from the wood. We thought that we might do better, and we did - though our list is not quite up to New Forest standards. We found over 30 species on the trees, most of them hardly surprising. But the more interesting ones include *Lobaria pulmonaria* (even non-lichenologists had found that earlier), *Degelia plumbea*, *Nephroma laevigatum*, *Parmeliella jamesii* (conf. Peter James) and *Thelotrema lepadinum* (I later found that Pauline Topham had turned up the *Parmeliella* on a rowan in Berriedale in 1977 - doubtless other records have failed to make their way into the BLS mapping scheme databank - or into SNH's files).

The brilliant green fronds of *Lobaria pulmonaria* are very conspicuous and vigorous in Berriedale - 12 trees were seen with this species, and one rather moribund willow had a total of about 8m of branches densely covered by it. *Lobaria* growth seemed to be best on slightly weakened willow branches (rather than on fully healthy ones), but thalli on virtually dead willows were themselves degenerating, developing holes and losing colour. Rosettes of *Degelia plumbea* were found on five trees - on rowans (the richest tree species for lichen epiphytes overall) and on willows but not on birch. Indeed the birch epiphytes were really disappointing (with an acidic suite of *Cetraria chlorophylla*, *Hypogymnea physodes*, *Parmelia saxatilis* etc.). Aspens (the tallest being about 8m high) were almost without any epiphytes apart from small crusts of *Lecanora* and tufts of *Cladonia macilenta* low down - a striking contrast with trees of similar size in west Norwegian

coastal woodlands, where we have seen this species to be by far the richest (in comparison with birch and rowan), carrying a wholly recognisable though slightly depauperate *Lobarion* community. We saw *Normandina pulchella* associated with *Degelia plumbea* in several places, but on one birch it grew with *Metzgeria* and *Ulota* without any *Degelia*. *Lecanora jamesii* and *Caloplaca ferruginea* were seen on one multi-trunked willow by the stream, and I later detected scattered thalli of *Parmeliella jamesii* among dense stretches of *Cladonia macilenta* squamules from the base of a tree.

Based on the short list of species that we saw ourselves, the main lichen interest of the Berriedale wood must be that it still supports a relict fragment of the *Lobarion* community. Taken with the scattered finds of *Degelia plumbea*, *Nephroma laevigatum* and *Pannaria rubiginosa* from now-"treeless" Shetland, we must be seeing the northernmost traces in Britain of the epiphyte flora of once much more extensive oceanic birch woodlands, with the added enigma that birch itself was almost certainly the poorest phorophyte in these woods for *Lobarion* species. Of the three Shetland species, the first two are from very rough rocky ground and from a steep cliff respectively, these terrestrial habitats just permitting the original woodland lichens to persist ungrazed by sheep. There are few clues remaining in Shetland now; a couple of weeks later I was able (courtesy of the Shetland Field Studies Group) to visit some of the sites for relict trees on the north side of Ronas Voe - they are on overhanging sheep-defying cliffs (again coated with dense *Luzula sylvatica*), and only the trolls and trows can know if any *Lobarion* still survives there.

Kery Dalby

CHURCHYARDS PROJECT: STAR RATINGS
FOR LOWLAND SAXICOLOUS TAXA

<i>Acarospora fuscata</i>		<i>cirrochroa</i>	***
<i>glaucocarpa</i>	**	<i>citrina</i>	
<i>heppi</i>	***	<i>crenularia</i>	*
<i>impressula</i>	***	<i>dalmatica</i>	*
[<i>macrospora</i>]	***	<i>decipiens</i>	*
<i>rufescens</i>	*	<i>flavescens</i>	
<i>smaragdula</i>	*	<i>flavovirescens</i>	**
<i>umbilicata</i>	***	[<i>granulosa</i>]	***
<i>veronensis</i>	***	<i>holocarpa</i>	
<i>Acrocordia conoidea</i>	**	<i>isidiigera</i>	*
<i>salweyi</i>	*	<i>lactea</i>	**
<i>Agonimia tristicula</i>	*	[<i>luteoalba</i>]	***
<i>Anaptychia ciliaris</i>	**	<i>ochracea</i>	***
<i>Arthonia [endlicheri]</i>	***	<i>saxicola</i>	
<i>lapidicola</i>	*	<i>teicholyta</i>	
<i>muscigena</i>	***	<i>variabilis</i>	*
<i>Aspicilia caesiocinerea</i>	**	<i>virescens</i>	***
<i>calcareae</i>		<i>Candelaria concolor</i>	***
<i>contorta</i>		<i>Candelariella aurella</i>	
<i>grisea</i>	***	<i>f. smaragdula</i>	***
<i>leproscens</i>	***	<i>medians</i>	
<i>subcircinata</i>	*	<i>f. steepholmensis</i>	**
<i>Bacidia arceutina</i>	***	<i>vitellina</i>	
<i>arnoldiana</i>	***	<i>f. flavovirella</i>	**
<i>bagliettoana</i>	***	<i>Catapyrenium [lachneum]</i>	***
<i>caligans</i>	***	<i>Catillaria chalybeia</i>	*
<i>delicata</i>	***	<i>lenticularis</i>	*
<i>egenula</i>	***	<i>Cetraria chlorophylla</i>	***
<i>fuscoviridis</i>	***	<i>Chrysothrix candelaris</i>	***
<i>rubella</i>	**	<i>Cladonia arbuscula</i>	***
<i>sabuletorum</i>		[<i>cervicornis</i>]	***
<i>viridescens</i>	***	<i>chlorophaea</i>	*
<i>viridifarinosa</i>	***	<i>coniocraea</i>	**
<i>Baeomyces rufus</i>	**	<i>digitata</i>	***
<i>Belonia nidarosiensis</i>	*	<i>fimbriata</i>	*
<i>Buellia aethalea</i>		<i>floerkeana</i>	***
<i>badia</i>	***	[<i>humilis</i>]	***
<i>ocellata</i>	*	<i>macilenta</i>	**
<i>punctata</i>	**	<i>pocillum</i>	**
<i>stellulata</i>	**	<i>polydactyla</i>	***
<i>Caloplaca [arenaria]</i>	***	[<i>portentosa</i>]	***
<i>aurantia</i>		<i>pyxidata</i>	**
<i>ceracea</i>	***	<i>ramulosa</i>	***
<i>chalybaea</i>	***	<i>squamosa</i>	***

<i>Clauzadea immersa</i>	***	<i>conizaeiodes</i>	
<i>monticola</i>	*	<i>crenulata</i>	
<i>Collema auriforme</i>		<i>dispersa</i>	
<i>crispum</i>		<i>epanora</i>	***
<i>cristatum</i>	***	<i>expallens</i>	*
<i>fuscovirens</i>	**	<i>fugiens</i>	***
[<i>multipartitum</i>]	***	<i>gangaleoides</i>	***
<i>polycarpon</i>	***	<i>intricata</i>	**
<i>tenax</i>	**	<i>muralis</i>	
var. <i>ceranoides</i>	**	<i>orosthea</i>	*
var. <i>vulgare</i>	***	<i>pannonica</i>	*
[<i>undulatum</i> var. <i>granulosum</i>]	***	<i>polytropa</i>	
<i>Dermatocarpon minutum</i>	**	<i>pruinosa</i>	***
<i>Diploicia canescens</i>		<i>rupicola</i>	***
<i>Diploschistes muscorum</i>	**	<i>soralifera</i>	*
<i>scruposus</i>	*	<i>stenotropa</i>	***
<i>Diplotomma alboatrum</i>		<i>subaurea</i>	***
<i>epipodium</i>	***	<i>sulphurea</i>	*
<i>Dirina massiliensis</i> f. <i>sorediata</i>		<i>Lecidea fuscoatra</i>	*
<i>Enterographa zonata</i>	***	<i>Lecidella carpathica</i>	**
<i>Evernia prunastri</i>	***	<i>scabra</i>	
<i>Fuscidea cyathoides</i>	***	<i>stigmatea</i>	
<i>Gyalecta jenensis</i>	**	[<i>Lemmopsis arnoldiana</i>]	***
<i>truncigena</i>	***	<i>Lempholemma polyanthes</i>	**
<i>Haematomma ochroleucum</i>	**	<i>Lepraria eburnea</i>	***
var. <i>porphyrium</i>	*	<i>incana</i>	
<i>Hymenelia prevostii</i>	***	<i>lobificans</i>	***
<i>Hyperphyscia adglutinata</i>	***	<i>lesdainii</i>	**
<i>Hypocenomyce scalaris</i>	*	<i>nivalis</i>	***
<i>Hypogymnia physodes</i>	**	<i>Leprocaulon microscopicum</i>	***
<i>tubulosa</i>	***	<i>Lepröma diffusum</i>	***
<i>Imshaugia aleurites</i>	***	<i>vouauxii</i>	
<i>Lasallia pustulata</i>	***	<i>Lepröplaca chrysodeta</i>	*
<i>Lecanactis hemisphaerica</i>	**	<i>xantholyta</i>	**
<i>Lecania baeomma</i>	***	<i>Leptogium biatorinum</i>	***
<i>coerulescens</i>	***	<i>gelatinosum</i>	*
<i>erysibe</i>		[<i>lichenoides</i>]	***
<i>hutchinsiae</i>	***	<i>massiliense</i>	***
<i>nylanderiana</i>	***	<i>plicatile</i>	**
<i>rabenhorstii</i>	***	<i>schraderi</i>	**
<i>suavis</i>	***	<i>teretiussculum</i>	**
<i>sylvestris</i>	***	<i>turgidum</i>	**
<i>turicensis</i>	**	<i>Micarea erratica</i>	***
<i>Lecanora albescens</i>		<i>lignaria</i>	***
<i>carpineae</i>	***	<i>peliocarpa</i>	***
<i>campestris</i>		<i>Ochrolechia androgyna</i>	**
subsp. <i>dolomitica</i>	**	<i>parella</i>	*
<i>conferta</i>	*	<i>subviridis</i>	***

<i>turneri</i>	***	<i>Phlyctis argena</i>	**
<i>Opegrapha gyrocarpa</i>	**	<i>Physcia adscendens</i>	
<i>mougeotii</i>	**	<i>aipolia</i>	***
<i>saxatilis</i>	*	<i>caesia</i>	
<i>saxicola</i>	***	<i>clementei</i>	***
<i>varia</i>	***	<i>dubia</i>	*
<i>Parmelia [acetabulum]</i>	***	<i>tenella</i>	**
<i>borreri</i>	***	<i>tribacia</i>	**
<i>caperata</i>	*	<i>Physconia distorta</i>	**
<i>conspersa</i>	**	[<i>enteroxantha</i>]	***
<i>delisei</i>	***	<i>grisea</i>	
<i>disjuncta</i>	***	<i>perisidiosa</i>	***
<i>elegantula</i>	***	<i>Placynthiella icmalea</i>	***
<i>glabratula</i>	**	<i>Placynthium nigrum</i>	
subsp. fuliginosa		<i>Platismatia glauca</i>	***
<i>laciniatula</i>	***	<i>Polyblastia albida</i>	***
<i>loxodes</i>	***	<i>deminuta</i>	***
<i>mougeotii</i>	*	<i>dermatodes</i>	***
<i>pastillifera</i>	**	<i>Polysporina simplex</i>	*
<i>perlata</i>	**	<i>Porina chlorotica</i>	**
<i>pulla</i>	***	<i>linearis</i>	***
<i>reticulata</i>	***	<i>Porpidia cinereoatra</i>	**
<i>revoluta</i>	**	<i>crustulata</i>	**
<i>saxatilis</i>	*	<i>macrocarpa</i>	**
<i>soredians</i>	**	[<i>platycarpoides</i>]	***
<i>subaurifera</i>	**	<i>soredizodes</i>	**
<i>subrudecta</i>	**	<i>tuberculosa</i>	
<i>sulcata</i>		<i>Protoblastenia calva</i>	***
<i>tiliacea</i>	**	<i>incrustans</i>	***
<i>verruculifera</i>	*	<i>rupestris</i>	
<i>Parmeliopsis ambigua</i>	***	<i>Protoparmelia badia</i>	***
<i>Peltigera lactucifolia</i>	***	<i>Pseudevernia furfuracea</i>	***
[<i>membranacea</i>]	***	var. <i>ceratea</i>	**
<i>rufescens</i>	***	<i>Psilolechia leprosa</i>	*
<i>Pertusaria albescens</i>	***	<i>lucida</i>	
var. <i>corallina</i>	**	<i>Psorotichia schaeereri</i>	***
<i>amara</i>	*	<i>Ramalina canariensis</i>	**
<i>aspergilla</i>	***	<i>farinacea</i>	**
<i>coccodes</i>	**	<i>fastigiata</i>	***
<i>flavicans</i>	**	<i>lacera</i>	**
<i>flavida</i>	***	<i>pollinaria</i>	***
<i>hymenea</i>	***	<i>siliquosa</i>	**
<i>lactea</i>	***	<i>subfarinacea</i>	**
<i>pertusa</i>	**	<i>Rhizocarpon concentricum</i>	***
<i>pseudocorallina</i>	***	<i>distinctum</i>	**
<i>Petractis clausa</i>	***	<i>geographicum</i>	**
<i>Phaeophyscia nigricans</i>	**	<i>hochstetteri</i>	***
<i>orbicularis</i>		<i>lecanorinum</i>	***

<i>obscuratum</i>	*	[<i>sedifolia</i>]	***
<i>Rinodina bischoffii</i>	**	<i>Trapelia coarctata</i>	*
<i>calcarea</i>	**	<i>involuta</i>	*
<i>gennarii</i>		<i>obtegens</i>	**
<i>lecideina</i>	***	<i>placodioides</i>	*
<i>teichophila</i>	*	<i>Trapeliopsis flexuosa</i>	***
<i>Roccella phycopsis</i>	***	<i>granulosa</i>	**
<i>Sarcogyne regularis</i>	*	[<i>pseudogranulosa</i>]	***
<i>Sarcopyrenia gibba</i>	*	<i>Verrucaria baldensis</i>	
<i>Scoliciosporum umbrinum</i>		<i>caerulea</i>	***
<i>Solenopsora candicans</i>	*	<i>calciseda</i>	***
<i>holophaea</i>	***	<i>dolosa</i>	***
<i>vulturiensis</i>	***	<i>dufourii</i>	***
<i>Staurothele caesia</i>	***	<i>glauцина</i>	
<i>rugulosa</i>	***	<i>hochstetteri</i>	
<i>Steinia geophana</i>	***	<i>macrostoma</i>	**
<i>Stereocaulon nanodes</i>	***	f. <i>furfuracea</i>	*
<i>pileatum</i>	***	<i>murialis</i>	
<i>vesuvianum</i>	***	<i>murina</i>	***
var. <i>symphycheileoides</i>	***	<i>nigrescens</i>	
<i>Strigula jamesii</i>	***	<i>simplex</i>	***
<i>Tephromela atra</i>		<i>viridula</i>	
<i>Thelidium decipiens</i>	**	<i>Veizdaea aestivalis</i>	***
<i>fontigenum</i>	***	<i>leprosa</i>	***
<i>incavatum</i>	**	<i>Xanthoria calcicola</i>	
<i>minutulium</i>	***	<i>candelaria</i>	
<i>papulare</i>	**	<i>ectaneoides</i>	***
<i>zwackhii</i>	***	<i>elegans</i>	**
<i>Toninia aromatica</i>		<i>parietina</i>	
<i>lobulata</i>	***	<i>polycarpa</i>	**

***:	157	Recorded from less than 10 sites
**:	80	Recorded from 10-49 sites
*:	49	Recorded from 50 or more sites. Local or scattered
:	54	Recorded from most sites in most vice-counties. Common.

TOTAL: 340

NOTE: Common, unstarred lichens appear in bold. Brackets indicate that there is some doubt about either the determination of the species or the substratum on which it is growing. Names used are those of the *Checklist* published as a supplement to *Bulletin 72*.

Comments and cautionary notes

In the last *Bulletin*, I described briefly how the saxicolous species of lowland England were being assessed. In this edition I provide the full list of taxa and their star-ratings. As you will see, the grand total has increased by eight to 340, while, as records have been received and analysed, certain taxa have moved from one rating to the next. Some species without doubt are under-recorded and, in consequence, over-rated. This arises mainly from problems of identification. Keith Palmer in "Mickleham Revisited" highlights the difficulties the group experienced with *Lecanora turicensis* and *Leptogium turgidum*, and there is even less evidence to convict some of the pyrenocarps and "black dot" species! The churchyard habitat provides more than its fill of confusions. One only has to mention such double acts or duos of discord as:

Cladonia chlorophaea / *C. fimbriata*
Collema auriforme / *C. fuscovirens*
Diplotomma alboatrum / *D. epipolium*
Lecanora polytropa / *L. stenotropa*
Leptogium gelatinosum / *L. lichenoides*
Leptogium schraderi / *L. turgidum*
Verrucaria nigrescens / *V. viridula*
Buellia punctata / *Rinodina lecideina*

to produce a wry smile on the faces of readers! With finer distinctions now being made, some of the problems have been partially resolved. However, to prevent us from becoming too smug, each of the last two pairs has recently been joined by a third party - *Verrucaria macrostoma* and *Buellia badia* respectively - to produce less than harmonious trios. Of course, by the time you read this, the Autumn Workshop will have taken place and so, if you attended Orierton, you will be wondering what all the fuss was about!

Inevitably, some of the ratings are based on old records and our understanding of certain species and groups has changed considerably. While I have carefully adhered to the names in the current *Checklist*, I am aware also, for example, that many of the "*Opegrapha saxatilis*" records refer to the ecotype "*Opegrapha chevallieri*", so frequent on north-facing churchyard walls in the south, while subsumed within "*Acarospora glaucocarpa*" is the morphologically distinct "*Acarospora cervina*", characteristic of south-facing ironstone walls in my home area.

Another reason for the under-recording of certain species is that, in a number of vice-counties, while much survey work has been carried out, the resulting records have either not been passed on at all or have been sent to

me in a form that cannot readily be used for assessment purposes. The essential figure is the number of sites at which a particular lichen occurs on stone in a particular vice-county. The list includes lichens growing over chippings, over moss and other lichens on stone, and in soil pockets on walls, tombstones and stone pathways. Where there is any ambiguity in regard to the substratum, I would urge you to clarify it. *Cladonia* and *Peltigera* may be saxicolous as well as terricolous, while *Placynthiella* and *Trapeliopsis* species have a nasty habit of occasionally growing on stone as well as wood and soil.

As long as the list is treated with a degree of caution, it should prove to be of some value, especially for those of you who are in the early stages of this rather specialized branch of lichenology. Please photocopy and use it. Hopefully, your records will continue to change the status of existing taxa and increase the overall total.

Tom Chester

***LECANORA PANNONICA* SZATALA 1954**

This species first became the focus of attention at the 1984 BLS Autumn Field Meeting in Northamptonshire. I had become aware of it and puzzled by it during my first excursions into local churchyards soon after I joined the Society in 1980-81. However, at that time almost everything was a puzzle! I have learnt since that Chris Hitch came across what is almost certainly the same species on crumbling red sandstone in the churchyard at Southwold (VC 25) in May 1979. At the 1984 meeting, it was found in Culworth churchyard and on the walls of houses in the main street. A specimen was sent for TLC and proved to contain atranorin and gangaleoidin [*Lichenologist* 19 (1): 77-92 (1987)].

The lichen is quite distinctive and not difficult to recognise in the field. To me, it looks like a cross between a very rampant *Porpidia tuberculosa* and a sterile *Tephromela atra*. It has blue-grey to black delimited soralia and has not yet been found fertile in Britain. A paper by Brodo, Owe-Larsson and Lumbsch, giving a full description of the species for the *Nordic Journal of Botany*, is currently in press. A specimen will be displayed at the AGM, together with a number of other distinctive and possibly overlooked churchyard species.

Lecanora pannonica continued to be found with increasing regularity on the ironstone walls and headstones of local churchyards, and at some sites was almost the dominant species. Then, in 1987 on a visit to North Yorkshire, I came across it on the south-facing sandstone wall of Hackness church. Once Don Smith had his eye in for it, he also began to discover it frequently in VCs 61 and 62. Other colleagues, having seen it in Northamptonshire, have gone on gradually to extend its known range. Records were passed on to the mapping scheme as *Lecanora* sp. (sorediate), although one colleague did me the honour of listing it as "*Lecanora* (Tom's)!"

The true identity of this species was finally revealed earlier this year when two specimens from the Edinburgh herbarium were sent for examination by Brian Coppins to Irwin Brodo who was over from Canada working on the *Lecanora subfusca* group at Helsinki University.

There are now 102 site records, covering forty four 10km squares and 11 vice-counties; these extend from Preston-on-Stour in Warwickshire to Southwold in Suffolk, and from Kildale in my original homeland of the Cleveland Hills to Rusper in Sussex (Fig 1). Most of the records in the Midland cluster are from the Northamptonshire Sand Ironstone of the Jurassic, Inferior Oolite Series. In fact, there is no better indicator species to separate this stone (pH 4.99) from that of the visually similar but more basic Middle Lias Marlstone (pH 7.35) which has been quarried mainly at Edgehill, Warwickshire, and is known locally as Hornton Stone. In other areas, it occurs mainly on sandstone and occasionally on brick. It favours well-lit, vertical surfaces such as south-facing church walls and the sides of siliceous headstones. Curiously, at Mixbury in Oxfordshire, it festoons the mortar courses (presumably an acid mix) at the east end of the church (see *Bulletin* 72: 24). I use the word "festoon" advisedly because this species has the frequent habit of hanging loosely from its substratum, quite differently from the much more adpressed thalli of *Porpidia tuberculosa*. This is seen spectacularly on the west side of the south porch at Culworth where for some reason the thalli of the two species alternate and together cover almost the whole wall.

All but two of our native records except two are from churchyards. As already mentioned, the lichen was first found on house walls in Culworth (VC 32). Jack Laundon and I also found it on the south-west corner of the Gothic Temple in Stowe Landscape Gardens (Buckinghamshire), while helping Sandy O'Dare with a National Trust survey in November 1990. Significantly, it is the only temple in the grounds constructed of local ironstone. There are no records from natural outcrops in Britain. In

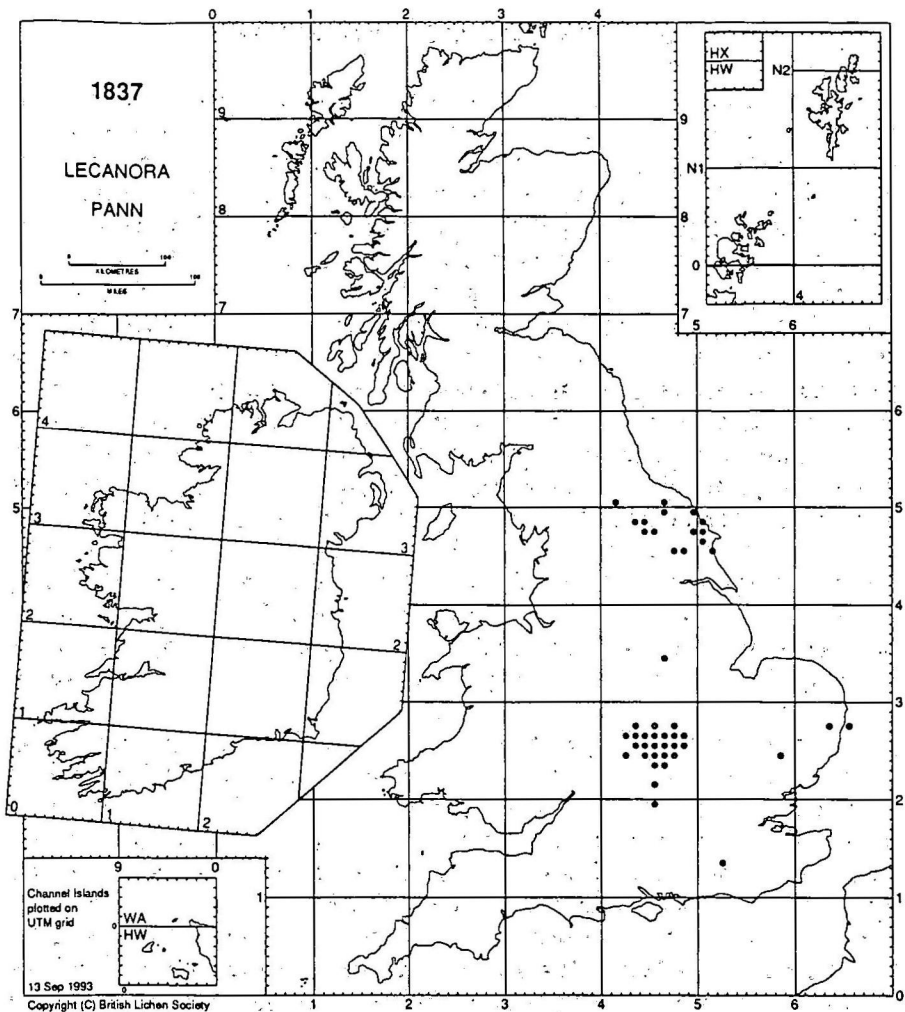


Fig 1

Europe too, where it occurs mainly in central and south-eastern regions, it exhibits godly propensities, apparently favouring church roofs!

I am grateful to Chris Hitch, Keith Palmer, Ken Sandell, Don Smith and John Walton for sending me their records, to Mark Seaward for providing the map, to Malcolm Senior for the pH readings, to Brian Coppins for passing on the herbarium specimens, and to Dr Irwin Brodo for generously providing such valuable information and, above all, for adding the last and most important piece to the jigsaw puzzle.

Tom Chester

COUNTRY DIARY: INCHNADAMPH

Rousing music blared from the radio-cassette as I increased my speed so the car shot dangerously along the narrow twisting roads of the West Highlands. It is an advantage if one can start a day's fieldwork with plenty of adrenaline in the blood stream. Having arrived I parked my car by the Inchnadamph Hotel, changed into wellingtons, and set off up the Traligill Burn which for two miles runs over Durness Limestone. My aim was to record the freshwater aquatic lichens along its course which is quite varied ranging from gorges with waterfalls and much outcropping rock, through bouldery sections in the glacial drift, to a winterbourne that is dry in summer. Collecting in this habitat presents certain difficulties which slow progress. The first is to decide what qualifies as an aquatic lichen since the upper levels of the channel are only rarely submerged. I have developed a simple rule, if there is any *Caloplaca*, *Protoblastenia* or *Verrucaria nigrescens* around it is terrestrial. The second problem, far more serious, involves choice specimens on chips of brittle limestone flying into deep pools. Keeping an eye on the lichen rather than the chisel head is a recipe for badly bruised knuckles. Kneeling in the river bed and chipping gently is one solution; developing a capacity for long suffering is another. It is also worth wearing a flannel shirt for drying specimens prior to preliminary inspection.

I've learnt not to expect much excitement in the field as the majority of species are pyrenocarps. After 3 hours the only certain identifications are *Agonimia tristicula*, *Dermatocarpon luridum*, *Gyalecta jenensis*, *Lempholemma myriococcum*, *Psorotichia schaeferi* and a few *Collema* spp., but in addition I have 30 or 40 flakes in tins and packets. What you are entitled to expect on limestone streams is high quality surroundings - flowers, birds, scenery. Staring into pools of clear water and watching the invertebrates crawling on the bottom, noting calcareous algae and trailing wefts of moss is reminiscent of seaside holidays but today with hammer and chisel rather than bucket and spade. In both situations wet clothes become a way of life.

This is an infuriating habitat, the channel vegetation is so esoteric, but only inches away, in the mossy transition zone to terrestrial vegetation (not a pukka freshwater environment), the lichens are so much richer. Eventually, new pyrenocarp look-a-like species can be picked out by some sixth sense, but it is hard work. All the time you are stooping to collect from around foot level, or below, and the rock is so rounded. After five hours I am still collecting as if there were no tomorrow as indeed there may not be if it rains heavily. The weight of limestone and tiredness eventually catch up - are the

storm years drawing to a close? The tributaries must be examined too, as they are interestingly different from the main stream and from each other. This however must wait for another day; the adrenaline is all spent. Deneglecting neglected habitats is hard work, a balance must be struck. It is 4 pm and time to head back to the hotel where a gong is rung and a nicely old fashioned afternoon tea served by maids.

Oliver Gilbert

SOUTH-EAST REGIONAL FIELD MEETING (27 MARCH 1993): EWHURST AND DUNSFOLD CHURCHYARDS, SURREY

A highly successful churchyard day was spent in West Surrey, 94 species being recorded at Ewhurst in the morning and 104 at Dunsfold in the afternoon.

At Ewhurst, wooden graveboards in a sheltered corner of the churchyard were examined first; the tops were found to be prolifically covered with *Cladonia polydactyla*, one of the attractive red-fruited members of this genus. Also here were small thalli of *Parmeliopsis ambigua*. Some care has to be taken to distinguish this from *Parmelia mougeotii* which has more convex, less spreading lobes and soredia of a different texture. Their habitats are usually distinct too, the latter being a species of siliceous rocks, especially granite, the former of trees and palings. However quite perversely both species were found at Ewhurst on their less frequented substrates (as well as on their normal ones) - a little *Parmelia mougeotii* was discovered on wood while some sandstone headstones yielded *P. ambigua*.

Some tree clambering was required to identify *Lecanora carpinea* but standing out conspicuously on a bough of dark-barked yew were handsome examples of *Parmelia saxatilis*. *P. subrudecta* appeared on rocks here. One more readily finds species of *Parmelia* growing in saxicolous habitats in these regions of South England than in the Midlands - Tom Chester in the Northants area reckons to find a smaller range of *Parmelias* on churchyard stone.

One area on the eastern side of the churchyard had several sandstone

headstones the vertical surfaces of which were more or less covered by merging thalli of *Haematomma ochroleucum* var. *porphyrium*. In this area too a C+red *Pertusaria* resembling *P. lactea* was found. What was apparently *Caloplaca teicholyta* was found in fertile condition but the lack of marginal lobes might indicate a different species. There was no doubt, however, about *C. crenularia* on flagstones against the east wall of the church.

Other species found on less usual habitats at Ewhurst included *Lecidella scabra* on ironwork and *Phlyctis argena* and *Pertusaria coccodes* on rock. Finally in the extension churchyard, among granite chippings, some *Peltigera lactucifolia* was discovered.

Up to four species of *Acarospora* were found at Dunsfold including one specimen very close to *A. impressula*. *A. smaragdula* was present in quantity on window-ledge run-off from iron grilles where *Arthonia lapidicola* was also found. A large thallus of *Caloplaca flavovirescens* shone out from a low limestone slab while *Parmelia disjuncta* was a welcome find on sandstone. *Collema fuscovirens* and *Leptogium turgidum* were identified and among the species on a low roof of asbestos cement were *Protoblastenia rupestris* and *Placynthium nigrum*. An interesting corticolous and lignicolous flora added much interest here and included *Enterographa crassa*, *Schismatomma decolorans*, *Cliostomum griffithii*, *Hypogymnia tubulosa*, *Cyphelium inquinans* and *Parmelia caperata*.

However, growing more unusually on rock was, again, *Parmeliopsis ambigua*, for the second time that day. *Sarcopyrenia gibba* is the sort of species you tend to find when you suddenly decide to look for it in the apparently lichen-free patches on the tops of limestone headstones or near the corners of chest tombs. So it was at Dunsfold. A large quantity of the robust *Peltigera lactucifolia* was found on one low tomb but it is remarkable how so large and wide-spreading a species can be so inconspicuous.

Finally, a round-up of more species of some note at Dunsfold: *Phycia tenella* on sandstone, *Hypocomyce scalaris*, *Diploschistes scruposus* and *Parmelia revoluta*.

Keith Palmer

SHETLAND LICHEN RECORDING: LOGIC BEHIND A DATABASE

The world hums with databases - I think it may be useful to outline some of the logic behind those that I use for my Shetland studies. Various BLS members must have gone through an equivalent evolution of ideas in their own particular circumstances, yet they may well have emerged with quite different solutions to their own specific queries.

My target is an annotated checklist of Shetland lichens; this means a list of species names (these change), some perhaps arbitrary measure of commonness (there is no hope of making objective field assessments), and some information on habitats. A constraint - I cannot afford a fully professional computer package (having, like many other individual members, bought the computer myself without external funding), so the really comprehensive and flexible systems, however excellent, must be out of the running.

In reality, my needs demand two databases serving contrasting purposes. The first, an in-house product (i.e. produced by me in my house), centres on a matrix of 420 or so species and fifty three 10 km squares, easily handled on my 386 SX without clever programming being needed. Associated with this are two lists: one of BLS abbreviations for species names, the other of BLS mapping card numbers. Name changes in the new *Flora* offer no problems - just change the names. The numbers remain the same. This simple basic information allows me to:

- a) prepare an alphabetical checklist of species so far known from Shetland;
- b) calculate the commonness of each according to its frequency in the 53 squares;
- c) tabulate species in order of frequency (the top one? - *Anaptychia runcinata*, in 42 out of the 53 squares);
- d) prepare lists of species from each square to assist in planning fieldwork (these range from one just south of the Sullom Voe oil terminal with 178 species, to a few with holms and rock stacks not yet visited by lichenologists, with none);
- e) generate lists of new square records for the mapping scheme located both by Mark Seaward's square reference numbers (which for Shetland and Orkney are not the same as the corresponding Ordnance Survey 10 km grid square numbers), and my own (1 to 53).

A suite of small associated programs carries out all this work as well as editing and updating and backing up the whole thing. I prefer a lot of little programs rather than one gigantic program with hosts of options and menus (there is less danger of confusing the program logic). Finally they work well because I wrote them to do exactly what I wanted, with no memory-consuming frills.

The second database is quite different. I purchased a cut-down version of PARADOX, mainly because the system is very easy to use, but also because I saw it offered cheap on a Circle Line train one day. This is a well-tested commercial product, and I have shaped it to draw on data from herbarium packets, field notes, published papers, etc., including all the standard items like date, collector and grid reference. In starry-eyed theory this could well become a definitive inventory of all Shetland material - in reality it won't because I am not able to search all sources of data nor to trace all herbarium packets. The inventory idea is tempting (and is not excluded), but that was not my primary purpose. The real purpose was to be able to summarise the habitat data (entered in random order as I find them) for each species in turn as the checklist progresses. With all the records for a species displayed simultaneously, it is very easy indeed to extract the essential common facts by eye, noting at the same time the oddities and exceptions. It is amazing how quickly some of these items disappear from the human memory.

Are there any morals in all this? Yes, there are. Don't be coerced into buying fancy software that fills your computer with marvellous flexibility, draining your hard disc memory (and your bank account) and offering facilities that you will never use. In passing, how do you know that you will never use them in the future? You can't, so be pragmatic and keep immediate objectives to the fore. We all have different objectives, so my solution is not the same as that of Dr J Bloggs, Lichenologist to the Queen. Don't wait for that ideal British Standards-approved recording package because when it comes (sorry, *if* it comes . . .) you can be certain that it will be designed not for you but for a major research or business team. Above all, don't be beguiled by that buzzword "compatibility" - anyone with experience of using computers knows precisely what that means. If others ever need to extract my detailed Shetland records and put them onto some monster national database, then they must pay to do it - I can't.

Kery Dalby

MICROLICHEN: A PROPOSAL OF A NEW DEFINITION

Micro-; micr-: prefixes taken from Greek, meaning small; they are opposite to macro- and mega -, meaning large, wide, profound, or big. (Font Quer, 1977; Stern, 1983).

Traditionally, different authors define microlichens as those which possess a small and not very evident thallus, that is dark coloured and generally crustose (Lindsay, 1973; Redón, 1985). In the *Dictionary of the Fungi* (Hawksworth *et al*, 1983) microlichens are defined as "small lichens, mainly crustaceous, which require microscopic examination for their identification." In contrast, macrolichens are defined as "one of the larger lichens of squamulose, foliose, or frutiose habit".

From both definitions, it is possible to assume that only crustose lichens should be considered as microlichens. Although their morphological characteristics cannot be appreciated with the unaided eye, crustose thalli are not always inconspicuous: they may cover extensive areas of rock, soil or bark, and they may often possess striking colours. Therefore, the suggestion that microscopic examination is necessary for their identification presents some problems.

Authors such as Swinscow and Krog (1988) include as macrolichens the "fruticose, foliose and squamulose species and crustaceous species with podetium-like fruiting bodies". Kantvilas *et al* (1985) also include the lichens which have filamentous thalli. On the other hand some of these lichens, which can be distinguished little or not at all without the aid of a magnifier (eg members of the Caliciales), should be considered, therefore, as microlichens according to the most common definitions. Likewise, certain foliose and fruticose lichens can present indistinguishable thalli as, for example, *Omphalodiella patagonica* and some representatives of the genus *Umbilicaria*. If we take into consideration Galloway's (1985) definition: "microlichen: crustose, generally small", it is even more confusing as this definition emphasises the habit rather than size, in contradiction to the etymology which refers to the lichen's size, not its habit. Consequently, there is no direct relationship between the thallus size and lichen growth form.

It is important to remark that the terms micro- and macrolichen are used in the sense of identification. On the way to a careful determination, **both** micro- **and** macrolichens need to be studied with the aid of the dissecting and light microscope.

In my opinion it would be helpful to establish a new definition that emphasizes the size of morphological structures rather than of the thallus. Therefore, I propose to define microlichen as follows: lichens in which the whole of their morphological characteristics can be seen only with a magnifier equal or larger than x 10.

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MICKLEHAM REVISITED!

Thanks to the work done there in the 60s and 70s, largely by Peter James and Joy Fildes, Mickleham Churchyard in Surrey, VC 17, had entered lichenological folklore, its 153 species attaining an apparently unassailable position at the top of the churchyard hit parade. It is only within the last few years that repeated visits to churchyards elsewhere, particularly in West Sussex (VC 13) and Northamptonshire (VC 32), have produced species' totals even approaching that of Mickleham. Yet these West Sussex yards lie in potentially richer areas with cleaner air than the Surrey location which is almost within shouting distance of the London suburbs. Surely now was the time to revisit Mickleham to assess its present lichenological value.

It was already suspected that the elms that had contributed so many corticolous records to the site's original list were no more and indeed this proved sadly to be very much the case. The corticolous flora was very depauperate, consisting largely of *Physcia tenella*, and it was to the saxicolous and lignicolous species that the five churchyard enthusiasts turned on a splendidly warm autumnal morning, accompanied by the insistent song of the chiffchaff, finding its voice again after its midsummer break.

Tom Chester, rather to his surprise, was duly elected leader for the day. This formality over, and noting the casual discovery of the first new one for the list, *Sarcopyrenia gibba* on a headstone top, the rest of us (Keith Palmer, Ishpi Blatchley, Frank Dobson and Kery Dalby) felt obliged to follow to the letter Tom's instruction to start our survey with the church wall, beginning at the south-eastern corner and working strictly clockwise. Inevitably, in spite of its unpromising appearance, this initial examination engaged us for the better part of three hours, up to lunchtime in fact. Early discussion in this south-eastern corner largely centred upon what exactly constituted *Lecania turicensis* and whether any or indeed all of a diverse variety of crusts discovered here could possibly be it! Later investigation confirmed that at least some of them were! Meanwhile, as we moved along the south side, on safer territory *Leproplaca chrysodeta* was found, unusually on this aspect but here in shade beneath an overhang. Likewise *Lepruloma vouauxii* and *Lepraria lesdainii*, also new to the churchyard, although presumably the former had in fact entered the list by its "old name" *Lepraria membranacea*. A few squamules of *Agonimia tristicula* were found on a moss cushion on the wall of the organ tower. A lichen generally taken to be fertile, *Caloplaca teicholyta*, was also noted in a sunny spot on the south wall. This fertile form however lacks the marginal lobing of *C. teicholyta* and could conceivably be a different taxon.

We peered at the limestone tiles of the west door porch (just out of hand lens reach as usual, even for Frank) where one suspicious thallus turned out to be *Aspicilia subcircinata*, a few fragments having been easily removed from the cracked centre - another new record. Iron run-off on a window ledge on the north side produced, as it often does, *Arthonia lapidicola*. *Dirina massiliensis* f. *sorediata* was duly ticked off for this wall. On compacted soil below the wall came *Collema tenax*, *C. crispum* and a small stone which yielded *Verrucaria dolosa* although many of the other black pyrenocarpous fruits collected during the day were found to be infected and their determinations remained in doubt. However, *Thelidium decipiens* and *T. incavatum* seemed fairly certain.

Tom and Frank visited the local hostelry and returned with sufficient supplies that turned the east end of the churchyard into an "ad hoc" beer garden. Needless to say the lunch period taken was quite lengthy but eventually we resumed with a somewhat more haphazard plan to examine the various memorials. However all stones and lignicolous habitats were finally inspected. *Caloplaca decipiens* was found to be common on one large limestone memorial in front of the west door while, especially in the north-west corner of the yard, *Parmelia verruculifera* was discovered to be present on several stones (additionally lignicolous on the nearby churchyard gate) and several thalli of *P. saxatilis* on another, neither species apparently recorded before. *Lecanora soralifera* was a somewhat unexpected find, on sandstone on the north side as was *Porpidia soredizodes* on a granite kerb at the east end. *Psilolechia leprosa* was present in small quantity beneath the copper run-off from a memorial plaque.

One south-facing wooden bench at the boundary of the churchyard, overhung on its northern side by trees, proved quite interesting with *Parmelia caperata*, *P. glabratula* var. *glabratula*, *Hypocenomyce scalaris* and *Hyperphyscia adglutinata*. At a low calcareous tomb several minutes were spent in discussion on a *Collema*/*Leptogium* discovered there. All present were asked to consider the specimen and all came up with different answers. *Leptogium turgidum* was ultimately settled for! On sandstone slabs *Lecidea fuscoatra* exhibited a confusing pattern of differing forms. One good find in the turf close to the north wall of the church was *Peltigera lactucifolia*, present in the past but not re-found for some years on casual visits to the site. The grass now grows longer at the east end of the churchyard which, while encouraging a more diverse range of higher plants, has led to the impoverishment of the terricolous lichen flora.

Also close to the church wall, this time at the southeast corner, a low slab

produced *Caloplaca isidiigera*, albeit infertile material. The only remaining Cladonias appeared to be *C. pyxidata* and, on an old larch stump, *C. chlorophaea* and *C. fimbriata*. A small piece of *Evernia prunastri* was growing on an acid tomb.

Towards the end of the meeting we reviewed our finds. Certain expected saxicolous species were missing (where on earth had *Physconia grisea* disappeared to?) but as we came to *Rhizocarpon geographicum* on the original list someone thought at last to look up on the roof, where indeed it is generally to be found in southern churchyards, and there it was!

In conclusion, it has to be said that Mickleham does not now exhibit features which distinguish it from any reasonably good Surrey churchyard and there will indeed be many in the west of that county potentially richer. This is largely due to the loss of the corticolous and terricolous flora (there was no sign of the wide range of *Cladonia* spp. previously recorded) but we also failed to find a number of saxicolous species previously reported (*Ochrolechia parella*?) while discovering a pleasing number of saxicolous lichens not recorded before. The total number of lichen species that have been recorded at Mickleham now stands at 179. The day's total after this year's survey was 105.

Species new to the site following the present survey:

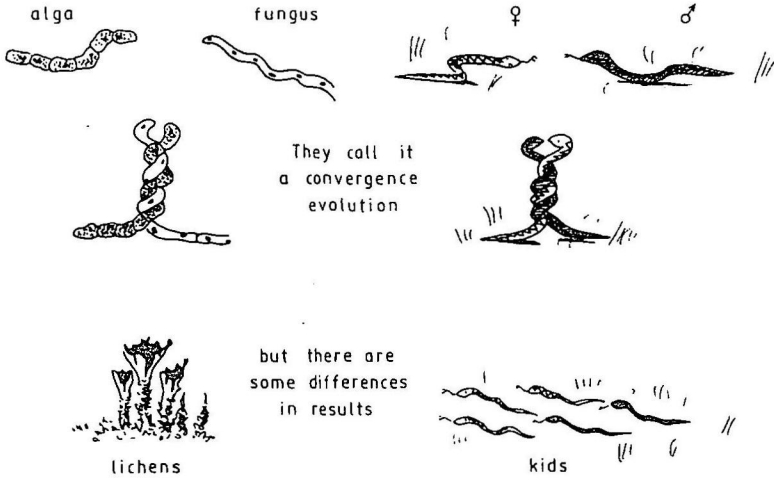
Agonimia tristicula
Arthonia lapidicola
Aspicilia subcircinata
Belonia nidarosiensis
Buellia aethalea
Caloplaca decipiens
Caloplaca isidiigera
Hyperphyscia adglutinata
Lecania turicensis
Lecanora albescens
Lecanora soralifera
Lepraria lesdainii
Leproplaca chrysodeta

Leptogium turgidum
Parmelia glabratula ssp. *fuliginosa*
Parmelia saxatilis
Parmelia verruculifera
Physcia tenella
Polysporina simplex
Porpidia soredizodes
Psilolechia leprosa
Sarcopyrenia gibba
Trapelia placodioides
Trapeliopsis flexuosa
Verrucaria dolosa
Verrucaria macrostoma

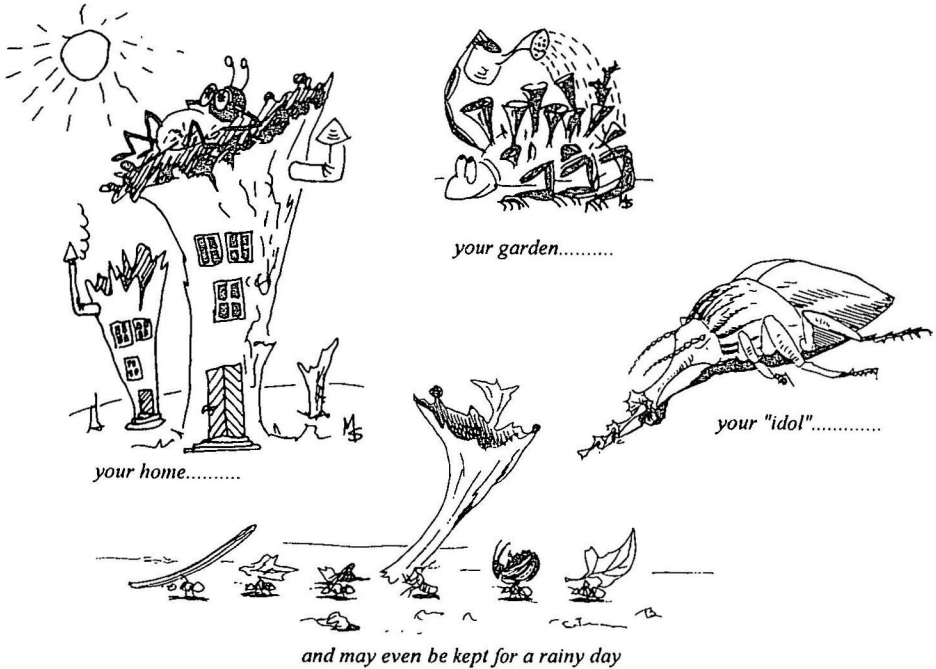
Keith Palmer

LICHENS AND THE REST

By Jolanta Miądlkowska & Michał Skakuj



As everybody knows zoologists are interested in animals and lichenologists in lichens. Ecologists search for correlations between the two and publish their findings in scientific journals. But what do inexperienced lichenologists and zoologists have to say about their - to say the least - awkward relationships: you can see for yourselves. Take the theme lichens and insects. Lichens can be.....



NEW, RARE AND INTERESTING BRITISH LICHEN RECORDS*

(Contributions to this section are always welcome. Please submit entries to Chris Hitch, The Whin, Wadd Lane, Snape, Saxmundham, Suffolk IP17 1QY, in the form of species; habitat; locality; vice county (VC); Grid Reference (GR); date; comments; recorder. Grid References may be abridged in the interests of conservation; they will be omitted when the record has been published elsewhere.)

Absoconditella annexa (Arnold) (1965): amongst algal scum on rotting conifer trunk, in small wood near Glenley, Glenogil, VC 90, Angus, GR 37/45-63-, alt 240 m, 1993. New to British Isles. Similar to *A. pauxilla*, but has longer, 5-7 (-9) - septate spores. Determined B J Coppins.

R C Munro

Acarospora durietzii Magnusson (1924): on sloping surface of brick wall, Westleton, VC 25, East Suffolk, GR 62/4—6—, June 1991. New to British Isles. This species has small, smooth and shiny chestnut-brown squamules with a pale edge on the underside. Ascumata are similar in colour or slightly darker than the thallus, 1 (or 2) per squamule, often filling most of the squamules, rough and plane with surface of squamule, spores broadly ellipsoid to subglobose. It is a species of non-calcareous rocks and is known from Greenland, Scandinavia, Finland and Holland. Determined C Roux.

P M Earland-Bennett

Acarospora nitrophila ssp. *normanii*: on sloping surface of sandstone wall of church (growing next to *A. cervina* on mortar), St Mary's Church, Woodbridge, VC 25, East Suffolk, GR 62/27-49-, January 1992. Determined C Roux:

P M Earland-Bennett

Acarospora nitrophila var. *praeruptorum*: on plywood board just above HWM, Battlesbridge, VC 18, South Essex, GR 51/78-94-, November 1988. Determined C Roux.

P M Earland-Bennett

Arthonia almquistii Vainio (1883): on thallus of *Amygdalaria pelobotryon*, Island Magee, VCH 39, Antrim, GR J/4—9— or D/4—0— without date [19th century], coll. D Moore. Specimen in E, determined B J Coppins. New to British Isles.

B J Coppins

*The task of collating "New, Rare and Interesting British Lichen Records" has been taken over from Frank Brightman by Chris Hitch. I would like to thank Frank on behalf of the Society for his contribution to this feature during the past five years. (Ed).

Arthonia muscigena: on ancient galvanized zinc watering can, Wangford Common Covert, VC 25, East Suffolk, GR 62/46-77-, February 1990. Determined B J Coppins. Forms a monoculture which is usually sterile (except for pycnidia) on old pails, jam pans etc.

P M Earland-Bennett

Arthonia punctiformis: on *Tilia* twigs, *Quercus* twigs (with *Mycoporum quercus*) and *Alnus* twigs (with *Stenocybe pullatula*), beside River Wharfe, Strid Wood, Bolton Abbey, VC 64, Mid-west York, GR 44/06-56-, August 1992. Also on *Sorbus*, Grassington Moor, VC 64, Mid-west York, GR 44/02-66-, August 1991.

P M Earland-Bennett

Arthonia punctiformis: on *Ilex* branches (with *Arthopyrenia punctiformis* and *Mycoporum hippocastani*), on *Crataegus* (with *M. hippocastani*) and *Alnus* branches, Darsham Marshes, Darsham, VC 25, East Suffolk, GR 62/42-69-, April 1991. Also on branches and twigs of *Juglans* (with *Arthonia radiata* and *Arthopyrenia punctiformis*), *Carpinus*, *Corylus*, *Crataegus* and *Fagus*, Sotterley Park, VC 25, East Suffolk, GR 62/46-85-, May 1992. This species has been overlooked in East Anglia, as have twig species in general. Apart from the phorophytes mentioned above, in Suffolk, I have also recorded it on twigs and branches of *Acer pseudoplatanus*, *Betula*, *Castanea*, *Populus*, *Quercus*, *Rhamnus catharticus*, *Sorbus* and *Tilia*. It seems to like bare twigs and branches catching full sunlight, with little or no competition from other species (such as *Lecanora conizaeoides* or *Desmococcus*-like algae).

P M Earland-Bennett

Arthonia punctiformis: in large quantity on branches of young *Betula* beside busy main road, Earsham, VC 27, East Norfolk, GR 62/31-88-, August 1992. Also on twigs of *Quercus* (with *Mycoporum quercus*), Earsham, VC 27, East Norfolk, GR 62/31-89-, August 1992.

P M Earland-Bennett

Bacidia egenula: on shaded base of brick wall of shed in cemetery, Wickham Market, VC 25, East Suffolk, GR 62/29-55-, June 1992. Determined B J Coppins.

P M Earland-Bennett

Bacidia fuscoviridis: on limestone boulders on side of old railway embankment, under young trees, Winscombe Hill, VC 6, North Somerset, GR 31/43-56-, 1993. In abundance and with occasional apothecia. This

commonly sterile species is apparently much more widely distributed than suggested in the *Flora*, the description in which also omits reference to the presence of soredia which are pale green to buff and produced along the margins of cracks in the thallus or in irregular soralia.

B J Coppins

Bacidia viridescens: on brick base to tomb in churchyard, Cockfield, VC 26, West Suffolk, GR 52/90-54-, February 1992. Determined B J Coppins. This would seem to be an under-recorded species which is widespread in East Anglia, often on odd substrates.

P M Earland-Bennett, C J B Hitch and P Cayton

Bacidia viridifarinosa: on shaded *Ulmus* roots (with *Opegrapha rufescens*), beneath rock overhangs, beside River Wharfe, Strid Wood, Bolton Abbey, VC 64, Mid-west York, GR 44/06-56-, August 1992. Determined B J Coppins.

P M Earland-Bennett and C J B Hitch

Buellia ocellata: on wooden gate!, Loudham, VC 25, East Suffolk, GR 62/32-54-, January 1992. Determined B J Coppins.

P M Earland-Bennett

Caloplaca isidiigera: on inclined bole of old *Salix*, Framlingham Mere, Framlingham, VC 25, East Suffolk, GR 62/28-63-, May 1992. Determined B J Coppins.

P M Earland-Bennett

Catillaria atomarioides: on coping of brick railway bridge, Broom Hill, Woodbridge, VC 25, East Suffolk, GR 62/26-47-, April 1992. Determined B J Coppins.

P M Earland-Bennett, C J B Hitch, and P Cayton

Chaenotheca hispidula: with *Lecanactis lyncea* and *Pertusaria hemisphaerica*, on old *Quercus*, Sotterley Park, VC 25, East Suffolk, GR 62/45-85-, August 1992. Determined B J Coppins.

P M Earland-Bennett and C J B Hitch

Chiodecton myrticola: on underside of leaning *Quercus* trunk, in coastal woodland, Woody Bay, Exmoor, VC 4, North Devon, GR 21/67-49-, alt 140m, 1993. An unusual woodland record for this rare species, which is, however, to be found in rock underhangs in a few places along the North Devon coast.

B J Coppins & A M O'Dare

Collema limosum : with *C. crispum* on bare soil of children's playground, RAF Bentwaters, VC 25, East Suffolk, GR 62/33-55-, September 1992. Determined B J Coppins.

P M Earland-Bennett

Cyphelium notarisii: on wooden posts at edge of tidal River Blyth, just above HWM, Blythburgh, VC 25, East Suffolk, GR 62/45-76-, June 1992. Determined B J Coppins.

P M Earland-Bennett

Dactylospora amygdalariae Triebel (1989) : on thallus of *Amygdalaria consentiens*, Craigie Doubs, Caenlochan Glen, VC 90, Angus, GR 37/17-76, alt 850 m, 1989. New to British Isles.

B J Coppins and O L Gilbert

Dactylospora attendenda (Nyl.) Arnold (1874): on thallus of *Amygdalaria pelobotryon*, Invermoidart, Westernness, VC 97, West Inverness, GR 17/66-73- (?) 1907/8, collected S M Macvicar; near Tarbert, Harris, VC 110, Outer Hebrides, GR 18/15-99- or 19/15-00-(?), 1959, collected S A Manning. Specimens in E. New to British Isles.

B J Coppins

Dactylospora australis Triebel & Hertel (1989): on thallus of *Porpidia macrocarpa*, Beinn nan Eachan, Breadalbane, VC 88, Mid Perth, GR 27/57-38-, alt 900 m, 1985. New to British Isles.

B J Coppins

Enterographa hutchinsiae: growing with *Porina chlorotica* on shaded gritstone rock overhang, beside River Wharfe, Strid Wood, Bolton Abbey, VC 64, Mid-west York, GR 44/06-56-, August 1992.

P M Earland-Bennett and C J B Hitch

Euopsis granatina: on top of boulder, Glas-choire, Kintail, VC 105, West Ross, GR 28/04-15-, alt 600 m, 1993. Green algae in the exciple, clearly seen in hand section (see *Flora*: 246-247) Determined A Fryday, confirmed B J Coppins.

A Fryday

Fellhanera subtilis: on fallen *Salix* in damp carr, Asselby Island, Boothferry, VC 61, South-east York, GR 44/72-26-, August 1991.

P M Earland-Bennett *et al.*

Fellhanera subtilis: on *Sambucus* at edge of wood, Hoe Lane, South Haningfield, VC 18, South Essex, GR 51/73-96-, July 1987. Determined B J Coppins.

P M Earland-Bennett

Lecanora navarrensis Etayo (1993); see "Literature Pertaining" in this issue. On lower trunks of parkland oaks, Crom Castle estate, Upper Lough Erne, VC H33, Fermanagh, GR H/3—2—, 1993. New to British Isles. Originally described from North Spain, but found recently also in southern Sweden (G Thor, pers. comm.). It is similar in appearance to *L. expallens*, but is a brighter yellow in colour and is C-, PD+ red (fumarprotocetraric acid and traces of atranorin); the very finely farinose soredia distinguish it from sterile *L. conizaeoides*. At Crom, it formed characteristically small patches, often delimited by a dark line and mostly less than 1 cm diam., amongst *Diploicia canescens*, *Enterographa crassa*, *Lecanora expallens*, *Pyrrhospora quernea*, *Schismatomma decolorans*, and *S. niveum*.

B J Coppins and A M O'Dare

Lecanora salina: on large pebble, main shingle ridge W of Porlock Weir, VC 5, North Somerset, GR 21/86-48-, 1987. New to SW England. The apothecial margins in this collection are often C+ red, agreeing with collections from southern Sweden. Determined B J Coppins.

A M O'Dare

Lecidea commaculans: on Millstone Grit crags, with *Micarea lignaria*, Burbage Moor, SW of Sheffield, VC 63, South-west York, GR 43/27-81-, 1993. New to England and first British record this century. Determined B J Coppins.

P A Ardron

Lecidea commaculans: on top of low basalt boulder, NW of Bearraich, Burg, Ardmeanach, Is. of Mull, VC 103, Mid Ebudes, GR 17/40-28-, alt 150m, 1993. Rediscovered in Scotland.

A Fryday

Lempholemma cladodes: in periodically, water-filled depressions on tops of limestone outcrops, by Little Dale Beck, NE of Ingleton, VC 64, Mid-west York, GR 34/75-80-, alt 320 m, 1993. New to England.

B J Coppins, O L Gilbert and A M O'Dare

Lempholemma radiatum: abundant on low limestone outcrops, Meall Mor, Glen Coe, VC 98, Argyll Main, GR 27/11-56-, alt 50 m, 1993. An exceptionally

low altitude for this rare montane species.

A Fryday

Leprocaulon microscopicum: abundant on gnarled and bossed trunk of ancient *Quercus* at edge of field, by Spa Brook, Filleigh Park, VC 4, North Devon, GR 21/66-28-, alt 90 m, 1993.

B J Coppins and A M O'Dare

Leptogium turgidum: abundantly fertile material covering some 30 square feet on soil, Ipswich town centre, VC 25, East Suffolk, GR 62/16-44-. April 1992.

P M Earland-Bennett

Lichenochora inconspicua: Hafellner (1989): on thallus of *Lecidea berengeriana*, Ben Lawers, VC 88, Mid Perth, GR 27/6—4—, 1889, herb. W Smith. Specimen in E. New to British Isles.

B J Coppins

Micarea coppinsii: on small sandstone rock in lichen-rich, submontane heath, Hard Hill, Moorhouse NNR, VC 69, Westmorland, GR 35/72-33-, alt 685 m, 1993. New to England.

A Fryday

Micarea misella: growing with *Micarea prasina* and *Actidium hysterioides* on rotting conifer wood on ground in wood, Walberswick NNR, VC 25, East Suffolk, GR 62/46-74-, June 1992. Determined B J Coppins.

P M Earland-Bennett

Mycoblastus alpinus: on shaded vertical surfaces of Millstone Grit boulders, Yorke's Folly, Bewerley, VC 64, Mid-west York, GR 44/15-63-, January 1977. Second English record. Determined B J Coppins.

P M Earland-Bennett

Mycoporum hippocastani: on twigs of *Crataegus*, Abbey Grove Cattery, Hockley, VC 18, South Essex, GR 51/85-93-, July 1992. Also f. *majus* on *Betula* twigs at same locality. New to Britain (combination into *Mycoporum* not yet made). Determined B J Coppins. *Mycoporum hippocastani* f. *hippocastani* is under-recorded and is probably ubiquitous on *Crataegus* twigs, even in areas affected by high levels of air pollution. I have recorded it in England from VC's 18 and 19, South and North Essex, VCs 25 & 26, East and West Suffolk; VC 27, East Norfolk; VC 31, Hunts; VC 53, South Lincoln; VC 55, Leicester; VCs 64 and 65, Mid-west York and North-west

York, and VC 69, Westmorland. It is particularly common in East Suffolk (recording bias here?) growing on bare twigs with little or no competition from other lichens or *Desmococcus*-like algae. It grows best in sunlit situations and is often in great quantity. Although most frequent on *Crataegus*, it is not confined to this phorophyte, and I have also recorded it in East Suffolk on *Fagus*, *Ilex*, *Sorbus* and *Tilia*.

P M Earland-Bennett

Mycoporum quercus: on *Quercus* twigs and with *Arthonia punctiformis* on *Corylus* branches, Sibton Green, VC 25, East Suffolk, GR 62/38-70-, October 1992. Also on *Quercus* twigs, branches and trunks of young trees, and on *Corylus* branches, Darsham Marshes, Darsham, VC 25, East Suffolk, GR 62/42-69-, June 1991. Once thought to be rare and restricted to western and northern Britain, this species is widespread in East Anglia, mostly on *Quercus* twigs, but also on *Corylus* twigs.

P M Earland-Bennett

Opegrapha demutata: growing with *Bacidia caligans* and *Lepraria lesdainii* in deep shade on the back of loose mortar of wall in farmyard, Sibton, VC 25, East Suffolk, GR 62/37-69-, June 1992. Determined B J Coppins.

P M Earland-Bennett

Parmelia protomatrae Gyelnik (1931): on slate roof, Debenham, VC 25, East Suffolk, GR 62/17-63-, October 1992. Determined B J Coppins. Also a few very large thalli on slate bungalow roof (with *Buellia badia* and abundantly fertile *Parmelia mougeotii*), Melton, VC 25, East Suffolk, GR 62/2—5—, September 1989. New to Britain. This species resembles *Parmelia conspersa* but differs in having no isidia, more crowded, convex lobes (especially older thalli) and numerous black pycnidia with bifusiform conidia. The underside is pale brown and the medulla is K- dirty brown (fumarprotocetraric acid). It is widely distributed and has been reported from Norway, France, Belgium, "Czechoslovakia", Italy, Hungary, "Yugoslavia", "USSR", Saudi Arabia and China.

P M Earland-Bennett

Polyblastia agraria: on detritus over sandy soil beside sea, Walberswick, VC 25, East Suffolk, GR 62/50-74-, June 1992. Also *Polyblastia agraria*: on cardboard in urban wasteland, Ipswich, VC 25, East Suffolk, GR 62/16-44-, November 1992.

P M Earland-Bennett, C J B Hitch and P Cayton

Pronectria santessonii: forming pinkish white, circular necrotic lesions on *Anaptychia runcinata*, on boulders below small overhanging cliff, Longskelly Rocks, N of Dirleton, VC 82, East Lothian, GR 36/50-86-, 1993. New to Scotland.

B J Coppins and A M O'Dare

Protoparmelia oleagina: on wooden roadside palings, Glevering, VC 25, East Suffolk, GR 62/29-56-, January 1992. Determined B J Coppins.

P M Earland-Bennett

Rhizocarpon furfurosum: on pebbles associated with areas of late snow lie, Bidean nam Bian, Glen Coe, VC 98, Argyll Main, GR 27/14-54-, alt 1125 m, 1992. Also recorded in a similar situation on the north side of Glas Maol, VC 92, South Aberdeen, GR 37/16-77-, alt 950 m, 1991. No evidence of mineralization at either site.

A Fryday

Rhizocarpon simillimum: on ± horizontal rocks on cliff-top outcrops, Great Burland Rocks, W of Woody Bay, Exmoor, VC 4, North Devon, GR 21/664494, alt c. 210 m, 1993. In small patches amongst *Rhizocarpon geographicum* and *Schaereria fuscocinerea* var. *sorediata*. Second British record, new to SW England.

B J Coppins and A M O'Dare

Rhizocarpon simillimum: on sunny vertical fine-grained igneous rock, Sgor nam Fiannaidh, Glen Coe, VC 98, Argyll Main, GR 27/13-57-, alt 200 m, 1992. Recently determined and new to Scotland.

A Fryday

Rinodina calcarea: on oolitic limestone headstone in churchyard, Stilton, VC 31, Hunts, GR 32/15-89-, August 1992.

P M Earland-Bennett, C J B Hitch and P Cayton

Rinodina calcarea: on oolitic limestone churchyard wall, Creton, VC 53, South Lincoln, GR 53/01-19-, August 1991. This species appears to be widespread on oolitic limestone in eastern England, but often sterile.

P M Earland-Bennett, C J B Hitch and P Cayton

Rinodina colobina: on old *Ulmus* stump between pastures, Stratford St Andrew, VC 25, East Suffolk, GR 62/3—6—, September 1992. Determined B J Coppins. This species like *Rinodina calcarea* has spores with an inner and outer wall. It was thought to be extinct in the British Isles.

P M Earland-Bennett

Rinodina pyrina: with *Caloplaca cerinella*, on old sycamore at edge of woodland, Thornton Glen, VC 82, East Lothian, GR 36/7—7—, 1993. New to Scotland and first British record this century. Easily mistaken for *R. exigua* (see *Flora*: 551).

B J Coppins

Sagirolechia protuberans: on low limestone outcrop, Knock Fell, Moorhouse NNR, VC 69, Westmorland, GR 35/71-31-, alt 750 m, 1993. First British record outside the Scottish Highlands.

A Fryday

Sarcopyrenia cylindrospora (P. Crouan & H. Crouan) Aguirre (1990): amongst crustose lichens on rusty old steel farm roller, Lower Hacheston, VC 25, East Suffolk, GR 62/31-56-, March 1992. Determined B J Coppins. New to British Isles. This species, which is characterised by having very long, narrow cylindrical spores, was previously known only from the type collection in France and from Spain.

P M Earland-Bennett

Sarcopyrenia cylindrospora: lichenicolous on thallus of *Candelariella vitellina* on wooden fence, Glevering, VC 25, East Suffolk, GR 62/2—5—, February 1993. Determined C J B Hitch. This second British record was found only 1.75 km from the previous find.

P M Earland-Bennett, C J B Hitch and P Cayton

Sphaerellothecium minutum Hafellner (1993): on thallus of *Sphaerophorus fragilis*, S of Divach Lodge, Drumnadrochit, VC 96, Easternness, GR 28/48-26-, 1975. Additional specimens in E: on *S. fragilis* from VCs 73, Kirkcudbright; 74, Wigtown; 88, Mid Perth; 108, West Sutherland; on *S. globosus* from VCs 88, Mid Perth; 92, South Aberdeen; 110, Outer Hebrides. New to British Isles. Probably a rather common, but overlooked species. Vegetative hyphae form a dark network on the host cortex, and produce minute perithecia, 50-80 μm diam, with hyaline, 1-septate spores, 9-11 x 3-4 μm .

B J Coppins

Sphinctrina tubiformis: on thallus of *Pertusaria pseudocorallina*, Ben Feall, Island of Coll, VC 103, Mid Ebuðes, GR 17/14-54-, 1983. New to Scotland, and new host. Determined L Tibell.

B J Coppins

Staurothele clopima: on semi-submerged rock in burn, Coire nan Beitheach, Glen Coe, VC 98, Argyll Main, GR 27/14-54-, alt 700 m, 1992. Second British record.

A Fryday

Stereocaulon vesuvianum var. *symphycheileoides*: on rusting metal of railway track, Avon Gorge below Clifton Suspension Bridge, Bristol, VC 6, North Somerset, GR 31/56-72-, 1993. New to SW England.

B J Coppins

Strangospora moriformis: on decorticate branch of *Sambucus*, Sotterley Park, VC 25, East Suffolk, GR 62/45-85-, May 1992.

P M Earland-Bennett and C J B Hitch

Strangospora pinicola: on wooden door of barn in farmyard, Cransford, VC 25, East Suffolk, GR 62/31-64-, June 1992.

P M Earland-Bennett

Strangospora pinicola: on bole of roadside *Fraxinus*, outside the University campus, Bradford, VC 63, South-west York, GR 44/15-32-, August 1992.

P M Earland-Bennett *et al.*

Strigula jamesii: on bole of *Juglans*, Sotterley Park, VC 25, East Suffolk, GR 62/46-85-, May 1992.

P M Earland-Bennett and C J B Hitch

Umbilicaria hirsuta: on north-facing slate roof of outhouse building, Pitfourie Farm, Moulin, Pitlochry, VC 89, East Perth, GR 27/94-59-. First report of this rare species from a man-made habitat. Determined B J Coppins.

P Lusby and J Wright

Verrucaria carnea (Arnold) Servit (1948): on shelly limestone block in pasture, Sotterley Park, VC 25, East Suffolk, GR 62/45-85-, May 1992. Determined P M McCarthy. New to British Isles. This striking species has salmon-pink perithecia and very large spores. It has only been found a very few times in Germany and Poland since its discovery 130 years ago. Since the recording, the block of stone has been buried by soil.

P M Earland-Bennett and C J B Hitch.

Verrucaria latericola: developing from thallus of *Caloplaca arnoldii* on coastal cliff, Wild Pear Beach, Combe Martin, VC 4, North Devon, GR 21/581479, 1990. New to England, and new host.

A M O'Dare

Veizdaea copbria Giralt, Poelt & Suanjak (1993); see "Literature Pertaining" in this issue. On turf capping of old wall under trees, Carie Wood, N side of Loch Tay, VC 88, Mid Perth 27/64-36-, alt 150 m, 1993. New to Scotland, previously known from England (VC 25, East Suffolk) and Wales (VC 46, Cardigan). Characterized by its minute ascomata, entwining paraphyses, large 0-1-septate spores, c. 19-24(-27) x 7-10 μm , and very minute goniocysts that usually contain only one algal cell.

B J Coppins and A M O'Dare

Veizdaea stipitata Döbberler & Poelt (1977): overgrowing thallus of *Polychidium muscicola* on ash, Killundine, Morvern, VC 97, Westernness, GR 17/59-47-, 1992. New to British Isles. Similar to *V. leprosa*, but thallus not granular, merely forming a thin film.

B J Coppins and A M O'Dare

ANNUAL BOOK SALE - JANUARY 1994

The next BLS annual book sale is to be held on Friday 7 January 1994. Most of the books to be auctioned have been kindly offered for sale, via the BLS, by Pauline Topham. From 25% to 50% of the proceeds will go to the Society's funds. Some of these books were offered for sale last year, but there are over 50 items remaining. These include books and large papers by Degelius (extra-European *Collema*), Krog (Alaska), Leighton (*Lichen Flora*, edn 3), B Lynge, Nylander (*Collected Lichenological Papers IV-VI*), Ozenda & Clauzade (*Les Lichens*), Runemark (*Rhizocarpon*), Sipman (*Megalospora*) Wunder (*Caloplaca*) and many more, as well as Vols 1-6 of *Herzogia*.

BLS members who are unable to attend the 1994 January meetings have, on this occasion, the opportunity of placing a postal bid. The list of Pauline Topham's items for sale can be obtained from:

Dr B J Coppins, Royal Botanic Garden, Edinburgh, EH3 5LR; or by phone (031 552 7171) or by FAX (031 552 0382).

IMPORTANT: For postal bids being placed after 20 December please make them c/o Dr O W Purvis at The Natural History Museum, London (FAX: 071 938 9260).

Brian Coppins

LITERATURE PERTAINING TO BRITISH LICHENS - 14

Lichenologist 25 (2) was published on 7 May 1993, and 25 (3) on 17 July 1993.

Taxa prefixed by * are additions to the flora of Britain and Ireland. Comments in square brackets are mine.

ETAYO, J 1993. *Lecanora navarrensis*, a new lichen species from North Spain. *Mycotaxon* 46: 453-458. Detailed description of this new species, subsequently discovered in Ireland.

FERRY, B W 1993. Lichen communities on the Lydd Ranges. *Sanctuary* 22: 44-45, and back cover. A popular account, with colour photographs, of the lichens of the Dungeness shingle system [VC 15] owned by the Ministry of Defence.

GIDDENS, C 1988. Division: Lichenes. In GIDDENS, C, BRISTOW, H & ALLEN, N (eds). *The Flora and Fauna of Exmoor National Park: a provisional check-list*. [Minehead: Exmoor Natural History Society.]: 33-46. A checklist of 356 lichens from Exmoor (in VCs 4 and 5), with brief indication of habitat and frequency.

GIERL, C & KALB, K 1993. Die Flechtengattung *Dibaeis*. *Herzogia* 9: 593-645. The genus *Dibaeis* Clements (1909) is reintroduced for the species of *Baeomyces* s. lat. with pink-coloured apothecia, including the type species *D. baeomyces* (L.f.) Rambold & Hertel [this combination is *in press* in another publication] (syn. *Baeomyces roseus*). *Dibaeis* differs from *Baeomyces* s. str. in, for example, having K/I+ blue asci and a different chemistry.

GILBERT, O L 1993. The lichen flora of Derbyshire - Supplement 3. *Naturalist* 118: 3-8. Updates the last supplement, published in 1983, including 53 new records for the county (VC 57). Some pollution sensitive species are now appearing in the county, but most new records arise from the more critical examination of moorland, ancient parkland, urban wasteland, and outcrops of basalt, Carboniferous Limestone and Millstone Grit.

GIRALT, M, POELT, J & SUANJAK, M 1993. Die Flechtengattung *Vezdaea* mit *V. cobria* spec. nov. *Herzogia* 9: 715-724. Notes are provided on the genus with a key to all known species. * *V. cobria* is newly described from Austria, Wales and England.

GOWAN, SP & AHTI, T 1993. Status of the lichen genus *Porpidia* in eastern Fennoscandia. *Ann. Bot. Fennici* 30: 53-75. Fifteen species are treated with a key and many useful notes. Following retypification, the name *Porpidia flavocaerulescens* is to be used for a non-sorediate taxon [*P. flavicunda* in the *Flora* p. 497] with *P. flavicunda* as a synonym, and *P. melinodes* (Körber) Gowan and Ahti [*P. flavocaerulescens* sensu *Flora* p. 497] is the correct name for the related, sorediate taxon.

HAFELLNER, J 1993. *Acarospora* und *Pleopsidium* - zwei lichenisierte Ascomycetengattungen (Lecanorales) mit zahlreichen Konvergenzen. *Nova Hedwigia* 56: 281-305. The genus *Pleopsidium* Körber (1855) is emended and reinstated for *P. chlorophanum* (Wahlenb.) Zopf (1895) (syn. *Acarospora chlorophana*) and its allies; they are shown to differ from *Acarospora* s. str. in various ways, including ascus structure, pycnidial characters and chemistry.

HAFELLNER, J 1993. Die Gattung *Pyrrhospora* in Europa. *Herzogia* 9: 725-747. A synopsis and key to the seven European species is provided, although *P. quernea* is the only British representative. *Hypocenomyce anthracophila* is considered to belong to *Biatora*, as *B. anthracophila* (Nyl.) Hafellner.

HAFELLNER, J 1993. Über Funde von lichenicolen Pilzen und Flechten im südlichen Norwegen. *Herzogia* 9: 749-768. Includes original description of **Sphaerellothecium minutum* Hafellner. [No British specimens are cited, but see "New Rare or Interesting British Records" in this issue.]

HAWKSWORTH, D 1993. Fungi recorded in the Ruislip Woods. *J. Ruislip District Nat. Hist. Soc.* 29: 3-26. A compilation based on 50 years recording in this, the largest wooded area within Greater London. The list includes 57 lichenized and several lichenicolous fungi.

HOLTAN-HARTWIG, J 1993. The lichen genus *Peltigera*, exclusive of the *P. canina* group, in Norway. *Sommerfeltia* 15: 1-77. Eleven of the 17 species treated occur in the British Isles [and the map for *P. scabrosella* suggests that it should be in Scotland!]. The detailed species accounts, and discussion of morphology and chemistry make essential reading for critical "Peltigerologists".

KÜMMERLING, H & LEUCKERT, C 1993. Chemische Flechtenanalysen VIII. *Lepraria lesdainii* (Hue) R. C. Harris. *Nova Hedwigia* 56: 483-490. The name "lesdainin" is given to the major substance (a triterpene)

recorded from this species. A map showing the European distribution of the 21 specimens examined is provided.

MATZER, M 1993. Beitrag zur Kenntnis der Ascomycetengattungen *Globosphaeria*, *Roselliniopsis* und *Synaptospora*. *Cryptogamie, Mycol.* 14: 11-19. *Polycoccum gelidarium* and *Synaptospora tartaricola* are transferred to *Roselliniopsis* Matzer & Hafellner as *R. gelidaria* (Mudd) Matzer and *R. tartaricola* (Nyl. in Leighton) Matzer, respectively.

MCCARTHY, P M 1993. Saxicolous species of *Porina* Müll. Arg. (Trichotheliaceae) in the Southern Hemisphere. *Bibliotheca Lichenologica* 52: 1-134. Several British species are alluded to in discussions and four are treated in detail, including *P. guaranitica* Malme (1929) (syn. *P. heterospora*). Strong arguments are provided in favour of including the genus *Zamenhofia* within *Porina*.

POELT, J & HINTEREGGER, E 1993. Beiträge zur Kenntnis der Flechtenflora des Himalaya VII. Die Gattungen *Caloplaca*, *Fulgensia* und *Ioplaca*. *Bibliotheca Lichenologica* 50: 1-256. Although dealing with the Himalayan flora, this revision includes treatments of several British species, and a key to the Himalayan species in English.

TEHLER, A 1993. *Schismatomma* and three new or reinstated genera, a reassessment of generic relationships in Arthoniales. *Cryptogamic Botany* 3: 139-151. *Chiodecton myrticola* is transferred to the resurrected genus *Syncesia* Taylor (1836) as *S. myrticola* (Fée) Tehler.

TEHLER, A 1993. The genus *Schismatomma* (Arthoniales, Euascomycetidae). *Opera Botanica* 118 1-38. A world revision (with maps) of the fertile species; the sorediate species that are not known with ascomata are considered to be of uncertain generic affinity. *S. umbrinum* is referred back to *Lecanactis*, on account of its chemistry, long, filiform microconidia, and ascomatal anatomy. *S. graphidioides* is the only British species accepted; *S. pericleum* is shown to be a distinct species, but no British specimens are cited.

WATLING, R 1993. *The Fungus Flora of Shetland*. Royal Botanic Garden Edinburgh. 98pp [Price £8]. Includes a few records of lichenicolous fungi and their hosts.

Brian Coppins

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Horizons in Lichenology by Dalby, Hawksworth and Jury (1988) . . £2.50

Key to the Lichen-forming, Parasitic, Parasymbiotic and Saprophytic Fungi by Hawksworth (1983)

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