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Edited by P W Lambley

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Cover art work *Cladonia cariosa* by Alan Orange

RECORDING METHODS IN FIELD LICHENOLOGY

Recently Dr Jacqui Middleton (on behalf of the BLS Data Committee) carried out a most interesting enquiry as to how members recorded their field observations - she found that about 83% of BLS members use note books. I was surprised though to see that one method, involving tape recorders, was not mentioned (presumably such users come in the residual 17% somewhere). I discuss it here because I feel it has great potential and practical advantages.

I use a small pocket tape recorder in the field, and transcribe onto paper after a day's fieldwork. I do not use a field notebook. I make no claim to originality here (indeed others in the 17% category almost certainly use it) . I was introduced to the technique by Alan Gray (now Professor Gray) many years back when not-looking-for-lichens on salt marshes in Essex. At that time some of us felt a bit shy of talking into electronic gadgetry publicly, but mobile phones (especially when "on the train") have banished that reticence.

Advantages? You can add verbal asides, impressions etc. for later clarification or amplification. You do not need to worry about ballpoint pens having dropped to the bottom of the rucsac amongst cold chisels and miscellaneous detritus, nor are you bothered by soggy notebook pages. You are not troubled by undecipherable handwriting due to cold hands and wobbling stance. Talking is vastly quicker than writing anyway - you can include ums and errs as well at this stage.

Disadvantages? You need to carry spare batteries (and cassette), and my recorders are prone to roaring and whistling in the ever-present Shetland wind (stand with back to wind and maybe cup the recorder with your hand). Another problem is that you quickly build up a very large amount of field information (some might say this is an advantage) - but anything surplus to requirements (such as those ums and errs) can easily be filtered before a fair copy is filed away. My Shetland data is stored in 'Year Files' as A4 transcriptions from the tape recorder, so the data is correctly preserved in paper format.

Of course it is still necessary to copy manually to a computer file (exactly as with record cards), and this can be time consuming (and boring), but once I've found time I can gallop through my data using PARADOX assisted by a couple of service programs written in GWBASIC (wonderful how the old and simple can survive in the face of state-of-the-art 'must have' technology).

D.H.Dalby

LICHENS ON A FOUNTAIN AT HOLYROOD PALACE, EDINBURGH (V.C. 83)

On 26th July 2005, a small group of BLS members visited Holyrood Palace, the Queen's official residence in Edinburgh, to inspect a fountain in the centre of the palace forecourt. Following a recent survey of the fountain, it became apparent that "biological colonization had reached a level where it could accelerate deterioration of the carvings and reduce the visual appearance of the monument". (Unsubstantiated rumours claim that persons in high places considered it to be unsightly.) Therefore, plans were being considered to clean the fountain and repair areas of loose stonework. However, Historic Scotland staff noticed the presence of lichens on the monument and invited some local lichenologists to visit before commencing any works. Thus, Irene Fortune and Raymond Raeburn of Historic Scotland were joined by BLS members Peder Aspen, Brian Coppins, John Douglass and Joe Hope. The lichenological examination of the fountain and its surrounding basin revealed the presence of 19 species on the fountain and its surrounds (see Table), plus one lichenicolous fungus (*Buelliella physciicola*, on *Phaeophyscia orbicularis*). However, especially in the upper parts, discolouration appeared to be caused largely by a mixed film of green algae and cyanobacteria.

This invitation from Historic Scotland gives a clear demonstration of the organization's awareness of the role of lichens in the built environment. It may be hoped that other property owners will follow suit.

The following description of the structure was provided by Irene Fortune:

"The fountain rises out of a circular basin reservoir, is octagonal on plan, and constructed on three tiers surmounted by a royal crown. It was erected by Queen Victoria in 1859 and the design is based on the fountain made for James V, known as the Kings Fountain, located in the middle of the close at the Palace of Linlithgow. The carving of the monument is the work of Edinburgh sculptor Robert Matheson with the small statues of historical figures designed by Charles Doyle and carved by John Thomas. The fountain and its associated ornament are carved from a siliceous sandstone, probably from the 'Binny' groups of quarries. The component sections of the fountain are bedded and jointed with lime mortar."

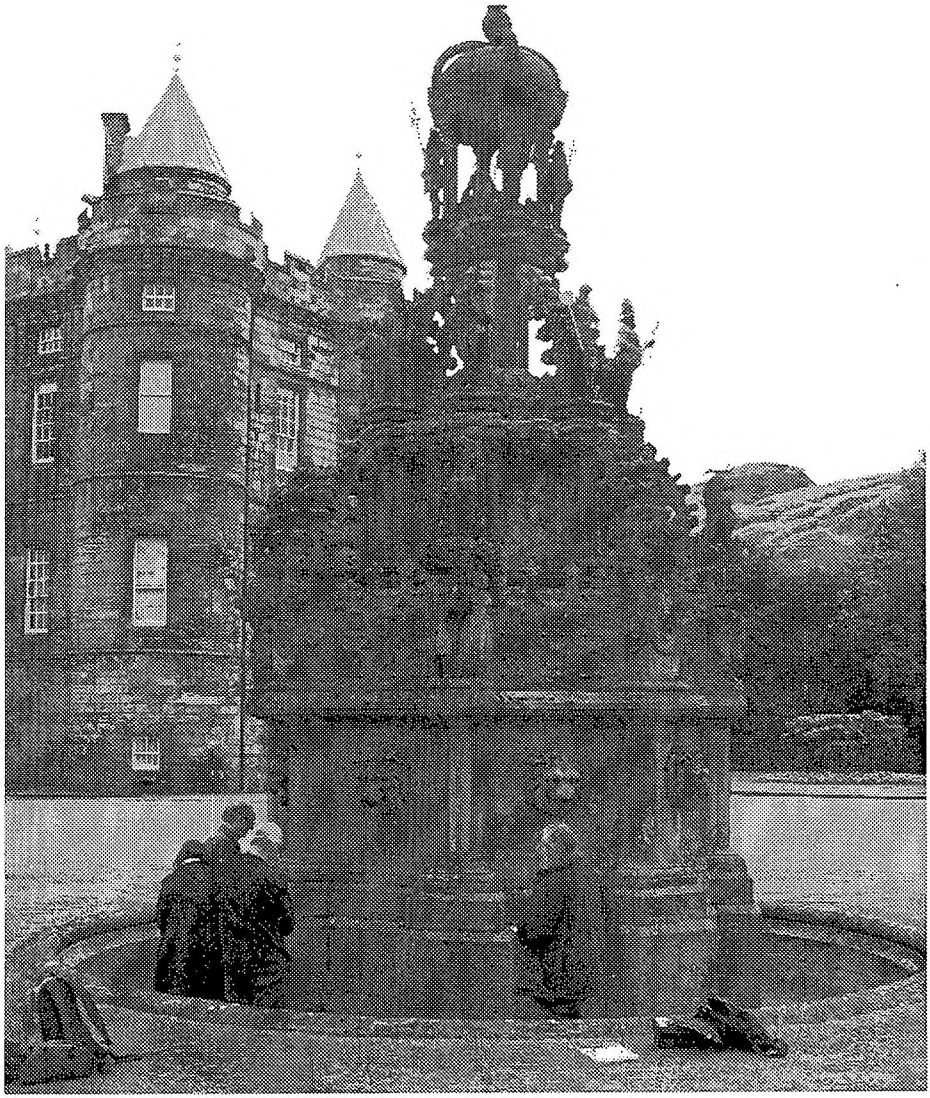


Fig 1. View of the fountain with Holyrood Palace and Arthur's Seat in the background. The figures are (from left to right) Irene Fortune, Raymond Raeburn, Peder Aspen and Brian Coppins. Brian stands in front of the monument's north-east aspect.

Table – Species recorded from fountain at Holyrood Palace on 26th July 2005

Species name
Caloplaca flavocitrina
Caloplaca holocarpa
Candelariella aurella f. aurella
Catillaria chalybeia var. chalybeia[1]
Lecania erysibe
Lecania inundata[2]
Lecanora albescens
Lecanora campestris subsp. campestris[1]
Lecanora dispersa
Lecanora muralis[1]
Lecidella scabra[1]
Lecidella stigmatea
Phaeophyscia nigricans
Phaeophyscia orbicularis
Physcia adscendens
Physcia caesia
Physcia tenella subsp. tenella
Scoliciosporum umbrinum
Xanthoria parietina

Suffices: 1 = found on wall of basin only; 2 = Nationally Scarce

Joe Hope

ROCKERS' WORKSHOP

21st May – 4th June 2005

The idea for a workshop for Lichen Apprentices on montane lichens (a Rockers' Workshop) was prompted by the awareness of a desperate need in the UK for young, active lichenologists to gain experience of montane lichens. Part of the grant from Scottish Natural Heritage (SNH) to the BLS was to be used in training lichenologists, so this seemed an obvious project. Planning started a year in advance, and Michigan State University agreed to Alan Fryday coming to Scotland to be co-leader of the Workshop with Brian Coppins. And it was great!! It was great for training, great for the camaraderie amongst participants, and great for lichens.

What was achieved? Overall, the preliminary results have produced over 400 new records for the 10 km squares visited. The benefit to the Lichen Apprentices was generally acknowledged by all who took part, and John Douglass has produced his personal Diary of the Workshop (elsewhere in this edition of the Bulletin). Alan Fryday has set up a Rockers' website, where detailed species lists of the sites visited can be seen, together with some of the photographs taken during the fortnight.

Full species lists are available on: http://www.herbarium.msu.edu/Rockers/

The workshop was operated from National Trust for Scotland (NTS) Base Camps at Mar Lodge and Kintail, both providing excellent accommodation (with good drying facilities). The last week of May and the first week of June were selected as (supposedly) this is the period when Scotland enjoys the lowest rainfall and greatest run of sunny days. Also, midges are supposed to be only just emerging, bracken a manageable impediment, and snow patches are still lying in sheltered corries. Sounded delightful, but don't believe all you read.... The weather for the first week was cool and damp, with fresh snow on the Cairngorms, but on the second week it rained most of the time.

We aimed to cover Scottish montane sites in the Eastern Highlands (Cairngorm Mountains), and Western Oceanic Highlands (Kintail, and the Trotternish Ridge on the Isle of Skye). In week one, around Braemar, we saw lichens growing on a variety of rock substrata, including limestones, slates and schists in the southern half of our area, but mostly nutrient depleted, neutral rocks such as siliceous schist and granites in the northern half, and including the Cairngorm Granite which is well exposed in the corries and boulder fields east of Beinn a' Bhuird.

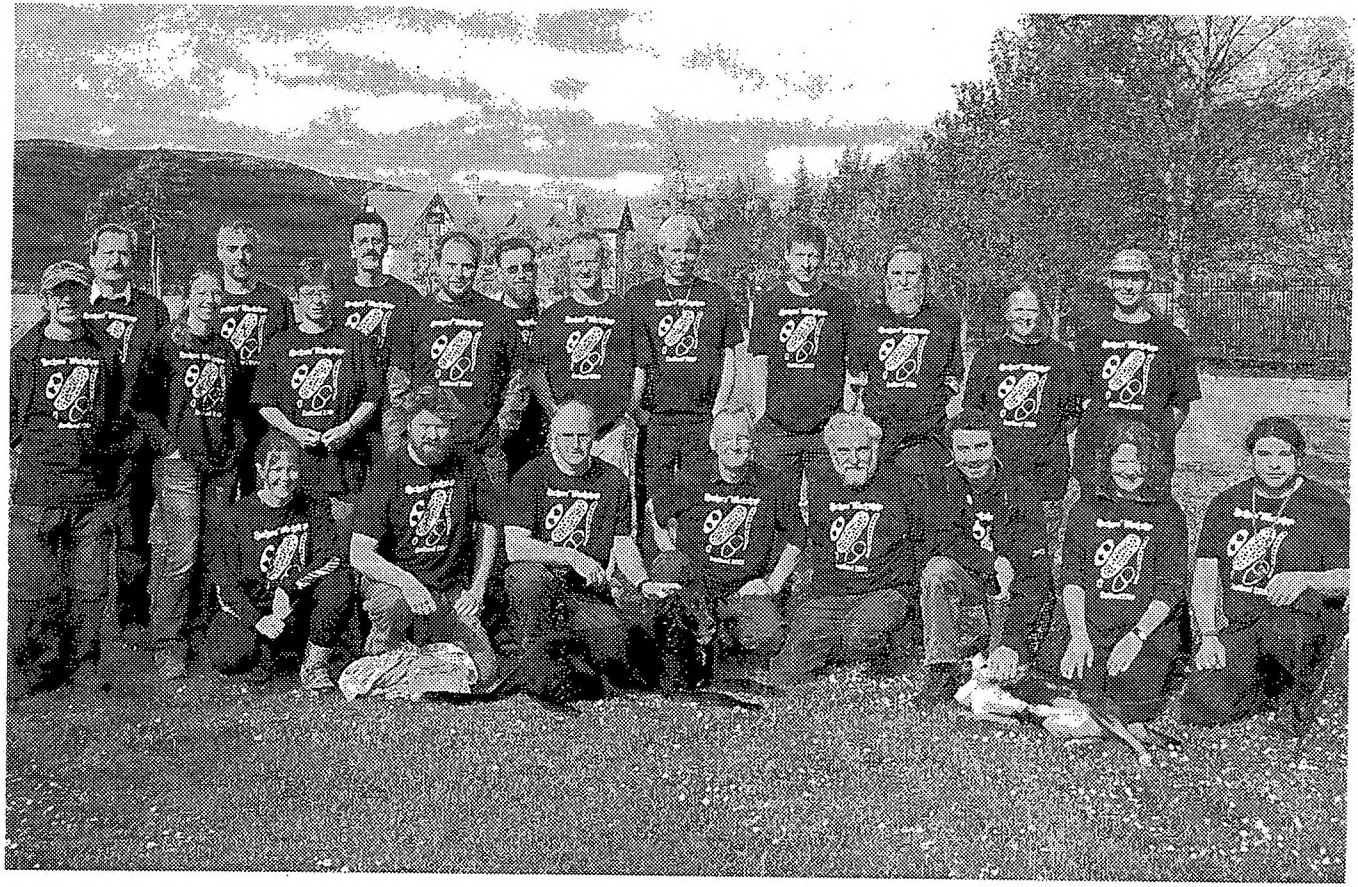


Fig 1 Participants sporting their Rockers Workshop Scotland 2005 t-shirts

The second week, in Kintail, was badly hampered by the rain, but the work continued on montane sites and included a long walk into Coire an Sgairne. A churchyard and an old copper prospect were also visited, together with a short look for lichens growing on an ultrabasic rock, exposed in the Glen More River at Glen Elg. The Ratagan Granite was not examined as it is now very heavily forested. The wet weather did have the advantage, though, of enabling more microscope work to be undertaken. This was an important part of the workshop, that material could be identified as well as collected, and participants were able to take advantage of available expert tuition.

To 'break the ice' and encourage participants to relax and all feel silly together, it was decided that everyone could have a special black Rockers' t-shirt. Alan Orange provided a 'spore design' to go on the front; then Joe Hope used his expertise to put the complete front and back design together and go to a splendid t-shirt printer in Edinburgh. All 22 members of the Workshop were photographed wearing their *Rockers' Workshop Scotland 2005* t-shirts for a press release to the quaintly named local paper the *Deeside Piper and Herald* (see p.6 Fig 3). We also made page 3 of the *Aberdeenshire Press & Journal* ("the Voice of the North") and at 7.15 a.m. on Saturday morning 28th May, Ray Woods gave a superb live radio broadcast via a telephone link to Radio Scotland's *Out of Doors* programme.

We operated on a self-catering basis which worked amazingly well, providing a lively topic for speculation each evening, but led one participant to remark that he had no idea it was to be a gourmet event for food as well as lichens!

That the Workshop was a success is due in no small part to the contributions made by everyone who took part. Alan Orange and Alan Fryday both provided preliminary keys to genera (*Lecidea*, *Porpidia*, *Rhizocarpon* and pyrenocarpous species). Brian Coppins provided several microscopes, chemicals and other necessary equipment, courtesy of the Royal Botanic Garden, Edinburgh. Alan Orange also brought along a mobile TLC kit, so was able to demonstrate the value of TLC in naming some difficult species. Brian also brought along an ancient (but very serviceable) grinding wheel, which was bolted onto a table and wound into action each night to sharpen blunted chisels.

Chris Ellis was volunteered to drive the mini-bus, with help from Andy Cross. For the first week, Andrea Britton had use of a long-wheel base Landrover, courtesy of the Macaulay Institute, and this proved valuable logistic support for approaching the northern corries on the Invercauld Estate side of Beinn a'Bhuird. A preliminary list of

potential sites was drawn up by Brian and Alan Fryday, and Anna Griffith (while still with SNH) provided all necessary details about land-ownership and access contacts.

The workshop was partly funded by the BLS through a grant from Scottish Natural Heritage (SNH). Sponsorship also came from the National Trust for Scotland through generous concessions over the cost of accommodation at Mar Lodge, together with providing transport part-way up onto the high ground. Invited members who were not Lichen Apprentices paid £300 each to attend: these included Frank Bungartz (Munich), Jutta Buschbom (Düsseldorf), Steve Chambers (Wales), Tassilo Feuerer (Hamburg), Vince Giavarini (Dorset), Katie Glew (Washington), Alan Orange (NMW, Cardiff), Peter Scholz (Schkeuditz) and Ray Woods (CCW). The 11 Lichen Apprentices are: Andy Acton, Peder Aspen (geologist), Andrea Britton, Andy Cross, John Douglass, Chris Ellis, Anna Griffith, Richard Hewison, Nick Hodgetts (bryologist), Joe Hope and Louise Olley. The party was completed by Alan Fryday and Brian Coppins, with Sandy Coppins acting as overall organiser ('Commandant'), making 23 participants overall.

Our special thanks go to Peter Holden, Alistair Clunas, Sandra Dempster and other NTS staff at Mar Lodge, for the huge amount of help and assistance they provided, making our stay very successful and comfortable.

Peder Aspen & Sandy Coppins

ROCKERS' WORKSHOP 2005, BRAEMAR & KINTAIL: A PERSONAL ACCOUNT

As one of the Lichen Apprentices and co-coordinator of the Scottish Lichen Churchyard Group, I have a particular interest in saxicolous lichens. The following account is my personal diary of the Rockers' Workshop fortnight.

Sunday 22nd May.
VC 92, South Aberdeenshire: Braemar, Mar Lodge Estate, Glen Lui, **bridge below Creag an Diuchd**, 37(NO)063.914, alt. 400 m; E side of bridge, consolidated turf (parking area) with concrete rubble; within Eastern Cairngorms SSSI and: VC 92, South Aberdeenshire: Braemar, Mar Lodge Estate, **Clais Fhearnaig**, 37(NO)06.93, alt. 500 m, valley with SE-facing crags (including limestone) & NE-facing scree and narrow lochan; within Eastern Cairngorms SSSI.

We walked from the car park to the east side of the bridge over the Lui Water and came across a mini ecosystem on the gravel/peaty track-side containing *Peltigera rufescens* (with *Polycoccum peltigerae), Solorina spongiosa and Verrucaria bryoctona.* We then hiked north up the track to Clais Fhearnaig to a boulder scree with siliceous schist and a limestone outcrop. Here, we encountered the dark brown upland, exposed form of *Platismatia glauca.* Brian scrutinised a huge boulder near the top of the scree for a long time and found a considerable number of species, including *Fuscidea austera, F. gothoburgensis* and *F. intercincta.* On the limestone we found *Acarospora glaucocarpa,* the bright orange/red apothecia of *Gyalecta jenensis* var. *jenensis* together with *Protoblastenia calva, P. incrustans* and *P. rupestris,* and on bryophytes *Caloplaca cerina* var. *chloroleuca* with its vivid green fruits. The rain came on after an hour, so we had lunch then carried on up the track where we found masses of *Stereocaulon condensatum* on a recently disturbed shallow banking of peat. Peder Aspen and Andy Cross headed off to try to locate some more limestone. On their way back, Peder twisted his ankle whilst eagerly trying to view his specimen of *Stereocaulon condensatum* at the same time as running to catch up to the main group.

Monday 23rd May.
VC 92, South Aberdeenshire: Braemar, Mar Lodge Estate, Glen Lui, **Creag an Diuchd**, 37(NO)05.91, alt. 500 m; NE-facing crags, with part calcareous influence; within Cairngorms SSSI.

Parking by the side of the track we had a short few hundred metres walk to the overhanging rock face and boulder scree. A dead Scots pine on the way up produced the nationally rare *Lecidea botryosa.* On boulder scree we noted *Micarea subnigrata, Umbilicaria cylindrica* and *U. polyphylla.* On the rock face we encountered *Caloplaca obliterans* and *Peltigera britannica,* with *Chaenotheca furfuracea, Micarea botryoides* and *Leproloma diffusum* var. *chrysodetoides* in the sheltered under-hangs, the latter confirmed back at base by Alan Orange's TLC. Alan was demonstrating the TLC drying procedure over a hot plate, when the glass plate shattered across the workbench. However, we were able to retrieve it and put the pieces back together like a jigsaw puzzle.

Tuesday 24th May.
VC 92, South Aberdeenshire: Braemar, Invercauld Estate, **Craig Leek**, 37(NO)18(-9).92(-3), alt. 400–500 m; NE–E-facing crags, partly limestone; within Craig Leek SSSI.

This was a phenomenal site with new species for me turning up all over the place. We got our eye in on the boulders near the track with such crustose lichens as *Clauzadeana macula, Carbonea vorticosa, Rimularia gyrizans* and *Schaereria*

fuscocinerea. The *Parmelia*-types were well represented here, with *Arctoparmelia incurva*, *Melanelia disjuncta*, *M. hepatizon*, *M. stygia*, *Neofuscelia pulla* and *Parmelia discordans*. We found a large boulder with the greenish-tinged fruits of *Orphniospora moriopsis*, and the distinctive clustered black apothecia of *Lecidea auriculata*.

Stopping at a large and intricate sheep fank, Brian found *Miriquidica atrofulva* and Alan Fryday picked up *Protoparmelia atriseda* which (after lunch) we found in quantity on the side of one of the walls. We had to pull ourselves away from the riches of the sheep fank to go to the crags. Not far from the crags Brian found *Cladonia luteoalba* growing on exposed peat and I stopped to have a look at a single elder perched on the slope to find *Caloplaca cerinella* and *Strangospora ochrophora* growing on branches. Resting at the start of the scree, Brian and I found an *Acarospora* sp., and on limestone *Aspicilia contorta* subsp. *hoffmanniana* and *Rinodina bischoffii*. Just below the crag on a wet ledge I came across a number of small thalli of *Lempholemma botryosum*. Alan Fryday traversed across the ledge to confirm the find.

On the way back we waited at a massive boulder for some of the group to catch up. Joe spotted a strange pyrenocarp, which we collected and upon describing it to Vince he thought we might have found *Megaspora verrucosa*, which we had been asked earlier by Brian not to collect! Upon closer inspection back in the lab however, we were relieved to find that it was just *Polyblastia theleodes*. Vince had found *Arthrorhaphis alpina* on a cliff face at Craig Leek, a somewhat unusually low altitude for this comparatively rare montane species. On the scree we found large quantities of *Lecidea silacea* and some *Buellia ocellata*. Further down, on the top of a boulder I found a *Micarea*-like thing, with a whitish granular thallus and small convex black fruits; Chris Ellis had also found this thing and correctly identified it that night as *Lecidea wulfenii*. On our way back, a Peregrine falcon wheeled into view above the crags screeching its annoyance at being disturbed by us. A large boulder just before the exit track was home to *Calvitimela aglaea* and *Fuscidea austera*. On our way out in a drain near the path we spotted a strange bright yellow fungus which Ray identified as Bog beacon (*Mitrula paludosa*).

Wednesday 25th May.
VC 92, South Aberdeenshire: Braemar, Mar Lodge Estate, track from Glen Quoich to Beinn a'Bhuird, S, E & N of Carn Allt na Beinne, and mostly at **An Diollard**, 37(NO)07(-8).95(-6), alt. 500–780 m; moorland, montane heath and boulders; within Eastern Cairngorms SSSI.

Hiking up the mountain trail the weather began to deteriorate as we headed into low cloud. I had my first encounter with *Alectoria nigricans* and *Flavocetraria nivalis*.

Cetraria islandica and *Ochrolechia frigida* were also frequent among the *Calluna* heath. The weather had closed in on us and the rain was sweeping across the mountain making conditions very poor for lichenology. Myself and Alan Orange took more sheltered positions on the mountain side, away from the prevailing wind, and began to inspect boulders and rocks in among the *Calluna*. We found *Clauzadeana macula, Fuscidea intercincta* and *Lecidea pycnocarpa* f. *pycnocarpa*. The rain and wind had both increased so we all decided to have a last half hour and then descend. Before we left, I grabbed a rock which had a strange looking *Micarea* on the shaded side; this was later identified by Brian as *Micarea pseudomarginata.*

Thursday 26th May.
VC 92, South Aberdeenshire: Braemar, Invercauld Estate, **eastern corries** [western part] **of Beinn a'Bhuird**, 37(NO)08.98(-9), alt. 850–1100 m; montane rocks, heath, snow patches and lochans; within Eastern Cairngorms SSSI.

Our march in was a long one, despite the fact that we were dropped off by the kind-hearted Mar Lodge Ranger Service. On the way to the corries we found on exposed peat *Cladonia zopfii, Pertusaria dactylina,* some well developed *Pycnothelia papillaria* and under the heather on peat *Thelocarpon strasseri* at an unusually high altitude. We were then treated to a Fryday Stop. This phenomena was first described by Peder as: Alan F. stopping to wait for the rest of the group to catch up, taking off our packs for a breather, getting our flasks out for a cup of tea and developing into an exchange of life stories and finally a quick look around for lichens. Here I found *Rhizocarpon hochstetteri* and proceeded to turn a small granite boulder into rubble with the back of my 16oz geological hammer in order to get a nice specimen. On a large boulder just before we entered the Corrie, Alan F. pointed out *Lecidea luteoatra, Miriquidica nigroleprosa* and a strange form of *Lecidea confluens*, which looked like it had minute lirellate soralia.

Joe Hope and I decided to take a different route to Dubh Lochan. On our way up, the massive boulders (some the size of a small room), proved tough going but we found *Toninia squalescens* growing with bryophytes on flat boulder surfaces. At this point I had a nose bleed and managed to lose my hammer, all these new finds were becoming a bit much for me. We ate lunch behind one of the massive boulders and watched the figures of Peder, Alan and Steve Chambers prowling across this impressive boulder-strewn landscape below. Peder's group found *Calvitimela aglaea* and Steve had the find of the week, with *Brodoa intestiniformis* growing on boulders just above the water line on a small chain of Lochans. This species had been found by Peter James in the 1960s in this area but on exposed boulders higher up the Corrie, and it had not been re-found since. This was clearly a different habitat, in a more sheltered and

humid niche. We found large numbers of thalli on boulders close to and in the lochans just above the water level.

Friday 27th May 2005.
(i) VC 92, South Aberdeenshire, **Inver Hotel** (east of Braemar) NO 29
Chris Ellis treated myself, Peder, Nick Hodgetts and Richard Hewison to a look at the Inver Hotel aspen stand. Here we saw three of the four aspen specialists: *Lecanora populicola* (with the parasitic *Candelariella superdistans*) and the sorediate *Caloplaca ahtii. Leptorhaphis atomaria* eluded us.

(ii) VC 92, South Aberdeenshire, **Craig Choinnich** NO 16 91, alt 400-538m, South Aberdeenshire, Braemar, Invercauld Estate, alt 400 – 538m.
Brian, Nick, Chris and I then headed out to Craig Choinnich (one of the regular stomping grounds used by the lichen training courses held at Kindrogan) where Brian showed us *Protoparmelia nephaea*, *Rimularia intercedens*, *Lecanora swartzii* and the yellow footballs of soredia on *Rhizocarpon ridescens* growing on south facing crags. Later, we walked down to a stone dyke where the bright yellow thallus of *Pleopsidium chlorophanum* occurs. This species has only one other known British site.

Saturday 28th May. We moved to our new base camp in Kintail and set about converting the lobby into a fully functional lab.

Sunday 29th May.
VC 105, West Ross: Kintail, Kintail Estate, **N slope and crags of Beinn Bhuidhe**, 18(NG)977.217 to 982.220, alt. 50–300 m; siliceous rocks on slope and damp N-facing crags.

We set out walking from the Base Camp in light rain and stopped to investigate siliceous boulders along the path. I found *Thelocarpon laureri* growing on a cocoon on the side of a boulder. Other finds on boulders along the path included the beautiful shiny black lirellae on the white thallus of *Lithographa tesserata*, and *Pilophorus strumaticus* looking like a dark green and black version of *Baeomyces rufus*. Myself, Alan Orange and Peder carried on up the track and had a look in a couple of small gullies to find *Polyblastia cruenta* and *Porpidia hydrophila*, which Alan sectioned in the field to reveal the bright blue hymenium. Alan then crossed a burn and Peder and I decided to cut straight up and over into the corrie which was piled with boulder scree. On top of these boulders we found the distinctly dodgy custard-coloured crust of *Toninia thiopsora.* Later we found *Umbilicaria hyperborea* and the parasite *Epilichen scabrosa* on *Baeomyces rufus*. Alan was working on the other side of the Corrie and found *Ionaspis odora* and *Stereocaulon tornense*. Just before we left the Corrie I was

waiting while Peder stopped for a 'pee stop' I picked up a small stone with a strange black and white crust; this turned out to be *Stereocaulon plicatile*.

Monday 30th May.
VC 104, Mid Ebudes, Skye, Trotternish Ridge, **The Storr**, 18(NG)500.540(-2), alt. *c.* 450m; basalt boulders and crags.

Peder and I were the last to leave the car park and we met up with the group half way up the hill as the dense conifer forest opens up to the impressive weathered and pointed rock formations. The group were checking out a large boulder supporting colonies of *Stereocaulon symphycheilum* and *Coccotrema citrinescens*. Further up we stopped at another group of boulders and Alan showed us *Rhizocarpon caesium* and *Porpidia islandica*. On the crags *Pannaria hookeri* and *Vestergrenopsis elaeina* were re-found. Peder and myself then headed up another crag to find *Gyalecta jenensis* var. *jenensis*, *Bilimbia sabuletorum* and a brown diminutive form of *Dermatocarpon intestiniforme*. On the way back, Joe and myself stopped off at a small boulder field and found the yellow sorediate thallus of *Pertusaria flavicans*.

Tuesday 31st May, VC 105, West Ross:
(i) VC 105, West Ross: Dornie, **Carr Brae**, 18(NG)895.244(-5), alt. 130–150 m; W-facing crags, including metalliferous seam, but this mostly heavily shaded under trees.

Peder and myself went to explore the potential of this copper prospect, Brian would meet us later on. The weather was calm, warm and sunny and we had a lovely view of Loch Duich looking like a huge mirror. The west-facing crags produced an impressive saxicolous *Lobarion* flora including *Pseudocyphellaria intricata*, *P. norvegica*, *Fuscopannaria leucophaea*, *F. mediterranea*, *F. sampaiana*, *Pannaria conoplea*, *Parmeliella triptophylla* and *Peltigera britannica*. The ash, elm and hazel trees also supported a good *Lobarion* community. The shaded copper prospect cliff face produced a few interesting finds including *Rimularia intercedens*, *Rinodina interpolata* and *Tylothallia biformigera*.

(ii) VC 105, West Ross: Kintail, Kintail Estate, **St Dubhthach's Church** (Kintail Old Parish Church), 18(NG)946.210, alt. 10 m. Grade B listed Ancient Monument.
We finished the afternoon at St. Dubhthach's Church where we met Sandy and Jack the dog who had been for a walk in the hills. Peder and I coordinate the recently formed Scottish Churchyard Lichen Group and we were glad to have Brian helping out with this mission. The path to the churchyard was covered in *Xanthoparmelia conspersa* and near the entrance we found *Collema fuscovirens* on a low concrete wall. We worked our way round and Brian pointed out the small grey thallus of *Caloplaca chlorina*, which could have easily been overlooked for grey crud. Peder and Sandy

went back to base camp to prepare his Iranian meatballs for supper and Brian and I continued. We found *Leptogium cyanescens* on a shaded wall amongst bryophytes and I pointed out a strange looking thallus on a chest tomb, which looked a bit like a *Rinodina*. This turned out to be the Nationally Rare *Halecania spodomela*. The churchyard turned up 93 records including 7 nationally scarce, 1 nationally rare and 1 international responsibility.

Wednesday 1st June.
VC 97, Westerness: **Glenmore River, NE of Suadalen**, 18(NG)88.17, alt. 90 m; riverside woodland (hazel, ash, alder, birch); serpentenite outcrop; boulders in side-stream; moorland. Serpentine outcropping by river & under trees.

On a tip off from Peder (and despite the light rain), we decided to have a look at some serpantenite outcrops by the Glenmore River. The rocks revealed *Fuscopannaria leucophaea*, *Lecidella anomaloides*, *L. asema*, *Leptogium lichenoides* and some of the best-developed lobes of *Sticta sylvatica* I have ever seen. The hazel woodland supported *Pseudocyphellaria crocata*, *Parmeliella parvula* and *Peltigera collina*.

I moved across the moorland to a burn and found Alan Orange on an aquatic lichen hunt. He had found *Placynthium flabellosum* and *Rhizocarpon lavatum* in quantity and was proceeding to take a few *Verrucaria* samples. Further upstream we found *Aspicilia laevata* on a boulder by the bank, together with the dark green squamules of *Massalongia carnosa*. The rain was getting heavier at this point so we decided to retreat back to the minibus.

Thursday 2nd June.
Skye Mid Ebudes. VC 104 (18) NG 585 185 Limestone outcrops Torrin, **Strath, near camas Melag**.
Peter, Jutta, Alan Orange, Joe and I headed out at around 1 o'clock to look at some limestone on Skye. Alan knew a site, which he had surveyed before. When we got there the rain was so heavy we voted to go to the nearest tearoom and sample their tea and cakes. We found a place called the Blue Shed and ran from the car park to the tearoom in the pouring rain. Joe and myself went for a luxury hot chocolate drink (with cream and maltase's). Immediately, Alan O. knew he had made a poor choice in going for the tea. Myself, Joe and Jutta went for a huge slice of Lemon meringue, which was a tad heavy in the pastry department. Alan had made the correct choice this time, with his slice of sticky chocolate nut cake.

We went out in the rain for a second assault on the limestone and found that it was coated in what Oliver Gilbert had called the 5 layers of obscurity: one on either side of your glasses; one on either side of your viewing lens, and one covering the rock. We

managed to make out some *Protoblastenia* sp. fruits, and the delicately crinkled apothecia of *Petractis clausa*. Alan O pointed out *Lepraria nivalis* on the limestone underhangs near the Allt nan Leac Burn, and I knocked off several mosaics of specimens with my hammer to review when we got back to dry land. They later revealed *Clauzadea immersa*, *Collema fuscovirens*, *Hymenelia prevostii*, *Verrucaria baldensis* and *V. caerulea*.

Friday 3rd June.
VC 104, Mid Ebudes, Skye, Strathaird, Bla Bheinn, **Coire Uaigneich**, 18(NG)54.21, alt. to 250 m; calcareous rocks in deep ravine, and siliceous rocks and boulders.

The weather was decidedly dodgy with persistent light rain. The group split at the car park, with Brian Coppins taking a group to look at Kilmarie graveyard. Alan Fryday headed the group up the moorland track. We had problems crossing the swollen burn, with a number of the party getting a soggy boot full. We had to cross the raging burn again at the site, to get to the rock faces in the steep ravine. The rock face contained a few members of the Lobarion community including: *Degelia plumbea, Pseudocyphellaria intricata* and the bright green lobes of *Peltigera leucophlebia*. The dry under-hangs contained *Opegrapha gyrocarpa* and *Porina ginzbergeri*. *Strigula confusa* was found on the vertical face of a large boulder growing on moss near *Coccotrema citrinescens*. On the way back I decided to pile straight into the river instead of trying to skip across the slippery rocks.

Concluding remarks
This was a tremendously enjoyable and educational trip. Having the experts on hand to determine specimens in the field and in the lab was incredibly useful. I returned with a few bagfuls of specimens, some of which I am still working on. I would like to thank the following people for making the trip so successful and memorable:
Sandy Coppins for her outstanding work in organising and running the workshop and for her comments on the first draft.
Brian Coppins & Alan Fryday for helping to set up and run the workshop and their invaluable assistance with identifications.
Chris Ellis for driving the minibus.
Alan Orange for his tuition with TLC and identifications.
Vince Giavarini and **Steve Chambers** for their assistance with identifications.
All the cooks, washer-uppers and cleaners.

John Douglass

SPRING FIELD MEETING APRIL 2005
ORIELTON IN PEMBROKESHIRE

This field-meeting report is dedicated to the memory of our dear friend Oliver Gilbert whose intellect, humanity and boundless energy and enthusiasm were an inspiration to us all.

By-and-by the many-windowed front of Orielton appears amidst the rolling woodlands that cluster about a pretty lakelet lying in the hollow of the vale

H Thornhill Timmins 1895

This engaging fascination with lichens that we all share often takes us to places of extraordinary beauty and interest. Orielton and the county of Pembrokeshire must rank high amongst the list of such places. After a day spent in the company of that most challenging of all life forms, the adolescent school child, followed by miles of urgent motorway driving (it would not do to have missed the first meal of the field meeting!), the sight of Orielton was a balm, it appeared as an oasis of peace and charm. And the Pembrokeshire countryside, once the traveller has passed St. Clears, has a similar effect on the fatigued and jaded mind. This lovely county has links with England perhaps more tangible than any other part of Wales and these ties involve a close weft of ancient history, warring kingships, regicide and blood. The "bluestones" of Stonehenge were hauled from the rolling uplands of the Prescelly Hills to form one of our most treasured monuments; the Normans laid down a frontier of castles across the southwest of Wales that has become a linguistic divide—The Landsker—separating an anglicised southwest ("Little-England-beyond-Wales") from a Welsh-speaking culture to the North. And the poignant burial mounds in my local Leicestershire church of Shenton speak of Henry Tudor's march from Dale, supported by Welsh followers, to the bloody battlefield of Bosworth and the slaying of Richard III. In terms of natural history however, and particularly the lichen flora, this close association ceases for, unlike many English counties to the east, Pembrokeshire is a treasure chest of lichen rarities which testify to its outstanding air quality, its variety of habitats—unspoilt woodlands, fine churches, rocky uplands and miles of coastline—and to its mild moist climate. It was to this treasure chest and its largess that The Society was attracted for its spring field meeting of 2005.

Thursday 21st April: Bosherston Lilly Pools and Stackpole NNR

A lovely morning with a glorious sunrise lifting from the horizon to the east that gave all the promise of being a memorable day—and it did not disappoint. The famous crystal clear waters of the Lilly Ponds at Bosherston were visited in the morning and the wooded lakeside paths and causeways explored. *Flavoparmelia soredians* was

found on a handrail between the western and central arms of the pools and the trees bordering the waters supported a fine corticolous flora.

The carboniferous limestone above the western arm held our interest for some time. The *Aspicilion calcareae* alliance was particularly well developed and several associations within this community were present, blending into each other and reflecting different microhabitats. *Caloplaca aurantia, C. flavescens* and *C. cirrochroa* (that loveliest of all the *Caloplacas*) formed an intricate tapestry of colour on a background of *Aspicilia calcarea* and several of the paler *Verrucariae.* Alan Orange was there to guide us through the difficulties of the *Verrucaria fuscella* group and *V. canella* was collected for later analysis. Three species of the genus *Protoblastenia* (*P. calva, P.incrustans* and *P. rupestris*) were present as a "rash" of orange and yellow spots on one limestone block, close enough to be compared almost without moving the hand lens. The two look-alikes, *Caloplaca dalmatica* and *C. ochracea* were separated after prolonged discussion—but then there is nothing like warm spring sunshine on the backs of lichenologists lying prostrate on a carpet of soft grass to dispel haste and urgency. A diversion into *Salix* carr where the water level was low enough to allow access produced the most luxuriant thalli of both *Sticta sylvatica* and *S. limbata* growing around pools full of the moss *Fontinalis antipyretica.*

Luncheon, looking out over Broad Haven, was shared with two dogs. It is said of dog owners—no, that is the wrong phrase; better perhaps, as those who share their lives with dogs—that they take on the characteristics of their animals and vice-versa. What then are we to make of a lurcher who preferred to sit so far away from the party and to bestow upon us such disdainful looks that it was embarrassing and yes, we did check our personal hygiene etc for anything which might have offended. The only break in the dog's composure was an obvious occasional discomfort caused by the antics its pack mate, a terrier, whose only interest in life, other than doting on its master, seemed to be that of giving every suitable detached stone a fierce and very noisy savaging!

The afternoon was spent looking at the stones outcropping from the turf about an ancient settlement site. *Bacidia herbarum*, a rare lichen of calcareous turf, was found, together with *Cladonia firma,* with a characteristic pale violet under surface, and *Clauzadea metzleri* low down in the humid recesses between the rocks.

A stroll back across the Broad Haven beach (avoiding looking too intently at that infallible indicator of the start of the British summer—the first topless sunbather—and, of course, desperately trying to hide my binoculars!) brought us to the rock cutting at the outflow from the Lilly Pools. Though a gloomy habitat, it was not without interest. *Placynthium subradiata,* formed small olive coloured concentric arcs

on rocks facing the sun and was an interesting new species for most of us. Frank located *Solenopsora holophaea* in the dark recesses.

And what better way was there to end this day of sunshine, fine company and wonderful lichens than to share tea and cakes with our companion for the day Robin Crump (the previous Director of Orielton) and his family. The alfresco meal was enjoyed in their lovely garden; one complete with a tinkling water cascade flowing through a blaze of flower colour and scent. I am proud to say that even in this idyll lichenology was not completely off the agenda and a number of members, with stomachs too full of cake and risking indigestion or worse, were soon on their knees looking at the lichens on the damp stones of a rockery, and later arguing about the name of a *Ramalina* growing on the apple trees.

Friday 22nd April: Marloes, Gateholm Island and Wooltack Point

A day of breathtaking seascapes, the rhythm of the tides, and a lichen rarity to satisfy even the most discerning. Marlows is a lovely beach—one of the finest in Britain. Its clean sands have been pulled into a gentle arc by the resistant old-red sandstone of Hooper's point to the southeast and Gateholm Island to the southwest. It faces the fury of the Atlantic and, seen during a storm, with a fetch of thousands of miles to the Americas piling breakers up to fearsome heights, it is a site never to be forgotten. Summer finds it the Mecca of the surfboarders and the beach boys (and girls!). Today it was deserted except for the BLS, and we were more interested in Gateholm Island. This ancient, 3rd-6th century, settlement site is accessible at low tide and we had timed our visit to coincide with such an event. The descent down to the sands of The Neck was a very cautious affair, a case of everyone fearful of a fall or of being fell upon, but once under the lee of the rearing red cliffs of the island The Society was soon engaged in what it does best, dividing its labour into " chippers", garnering samples to hoard away in herbaria, " observers" with hand lens to eye, drifting from this find to that, and of course "socialites" chattering about this and that, and often about nothing. Lest I offend anyone it should be said that the former two classes in the BLS are not mutually exclusive from the latter at times! There is no safe access to the island from this northern corner, although a few did climb above the beach looking for "treasure" but found only dross—but attractive things for all that. A notable species was *Bacidia scopulicola*, a fawn-yellow granular lichen growing in the cracks of boulders high up on the beach.

We rounded the first buttress into a bay backed by rock outcrops and steep slopes ablaze with thrift *Armeria maritima* and the golden yellow of kidney vetch *Anthyllis vulneraria*. Common maritime lichens were noted on route—*Verrucaria maura, V. mucosa, Lichina pygmaea* and the usual *Caloplacas*. Above the high water mark

progress was precipitous and most of the party were content to record from the rocks at the top of the beach. Nineteen years ago Pat had found *Degelia ligulata* here, high on the cliffs, and Ray Woods was a man with a mission. On a previous visit equipped with field glasses he had seen, in a high rocky cleft, a lichen that had a certain "jizz"—a special look. He had hopes that *Degelia ligulata* was still there and was prepared to risk all in order to attain it. The gods often favour the brave and so it was today; after much traversing and cautious climbing there was a shout of success. His two dogs left on the beach were less enthusiastic at the risk and the possible demise of their beloved master. The prospect of a new owner, perhaps even from amongst this strange party, was almost too much to bear and, of course, there was the immediate worry of an uncertain food supply at the end of the day!

A sample of the treasured lichen was found to be detached from the main thallus and was carried down to the party in triumph. *Degelia ligulata* is an extreme oceanic species needing to feel the breath of a great sea close by, and with only a few sites known in the UK, is one of our great rarities. It is a lovely species, in a non-showy way, with a befitting oceanic grey-green colour and with marginal lobes patterned by pale tracery—almost appearing like frosted windows. We left Ray exploring the island where he later reported that he had found more material—*Degelia* still flourishes in its island fortress!

We returned to the mainland with the tide sweeping in. The remains of the paddle steamer "The Albion" (these sands are named after this tragic vessel) that foundered here on its maiden voyage in 1924 was a poignant reminder that this beach is not always one of warmth and good company.

The afternoon found the party at Wootack Point on the hard acidic rocks of the "Skomer Volcanic Series". This headland is the largest Iron Age fort in the southwest and within the wall crossing the neck of the promontory there is always a feeling of mystery and of being watched by spectres from the past.

The outcrops below the coastguard lookout station kept our interest for some time. Hard, dark grey and finely crystalline basalt these rocks have been worked over by lichenologists many times before and yet they still hold their secrets and new finds can be made. Bridgett Ouzanne located *Dirina massiliensis* form *sorediata,* and both species of *Roccella* soon followed. *Lecidella asema* was a common lichen in this exposed site, and fertile *Pertusaria pseudocorallina* with few isidia caused some problems with identification. *Lecanora confusa, L. ochroidea* and *Tephromela grumosa* were also of interest

A huge block of quartz conglomerate visible on the horizon to the south was visited. It was shaggy with the common coastal species of *Ramalina* including *R. polymorpha* growing below bird perching sites. This species is a mainland outlier of a flourishing population on Skomer Island. *Verrucaria fusconigrescens,* and *Physcia dubia* were recorded from the edge of the stone, facing the sea, and *Diploica canescens* was abundant on the lower surfaces.

Out at the point itself the view has few rivals anywhere on this coast. The broad expanse of St Brides bay stretches to the north, and the grey Atlantic swells march in past Skokholm Island to the southwest but always the eye is drawn the great bulk of Skomer Island to the fore. To add a little more drama to the scene, if that was possible, there was a half tide flowing in Jack Sound, between the mainland and island, and the waters were boiling with malevolence. We turned our backs on the maelstrom and returned to the interest that had brought us here and surveyed the rocks of the point. *Amandinea lecideina, Rhizocarpon polycarpum* and *Verrucaria internigrescens* were new finds for many of us. Increasing rainfall sweeping in from grey skies to the east hurried us back to the mini bus.

It had been a truly wonderful day full of interest and variety, and, of course, lasting memories.

Saturday 23rd April: Tycanol NNR

An overcast start, with intermittent rain showers but, buoyed up by the finds of the past two days, spirits were high and the long drive to Tycanol seemed to pass quickly. It was helped by almost a party atmosphere in the minibus with much banter and joking being the order of the day.

The Prescelly Hills with their rolling uplands are quite unlike the rest of the county and once past the bridge over Milford Haven they rose before us until they filled the horizon. We climbed up from the ancient peneplane underpinning the southern Pembrokeshire landscape to bleak uplands with rocky outcrops and today a topping of mist. Tycanol National Nature Reserve lies on the northwestern edge of the Prescellies with the Atlantic only a few kilometres away. It is a wood of glades and dappled shade and of thickets of oak, ash and hazel. Some woods are best seen in the wet, with a damping mist that adds an atmosphere of mystery. The bryophytes are then at their greenest and finest, all covered with the bright pearls of raindrops. This is true of Tycanol for it is in every sense a Celtic wood with prehistory in the form of stonewalls, settlement mounds and fortifications mouldering under a green coat of moss. It possesses a magical presence and also one of the finest lichen floras in Wales with a total number of recorded species now approaching 400. Our guide, Pat

Wolseley, probably knows this flora better than anyone and it was inevitable that we would come away from the reserve dazed with the abundance of species never seen before.

Rock outcrops are a feature of the wood, from craggy outcrops and *roche moutonnées* to boulder fields left by the Irish Sea ice. Today they limited the view and in the gloom and mist navigation and positioning were constant worries. With tales from our leader of souls lost and abandoned in the wood for hours after wandering off, most of the party remained close and, even though this reduced the field of search, the combination of a large number of lichen associations as well as many unusual and rare species produced constant interest.

The epiphytes were remarkable and many trees were covered with a shaggy mat of species. The oceanic climate encourages both foliose and fruticose species on branches and twigs. The *Usneetum articulato-floridae* var. *ceratinae* association was particularly well represented with a spectacular community of *U. florida, U. cornuta, U. flammea and U. rubicunda* and one horizontal bough had *U. articulata* hanging in festoons. *Hypotrachyna laevigata* was common. This is a characteristic species of these high rainfall areas to the west and forms part of a distinctive upland oak wood community. Other members of this alliance recorded by the party included *Sphaerophorus globosus, Cladonia chlorophaea, C. coniocraea, C ochrochlora* and common species of the genera *Hypogymnia, Ochrolechia* and *Parmelia. Hypotrachyna endochlora* cascaded down a mossy boulder together with the grey lobes of *H. taylorensis* – Wilson's filmy fern *Hymenophyllum wilsonii* was a delightful associate on the same site. The under hangs of adjacent boulders were green with species of *Lepraria* including *L. crassissima* (with a reassuring C+ red reaction) and the *Lepraria* look-alike *Lecanora ecorticata* was also present. Luncheon was eaten in the rain but the conversation was not dampened and flowed back and forth punctuated with laughter and high spirits. In the afternoon our route took us between dramatic rock outcrops with steep and overhanging faces where unusual saxicolous species abounded. *Tylothallia biformigera, Opegrapha saxicola, O gyrocarpa* and the speciality *Schismatomma umbrinum*—in its type location—were recorded.

The steady downpour at last broke the spirit of exploration and in spite of the leaders obvious disappointment at not being allowed to show us more delights we headed back to the vehicle. A second species of filmy fern *Hymenophyllum tunbrigense* was found in a steep sided gully that also yielded *Lepraria membranacea*. The quietly purposeful Alan Orange had to be almost carried away protesting; such was his dedication to the business of relevés and quadrats –often attempted on his knees in the most gloomy and unprepossessing of sites.

Tycanol will be remembered with great pleasure as an enchanting wood of undisturbed beauty and tranquillity.

Sunday 24th April: The Royal Armoured Corps Range at Castlemartin and the "Forbidden Coast"

At last, that most remarkable of all major sites—one not previously visited by the British Lichen Society!

On this bright sunny morning we found ourselves dutifully signing disclaimer forms in the lee of Romulus and Remus, two old battle tanks positioned "rampant" on either side of the entrance to the artillery range. Whilst waiting for a double (or was it triple) signature of acceptance by the military we looked at the concrete surface of the car park. It promised to yield a good total, if a painful one! It had the appearance of egg-cartons cast in concrete, forming spiky bosses interspersed with grass—not the most comfortable of kneeling surfaces. All the usual lichens of anthropogenic structures were recorded—*Caloplaca citrina, C. crenulatella, Lecanora albescens, L. dispersa* etc. almost too common to list, but this was unexplored territory and every species was a new record for the site. This expensive but lichenologically interesting surface is under threat. Cheaper alternatives of bitumen are being considered—cheaper, but less conducive to lichen growth. Who was it, I wonder, who so acerbically pointed out "There is nothing someone can't make a little cheaper, and a little worse!"—it might almost be the opening lines of an anthem to modern times. We seemed to be settled in for an interesting half hour or so but the frenetic nature of the day was soon imposed and we were whisked away by our guide Bob Haycock.

The ranges were entered by a track to Brownslade Farm, an imposing ruin that, unlike its rather dowdy name, had the appearance of a Spanish hacienda. The willows *Salix* sp. and scrubland about Franslake cottage and pool were covered with interesting epiphytes. Notable species were *Caloplaca ceracea, C. cerinella* (checked in the evening for its eight spores per ascus—*C. cerinelloides*, now appearing in the midlands, has sixteen) *Usnea esperantiana* and possibly a new British species of *Anisomeridium* with large pycnidia, *A. robusta* (ad int.). A limestone outcrop was looked at and a quadrat completed by Alan Orange. The results from the quadrat (appendix 1) indicate how important this in depth analysis is, with several species being recorded for the first and only occasion during the meeting. Included amongst these were *Catapyrenium pilosellum, Hymenelia prevostii, Opegrapha rupestris, Placynthium nigrum,* and *Toninia verrucarioides.*

One lichen had been recorded on the range prior to our visit, the very noticeable but rare *Fulgensia fulgens,* and it was to this site on Brownslade Burrows that we next turned our attention.

Fulgensia is always impressive, but in the abundance that it grows on these dunes, it was a remarkable sight and soon all the party were prostrate as if felled by a burst of ordnance. Many of its associates were present that included *Bacidia bagliettoana, Diploschistes muscorum* (in abundance) *Leptogium schraderi, Collema tenax, Toninia sedifolia* and numerous *Cladonia*. The immediate area about the litter of copper bullets and brass cartridge cases covering the surface were searched for metallophytes – *Vesdaea*'s etc. but we were disappointed. The numerous bleached bones of dead sheep proved to be an interesting habitat and supported –in addition to common species such as *Lecanora dispersa, Caloplaca citrina* and *Xanthoria parietina—Bacidia saxenii,* a lichen often found on such an unusual substratum. Sheep droppings themselves were even more interesting with *Cladonia rangiformis* firmly in residence, together with many "little black dots" that proved intractable when looked at under the microscope.
The view out to the southwest at the breakers crashing over the wave cut platform of The Pole was quite awesome, their menace somewhat softened by clouds of spindrift plucked from the wave crests and thrown into the air. It was too good a sight not to savour and luncheon was called and, of course, in these surroundings with the call of the gulls and the bright spring sunshine it became a lovely social occasion. The "grandees", as perhaps befitting of their status, sat higher on the slope but, I'm pleased to say, that the rank and file refused to be overawed and subjected them much verbal abuse and teasing.

A small woodland on the slopes of Castle Lady Valley was visited early in the afternoon and a few more corticolous species were added to the list. Spent munitions—at least we all hoped that they were spent—were of great interest (at a distance, of course) to those of us in the party who are still children at heart. A piece of rusty shrapnel yielded *Candelariella vitellina* f. *vitellina.*

With the hot sun taking its toll on our reserves of energy a journey in the mini bus along the southern sea cliffs became a welcome diversion. Frequent stops were made to gain some idea of the potential of this habitat for possible future surveys. A further *Fulgensia* site added a few more taxa.

Many of the stops however were in response to the remarkable geology and coastal landforms on view. These must be the finest limestone sea-cliffs in Britain with synclines following anticlines in a magnificent sequence of folding and faulting. Throw in numerous blowholes, sea stacks, natural arches and caves and even those not turned on by "the melodious but difficult language of geology" recognised that this

was a unique area. The "hard landscaping" of shattered and rusty combat tanks and the litter of warfare seemed merely to emphasise the natural beauty of our surroundings rather than to detract from it.

Other aspects of the natural history of this fine landscape threatened to take over. Choughs *Pyrrhocorax pyrrhocorax,* those fascinating red billed and legged members of the crow family, were observed feeding, and flying in their characteristic wild buoyant manner. Their "kyow"—"kyow" calls seeming to exagerate the wildness of this dramatic scenery. Whimbrels *Numenius phaeopus,* were also common.

A remarkable colony of marsh fritillary butterflies *Euphydryas aurinia* was located by the trackside, and an amazing hatch of caterpillars witnessed and marvelled over. These were enchanting creatures, jet black with a white speckled lateral stripe and brown prolegs and covered in a felt of hairs and spines. It was difficult not to stand upon them, so numerous were they, as they busied themselves in their search of their food plants, devilsbit scabious *Succisa pratensis,* and plantains *Plantago* sp.

A final "jewel" of a site was visited and surveyed in the slanting light of glorious afternoon sunshine. The "Sunken Forest" (SR9460394019) is a collapsed underground cavern forming a steep sided cone 12 metres or so in depth and filled with ash trees. The lichen flora was as interesting as the geology and Lesley Balf, the recorder at this site, was soon overwhelmed with records shouted from the group. Notable species for which this was the only recorded site during the week included *Acrocordia conoidea, A. salweyi, Sclerophytonomyces circumscriptus, Sticta limbata* and *Verrucaria elaeina.*

These ranges form a remarkable ecosystem, but a fragile one. True, the live firing of ordnance must be destructive to localised parts, but vast areas remain untouched and protected by its importance to the MOD. The consequence of not having this protection is too dreadful to contemplate but caravan sites, golf courses and grassland improvement are amongst the more benign possibilities. Winter grazing by sheep from Tycanol farm on the Prescellies (a Welsh form of transhumance) maintains the close-cropped turf where lichen and other species flourish. This is an essential part of the management of the site and we hope that this can be maintained in the face of changes in grant-aid to farmers.

Our thanks must go to Bob Haycock for leading us so patiently about this unusual site and for his fascinating insights into its wonderful natural history. His humour, boundless enthusiasm and knowledge were invaluable bonuses. We are also very thankful to the Ministry of Defence for allowing us access.

Monday 25th May: Llangloffan Fen and Stumble Head

That kindest of mornings, warm spring sunshine but with the keen edge of winter's passing, a blending of the seasons that at this time in the year is quite unbeatable. Today there was to be the drive to Llangloffan Fen and then out to Strumble Head and the grey Atlantic. One hint of regret, this was my last day. One change of routine, I was to follow the mini bus in my own transport. There are however some advantages in not being chauffeured, and even in not sharing the company of the party. Not only was I cheered by numerous hand waves from the rear window of the bus but during the journey was also able to fully appreciate the extraordinary beauty of this countryside. After the perils of the journey the wood at Llangloffan Fen was a haven of calm. Grasshopper warblers *Locustella naevia* sang from the reed beds lining the stream draining the valley and reed buntings *Emberiza schoeniclus* welcomed or presence with their monotonous calls.

A broad wooden walkway made progress through the fen very pleasant and our raised viewpoint, several feet above the marsh gave an interesting perspective. The wood has a fine epiphytic flora. On slender willows around an area of bog myrtle *Myrica gale* we found *Parmeliella parvula* together with sheets of *Nephroma laevigatum,* 3 species of *Sticta,* and *Peltigera horizontalis, P. membranacea* and *P. praetexta.* A thick sorediate yellowish crust caused some debate. It began as *Lecanora expallens*, but was C-, then to *L. compallens,* and finally identified as *L. jamesii* though a morph possessing an exuberantly sorediate morphology. One final interesting habitat was a metal box supported above the reeds at the edge of the wood. This had a complete covering of *Buellia aethalea* that was confined to only the horizontal upper surfaces, including the top of each hinge and bolt.

Luncheon was a reflective affair on the banks of the stream with an ancient road bridge at our backs. This bridge, although recently partly repointed, still supported many interesting calcicoles (on the mortar courses) and adjacent calcifuges on the acid stone block work.

And in the afternoon the party moved to **Strumble Head** and its coastline of windswept cliffs and wild seascapes. The famous lighthouse, dazzling white against the grey of the Atlantic, has a functional beauty as well as a hypnotic fascination as it rotates and flashes, rotates and flashes, again and again; in a mesmerising rhythm. This enigmatic edifice cost £70,000 when built by Trinity House in 1908. How many lives this paltry some of money have saved must now be legion but in our "Britannia" of targets and indicators and cost effectiveness some mandarin in Whitehall has worked out the cost per soul saved and has found it wanting. The lighthouse keepers are no

more, the light is automated and unfortunately gates now bar access across the iron footbridge. In a world long past, I remember being offered water by the keepers of the light, a place to camp, and their pride in their work and the equipment. This light is a point of reference, not only for world shipping but also for vast numbers of seabirds, particularly during the spring and autumn migrations. It has made the headland one of the foremost seabird observation points in the U.K. and "twitchers" are thrilled, as we were, by passing gannets *Sula bassana* arrowing down into the sea, and by shearwaters *Puffinus* spp., auks, and gulls. Whale watchers also beat a passage to this promontory to glimpse marine mammals. Fin whales *Balaenoptera* spp., killer whales *Orcinus orca*, dolphins and porpoises are regular visitors together with several others. Fish, of course, swarm in these turbulent waters; I remember years ago casting a pathetic 16's hook into the water at the end of the point, and then rapidly retrieving it in trepidation when a huge sunfish *Lophius piscatorius* glided by – a silver disc of scales and fins over a metre or so in diameter.

But I must move on! It is of the lichens that the reader wishes to hear. The headland is of pillow larva with intrusions of Ordovician columnar jointed dolerite and this encourages a rich and diverse saxicolous flora. We spent a happy hour or so recording and discussing. Of interest were *Psora lurida* and *Fuscopannaria leucophaea* and several taxa indicating the base rich nature of some of these igneous outcrops.

A wall protecting the steep winding steps down to the lighthouse footbridge had a limestone capping and this introduced a calcicole element to the headland's list.

My final departure above the steps was tinged with regret –Lichen Society field meetings inevitably leave me with these feelings—but, as if to make the pain of leaving less poignant, a school of harbour porpoises *Phocaena phocaena* arrived of the headland and the usual handshakes etc. were interspersed with long look outs to sea at these creatures cavorting in the waters. For me it was to be a long drive back to the Midlands and to reality—neither of them the greatest of prospects—for the party there was to be another day and other delights.

Tuesday 26th May: Lawrenney Quay

Many of us were leaving during the afternoon and evening so we set out to enjoy our last day at a place quite close to the centre. The Cleddau estuary is an ancient ria, providing a deep-water site for the modern oil terminals at Milford Haven. Further up the Cleddau is an ancient land where the artist Graham Sutherland's gnarled and twisted oaks lean over the estuary. They grow on both sides of the western Cleddau to Haverfordwest (or as the Norsemen named it, Hvalfjordur) and along the eastern Cleddau to Slebech and Minwear. At Slebeh the Knights of St John had a base and the

nun's house is a short row across the river on the other side! We abandoned cars at Lawrenny quay and behaved like lichenologists, spending time on the old oak trees—one of which had a flourishing expanse of *Lobaria pulmonaria.* We also found many associated crusts including *Anisomeridium polypori* and Alan found a second site for *A. robustum* (to be described). We made our way past boatyards and summer residences to where ancient twisted oaks hang over the water. One tree had fallen since Pat recorded here, the BMNH tag was still on the base, and it made us realise how fragile these communities are. With some hunting we refound *Lobaria virens, Leptogium lichenoides and Opegrapha corticola.*

The steep slope above the estuary is covered with stunted oaks often scarred by fire. This allowed us to investigate twigs and branches at our ease until hunger overcame us. We sat under a spring green canopy looking across the estuary to Benton Castle and the remnants of Nelson's shipbuilding oaks. In the balmy spring sunshine we lost our hunting urge and so the rare *Arthonia zwackii,* which had been recorded from this site was left for another day. A few made a last pilgrimage to the huge oak at the end of Lawrenny wood where *Lobaria amplissima* occupies over a square metre of the trunk together with abundant coralloids of *Dendriscocaulon.* As we paid our respects to this sight the rain came sweeping in and we dashed for cover in the transit.

In conclusion

This was a field meeting of extraordinary success and, even though the number attending was smaller than is usual, it generated a cohesion and character all of its own. At its close we were left with many lasting memories as well as genuine regrets to be parting. As is traditional at this point we must offer our thanks, not only to The Director and all the staff at Orielton who made our stay so comfortable, but to a number of our colleagues for their very special contributions, which raised the field meeting from being merely good to that of being exceptional. Frank Dobson, Ray Woods and Alan Orange unstintingly shared their enormous expertise and knowledge with us—Frank in particular, in the form of exceptional "PowerPoint" revisions of the days important finds combined with his excellent summaries of the essential characteristics of these species. We must thank Robin Crump for his amazing knowledge of the natural history of Orielton and its surrounds and, of course, for his company and infectious humour on so many of the memorable days. All the ladies of course must be thanked for bringing a much valued grace and charm to the assembly, and also Joe Hope (I think the only member present without a hint of silver in the colour of his hair!) for his youthful enthusiasm and excellence. Finally to Pat Wolseley; dear Pat; always at the cusp of a crisis; always at the point of losing something, or having lost something or, to parody Mr Micawber, hourly expecting to lose something, and yet a person possessing so much boundless enthusiasm, so much

warmth and humanity and so much knowledge about this area of Wales that these unimportant human characteristics are at the same time easily forgiven and endearing. Her presence brought the group together but her personality and knowledge set the seal on this wonderful meeting.

Ivan Pedley with additions by Pat Wolseley

Those present at the Field Meeting

Pat Wolseley: leader. Lesley Balfe, Heather Colls, Robin Crump, Frank Dobson, Joe Hope, Alan Orange, Bridget Ozanne, Ivan Pedley, Joy Ricketts, Delia and Will Stevens, Ray Woods.

Spring Field Meeting—Pembrokeshire
Key to Sites and Habitats and Substrata

Thursday 21st April 2005 --Bosherston Lilly Ponds. Letters in **bold** are sites. Normal lettering indicates substrata. s = saxicolous; limestone unless otherwise stated
Sites: Bridge handrail SR 975947 between west-arm and central pools. lig = lignicolous
fo = Limestone outcrop and associated soil pockets SW of "fortification". SR971948
LMS = Lady Margaret's Seat. Calcareous Heathland/Limestone outcrops at SR977946
st = Settlement. Ancient settlement site with calcareous heath, limestone outcrops, and associated soil pockets at SR978947
Acer = Sycamore trees at SR979947
Sc = *Salix* carr at SR973947
Co = Concrete and brick ruin in west-arm pool woods at SR968947
BH = Limestone cutting south of stream draining the pools at SR977944
ct = Cliff top NW of Saddle Point at SR981940

Friday 22nd April 2005 Marloes - Gateholm and Wooltack Point
G = Gateholm SM772075 **WP** = Wooltack Point
s = saxicolous, lig = lignicolous on gate to Deer Park * = present, substratum not stated.
CL = Coastguard Lookout Station at SM758093 –the rocks and associated soil pockets below and to the west and including the concrete foundations.

P = Wooltack Point at SM755094—rocks outcropping and associated soil pockets.
B = Conglomerate and quartz boulder at SM 755089

Saturday 23rd April 2005 Tycanol SN 090367
s = saxicolous, cort = Corticolous. * = Present but substrata not recorded
Specific substratum Q = *Quercus* sp., Fx = *Fraxinus*, C = *Corylus*.

Sunday 24th April 2005 Castlemartin Artillery Range SR 90-97-
s = saxicolous (limestone) co = concrete cort = corticolous.
Specific substrata: Pr = *Prunus spinosa* (Blackthorn) Sx = *Salix* sp. (Willow)
Sm = *Sambucus nigra* (Elder)
Sites: **FC** = Frainslake Cottage and Mill. SR901975 A ruined group of outbuildings above a lake. The survey also included scrubland of by the trackway and a Willow copse bordering the stream entering the lake. Limestone outcropping to the north of the stream was looked at and a 25cm x 25cm quadrat recorded.
BB = Brownslade Burrows . SR 893981 Calcareous sandy soil with limestone outcrops and stones.
CL = Castle Lady Valley woodland at SR 898966.
WB = Limestone cliff top and calcareous soil at SR882967
sf = "The Sunken Forest" A sink hole with limestone exposures and sheltered ash trees at SR9460394019

Monday 25th May 2005 Llangloffan Fen SM905319 and Strumble Head SM894413
LF = Langloffan Fen
Specific substrata: mo = mortar and s = saxicolous acid stone—on bridge at SM904319. cort = Corticolous Be = *Betula* sp.
SH = Strumble Head
Specific substrata: mo = mortar lm = limestone capping to wall by steps
S = saxicolous on volcanic outcrops

Tuesday 26th May 2005 Lawrenney Quay SN009064
LQ = Lawrenny Quay m = maritime sax = saxicolous * = present, no substrata indicated Q = *Quercus* sp.

Appendix:

To illustrate the value of objective surveying techniques when recording the presence of lichens and other biota at a particular site the results of a 25x25 cm quadrat carried out by Alan Orange at Castlemartin is included below. The numbers relate to the Domin Scale, an eleven-category scale used to estimate the cover and abundance of species over a particular area. On this scale: + = a single individual,1 = a few individuals,2 = sparsely distributed, 3 = frequent but cover less than 4%, 4 = 4-10% cover, 5 = 11-25%, 6 = 26-33%,7 = 34-50%, 8 =51-75%, 9 = 76-90%, 10 = 91-100% (*Lichen Ecology* ed. M.R.D. Seaward. 1977. Academic Press)

* indicate lichens only recorded from this site during the meeting.

Quadrat. Castemartin Range West. SR (11) 8973.9779. Low limestone rock in short turf 25x25cm

Lichens:

Aspicilia calcarea	1
Agonimia tristicula	2
Caloplaca flavescens	2
Catapyrenium pilosellum	1
Catillaria chalybeia	1
Collema fuscovirens	1
Hymenelia prevostii	2
Lecania sp.	2
Myxobilimbia (*Bilimbia*) *sabuletorum*	1
Opegrapha rupestris	1
Placynthium nigrum	4
Polyblastia dermatodes	2
Protoblastenia rupestris	2
Toninia verrucarioides	2
Verrucaria calciseda	2
Verrucaria macrostoma	2
Verrucaria nigrescens	5
Verrucaria viridula	6

Bryophytes:

Didymodon acutus	2
Ditrichum gracile	2
Hypnum lacunosum var. lacunosum	1
Trichostomum crispulum	4

Higher plants:

Cerastium diffusum	1
Lotus corniculatus	1
Ononis repens	1
Pilosella officinarum	1
Plantago coronopus	2
Poterium sanguisorba	1
Thymus praecox	4

Rock 2

Spring Field Meeting- Pembrokeshire
Sites and Species Lists

Species		B Thur.	G Fri	WP Fri	T Sat	CM Sun	LF Mon	SH Mon	LQ Tue
Acarospora	*fuscata*				s				
	rufescens			s,P					
Acrocordia	*conoidea*					s,sf			
	gemmata								*
	salweyi					s,sf			
Agonimia	*tristicula*				bry	bry,sf.s,FC(quadrat)			
Amandinea	*lecideina*			s,P					
	punctata				Q		cort		
Anaptychia	*runcinata*		s	s,CL				s	
Anisomeridium	*biforme*								*
	polypori					Pr,FC.ter,BB	cort		Q
	robustum ad int.					Sx,FC			Q
Arthonia	*cinnabarina*				C				*
	elegans				C				
	punctiformis				C				
	radiata				C	Sx,FC	cort		*
	spadicea				C				
Arthopyrenia	*analepta*				Q		Be		
	punctiformis				C				
Aspicilia	*calcarea*	s,fo		s,CL		co,s,FC(quadrat)	s,mo		
	cinerea s.l.		s	s.P				s	
	contorta s. hoff					co,FC			
Bacidia	*bagliettoana*	s,st,LMS				ter,BB			
	herbarum	s,st							
	rubella								*
	saxenii					bone,BB			
	scopulicola		s						
Baeomyces	*rufus*				s				
Bilimbia	*sabuletorum*	s,st			bry	s,FC(quadrat)			
Botryolepraria	*lesdainii*			s					
Buellia	*aethalea*		s	s	s		s	s	
	erubescens				*				
	griseovirens			lig		lig,FC			
	ocellata						s		
	subdisciformis			s,B				s	
Caloplaca	*"A"*		s	s,CL		s,sf.WB		lm	
	aloiziza	s,ct,LMS							
	aurantia	s,fo				s,BB			
	ceracea					Pr,FC			
	cerina v. cerina					Sm,FC			
	cerinella					Fx,sf.Sa,FC			
	cirrochroa	s,fo,BH							
	citrina s.l	s,st							
	citrina s.s.		s	s,P		co,FC	s,mo	co	
	crenularia		s	s,CL			s	s	
	crenulatella					co,FC	s,mo		
	dalmatica	s,ct,fo							
	flavescens	s,ct,fo	s	s,P		s,sf.BB.WB.co,FC.			

	holocarpa					co,FC.s,BB	s,mo	co	
	lactea	s,fo				s,BB			
	marina		s	s,P				s	m
	microthallina								m
	ochracea	s,fo,ct,st				s,BB			
	saxicola						s,mo	mo	
	thallincola		s						m
Catapyrenium	*pilosellum*					s,FC(quadrat)			
Candelariella	*aurella*					co,FC		co	
	reflexa					cort.CL	cort.		
	vitellina f. v.		s	s,P		iron,CL	s		
Catillaria	*chalybeia v. c.*		s	s,CL	s	s,FC(quatrat)			
	lenticularis					s,BB	mo		*
Catinaria	*atropurpurea*								
Cetraria	*aculeata*	s,LMS							*
Chrysothrix	*candelaris*								*
	flavovirens				*				
Cladonia	*caespiticia*				ter				
	cervicornis s. c		s		s				
	chlorphaea		s	s,CL					
	ciliata v. c.				s				
	ciliata v. t.				Q		cort		
	coniocraea				s				
	digitata				s,ter				
	diversa								
	firma	st			ter				
	floerkeana				ter				
	furcata s. f			s,Cl	ter				
	macilenta				Fx				
	polydactyla v. p.				bry				
	portentosa			t,CL	ter				
	pyxidata		s		Q				
	rangiformis				ter	dung,BB		ter	
	squamosa v. s.				ter			*	
	subcervicornis				ter				
	subulata				ter,Q				
Clauzadea	*immersa*	s,fo							
	metzleri	s,st							
Cliostomum	*griffithii*					Sx,FC			
Collema	*auriforme*					co,FC			
	fufuraceum	Acer							
	fuscovirens					s,FC(quadrat)			
	subflaccidum					cort,CL			
	tenax v. tenax					ter,BB			
Cresponea	*premnea*								Q
Cystocoleus	*ebeneus*				s				
Degelia	*ligulata*		s						
Dimerella	*lutea*				Fx				*
	pineti				Q				
Diploicia	*canescens*		s	s,B					*
Diploschistes	*muscorum*					ter,BB			
Dirina	*massiliensis f. s*			s,CL				*	
Enterographa	*crassa*				Q	Fx,sf.cort,CL			Q
	sorediata								*?
Evernia	*prunastri*				Q				*

Flavoparmelia	*caperata*	Acer,**Sc**	s		Q	*,FC. ter,BB	cort		*
	soredians	lig							
Fulgensia	*fulgens*	s,**LMS**				ter,BB.**WB**			
Fuscidea	*cyathoides v. c.*								**s**
	lightfootii	Acer			Q				
Fuscopannaria	*leucophaea*							*	
Graphis	*elegans*				C	Sx,FC	cort		
	scripta				C	Fx,**sf**	cort		*
Gyalecta	*truncigena*								*
Herteliana	*taylorii*				s				**s**
Heterodermia	*leucomela*								
Hymenelia	*prevostii*					s,FC(quadrat)			
Hypogymnia	*physodes*	s,**st,Sc**			Q	cort,**CL**			
	tubulosa				Q	cort,**CL**			
Hypotrachyna	*endochlora*				s				
	laevigata				Q				
	revoluta				Fx		cort		
	taylorensis				s				
Ionaspis	*lacustris*								**s**
Japewiella	*travaresiana*				*				
Lecanactis	*abietina*								*
	dilleniana				*				
	subabietina								*
Lecania	*baeomma*		s						
	erysibe					co,FC			
	rabenhorstii					s,**BB**		mo	
	sp.					s,FC(quadrat)			
Lecanora	*actophila*		s						**m**
	albescens	s,**ct**				co,FC.s,**BB**	mo	co	
	argentata	**Sc**					cort		Q
	campestris s. c						s	lm	
	chlarotera	**Sc**			C	cort,**CL**	cort		Q
	confusa	Acer		c,**CL**		Pr,FC			Q
	crenulata	s,**ct**				s,**WB**			
	dispersa					co,FC	s	lm	
	ecorticata				s				**s**
	expallens		s	lig	Q	cort,**CL**			**Q**
	gangaleoides		s	s.**P,CL**	s			*	**s**
	helicopis		s						
	intricata		s	s,**P**					
	jamesii				Q		cort		
	muralis		s	s,**CL**					
	ochroidea			s,**CL**					
	polytropa		s					*	
	rupicola v.r.		s	s.**CL**				*	
	saligna					lig,FC			
	subcarnea			s,**P**					
	sulphurea		s	s,**P**					
	symmicta	Acer		lig		Sm,FC			
	zosterae	s,**ct**							
Lecidea	*ahlesii*				*				
	lithophila				s				
Lecidella	*asema*			s,**CL**					
	elaeochroma f. e.	**Sc**			Q	Fx,**sf**.Sa,FC	cort		Q
	scabra		s	s,**P**	s			*	

	stigmatea			s,P		co,FC	mo		
Lepraria	*atlantica*				s				
	crassissima				s				
	incana s.s.		s	s,P	s			•	•
	lobificans		s		Q	Pr,FC.cort, CL	cort	•	
	membranacea				s				
	rigidula				s		•		
	sylvicola ad int.				Q				
	umbricola								t
Leptogium	*gelatinosum*					co,FC			
	lichenoides								Q
	sp.					s,sf			
	schraderi					ter,BB			
	teretiusculum								•
Lichenomphalia	*umbellifera*				•				
Lichina	*confinis*		s					•	
	pygmaea		s					•	
Lobaria	*amplisima*								Q
	pulmonaria								Q
	virens								Q
Loxospora	*elatina*								•
Melanelia	*fuliginosa sub f*			s,CL					•
	fuiginosa sub g	Sc							Q
	subaurifera	Acer,Sc			Q	Pr,FC	cort		
Micarea	*botryoides*				s				
	prasina				•				•
	prasina s.s.				Q				
	subviridescens				s				
Mycoblastus	*caesius*								•
Nephroma	*laevigatum*						cort		•
	parile	Sc							
Normandina	*pulchella*	Sc			Q	Sx,FC	cort		•
Ochrolechia	*androgyna*				Q		cort		•
	parella		s	s,P,CL			s	•	m
	tumeri								Q
Opegrapha	*atra*	Sc			C	Fx,sf			
	calcarea	s,BH	s			s,sf			
	corticola								Q
	gyrocarpa				s				
	rupestris					s,FC(quadrat)			
	saxigena				s				
	sorediifera				s	Sx(fertile)FC	•		
	vulgata				Q				Q
	xerica								•
	zonata				s				
Parmelia	*saxatilis*		s	s,P	s			•	•
	sulcata	Acer			Q	Sx,FC			•
Parmeliella	*parvula*						•		
Parmotrema	*perlatum*	Acer,Sc			Fx	Sx,FC	cort		•
	reticulatum			•					
Peltigera	*horizontalis*	Sc							
	hymenina				bry				
	membranacea	Sc			bry				
	praetextata	Sc			Q				
	rufescens					ter,BB			

Pertusaria	*albescens var.a*				Q				*
	albescens var.c	s,**LMS**							
	amara f. amara						cort		*
	aspergilla				s				
	corallina				s				
	hymenea	**Sc**			Q	Sx,FC			*
	leioplaca				Q		cort		*
	multipuncta				C		cort		*
	pertusa	Acer			C		cort		*
	pseudocorallina		s	s,**P,CL**				*	
Phaeographis	*dendritica*				C		cort		*
	inusta				*				
	smithii								*
Phaeophyscia	*orbicularis*					Sx,FC			
Phlyctis	*agena*	**Sc**			Q	Sx,FC	cort		
Physcia	*adscendens*					Pr,FC		*	
	aipolia				Fx	Sm,FC			
	caesia					Sm,FC			
	dubia			s,**B**					
	leptalea	Acer				Pr,FC			
	tenella					Pr,FC.s,**WB**			*
Physconia	*distorta*					Sx,FC			
	grisea	Acer				Pr,FC			
Placynthium	*nigrum*					s,FC(quadrat)			
	subradiatum	s,**BH**							
Platismatia	*glauca*				Q				
Polyblastia	*dermatodes*					s,FC(quadrat)			
Porina	*aenea*	Acer,**Sc**			Q				
	chlorotica f.c				s				s
	lectissima				Q				
	linearis					Fx,**sf**			
Porpidia	*cinereoatra*		s	s,**CL**	s			*	
	crustulata				s			*	
	macrocarpa f. m				s			*	
	soredizodes				s				
	tuberculosa				s				
Protoblastenia	*calva*	s,**st,fo**							
	incrustans	s,**LMS,fo**							
	rupestris	s,**fo**				s,FC(quadrat),**BB**	mo		
Psilolechia	*lucida*				s				
Psora	*lurida*							*	
Punctelia	*borreri*						cort		*
	subrudecta				Q				
	ulophyla				Q				
Pyrenocollema	*halodytes*		s						
Pyrenula	*chlorospila*					cort,CL			
	macrospora	Acer,**Sc**				Fx,**sf**			*
Pyrrhospora	*quernea*								*
Ramalina	*calicaris*					Pr,FC			
	cuspidata		s	s,**B,CL**				*	
	farinacea	**Sc**		s,B,CL	Fx	Pr,FC.cort,CL			*
	fastigiata					Pr,FC,cort.CL			*
	polymorpha			s,**B**					
	siliquosa	Acer	s	s,**B,CL**				*	
	farinacea	**Sc**		s,**B,CL**					

	subfarinacea	Acer							
Rhizocarpon	*geographicum*			s,P				*	
	petraeum		s						
	polycarpum			s,P					
	reductum		s	s,P					
	richardii		s	s,P				*	
Rinodina	*gennarii*		s			s,BB	mo		
	sophodes					Pr,FC			
Roccella	*furciformis*			s,CL					
	phycopsis			s,CL					
Sarcogyne	*regularis*					s,BB	mo		
Schismatomma	*decolorans*				Q				*
	umbrinum				*				
Sclerophytono-									
-myces	*circumscriptus*					s,sf			
Solenopsora	*candicans*	s,ct				s,BB			
	holophaea	s,BH							
	vulturiensis		s						
Sphaeroporous	*fragilis*				s				
	globosus				s				
Squamarina	*cartilaginea*	s,fo							
Sticta	*fuliginosa*	Sc							
	limbata					Fx,sf			
Teloschistes	*flavicans*	s,ct							
Tephromela	*atra v. atra*	Acer	s						
	grumosa			s,CL					
Thelotrema	*lepadinum*				C				*
Tomasellia	*gelatinosa*				*				s
Toninia	*aromatica*	s,ct	s					*	
	sedifolia	s,LMS				s,BB.WB			
	verrucarioides					s,FC (qudrat)			
Trapelia	*coarctata*				s				
	involuta		s		s				
	obtegens				s				
	placodioides		s		s				
Trapeliopsis	*granulosa*				lig,Q				
	pseudogranulosa				*				
Tylothallia	*biformigera*				s				
Usnea	*articulata*				Q				
	comuta	Acer			Q		cort		*
	esperantiana					Sx,FC			
	flammea				Q	Sx,FC	cort		
	florida				Q	Sx,FC			
	rubicunda				Q	s,sf			*
	subfloridana				Q	Sx,FC.cort,CL			
Verrucaria	*amphibia*							*	
	baldensis	s,st				s,BB			
	calciseda	s,st				s,FC(quadrat)			
	canella	s,fo							
	dufourii	s,st,fo							
	elaeina					s,sf			
	fuscella					s,FC(quadrat)			
	fusconigrescens		s	s,B					
	internigrescens		s					*	
	hochstetteri	s,fo				s,sf.BB			

	macrostoma f.m.					s,FC(releve)			
	maura		s					*	**m**
	mucosa		s					*	**m**
	muralis					s,**WB**	mo		
	nigrescens	s,**fo**				co,**FC**+s(quadrat)**BI**	mo	mo	
	pinguicula	s,**LMS**							
	striatula		s					*	
	viridula					s,**FC**(quadrat)			
Xanthoria	*calcicola*	s,**ct**							
	ectaneoides		s	s,**P**				*	
	parietina		s	s,**B**		Pr,**CF**.cort,**CL**	s		**m**

Lichenicolous fungi

Arthonia	*varians on L.rupicola*			*					
Collemopsidium	*foveolatum*		s					*	
	halodytes s.s.		s						**m**
Syzygospora	*bachmannii*				*				

SCOTTISH CHURCHYARD LICHEN GROUP MEETING. 23 APRIL 2005

Logie Churchyard NS 815 969Old Logie Churchyard NS 817 967
VC. 86 Stirlingshire

The meeting began at Logie Churchyard near Stirling on an unusually sunny day. The group comprised Peder Aspen, Brian Coppins, Keith Watson and Richard Brinklow and John Douglass. We started off looking at the headstones in the older section near the church itself, which contained the usual suspects: *Parmelia saxatilis* and loads of patches of *Scoliciosporum umbrinum*. Within a couple of minutes we found *Micarea coppinsii* on the edge of a sandstone headstone. Moving to a chest tomb we found the vertical sides encrusted in *Diploschistes scruposus*. The gravel path contained masses of *Cladonia furcata* and an occasional stone with *Micarea erratica* (a new one for me). A shaded section of boundary wall supported *Bacidia arnoldiana*, *Collema crispum* and *Verrucaria viridula*. Stephen Ward then made his entrance with his little dog; we chatted a while and showed him some of our finds. The boundary wall was home to *Clauzadea monticola* and *Toninia aromatica*. The interior of the roofless mausoleum with its cement-faced walls was coated in a brown sheet, which scratched yellow and on closer inspection, contained tiny black perithecia – my first encounter with *Porina linearis*. The same mausoleum walls supported both *Belonia nidarosiensis* (with a diffuse edge) and *Opegrapha gyrocarpa* (with a chocolate-brown prothallus). We sat down near the church in the sun for lunch, next to *Xanthoparmelia conspersa*. After lunch, we tracked around the church building and found *Acarospora fuscata*, *Caloplaca saxicola*, and *Diplotomma alboatrum*. The total for the mornings haul was 113 with 4 Nationally Scarce species.

We then headed up the lane for a five minute walk to the Old Kirk which was much smaller and contained small headstones in the front section, with a ruined chapel in the centre and a small building near the entrance. *Caloplaca arenaria* was found in large quantities on three adjacent sandstone ledgers, with its small orange apothecia. The kerb of a sandstone lair produced a thick sward of *Cladonia scabriuscula* and a large granite headstone supported the characteristic contorted black fruits of *Polysporina simplex*. High up on the inside wall of the ruined chapel, Peder pointed out a single thallus of *Caloplaca flavescens*. On top of the boundary was perched a neat thallus of the (C -) *Immersaria athroocarpa*. Brian inspected the slate roof of the small building at the entrance, finding hoards of *Neofuscelia verruculifera* with its small neat abraded isidia. The find of the day however, must go to Keith and Brian; Keith had pointed out an odd-looking black crust which looked a bit like *Scoliciosporum umbrinum*. Brian did a spit and scrape and later (when he got a section under the microscope) found the curved spores of *Micarea curvata* were revealed. This is a new churchyard record for the UK. The afternoon total comes a total of 89 species, with 6 Nationally Scarce and

one Nationally Rare. The smaller but older churchyard had produced more rarities but slightly fewer species.

Special thanks to Peder Aspen for organising this meeting and to Brian Coppins for species determinations.

John Douglass

BLS #	Species	Logie Kirk NS 817 967	Old Logie Kirk NS 815 969
10	*Acarospora fuscata*	*	*
102	*Aspicilia caesiocinerea*		*
104	*Aspicilia cinerea s.lat.*	*	
112	*Aspicilia grisea*	*	*
115	*Aspicilia laevata*		*
132	*Bacidia arnoldiana*	*	*
176	*Baeomyces rufus*	*	*
179	*Belonia nidarosiensis*	*	
165	*Bilimbia sabuletorum*	*	
200	*Buellia aethalea*	*	*
235	*Caloplaca arenaria*		*
236	*Caloplaca arnoldii*	*	
2351	*Caloplaca citrina s.str.*	*	*
253	*Caloplaca crenularia*		*
259	*Caloplaca flavescens*		*
2315	*Caloplaca flavocitrina*	*	
261	*Caloplaca holocarpa*	*	
277	*Caloplaca saxicola*	*	
291	*Candelariella aurella* f. *aurella*	*	
298	*Candelariella vitellina* f. *vitellina*	*	*
1609	*Catillaria atomarioides*	*	
306	*Catillaria chalybeia* var. *chalybeia*	*	*
311	*Catillaria lenticularis*	*	
375	*Cladonia coniocraea*	*	
1749	*Cladonia diversa*	*	
384	*Cladonia fimbriata*	*	

389 *Cladonia furcata*	*	
376 *Cladonia humilis*	*	
396 *Cladonia macilenta*	*	*
403 *Cladonia ochrochlora*	*	
408 *Cladonia polydactyla* var. *polydactyla*	*	
410 *Cladonia pyxidata*	*	
415 *Cladonia scabriuscula*		*
2365 *Cladonia squamosa* var. *squamosa*		*
751 *Clauzadea monticola*	*	
440 *Collema crispum* var. *crispum*	*	
495 *Diploschistes scruposus*	*	*
496 *Diplotomma alboatrum*	*	*
500 *Dirina massiliensis* f. *sorediata*	*	
526 *Fuscidea recensa*	*	*
554 *Haematomma ochroleucum* var. *ochroleucum*		*
555 *Haematomma ochroleucum* var. *porphyrium*		*
578 *Hypocenomyce scalaris*	*	*
582 *Hypogymnia physodes*	*	*
583 *Hypogymnia tubulosa*	*	
699 *Immersaria athroocarpa*		*
1625 *Lecania hutchinsiae*		*
627 *Lecanora albescens*	*	
635 *Lecanora campestris* subsp. *campestris*	*	*
640 *Lecanora conferta*	*	*
643 *Lecanora conizaeoides* f. *conizaeoides*	*	*
646 *Lecanora dispersa*	*	
649 *Lecanora expallens*	*	
653 *Lecanora gangaleoides*		*
656 *Lecanora intricata*	*	*
661 *Lecanora muralis*	*	*
757 *Lecanora orosthea*	*	*
667 *Lecanora polytropa*	*	*
679 *Lecanora soralifera*	*	*

724 *Lecidea fuscoatra*	*	*
738 *Lecidea lapicida*		*
743 *Lecidea lithophila*	*	*
764 *Lecidea plana*	*	*
802 *Lecidella scabra*	*	*
803 *Lecidella stigmatea*	*	*
823 *Lepraria caesioalba*	*	
1974 *Lepraria incana s. str.*	*	
1629 *Lepraria lobificans*	*	*
1603 *Leproloma membranaceum*	*	*
846 *Leptogium gelatinosum*		*
998 *Melanelia fuliginosa* subsp. *fuliginosa*	*	*
997 *Melanelia fuliginosa* subsp. *glabratula*	*	*
1720 *Micarea coppinsii*	*	*
615 *Micarea curvata*		*
719 *Micarea erratica*	*	
880 *Micarea lignaria* var. *lignaria*	*	*
1026 *Neofuscelia verruculifera*	*	*
926 *Ochrolechia parella*	*	*
947 *Opegrapha gyrocarpa*	*	
1015 *Parmelia saxatilis*	*	*
1022 *Parmelia sulcata*	*	*
1043 *Peltigera hymenina*	*	*
1047 *Peltigera membranacea*	*	
1056 *Pertusaria albescens* var. *albescens*	*	*
1058 *Pertusaria amara* f. *amara*		*
1070 *Pertusaria aspergilla*		*
1066 *Pertusaria corallina*		*
1110 *Phlyctis argena*	*	*
1112 *Physcia adscendens*	*	
1114 *Physcia caesia*	*	
1116 *Physcia dubia*	*	*
732 *Placynthiella icmalea*	*	*
1167 *Polysporina simplex*	*	*
1171 *Porina chlorotica* f. *chlorotica*		*

1182	*Porina linearis*	*	
562	*Porpidia cinereoatra*	*	
1690	*Porpidia soredizodes*	*	*
572	*Porpidia tuberculosa*	*	*
1189	*Protoblastenia rupestris*	*	
1192	*Pseudevernia furfuracea s.lat.*	*	
1200	*Psilolechia lucida*	*	
1234	*Ramalina farinacea*		*
1251	*Rhizocarpon distinctum*		*
1257	*Rhizocarpon geographicum*	*	*
1264	*Rhizocarpon lavatum*		*
1249	*Rhizocarpon petraeum*	*	
1266	*Rhizocarpon reductum*	*	*
1311	*Schaereria cinereorufa*	*	*
1322	*Scoliciosporum umbrinum*	*	*
1352	*Stereocaulon dactylophyllum* var. *dactylophyllum*	*	
1363	*Stereocaulon vesuvianum* var. *vesuvianum*	*	
630	*Tephromela atra* var. *atra*	*	*
654	*Tephromela grumosa*	*	*
1415	*Toninia aromatica*	*	
1431	*Trapelia coarctata*	*	
1432	*Trapelia involuta*	*	*
1595	*Trapelia placodioides*	*	*
692	*Trapeliopsis flexuosa*	*	*
1582	*Trapeliopsis pseudogranulosa*	*	
1438	*Tremolecia atrata*		*
1492	*Verrucaria glaucina*	*	
1507	*Verrucaria muralis*	*	
1510	*Verrucaria nigrescens*	*	*
1518	*Verrucaria viridula*	*	*
988	*Xanthoparmelia conspersa*	*	*
2364	*Xanthoria candelaria s.str.*	*	

BEGGING FOR LICHENS AT THE NATURAL HISTORY MUSEUM

Comparing Brian Coppins' Checklist with the holdings in the British Lichen Herbarium of the Natural History Museum (BM) is an eye-opening exercise. Amanda Waterfield began this project with the 2002 printed version of the Checklist, and I have updated her work using the most recent, online version. We have discovered that, while a majority of the species in the Checklist are represented in the Herbarium, a significant number are not.

As the biggest and best lichen herbarium in England, I strongly feel that a representative collection of each (lichenised, or closely related to lichenised) species on the Checklist should be present in the British Lichen Herbarium. Therefore, I encourage all BLS members to send us specimens of species on the list, below, for deposit. [As per the Checklist, # = lichenicolous; ## = allied but non-lichenised fungi, and numbers are BLS species numbers]. We need specimens!

I know what some of you may be thinking: "Oh, I sent BM some samples of _____ (fill in the species) ages ago, and it probably got lost, or set aside in a box somewhere." I am working hard to overcome this reputation. Towards that end, I personally guarantee that every specimen you send me, in response to this call, will be accessioned immediately.

Please send British and Irish specimens from this list (with proper, typed labels, please) to: Dr Scott LaGreca, Herbarium, Botany Department, the Natural History Museum, London SW7 5BD. Thank you very much in advance.

The BM Wish-List:

Absconditella annexa 765
Absconditella celata 1
Absconditella lignicola 1203
Absconditella pauxilla 1738
Absconditella sphagnorum 3
Absconditella trivialis 1652
Acarospora cervina 8
Acarospora durietzii 1827
Adelolecia pilati 762
Agonimia repleta 23
Arthonia almquistii # 771
Arthonia amylospora # 1930
Arthonia apotheciorum # 1501
Arthonia diploiciae # 2009
Arthonia epiphyscia # 122
Arthonia fuscopurpurea # 775
Arthonia gelidae # 1961
Arthonia intexta # 1933
Arthonia invadens # 729
Arthonia ligniaria 1536
Arthonia mediella 413
Arthonia molendoi # 1934
Arthonia neglectula # 2323
Arthonia peltigerea # 1935
Arthonia phaeophysciae # 1982
Arthonia punctella # 1929

Cladonia metacorallifera 401
Cladonia polydactyla var. umbricola 1750
Cladonia stereoclada 419
Claurouxia chalybeioides 1709
Cliostomum flavidulum 1393
Collema callopismum var. rhyparodes 436
Collema confertum 438
Collema parvum 1751
Collema tenax var. corallinum 461
Collema undulatum var. granulosum 464
Collema undulatum var. undulatum 464
Coppinsia minutissima 1977
Cresporhaphis wienkampii 1284
Cyphelium marcianum # 1865
Cyphelium trachylioides 1990
Cyrtidula major ## 2338
Dermatocarpon intestiniforme 480
Diplotomma murorum 317
Diplotomma pharcidium 2316
Endocarpon pallidum 1866
Eopyrenula avellanae ## 1561
Eopyrenula leucoplaca 1752
Eopyrenula septemseptata ## 1562
Epigloea bactrospora 569
Epigloea filifera 570
Epigloea medioincrassata 1834
Fellhanera ochracea 1912
Fellhanera subtilis 1754
Fellhanera viridisorediata 2285
Fellhaneropsis myrtillicola 1829
Fuscidea pusilla 1867
Gyalidea diaphana 1655
Gyalidea lecideopsis 545
Haematomma sorediatum 553
Halecania bryophila 983
Halecania micacea 1821
Hymenelia cyanocarpa 1706
Hymenelia rhodopis 595
Hypogymnia farinacea 580
Ionaspis obtecta 1987
Ionaspis odora 589
Japewia subaurifera 1758
Lauderlindsaya borreri # 1946
Lecania dubitans 2388
Lecania sylvestris 1761
Lecanora atromarginata 1765
Lecanora atrosulphurea 632
Lecanora barkmaniana 2121
Lecanora cadubriae 1626
Lecanora flotoviana 610
Lecanora hypoptella 601
Lecanora mughicola 1872
Lecanora pannonica 1837
Lecanora persimilis 1836
Lecanora rugosella 1873
Lecanora rupicola var. efflorens 1767
Lecanora xanthostoma 712
Lecidea exigua 1769
Lecidea haerjedalica 1965
Lecidea luteoatra 745
Lecidea mucosa 1966
Lecidea obluridata 2312
Lecidea porphyrospoda 1988
Lecidea porphyrospoda 1988
Lecidea promiscens 1967
Lecidea promiscua 1968
Lecidea swartzioidea 603
Lecidea syncarpa 1969
Lecidella patavina 602
Lecidella subviridis 707
Lempholemma chalazanodes ## 812
Lempholemma chalazanellum ## 811
Lepraria atlantica 2330
Lepraria borealis ## 1927
Lepraria diffusa var. chrysodetoides 1602
Lepraria elobata 833
Lepraria jackii 1693

Protoparmelia memnonia 664
Protoparmelia nephaea 1792
Protoparmelia oleagina 1793
Pseudephebe minuscula 1971
Psorotichia pyrenopsoides 1207
Pycnora leucococca 1868
Pycnora sorophora 1757
Pyrenocollema orustense 87
Pyrenocollema pelvetiae 88
Pyrenopsis grumulifera 1674
Pyrenopsis impolita 1798
Pyrenula coryli ## 1675
Pyrenula microtheca 1676
Ramonia azorica 2420
Rhizocarpon advenulum # 1956
Rhizocarpon amphibium 1683
Rhizocarpon anaperum 1099
Rhizocarpon caeruleoalbum 1247
Rhizocarpon caesium 968
Rhizocarpon cinereonigrum 1274
Rhizocarpon cinereovirens 1800
Rhizocarpon copelandii 1845
Rhizocarpon eupetraeoides 1253
Rhizocarpon expallescens 1254
Rhizocarpon ferax 1252
Rhizocarpon grande ## 1463
Rhizocarpon inarense 1263
Rhizocarpon infernulum f. infernulum 2334
Rhizocarpon infernulum f. sylvaticum 1037
Rhizocarpon jemtlandicum 1726
Rhizocarpon ochrolechiae # 1892
Rhizocarpon simillimum 1893
Rhizocarpon sublavatum 1117
Rhizocarpon submodestum 1387
Rhizocarpon subpostumum 1214
Rhizocarpon timdalii 2335
Rimularia fuscosora 1894
Rimularia globulosa 1992
Rimularia sphacelata 1895
Rinodina calcarea 1801
Rinodina colobinoides 1928
Rinodina ericina 1922
Rinodina fimbriata 1443
Rinodina flavosoralifera 1914
Rinodina laevigata 2325
Rinodina milvina 1803
Rinodina mniaraea var. mniaraeiza 1998
Rinodina mniaraea var. cinnamomea 1804
Rinodina parasitica 1846
Schadonia fecunda 1310
Schaereria corticola 1897
Schaereria fuscocinerea var. sorediata 1898
Scoliciosporum curvatum 1358
Scoliciosporum sarothamni 1805
Solorina bispora var. bispora 1327
Solorina bispora var. monospora 1899
Squamarina cartilaginea var. pseudocrassa ## 1338
Staurothele arctica 1808
Staurothele geoica 1728
Staurothele rufa 1345
Stereocaulon spathuliferum 1361
Stereocaulon tornense 1681
Stigmidium marinum # 2229
Strigula confusa 2322
Strigula stigmatella var. stigmatella 1376
Strigula tagananae 1919
Strigula thelopsidoides 1682
Tephromela atra var. torulosa 2349
Tephromela pertusarioides 1810
Thelenella muscorum var. octospora 1778
Thelidium fontigenum 1900
Thelidium methorium 1729
Thelidium microbolum 1901

Thelocarpon epibolum var. epithallinum 2345
Thelocarpon lichenicola 1684
Thelocarpon opertum 1080
Thelocarpon saxicola 2332
Thelocarpon sphaerosporum 1497
Thelocarpon strasseri 1902
Thelopsis isiaca 957
Toninia fusispora 1577
Toninia opuntioides 1905
Trapelia obtegens 1434
Trapeliopsis aeneofusca 1815
Trapeliopsis percrenata 1436
Trimmatothele perquisita 1439
Usnea fulvoreagens 1465
Verrucaria acrotella 240
Verrucaria aranensis 1643
Verrucaria knowlesiae 1645
Verrucaria madida 2401
Verrucaria pachyderma 1477
Verrucaria phaeosperma 2347
Verrucaria scabra 2390
Verrucaria simplex 1647
Vestergrenopsis elaeina 1822
Vezdaea cobria 1420
Vezdaea stipitata 1421
Xanthoparmelia protomatrae 1784
Xanthoparmelia tinctina 1025

Scott LaGreca

A PROBLEM WITH THE SHETLAND LICHEN DATABASE (AND PERHAPS SOME OTHERS ?)

What are our databases for? Easy - to store information about lichens. So why not use an old ASDA box - cheaper than buying a new computer, and holds records cards so very conveniently? It wouldn't work for me though, as I don't use record cards. To prevent loss of data? Keep photocopies of species lists somewhere else (maybe in an old TESCO box?). No, the great value and overwhelming justification for a computerised data set is to allow it to be 'queried'. Once you have conditionally queried and extracted data from its storehouse it can be processed as you choose.

The RSPB wanted to know which lichens were recorded from the island of Mousa. A search of the entire Shetland database, using the keyword "Mousa", listed only 30 species. I'd have expected at least 60 from an island that size, maybe many more (there's a small research project waiting on Mousa, an island of great interest historically and ornithologically, though not as yet lichenologically - apart that is from its remarkable colony of *Diploicia canescens*). Disappointingly , these 30 species seems to be the total for our present knowledge of Mousa lichens.

But suppose instead of asking for a list of species known from Mousa, we ask for species found in the salt-sprayed coastal grasslands/moorlands covering the headlands which so magnetically attracted the late Humphry Bowen when he visited Shetland - there are several near the great broch on Mousa.

Query my database with "grassland" and all kinds of irrelevant data totalling 389 records emerge (lots with *Peltigera membranacea*). Enter "moorland" and I get 176 records (many from montane sites on Ronas Hill as well. Refine the search by entering "impoverished Callunetum with *Nardus* and *Agrostis* subjected to periodic salt spray" - well, would you do that? Would everyone use the same terminology? My own descriptions of equivalent habitats seem to vary from year to year. As a start we might need the correct National Vegetation Classification coding - but do lichenologists ever use it? The NVC is not designed to cover the details of lichen-dominated communities. Is "subjected to periodic salt spray" actually the key environmental feature? What of wind exposure? Or nutrient leaching? What about manuring by roosting seabirds, or by Shetland ponies?

And here is my point. We need environmental data in comparable format, at least as consistent as the Latin binomials for species, the recorder's name and date. Even grid references sometimes cause difficulties. Grid lines do not appear on the ground (though I was delighted this last summer to see latitude 60E N painted on a roadside south of Lerwick), and hand-held GPS readings can have their limitations (always specify if a location has been determined by GPS as Garmin state - in relation to their Geko 201 receiver - that it must not be used for "any purpose requiring precise measurement of ... location or topography").

Without consistent information our databases are seriously deficient as *sources* of information as we cannot query them precisely. We need to use consistent descriptions that will perform reliably in the face of rigorous computer searching. 'Fuzzy' queries can only produce fuzzy answers. So to extend the usefulness of databases outside the strict limits of species, collector and date (and approximate location), we need to pay much more attention to the coding of the habitat and general environment. We might then be able to use the databases to answer questions put say by planners, conservation bodies and others outside specialist lichenology, who want exact answers without being concerned with the caveats of biologists. Of course readers will immediately (and correctly) say that there are too many variables involved for this to be feasible (ever tried to construct a dichotomous key to habitats?). But does lack of a solution mean there is no problem? I find it hard to see how we can actually *use* many lichen databases to yield information about habitats or vegetation communities without much greater precision. Nobody doubts that databases function well as inert storehouses, but the real test for their value must be to ask how useful they are as sources of information - a dynamic rather than passive rôle. In some situations my Shetland database fails to satisfy fully - might the same be true of yours?

D.H.Dalby

DANGEROUS AND ARMED WITH A HAND-LENS

In mid-July I was in Gloucestershire looking at 2-mile stretch of a 200-year-old brick wall surrounding a Deer Park. It was a really hot day and about 2 hours into the recording I thought I'd heard voices but couldn't see anyone. A few minutes later I thought I had heard voices again but again failed to see anyone. By now I was beginning to think I was hearing things, and perhaps it might be an idea to have yet another break and a long drink of water.

I continued recording. The next time I heard the voices I looked up to see a dozen policemen in combat gear, all bristling with guns coming towards us. One of them had a ferocious dog at the end of a very long leash. This dog meant business. I clearly remembered thinking that I hoped that the breaking strain exceeded their combined weights.

Every few yards the policemen threw themselves onto the ground sending up clouds of butterflies. By now I was beginning to think that I was hallucinating. I looked at the ecologist who was with me, his face was a picture and it dawned on us that this scenario was for real. It didn't help that the guns seemed to be train in our direction. We were both rooted to the spot. At some point we heard on their walkie-talkies that "two persons were directly ahead". That was us!

Eventually the leader, resplendent in his blue-wrap-around shades came tell us not to be alarmed, (alarmed! by now I was nearly witless) as they were merely on a training exercise. However, that didn't stop him interrogating us on exactly where we had walked and as an after though asked if we had seen 2 men in camouflage gear.

They don't tell you that these sorts of things can happen when you are out recording.

Joy Ricketts

BRITISH ISLES LIST OF LICHENS AND LICHENICOLOUS FUNGI
September 2005 update to list

The fully corrected and inclusive list is available on the BLS web site, <http://www.theBLS.org.uk> both as text and as a CSV file as well as this update (and previous updates to the list originally published on 22nd March 1999). The additions

and corrections have also been made to the BioBase for Lichens species dictionary, and an updated BIOTAB file is available to users from Janet Simkin.

We are indebted to Alan Orange, André Aptroot, Jack Laundon, Per Magnus Jørgensen, and other checklist users, for bringing many of the required changes to our notice.

Anyone encountering difficulties regarding nomenclature or BLS code numbers, please contact one of us, as below.

E-mail contacts (with main responsibilities):
Brian Coppins (nomenclature, spelling, authorities, dates of publication)<b.coppins@rbge.org.uk> or <lichensEL@btinternet.com>
Mark Seaward (allocation of BLS numbers)<M.R.D.Seaward@Bradford.ac.uk>
Janet Simkin (BioBase for Lichens species tables)<j.m.simkin@ncl.ac.uk>

Add:

2415	Arthonia coronata #	Arthon coro #
2416	Arthonia digitatae #	Arthon digi #
2430	Caloplaca borreri	Calo borr
2425	Chionosphaera lichenicola #	Chiono lich #
2414	Cliostomum leprosum	Clio lepr
2435	Collolechia caesia	Collol caes
2440	Enterographa pitardii	Ente pita
2432	Fuscopannaria atlantica	Fuscopann atla
2421	Gyalidea rivularis	Gyalidea rivu
2424	Intralichen baccisporus #	Intr bacc #
2423	Laeviomyces fallaciosus #	Laev fall #
2431	Lepraria bergensis	Leprar berg

2422	Lichenoconium reichlingii #	Lichenocon reic #
2417	Milospium lacoizquetae #	Milo laco #
2429	Miriquidica intrudens	Miri intr
2433	Monodictys epilepraria #	Monod epil #
2436	Placynthium hungaricum	Placynthium hung
2413	Protoblastenia lilacina	Protobl lila
2434	Psammina palmata	Psam palm
2420	Ramonia azorica	Ramonia azor
2439	Sclerophytomyces circumscriptus var. sorediatus	Sclerophyt circ sore
2426	Thelocarpon robustum	Thelocar robu
2419	Toninia subfuscae #	Toni subf #

Delete (correct name or notes given below, as applicable):

850	Leucocarpopsis devensis	Leucocarpop deve
NOW		
1513	Verrucaria praetermissa	Verr praet
1901	Thelidium microbolum	Theli microb
NOW		
1900	Thelidium fontigenum	Theli font

Change of genus (sometimes also species epithet):

1879	Moelleropsis humida	Moel humi
NOW		
1879	Gregorella humida	Greg humi

1852	Pycnopsammina lobariae #	Pycnops loba #
NOW		
1852	Psammina lobariae #	Psam loba #

Change of species epithet:

557	Herteliana taylorii	Herteliana tayl
NOW		
557	Herteliana gagei	Herteliana gage
1432	Trapelia involuta	Trapelia invo
NOW		
1432	Trapelia glebulosa	Trapelia gleb
1538	Xanthoria ectaneoides	Xanthoria ecta
NOW		
1538	Xanthoria aureola	Xanthoria aure

Change of abbreviation

#	Collema	Coll
NOW		
#	Collema	Collema

NB: This change applies for <u>all</u> taxa in the genus *Collema*

966	Opegrapha viridis	Opeg viri
NOW		
966	Opegrapha viridis	Opeg viridis

Corrected spelling etc.: altered or added text <u>underlined</u>

1136	Placynthium garovaglio<u>i</u>	Placynthium garo
1319	Sclerophyto<u>myces</u> circumscriptus <u>var. circumscriptus</u>	Sclerophyt circ <u>circ</u>

B J Coppins, M R D Seaward & J Simkin

LITERATURE PERTAINING TO BRITISH LICHENS - 37

Lichenologist **37**(2) was published on 21 March 2005, **37**(3) on 31 May 2005, and **37**(4) on 22 July 2005.

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

NB. Authors of articles on British and Irish lichens, especially those including records and ecological observations, are requested to send or lend me a copy so that it can be listed here. This is particularly important for articles in local journals and newsletters, and magazines.

ANDREEV, M P 2004. Notes on the lichen genus *Miriquidica* (Lecanorales, Lecanoraceae) in Russia. *Bibliotheca Lichenologica* **88:** 15–42. The descriptions and key cover most British taxa, including the recent addition, *M. intrudens*. *Lecidea pycnocarpa* is included in the genus as *M. pycnocarpa* (Körb.) Andreev. [The f. *sorediata* was not, however, treated].

APTROOT, A, DEKKER, D J, SPARRIUS, L B, SPIER, J L & VERVOORT, M 2005. Lichenologisch verslag van het zomerkamp 2004 in Schotland. *Buxbaumiella* **71:** 26–38. Report of lichenological excursion to the Ardnamurchan peninsula, Argyll [VC 97, Westerness], with 575 species listed from 12 localities. **Toninia subfuscae* (Arnold) Timdal (1991), parasitic on *Lecanora campestris*, was an addition to the British list.

ARAGÓN, G, OTÁLORA, M A G & MARTÍNEZ, I 2005. New data on the genus *Leptogium* (lichenized ascomycetes) in the Iberian Peninsula. *Nova Hedwigia* **80:** 199–226. Includes many comments pertinent to species that occur in the British Isles. *Leptogium turgidum* is retained as an accepted species, and is said to be well differentiated from the related *L. schraderi*. [An opinion I adhere to, at least until molecular investigations provide evidence to the contrary.]

BLATCHLEY, F R ["Ishpi"] 2005. Lichen report 2004. *Annual Report Orpington Field Club* **45:** 17–23. Includes a re-survey of Jubilee Country Park, originally carried out in 1992/93 by Linda Davies, with 25 species being recorded. The 2004 re-survey found 46 species, with most of the additions being corticoles, e.g. *Hypotrachyna revoluta*, *Lecanora carpinea*, *Lecidella elaeochroma* (on younger trees) and *Parmotrema chinensis* [= *perlatum*].

BUNGARTZ, F, ELIX, J A & NASH III, T 2004. The genus *Buellia sensu lato* in the Greater Sonoran Desert region: saxicolous species with one-septate ascospores containing xanthones. *Bryologist* **107:** 459–479. Includes drawings of some of the exciple types found in *Buellia* s.lat.

BUNGARTZ, F & NASH III, T 2004. The *Buellia aethalea*-group in the Greater Sonoran Desert region with reference to similar species in North America. *Bryologist* **107:** 441–458. Includes detailed descriptions, illustrations and discussions on *B. aethalea*, *B. spuria* and *B. stellulata*.

BUNGARTZ, F, NASH III, T & RYAN, B D 2004. Morphology and anatomy of chasmolithic versus epilithic growth: a taxonomic revision of inconspicuous saxicolous *Buellia* species from the Sonoran Desert Region generally ascribed to the "*Buellia punctata*" group. *Canadian Journal of Botany* **82:** 540–562. *Buellia prospera* (Nyl.) Riddle (1918) is an earlier name for *Amandinea lecideina*, and the status of *Amandinea* as a genus separate from *Buellia* is rejected. [Consequences for the British list are that either *Amandinea coniops* and *A. punctata* are returned to *Buellia*, or *B. prospera* is transferred to *Amandinea*.] *Buellia prospera* is said to usually be UV+ yellow to orange, owing to the presence of xanthones [this needs to be checked in British material]. *Buellia sequax* is also treated, and illustrations are provided for both species.

EARLAND-BENNETT, P M & HAWKSWORTH, D L 2005. The first lichen-forming species of *Psammina*, *P. palmata* sp. nov., with notes on the status of *Cheiromycina* and *Pycnopsammina*. *Lichenologist* **37:** 191–197. **Psammina palmata* Earl.-Benn. & D. Hawksw. is described from oak lignum in an ancient parkland in Suffolk. A key to the genus is provided, and the new combination *Psammina lobariae* (Diederich & Etayo) Earl.-Benn. & D. Hawksw. (syn. *Pycnopsammina lobariae*) is made.

FLETCHER, A 2004. Lichens and lichenicolous fungi 2002–2004. *Bardsey Observatory Report* **48:** 131–136. Thirty-one taxa are added to the list for Bardsey Island, bringing the total to 464.

HALDA, J 2003. A taxonomic study of the calcicolous endolithic species of the genus *Verrucaria* (Ascomycotina, Verrucariales) with the lid-like and radially opening involucrellum. *Acta Musei Richnoviensis Sect. natur.* **10**(1): 1–148. A revision of the *Verrucaria baldensis* group, sometimes treated as the genus *Bagliettoa* A. Massal. (1853). This group is here treated as a new section of *Verrucaria*: *Verrucaria* sect. *Bagliettoa* (A. Massal.) J. Halda., with four accepted species. [Two of these are known

from the British Isles: *V. baldensis* and *V. parmigerella.* The latter has rarely been reported or recognized by British lichenologists, but is said to differ from *V. baldensis* in having a dark green, blue-green or blue grey (rather than whitish to dirty grey) thallus and a smaller involucrellum (100–150 vs. 200–300 µm diam.)].

HAWKSWORTH, D L 2004. Rediscovery of the original material of Osbeck's *Lichen chinensis* and the re-instatement of the name *Parmotrema perlatum* (Parmeliaceae). *Herzogia* **17:** 37–44. The name *Lichen chinensis* Osbeck is considered to be not validly published, and in any case its original material has been located and found to belong to *Parmotrema tinctorum.* The name *Lichen perlatus* Huds. is shown to not be an illegitimate name so that '*perlata*', often used alone in the lichenologist's vernacular, can be re-instated as *Parmotrema perlatum* (Huds.) M. Choisy (1952). [For those who need to know, the name and author citation in *Parmelia* is *Parmelia perlata* (Huds.) Ach. (1803).]

HAWKSWORTH, D L & COLE, M S 2004. *Phoma fuliginosa* sp. nov., from *Caloplaca trachyphylla* in Nebraska, with a key to the known lichenicolous species. *Lichenologist* **36:** 7–13. Includes a key to the 14 described lichenicolous species of *Phoma*, at least four of which are known from the British Isles.

HENDERSON, A & CROSSLEY, R 2005. The lichen *Peltigera neckeri* on a Yorkshire lawn. *Bull. Yorkshire Naturalists' Union* **43:** 48–49. First modern record for the county. Includes British Isles distribution map.

JØRGENSEN, P M 2005. A new Atlantic species in *Fuscopannaria*, with a key to its European species. *Lichenologist* **37:** 221–225. **Fuscopannaria atlantica* P.M. Jørg., which superficially resembles *Moelleropsis nebulosa*, is described from the Azores, with additional records from Italy, England, Wales and Scotland.

JØRGENSEN, P M 2005. *Placynthium garovaglioi* not present in Scandinavia. *Graphis scripta* **17:** 3–7. The Scandinavian material previously referred to *Placynthium garovaglioi* ("*garovaglii*" – orthographic error) is shown to belong to the resurrected genus **Collolechia* A. Massal. (1854), which has a single known species **C. caesia* (Fr.) A. Massal. (1854). The latter is also reported from the British Isles. The generic name *Racoblenna* A. Massal. (1852) is typified by *R. tremniacum* (= *Placynthium tremniacum*), and considered a synonym of *Placynthium.* [See also *BLS Bulletin* **96:** 26–27].

KOHLMEYER, J, HAWKSWORTH, D L & VOLKMANN-KOHLMEYER, B 2004. Observations on two marine and maritime "borderline" lichens: *Mastodia tessellata* and *Collemopsidium pelvetiae*. *Mycological Progress* **3:** 51–56. *Pyrenocollema pelvetiae* is transferred to *Collemopsidium* as *C. pelvetiae* (G.K. Sutherl.) Kohlm., D. Hawksw. & Volkm.-Kohlm. A full description and illustrations are provided, and the neotypification of the basionym is corrected.

KUKWA, M & DIEDERICH, P 2005. *Monodictys epilepraria*, a new species of lichenicolous hyphomycetes on *Lepraria*. *Lichenologist* **37:** 217–220. **Monodictys epilepraria* Kukwa & Diederich is described from *Lepraria lobificans* on Skye, with additional records, including additional hosts, from several other European countries.

LAUNDON, J R 2005. The publication and typification of Sir James Edward Smith's lichens in *English Botany*. *Botanical Journal of the Linnean Society* **147:** 483–499. Between 1793 and 1814, 57 new lichen species were described. The nomenclature and typification of each of these new names (46 of which are the basionyms of currently accepted names) are discussed. In addition, there is an index to all the lichen accounts in *English Botany*, and an index to species names used. **Caloplaca borreri* J.R. Laundon is introduced as a new name for *Lepraria ochracea* Turner & Borrer ex Sm. (1812), and two new combinations are made: *Herteliana gagei* (Sm.) J.R. Laundon (syn. *H. taylorii*) and *Trapelia glebulosa* (Sm.) J.R. Laundon (syn. *T. involuta*). Author citations need to be corrected for four names appearing in the 2002 Checklist. The correct citations are: *Lecidella pulveracea* (Flörke ex Th. Fr.) P. Syd. (1887), *Caloplaca cerina* (Hedw.) Th. Fr. (1860), and *Parmelia borreri* Turner (1808) [NB: this is not the basionym of *Punctelia borreri* (Sm.) Krog, whose author citation remains unchanged; the basionym is *Lichen borreri* Sm. (1807)]. Eight names, mainly non-lichenized [but some lichenicolous] fungi in *Spiloma*, remain unidentified. [The author considers *Lichen chloroleucus* Sm. to be a synonym of *Caloplaca cerina*, but many authors prefer to retain it as the basionym to a distinct variety of that species, namely var. *chloroleuca* (Sm.) Th. Fr.].

LAUNDON, J R 2005. Decline of the lichens of King's Wood, Corby. In BUDWORTH, J W *A Century of Natural History:* 62–67. The results of recording over 50-years in this part of Rockingham Forest, Northamptonshire. The story is still one of decline. Fifty-four lichens have been recorded, but only 26 are still present.

LEGON, N W & HENRICI, A 2005. *Checklist of the British & Irish Basidiomycota*. Richmond: Royal Botanic Gardens, Kew. 517 pp. ISBN 1 84246 121 4. This long-awaited Checklist is the result of a mammoth task, dealing with over 16,500 names that reduce down to some 3670 accepted specific or intraspecific names. This is more

than a checklist, and other information includes synonyms, habitat, distribution within the British Isles, reference to descriptions and illustrations, and additional notes where appropriate. The database from which this checklist was printed also contains collection details of voucher specimens. All British and Irish bacidiomycetous lichenized and lichenicolous fungi are included, although the addition of *Tremella caloplacae* [*BLS Bulletin* **94:** 86] was realized apparently too late for inclusion in this printed version.

LINDBLOM, L & EKMAN, S 2005. Molecular evidence supports the distinction between *Xanthoria parietina* and *X. aureola* (*Teloschistaceae*, lichenized *Ascomycota*). *Mycological Research* **109:** 187–199. Molecular evidence supports the distinction of the three, large-lobed species *X. aureola* (Ach.) Erichsen (1930) (syn. *X. ectaneoides*), *X. calcicola* and *X. parietina*. [**NB:** previous British records of "*X. aureola*" mainly refer to *X. calcicola*].

LÜCKING, R, SÉRUSIAUX, E & VĚZDA, A 2005. Phylogeny and systematics of the lichen family *Gomphillaceae* (*Ostropales*) inferred from cladistic analysis of phenotype data. *Lichenologist* **37:** 123–169. The new genus *Jamesiella* Lücking, Sérus. & Vězda is introduced for three former *Gyalideopsis* species that have isidioid hyphophores ('thlasidia'). Two species are found in the British Isles: *J. anastomosans* (P. James & Vězda) Lücking, Sérus. & Vězda (*Gyalideopsis anastomosans*) and *J. scotica* (P. James) Lücking, Sérus. & Vězda (*G. scotica*). [Perhaps general adoption of this new genus, based on a single anamorphic character, should await support from molecular phylogenetic analyses.]

LUMBSCH, H T, PRADO, R DEL & KANTVILAS, G 2005. *Gregorella*, a new genus to accommodate *Moelleropsis humida* and a molecular phylogeny of *Arctomiaceae*. *Lichenologist* **27:** 291–302. The new genus *Gregorella* Lumbsch is erected to accommodate *G. humida* (Kullh.) Lumbsch (syn. *Moelleropsis humida*), and is found to belong to the *Arctomiaceae* and not the *Pannariaceae*.

PAYNE, K & HENDERSON, A 2005. Lichens on a metal storage tank, Wheldrake. *Bull. Yorkshire Naturalists' Union* **43:** 42–44. Two colour photos of lichens on an agricultural storage tank.

PAZ-BERMÚDEZ, G, LÓPEZ DE SILANES, M E & CARBALLAL, R 2005. The lichen genera *Collemopsidium* Nyl. and *Verrucaria* Schrader from the Galician seashores (NW Spain). *Nova Hedwigia* **80:** 73–87. Includes a key to, and many useful observations on maritime *Verrucaria* species. [Unfortunately, the authors were

unaware of the detailed treatment of the marine *Collemopsidium* species published by Mohr *et al.* in 2004 – see *BLS Bulletin* **95:** 52.]

PITT, J 2005. In "Reports of outdoor meetings 2003". *Bull. Kent Field Club* **50:** 17–42: Dungeness (p 19); Jumping Downs and Covert Wood (p 27).

SPARRIUS, L B, JAMES, P W & ALLEN, A 2005. The sorediate variety of *Sclerophytomyces circumscriptus*. *Lichenologist* **37:** 285–289. The new sorediate taxon **Sclerophytomyces circumscriptus* var. *sorediatus* Sparrius, P. James & M.A. Allen occurs on coastal rocks from the Canary Islands north to Westerness in Scotland. The orthography of the generic name *Sclerophytonomyces* is corrected to *Sclerophytomyces*. [However, this generic name may be illegitimate and unavailable for use – this is under investigation.]

WATERFIELD, A 2004 A preliminary survey of the Hampstead Heath lichens. *The London Naturalist* **83:** 193–196. A list of 64 spp. is included, and notes are provided on the available habitats.

WATLING, R 2005. Dawyck Botanic Garden: the Heron Wood Cryptogamic Project. *Botanical Journal of Scotland* **56:** 109–118. An historical introduction and an overview of the recent educational activities, fungal (including lichen) recording and ecological work carried out at Heron Wood, with some financial help from the BLS.

Brian Coppins

VISIT TO THE SIERRA DE GUADARRAMA, MAY 1995

As the field secretary of the Society, in May I had the very good fortune to spend a few days with David Hawksworth and Patricia at their home in Mataelpino which nestles under the high peaks and ridges of the Sierra de Guadarrama in Central Spain. This will be the centre for the Society's spring field meeting in May 2006. The weather was just right with crystal days under a deep blue sky, and not too hot. The village is a delight with many bars and pleasant places to eat. It is small and intimate, and allows the rare visitors from abroad to appreciate a genuinely Spanish experience. The hotel is very pleasant and reasonably priced and for those interested, has one of the best vegetarian restaurants in Spain.

Lichenologically, it could not be a better centre for the Society. In the immediate vicinity and easy walking distance from the hotel there are granite rock outcrops, which support a good range of species. Some are familiar, but some less so. I saw much *Umbilicaria grisea* as well as my first foreigner in the form of *Xanthoparmelia stenophylla* here. From the hotel, there are walks into the countryside along footpaths lined with fine old trees, and especially the Spanish *Fraxinus acutifolius* as well as *Quercus pyrenaica.* These supported a fine range of drier habitat species; *Melanelixia glabra* and *Candelariella subdeflexa* were both new to me. Some idea of the character is indicated by *Parmelina quercina, Pleurosticta acetabulum, Xanthoria ulophyllodes* and *Collema subflaccidum* all of which were abundant.

On our first day out, David took me the short distance to a fine regional park in the lower, very rocky slopes of the mountains. It is one of the six UNESCO Biosphere reserves in Spain. The delightful wild daffodil *Narcissus triandrus* ssp. *pallidulus* and the bluebell like *Scilla hispanica* added to the attraction of sheer granite rock faces. Here I was shown *Cladonia iberica* and masses of *Umbilicaria grisea* which I learnt to separate from the rarer *Umbilicaria hirsuta.* The person who had named it, Ana Rosa Burgaz, the Presidentof the Spanish Lichen Society who joined us for the day, showed the *Cladonia iberica* to me. We also visited a wooded area close a stream. Highlights here included *Fuscopannaria mediterranea, Melanelia exasperata* and *Caloplaca ferruginea.*

After lunch, we were persuaded by the local lady mayor who David and Patricia know well, to attend a barbecue, which was part of a typical Spanish fiesta. It was great fun, and typical of the hospitality of this part of Spain. Not many lichens were seen, but the field contained the delightful wild peony *Paeonia broteroi* as well as another diminutive daffodil, *Narcissus bulbocodium.*

We then went off to visit La Barranca where there is a valley containing very important pine woods. From here the rare *Parmelia barrenoae* was first collected and named. Other important species found in our very short visit included *Parmelia serrana* (described only last year but very abundant) and *Hypogymnia farinacea.*

The next day, we spent the morning investigating further pine woods, which actually added little to what we had seen at La Barranca. After lunch, we went to the most amazing gypsum outcrops, which produce just the right, highly calcareous habitat for a magnificent range of terricolous and saxicolous lichens. I saw a bewildering range of species of *Psora* and *Acarospora* as well as *Diplotomma rivazmartinezii*, named after David's head of department at the University. The site also supports two species of *Fulgensia* as well as flowering plants delights such as *Fritillaria hispanica* and *Tulipa australis.*

On the third day, we visited ancient woodland just outside the royal palace at El Escorial. First we went up to a rock where King Filippe 2 watched progress on the building of El Escorial in the 15th century. Rocks here supported *Lobaria scrobiculata, Lasallia hispanica* and the foliose *Placynthium* relative that looks like a *Leptogium, Leptochidium albociliatum,* this after looking at one outcrop for little more than quarter of an hour. We had even less time to look at fine old ash trees associated with a car park at the bottom. I must have looked at about four but in the short time available I saw *Biatora ochrophora, Collema conglomeratum, C. subflaccidum, C. furfuraceum, Leptogium saturninum.* These are species which might be familiar. Add to this *Koeberia biformis, Lithothelium phaeosporum* and the corticolous form of *Megaspora verrucosa* ssp. *mutabilis* and this gives some idea of the quality of these woods. I should point out that I did not identify many of the above in the field, or later myself. Several packets were sent up to RBG Edinburgh where Brian Coppins kindly identified them for me.

I had just three days in the Sierra de Guadarrama and was unable to go to the highest peaks (2400 m) which we plan to visit in May where I am promised there are many species of *Umbilicaria* as well as *Brodoa intestiniformis* to excite us. There is also another valley where I was told there is at least one species of *Lobaria.* Several members of the Spanish Lichen Society who will be able to show us many of the specialities will be able to join us. Add to this the wealth of spring flowers and birds - I saw many bee eaters, golden orioles and a white shouldered kite to name a very few, and the experience will be unforgettable for lichenologists with a broad range of interests. For those strictly interested in lichens, there will be the opportunity, not only to get to learn a good number of unfamiliar lichens, but also to see many of the rarer British species.

Simon Davey

COLLECTION CORNER

This is the first of an occasional series on public and private collections around the country. Contributions are welcomed from members

BRISTOL CITY MUSEUM & ART GALLERY – BIOLOGY SECTION

We have recently finished documenting a collection of myxomycetes, fungi and lichens, which were donated to us in 1991 by the University of Bristol. A large

proportion (approximately 128 specimens) consists of a collection of myxomycetes, named the Sir Edward Fry Collection. It is presently unclear whether these specimens were collected by Sir Edward Fry or his daughter Agnes Fry. If you have any further information on Agnes Fry or Sir Edward Fry and their contribution to myxomycetes research we would be very interested to hear from you. The specimens were collected from 1897 to 1922, mainly from Failand, Bristol, with a few specimens collected elsewhere in Britain and from Switzerland.

The collection also holds a number of myxomycetes specimens (approximately 106) collected by staff at the University of Bristol in the 1980s. The collectors include J. Balfour-Paul, R. Campbell, A. Feest, B. Ing, M.F. Madelin, K. Wade, and J. E. Winterhalder. A number of these are myxomycetes microscope slides (approximately 68 specimens) prepared by J. Balfour-Paul. The majority of these specimens were collected in and around the Bristol area and cultivated in a moist chamber by J. Balfour Paul. The remaining specimens consist of a small number of lichens (approx. 9 specimens) and fungi (approx. 13 specimens), mainly collected by the University in the 1980s from the Bristol area.

If you would like further information on this or any other of our collections please feel free to contact us on the details below.

Jessica Marsh, Tel. 0117 9223597, email: jessica_marsh@bristol-city.gov.uk

BEST SELLER

Are you a frustrated author?

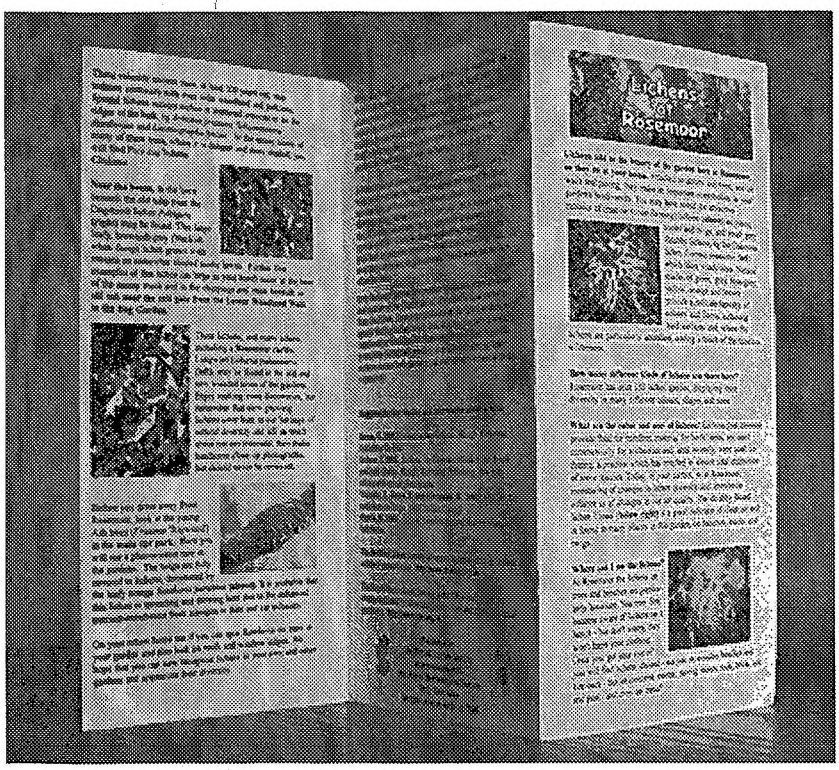
Ever fancied writing a publication which "walks off the shelves"? And on the subject of lichens?

Free leaflets written for the RHS Rosemoor Garden and the Chelsea Physic Garden (CPG) have proved very popular. Each covers two sides of A4. While presented differently (two folds to make a slim leaflet about the size of an office envelope for Rosemoor, and a whole unfolded A4 sheet for the CPG) they each describe key lichens and where they can be looked at in the garden. The texts are written in easy-to-understand language and enhanced with photographs by Jeremy (for Rosemoor) and Ann (for the CPG).

The leaflets have been produced on home computers and now are being snatched up like hot cakes by visitors in the gardens. It is hoped that more leaflets may follow - and winter is an excellent time for spotting key lichens in popular gardens because they are seen easily.

Do you fancy writing a similar descriptive leaflet for a garden open to the public near your home? Contact Ann Allen for a copy of the Rosemoor and CPG leaflets or ask Barbara to put you in touch with one of the authors (Jeremy Gray, Peter James, or Michael Holland who is the Education Officer of the CPG) for hints on preparation of the text and photographs. Barbara Hilton has a contact with the National Trust, if you feel inspired by the lichens around one of their properties.

Barbara Hilton



The Rosemoor leaflet, Photograph by Jeremy Gray

SLOVAK LICHENOLOGY IN 2003 AND 2004

The project "*Diversity of lichens in biosphere reserves in Slovakia*" finished in 2003. It aimed at inventory of diversity, chorology and ecological requirements of lichens in 3 Biosphere Reserves – National Park Poloniny, Tatry National Park and Protected Landscape Area Pol'ana. A first draft and bibliography of lichens were produced. Indices of ecological continuity, reflecting contemporary conditions of local environment were calculated indicating that the quality of the environment was extremely good. The results significantly contributed to updating of the red list of lichens of Slovakia and elaboration of the proposal of pan-European conservation of selected lichen taxa.

Currently our team is working on 2 on-going projects: "*Characterization of lichen-diversity within selected biocentres in Slovakia*" and "*Changes in lichen-diversity dynamics in Slovakia*".

The first synthesis of the knowledge on lichen-diversity of the Eastern Carpathians (Poland, Slovakia, Ukraine, Romania) and the Western Carpathians (Austria, the Czech Republic, Slovakia, Hungary, Poland) was published in 2 monographs as an output of international co-operation (Kondratyuk et al. 2003 and Bielczyk et al. 2004, resp.).

The genus *Xanthoparmelia* was revised in Slovakia and the Czech Republic. Relevant material kept in collections (including type specimens), as well as freshly collected, was studied (morphology, chemistry – TLC). The work resulted in revisions and corrections. Moreover, the rarely collected *X. felkaensis* was reported first time from Austria and Russia. *Xanthoparmelia tinctina* and *X. angustiphylla* are new for Slovakia (Orthová-Slezáková 2004).

Pilot analysis of nuclear and mitochondrial fragments of DNA (ITS, LSU rRNA, mtDNA) of representants of *Leptogium turgidum* agg., based on British specimens, did not unambiguously support the autonomous position of *L. turgidum* s. str.

The genus *Dimerella* was studied to clarify its occurrence in Slovakia. The work confirmed 2 species growing in the country – *D. pineti* and *D. lutea* (recorded from Slovakia for the first time).

Revision of type specimens of lichens and lichenicolous fungi deposited in the largest lichen collection in Slovakia in the Slovak National Museum – Natural History Museum, Bratislava (BRA) was carried out and published (Slezáková & Pišút 2004). It comprises 267 species and varieties and 23 topotypes.

Another scope of our study is an analysis of solid particulate pollutants from surface of *Hypogymnia physodes* from industrial hotspots and relatively clean areas in Slovakia by means of surface image analysis and non-destructive microanalysis in situ (EDS) as well as atomic spectrophotometry. The manuscript of the monograph "The Lichens of the Tatry Mountains" (Lisická 2005) is in press. It represents an account of the distribution and habitat ecology of 1119 species of lichens and 60 species of lichenicolous fungi recorded from the Tatry Mountains since the end of the 18th century. It also covers 882 species of lichens and 37 species of lichenicolous fungi from the Polish side of the mountains.

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Anna Guttová, Anna Lackovičová & Eva Lisická

MANGANESE (MN) IN LICHENS GROWING ON MAGNASITE ROCKS IN INDIA

The metal accumulating ability of lichens has been widely utilized for various bioassays including air pollution and biomonitoring studies. Several studies on the metal elements accumulation from anthropogenic sources are available, while the reports on metal contents of lichens growing on the naturally mineralized rocks (Purvis and James, 1985) are meager.

In the present communication we report the concentration of manganese (Mn) in different lichen taxa growing on manganese rich rocks in the magnasite mining area, Chandak, Pithoragarh district, Uttaranchal State of India. The lichen samples were collected during September 2001. The mining area was heavily dusted and air quality was presumably poor because of the emission from the manganese smelter.

The lichen thalli were removed from the rock with snapper blade and thoroughly washed in the distilled water with constant shaking to remove the debris from the thallus surface. The samples were then oven dried to a constant weight at 80° C and 0.5g of dried samples (three replicates) were used for further analysis. The material was digested by heating at 80 ° C in the HCl and HNO_3 (3:1) mixture. The digestion was completed by adding few drops of perchloric acid. The digest was filtered through Whatman filter paper no. 42 and the filtrate is diluted to desired volume with double distilled water. The concentration of Mn is measured in Perkin-Elmer 2380 atomic absorption spectrophotometer.

Among the different lichens analysed most of the lichen taxa exhibit the range of 40 - 50 $\mu g\ g^{-1}$ Mn concentration, which is higher than the other published lichen analysis for Mn (Seaward, 1980; Lounamaa, 1965; Seaward and Bylinska, 1979; Nieboer *et al.*, 1972). *Leptogium furfuraceum* accumulated maximum amount of Mn followed by *Candelaria concolor* and *Phaeophyscia hispidula.* The concentration of Mn was low in *Dermatocarpon miniatum* and *Parmotrema praesorediosum.* The differential accumulation of heavy metals in the lichens can be attributed to their morphology, histology and physiology. The enhanced level of metals in nature can effect in morphological and histological modification of lichens and such modification especially of the rhizinae and medulla, allows for effective metal accumulation within the thallus (Goyal and Seaward, 1982). The absence of cuticle layer makes lichens prone to free intake of heavy metals ions. The thickness and texture of the thallus, rhizines, cilia and soredia are also contributed characteristically to the accumulation heavy metals. The thin homoiomerous thallus which is highly hygroscopic due to the presence of cyanobacteria makes *Leptogium furfuraceum* suitable for accumulating high amount of Mn. The thin thallus along with sorediate condition in the case of

Candelaria concolor may explain the reason for high amount of accumulated Mn. The presence of soredia provides pored or loosened cortex for easy absorption of heavy metal. *Phaephyscia hispidula* by having soredia and numerous projecting hyphae provide an increased surface area for accumulation of heavy metals. It was also observed in our earlier study (Saxena 2004) that *Phaephyscia hispidula* and *Phaephyscia orbicularis* have a natural tendency to accumulate the heavy metals in larger quantity. *Dermatocarpon miniatum* and *Parmotrema praesorediosum* on the other hand have thick and leathery thallus, which makes them resistant to heavy metal accumulation in higher concentration.

Lichens can absorb inorganic cations from the atmosphere or natural substrates on which they grow in amounts that is more than their physiological need (Lounamaa, 1956). Lichens are metal sinks capable of accumulating certain metal cations to many times to concentrations found in their associated substrates (Lawrey and Rudolph 1975; Goyal and Seaward, 1982). There is not much literature available on the ill-effects of manganese suggesting that Mn is not a dangerous metal. In the present study manganese rich magnasite rock is the major contributor of Mn, however, the dust and emission from the manganese smelter also contribute significantly. Separate experiments are needed to estimate the Mn contribution through different sources. The present study can be used as baseline information for future biomonitoring studies.

Table 1 : Mn in different lichen taxa in increasing order of concentration

Taxa	Concentration of Mn ($\mu g\ g^{-1}$)
Dermatocarpon miniatum (L.) Mann	14.33
Parmotrema praesorediosum (Nyl.) Hale	18.76
Pyxine cocoes (Swartz) Nyl.	40.27
Caloplaca decipens (Arnold) Blomb. and Forss.	49.61
Heterodermia diademata (Taylor) Awasthi	54.71
Acarospora sp.	57.06
Phaeophyscia hispidula (Ach.) Essl.	95.87
Candelaria concolor (Dicks.) B. Stein	118.66
Leptogium furfuraceum (Harm.) Sierk	160.43

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NEW, RARE AND INTERESTING LICHENS

Contributions to this section are always welcome. Submit entries to Chris Hitch, Orchella Lodge, 14, Hawthorn Close, Knodishall, Saxmundham, Suffolk, IP17 1QY, in the form of species, habitat, locality, VC no, VC name, (from 1997, nomenclature to follow that given in the appendix, see BLS *Bulletin* **79**, which is based on the Biological Record Centre for instructions for Recorders, ITE, Monks Wood Experimental Station, Abbots Ripton, PE17 2LS, 1974). Grid Ref (GR) (please add letters for the 100km squares to aid BioBase and Recorder 2000 users), altitude (alt), where applicable in metres (m), date (month and year). NRI records should now include details of what the entry represents, eg specimen in Herb. E, Hitch etc., with accession number where applicable, field record or photograph, to allow for future verification if necessary or to aid paper/report writing. Determined/confirmed by, Comments, New to/the, Finally recorder. An authority with date after species is only required when the species is new to the British Isles. Records of lichens listed in the RDB are particularly welcome, even from previously known localities. In the interests of accuracy, the data should be on disc, *with hard copy*, or if not, then typescript. Copy should reach the subeditor at least a fortnight before the deadline for the *Bulletin Please read these instructions carefully as the order of entry has been slightly altered.*

New to the British Isles

Chionosphaera lichenicola Alstrup, B. Sutton & Tønsberg (1993): on thallus of *Micarea micrococca* on trunk of *Betula*, in wet *Betula-Salix* woodland by access road to Kinloch Lodge Hotel, Kinloch & Kyleakin Hills SSSI, Isle of Skye, VC 104, North Ebudes, GR 18(NG)/ 703.160, alt 10 m, April 2005. Herb. Coppins 21517 in E. This lichenicolous basidiomycete, with minute, synnemata-like basidiomata is described and illustrated by Alstrup (1993) in *Graphis Scripta* **5:** 97–99, and Diederich (1996) in *Bibliotheca Lichenologica* **61:** 15–19. This appears to the first collection since the original from Hordaland in Norway, where it grew on *Micarea prasina* [s. lat.] on *Sorbus*. However, there is a collection Herb. Coppins 10202 in E, on moribund *Lecidella elaeochroma*, from Bettyhill, Sutherland, that may also be this species. BLS no. **2425**. B J & A M Coppins

Lecania fructigena Zahlbr. (1914): (i) in sheltered underhangs of Permian (Penrith beds) New Red Sandstone sea-cliff, St Bees Head, VC 70, Cumberland, GR 25(NX)/955.117, alt *c.* 4 m, August 1996; (ii) in damp crevices of Ordovician mudstone sea-cliff, Pen-rhip, Llangranog, VC 46, Cardiganshire, GR 22(SN)/309.542, alt *c.* 2 m, April 1997. Both Herb. SPC. Confirmed by P P G van dem Boom. For a description and overview of this species, see the paper by van dem Boom, P P G &

Brand, A M (2005) in *The Lichenologist* **37**: 277 – 283. Many west coast *L. aipospila* records will probably be referable to this species. BLS no. **2445** S P Chambers

Lepraria bergensis Tønsberg (2002): (i) on rock and soil on vertical bank in *Picea* plantation, Bryn Mawr, north of Llyn Brianne, V.C. 46, Cardiganshire, GR 22(SN)/794.531, alt. 380 m, April 1997. Herb. A Orange 11394 in NMW; (ii) on overhanging cliff in gully, Hobcarton Crags, Hopegill Head, V.C. 70, Cumberland, GR 35(NY)/1866.2220, alt. 600 m, September 2004. Herb. A Orange 15752 in NMW. Thallus pale bluish grey, margin often delimited and raised, granules rather coarse, hyphae below thallus forming a weakly developed hypothallus. Contains cf. rangiformic acid, atranorin, and anthraquinones by TLC. Lower surface K + purple-red. BLS no. **2431** A Orange

Miriquidica intrudens (H. Magn.) Hertel & Rambold (1987): on low outcrop on summit, near Fatlips Castle, Minto Craigs SSSI, VC 80, Roxburghshire, GR 36(NT)/581.208, alt. *c.* 210 m, September 2004. B J Coppins & J Simkin. Herb. Coppins 21433 in E. Miriquidic acid by TLC. Characterized by its small, dark, glossy, chestnut-brown, concave to plane areoles, each surrounded by black soredia, and also chemistry. For detailed descriptions see Owe-Larsson & Rambold (2001) in *Bibl. Lichenol.* **78:** 335–364 , and Andreev (2004) in *Bibl. Lichenol.* **88:** 15–42 . BLS no. **2429**. B J Coppins

Protoblastenia lilacina Poelt & Vezda (1970). Representative records: (i) on wall, Sully, VC 41, Glamorganshire, GR 31(ST)/1--6--, April 1932. Herb. A E Wade in NMW 36.698.344; (ii) Carnforth, VC 60, West Lancashire, GR 34(SD)/4—7--, 1906. Herb. J A Wheldon in NMW 25.146.1054; (iii) Camas Malag, near Torrin, Isle of Skye, VC 104, North Ebudes, GR 18(NG)/585.183, May 1987 Herb. A Orange 5456 in NMW C87.26.107. Externally similar to *P. calva*, but differs from all other British species of the genus in the apothecia which are K – or only weakly reddish (other species K + purple-red), and presence of a violet pigment in the hypothecium of some specimens; frequent on limestone. BLS no. **2413** A Orange

Sclerophytomyces circumscriptus var. *sorediatus* Sparrius, P. James and M. A. Allen (2005): on dry underhangs and sheltered bluffs, especially on biotite-gneiss, at Gouliot Headland, Sark, VC 113, Channel Islands, GR WV/453.758, August, 1999. Herb. Allen S04-06-1. With *Dirina stenhammarii* and both *Roccella* species. This newly named variety is common in the Azores and Madeira and is also known from the British Isles (eg Isles of Scilly). The thallus is white to pale fawn-coloured and with a very prominent sooty black prothallus. Dense sorediate areas are mostly central. It has a similar chemistry to that of *Sclerophytomyces circumscriptus* var.

circumscriptus. C-, K+ weakly yellow, Pd+ yellow. Psoromic acid by TLC. This variety is described and illustrated by Sparrius *et al.* (2005), *The Lichenologist* **37**: 285-289). See also under **Other records**. BLS no. **2439.**

P W James, A Allen & B Hilton

Thelocarpon robustum Eitner (1900): on stone by site of fire on track, Afon Bidno, Esgair-llys, Llangurig, VC 47, Montgomeryshire, GR 22(SN)/8734.8248, alt 335 m, July 2003. Herb. A Orange 14718 in NM W C.2003.002.16. BLS no. **2426.**

A. Orange

Other records

Acarospora umbilicata: on south wall of church, Tathwell, VC 54, North Lincolnshire, GR 53(TF)/321.829, July 2004. Herb. MRDS 113134. Determined by B J Coppins. New vice-county record. M R D Seaward

Arthopyrenia analepta: on bark of trunk of *Sorbus aucuparia*, Arbrook Common, Esher, VC 17, Surrey, GR 51(TQ)/145.635, August 2005. Herb. (B M Spooner) in K(M) 132421. Determined by M B Aguirre-Hudson.

M B Aguirre-Hudson & B M Spooner

Bacidia viridescens: on top of boundary wall, by road, Dolphinton Church, VC 77, Lanarkshire, GR 36(NT) /101.464, alt 250 m, August 2004,. Herb. Coppins 21601 in E. New to Lanarkshire B J Coppins

Brodoa intestiniformis: an estimated 40-50 thalli on tops of granite boulders around small corrie lochan, north of Dubh Lochan, Beinn a' Bhuird, south-east Cairngorms, VC 92, South Aberdeenshire, GR37(NO)0--9--, alt 930 m, May 2005. Confirmed by A M Fryday. First British record for over 40 years. Herb. SPC. Also present in some quantity on boulders beside a narrow ribbon lochan a short distance below to the south-east in 37/1--9--. S P Chambers

Buellia uberior: on south-facing side of granite boulder, Yes Tor, Dartmoor, VC 4, North Devon, GR 20(SX)/581.901, alt 600 m, April 2005. Herb. SPC. Confirmed by F Bungartz. New to south-west England. S P Chambers

Buelliella physciicola: on thallus of *Phaeophyscia orbicularis* on limestone chest tomb, Great Bedwyn churchyard, VC 7, North Wiltshire, GR 41(SU) /277.642, alt 120 m, August 2003. Herb. Sandell in E. Determined by B J Coppins. New to Wiltshire.

K Sandell

Caloplaca flavorubescens: on trunk of semi-mature *Acer pseudoplatanus*, in back garden, Laig farm, Cleadale, Eigg, VC 104, North Ebudes, GR 18(NM)/ 4—8--, June 2004. Herb. J Douglass in E. New to North Ebudes. J Douglass

Caloplaca luteoalba: on old, no longer active, wound track, on *Acer pseudoplatanus*, near River Tweed, Carham Hall, Carham, VC 68, North Northumberland, GR 36(NT)/80-38-, alt 19 m, August 2005. Specimen in E. Confirmed by B J Coppins. Previously recorded at Carham Park on *Ulmus* by F Rose in 1978. All *Ulmus* at Carham Park have subsequently died due to Dutch Elm Disease.

J R Douglass & B Simpson

Caloplaca maritima: (i) on wooden steps, growing with *C. marina*, at top of sea wall, Leigh Creek, Leigh-on-Sea, VC 18, South Essex, GR 51(TQ)/848.855, May 2005; (ii) on concrete block at HWM, Two Tree Island, Hadleigh Castle Country Park, VC 18, South Essex, GR 51(TQ)/822.849, May 2005; (iii) on blocks of blue shelly limestone, amongst *C. marina*, below sea wall, Canvey Island, VC 18, South Essex, GR 51(TQ)/822.832, October 2005. New to South Essex. P M Earland-Bennett

Carbonea aggregantula: on *Lecanora soralifera* on well-lit fragment of mine spoil in hushing channel, Copa Hill, Cwmystwyth mine, VC 46, Cardiganshire, GR 22(SN)/810753, alt 370 m, March 2005. Herb.SPC. Determined by S P Chambers.. New to Wales. A Orange, R G Woods & Welsh Lichen Group

Chaenotheca stemonea: in deep bark crevices of ancient *Quercus*, Cadzow Oaks, Hamilton High Parks SSSI, VC 77, Lanarkshire, GR 26(NS)/7327.5315, August 2004. Herb. Coppins 21589 in E. New to Lanarkshire.

B J Coppins, J Douglass & B. Simpson

Cladonia botrytes: on top of pine stump by track, Curr Wood, VC 96, Easterness, GR 28(NH) 9948.2331, alt 250 m, April 2005. Herb. Coppins 21624 in E. New site for this priority species. B J Coppins & F McBirnie

Collema dichotomum: on bedrock by north bank of the River Teith, upstream of the Bridge of Doune, VC 87, West Perthshire, GR 27 (NN)/ 720.012, July 2005. Specimen in E. collected by SEPA ecologists. A new river for this priority species. B J Coppins

Collema dichotomum: on large boulders in River South Esk at Stannochy Bridge, VC 90, Angus, GR 37(NO) 583.591, July 2005. Specimen in E. collected by SEPA ecologists. A new hectad for this priority species. B J Coppins

Collema dichotomum: on shelving rocks under bridge and for 100 m downstream on south bank of Endrick Water, Killearn Bridge, VC 86, Stirlingshire, GR 26 (NS)/ 507.875, alt 30 m, August 2005. Specimen in E. Confirmation of previously unvouchered reports for the Endrick Water. B J Coppins & J Douglass

Collema dichotomum: on shelving rocks between the upper and lower waterfalls that enclose the "Pot" of Gartness, Endrick Water, south of Gartness Bridge, VC 86, Stirlingshire, GR 26 (NS) /502.865, alt 20 m, August 2005. Specimen in E. A new site on the Endrick Water, and the most westerly confirmed record in Scotland.
B J Coppins, J Douglass & J Mitchell

Collema dichotomum: on sandstone outcropping bedrock in gorge, west side of river, Falls of Clyde, New Lanark, VC 77, Lanarkshire, GR 26(NS)/88-41-, alt 160 m, August 2005. Herb. Coppins in E. Confirmed by B J Coppins. This find ends a long controversy. It had been recorded here by William Borrer in the early 19th century, but no voucher specimen has been traced. A specimen in BM, collected here by James Crombie in 1866, has proved to be *Leptogium plicatile.* J R Douglass & B Simpson

Collema fragrans: in wound track of old *Fraxinus* beside River Little Dart at Chulmleigh, VC 4, North Devon, GR 21(SS)/70-13-, May 2005. Herb. Benfield. Confirmed by P W James. B Benfield

Cyphelium marcianum: on thallus of *Pertusaria pseudocorallina* on rocks by river, Irfon, Abergwesyn, VC 42, Breconshire, GR 22(SN)/8469.5316, July 2004. Herb. A Orange 15241 in NMW C.2004.003.14. New to Wales. A Orange

Felhanera bouteillei: abundant on concrete footings and painted metalwork of electricity pylon in woodland, Spring Wood Nature Reserve, Ipswich, VC 25, East Suffolk, GR 62(TM)/143.413, May 2005. Determined by B J Coppins. Another peculiar habitat for this foliicolous species P M Earland-Bennett & C J B Hitch

Gyalecta ulmi: on calcareous Old Red Sandstone vertical rock-face, in gorge, east side of River Clyde, SWT Nature Reserve, Falls of Clyde, New Lanark, VC 77, Lanarkshire, GR 26(NS)/88-40-, alt 165 m, August 2005. Specimen in E. Confirmed by B J Coppins. New vice-county record. B Simpson & J R Douglass

Gyalidea roseola: on calcareous sandstone block amongst rubble in lead mine, Wanlockhead, VC 72, Dumfriesshire, GR 26(NS)/85-14-, alt 335 m, May 2005. Specimen in E. Determined by B J Coppins. New vice-county record.
J R Douglass, P Aspen & B Simpson

Gyalidea fritzei: on brick amongst rubble in lead mine, Wanlockhead, VC Dumfriesshire, GR 26(NS)/85-14-, alt 335 m, July 2005. Specimen in E. Determined by B J Coppins. J R Douglass, P Aspen & B Simpson

Hypotrachyna sinuosa: on top of basaltic boulder in rock garden, Royal Botanic Garden, Edinburgh, VC 83, Midlothian, GR 36 (NT)/ 249.752, alt c 20 m, December 2003. Herb. Coppins 21607 in E. The occurrence of this species is far outwith (too far east of) its expected distribution, and the single thallus seen probably represents a transient invader. B J Coppins & C J Ellis

Kalchbrenneriella cyanescens: (i) on *Usnea hirta*: on southwest side of Creag Choinnich, Braemar, VC 92, South Aberdeenshire, GR 37(NO)/15-91-, alt 360 m, April 2005. Herb. Coppins 21629 in E; (ii) at Curr Wood, VC 96, Easterness, GR 28(NH) /99-24-, alt 220 m, April 2005. Herb. Coppins 21613 in E. New to eastern Scotland. B J Coppins

Lecanora persimilis: on *Salix,* Lincoln University campus, Brayford, Lincoln, VC 53, South Lincolnshire, GR 43(SK)/973.711, April 2005. Herb. MRDS 113369. Determined by B J Coppins. New to the vice-county M R D Seaward

Lecidea auriculata: on top of sandstone headstone, Dolphinton Church, VC 77, Lanarkshire, GR 36(NT) /101.464, alt 250 m, August 2004. Herb. Coppins 21604 in E. New to southern Scotland, and apparently the first churchyard record. This singular specimen resulted from a systematic selection of collections (scrapings; 10 in all) of look-alike '*Lecidea* species', which were mainly, the more expected, *L. lapicida* and *L. plana.* B J Coppins

Lecidea hypopta: on lignum of fallen, decorticate trunk of ancient *Quercus*, Cadzow Oaks, Hamilton High Parks SSSI, VC 77, Lanarkshire, GR 26(NS)/ 7334.5316, August 2004. Herb. Coppins 21591 in E. New to Lanarkshire.
B J Coppins, J Douglass & B. Simpson

Lecidea nylanderi: on lignum of fallen, decorticate trunk of ancient *Quercus*, Cadzow Oaks, Hamilton High Parks SSSI, VC 77, Lanarkshire, GR 26(NS)/ 7334.5316, August 2004. Herb. Coppins 21590 E. New to Lanarkshire.
B J Coppins, J Douglass & B. Simpson

Lecidea nylanderi: on lignum of fallen trunk of large oak at edge of woodland, Walcot, Bishop's Castle, VC 40, Shropshire, GR 32(SO)/ 342.839, alt 250 m, April 1997. Herb. Coppins 18090 in E. New to England. B J & A M Coppins

Leptogium subtorulosum: on basalt outcropping bedrock on southern (English side) of River Tweed, Carham, VC 68, North Northumberland, GR 36(NT)/80-38-, alt 16 m, August 2005. Second record for Northumberland. Specimen in E. It was previously recorded from Warden Rocks, North Tyne, in 1979, by O L Gilbert as "L. massiliense". J R Douglass & B Simpson

Leptoraphis atomaria: on bark of trunk of young *Populus tremula,* Arbrook Common, Esher, VC 17, Surrey, GR 51(TQ)/145.635, October 2004. Herb. K(M) 126805.
M B Aguirre-Hudson & B M Spooner

Opegrapha subelevata: on calcareous shale in road cutting, Lee Bay, VC 4, North Devon, GR 21(SS)/47-46-, November 2004. Photograph taken of the lichen and its situation. A second recent vice-county record. B Benfield

Paranectria oropensis: (i) on thallus of *Lepraria incana* on *Quercus robur*, Rowhill Nature Reserve, Farnham, VC 17, Surrey, GR 41(SU)/849490, July 2003. Herb. K(M) 116608; (ii) on thallus of *Physcia tenella*, on branch of *Sambucus nigra*, near car park, Arbrook Common, Esher, VC 17, Surrey, GR 51(TQ)/145.635, August 2005. Collected by A Waterfield. Herb. K(M) 132455.
M B Aguirre- Hudson & B M Spooner

Parmotrema perlatum: on *Acer*, Kenwick Park golf course, Louth, VC 54, North Lincolnshire, GR 53(TF)/35-84-, July 2005. First record for the county since that made by F A Lees (*loc. non cit.*) c. 1879. M R D Seaward

Peltigera didactyla: with fruits and soralia on mossy roofing-felt tiled roof of shelter by lake in parkland, Harewood House, VC 64, Mid-west Yorkshire, GR 44(SE)/307.444, September 2005. C J B Hitch & A Henderson

Physcia stellaris: on three *Populus nigra* `ITALICA`, on golf course, Belfairs Park Woods, Leigh-on Sea, VC 18, South Essex, GR 51(TQ)/832.872 and 51(TQ)/829.871, June 2005. Herb. PME-B and STD. Determined by B J Coppins. Sterile thalli only. New to East Anglia P. M Earland-Bennett

Placynthium lismorense: on damp Carboniferous limestone face, with *Collolechia caesia*, west side of Humphrey Head, VC 69, Westmorland, GR34(SD)/390736, alt 10 m, October 1996. Herb. SPC. Determined by P M Jorgensen. New to England.
S P Chambers

Pleopsidium chlorophanum: one sterile thallus on underside of stone in retaining wall by track, between Craig Choinnich and the Lion's Face, Braemar, VC 92, South Aberdeenshire, GR 37(NO)/ 1640.9146, alt 395 m, April 2005. Digital close-up and habitat photographs taken. New to Scotland. A M & B J Coppins

Polyblastia theleodes: on basic rocks at side of gorge, Habbies Howe – Logan Burn SSSI, Pentland Hills, VC 83, Midlothian, GR 36(NT)/18-61-, alt *c* 300 m, January 2004. Herb. Coppins 21632 in E. New to Midlothian. B J Coppins, C J Ellis & J Hope

Porina borreri: frequent on *Ulmus*, *Ilex* and *Acer* at the base of flailed hedges in Plymtree parish, VC 3, South Devon, 31(ST)/04-6. 03. March 2005. B Benfield

Porina guentheri var. lucens: on wet rock face, Craig Clyngwyn, VC 46, Cardiganshire, GR22(SN)778.472, alt 270 m, June 2005. Herb. SPC. First vice-county record for the variety. S P Chambers

Porocyphus kenmorensis: (i) on submerged sandstone slab, adjacent to spring, River Owennafeana, Dingle, VC H1, South Kerry, GR 01(Q)/483.124, alt 280 m, April 2004; (ii) abundant on sandstone at, or close to water level, River Owngar. Kealkill, VC H3, West Cork, GR 10(W)/06-56-, alt 60 m, July 2005. New to County Cork and very few other Irish records. M J Simms

Porpidia superba f. *sorediata:* on basic rocks at side of gorge, Habbies Howe – Logan Burn SSSI, Pentland Hills, VC 83, Midlothian, GR 36(NT) /18.61, alt *c.* 300 m, with *P. tuberculosa* and *Rhizocarpon petraeum*, January 2004. Herb. Coppins 21596 in E. New to the Lothians. B J Coppins, C J Ellis & J Hope

Psammina inflata: on green coccoid algae on bole of *Quercus*, at edge of golf course, Belfairs Park Woods, Leigh-on-Sea, VC 18, South Essex, GR 51(TQ)/827.876, May 2005. Herb. PME-B and STD. New to Essex and only previously known from Suffolk. P M Earland-Bennett

Pseudocyphellaria crocata: abundant on scrub *Salix*, surrounding swallow hole, Poulacapple Pot, Poulacapple Mountain, the Burren, VC H9, Clare, GR 12(M)/1873.0411, alt 260 m, June 2005. Spotted whilst trying to excavate a route into an, as yet unexplored, cave! New to The Burren and only the second record for Connaught. See BLS *Bulletin* **83**, p32. M J Simms

Ramalina pollinaria: (i) on south-facing church wall, South CockeringtonVC 54, North Lincolnshire, GR 53(TF)/832.887, January 2005. Herb. MRDS 113.392; (ii) on east-facing brick wall of farm building, bordering churchyard, Ashby Puerorum, VC 54, North Lincolnshire, February 2005. Herb. MRDS. Determined by B J Coppins. Third and fourth modern records for the county. M R D Seaward

Rhizocarpon geographicum: on granite chip on concrete-topped wall, Leigh Cliffs, Leigh-on-Sea, VC 18, South Essex, GR 51(TQ)/845.856, March 2005.New to Essex. P M Earland-Bennett

Rinodina aspersa: (i) on well-lit block scree below crag, Craig Clyngwyn, VC 46, Cardiganshire, GR22(SN)778.472, alt 220 m, June 2005. Herb. SPC. Second vice-county record; (ii) on igneous outcrop in south-facing U1 *Festuca ovina – Agrostis capillaris – Rumex acetosella* grassland (U1c *Erodium cicutarium – Teesdalia nudicaulis* sub-community), Kempster's Hill, VC 47, Montgomeryshire, GR 33(SJ)/317.142, alt 220 m, September 2005. First vice-county record. Herb. SPC. The hilltop U1 grassland and attendant outcrops, including part of the one supporting *R. aspersa*, were badly damaged by unauthorised agricultural 'improvement' works in summer 2005. S P Chambers

Rinodina efflorescens: on leaning trunk of *Fagus*, woodland on north side of Peffer Burn, 0.5 km north of Markle, VC 82, East Lothian, GR 36(NT)/561.778, alt 20 m, November 2004. Herb. Coppins 21608 in E. New to East Lothian. B J Coppins

Rinodina fimbriata: on basalt outcrop, east side of River Coquet, Linbriggs, VC 68, North Northumberland, GR 36(NT)/89-06- and 36(NT)/89-07-, alt 195 m, December 2004. Determined by B J Coppins. New to the vice-county. J R Douglass

Sclerophytomyces circumscriptus var. *circumscriptus* on dry, sheltered, base-rich Silurian mudstone face in old woodland, associated with both *Dirina massiliensis f. sorediata* and *Arthonia endlicheri*, Coed Aberedw, VC 43, Radnorshire, GR32(SO)079472, alt 170m, May 2005. Herb. SPC. First vice-county record and a remarkable *c.* 38 miles inland from the coast 'as the crow flies'.
S P Chambers & Welsh Lichen Group

Sclerophytomyces circumscriptus var. sorediatus: at Sark (i) on dry cave entrance to Gouliot Caves, VC 113, Channel Islands, GR WV/452.758, August1999; (ii) in fault area at bottom of path to Port du Moulin, VC 113, Channel Islands, GR WV/458.768, August 1999. Herb. James S99-90-1 in BM. P W James, A Allen & B Hilton

Sclerophytomyces circumscriptus var. *sorediatus*: on shaded north-facing mesic-supralittoral granodiorite rock with *Toninia aromatica* and *T. mesoidea*, Belvoir Bay, Herm, VC 113, Channel Islands, GR WV/403.805, October 2002. For further records see above and under **New to the British Isles**. P W James

Skyttea elachistophora: on *Tephromela atra* on sandstone headstone, Dolphinton Church, VC 77, Lanarkshire, GR 36(NT)/ 101.464, alt 250 m, August 2004. Herb. Coppins 21603 in E. B J Coppins

Sticta canariensis: on *Fraxinus*: near waterfall in coastal woodland, Eas Fors, Mull, VC 103, Mid-Ebudes, GR 17(NM)/44-42-, alt 5 m, March 2005. Confirmed by B J Coppins. Independent green morph and apparently new to Mull

J R Douglass & D Milne

Sticta fuliginosa: numerous fertile thalli in mossy *Salix/Alnus* carr, adjacent to stream. ltmover Glen, VC H40, Londonderry, GR 24(C)/65-10-, alt 110m, February 2004. Very rarely found fertile. M J Simms

Strangospora moriformis: on lignum of fallen, decorticate trunk of ancient *Quercus*, Cadzow Oaks, Hamilton High Parks SSSI, VC 77, Lanarkshire, GR 26(NS)/ 7334.5316, August 2004. Herb. Coppins 21592 in E. New to Lanarkshire.

B J Coppins, J Douglass & B. Simpson

Tremolecia atrata: on iron support of headstone, Walston churchyard, VC 77, Lanarkshire, GR 36(NT)/ 058.456, alt 260 m, August 2004. Herb. Coppins 21600 in E. B J Coppins

Verrucaria bryoctona: on mossy soil over concrete of SSSI, Canvey Island, VC 18, South Essex, GR 51(TQ)/758.835, June 2005. Herb PBE-B and STD. Determined by B J Coppins. Superb fertile material. Refound in the vice-county, and not seen since it was recorded by P N Cayton (1991), in the City of London cemetery, Wanstead. BLS *Bulletin* **69** p 16. P M Earland-Bennett

Vezdaea rheocarpa: on thallus of *Peltigera* sp., by River Ardle, Kindrogan Field Centre, Enochdhu, VC 89, East Perthshire, GR 37(NO)/ 056.627, alt 250 m, April 2005. Herb. Coppins 21631 in E. New to eastern Scotland. A M Coppins

Xanthoriicola physciae: on the thallus and apothecia of decaying *Xanthoria parietina* on *Prunus spinosa* twig in coastal scrub, Morfa Bychan, VC 46, Cardiganshire,

GR22(SN)/570.770, alt 120 m, March 2005. Herb. SPC. First vice-county record. This hyphomycete appears to have a predominately coastal distribution in Wales.

S P & H A Chambers

Xanthoriicola physciae: on thalli and apothecia of *Xanthoria parietina* on branch of *Sambucus nigra* by car park, Arbrook Common, Esher, VC 17, Surrey, GR 51(TQ)/145635, August 2005. Collected by A Waterfield. Herb. K(M) 132424.

M B Aguirre-Hudson & B M Spooner

SOCIETY BUSINESS

BRITISH LICHEN SOCIETY COUNCIL MEETING, SOIRÉE and ANNUAL GENERAL MEETING, 13 - 14 JANUARY 2006

NATIONAL MUSEUM OF WALES, CATHAYS PARK, CARDIFF

Location and travel

The National Museum of Wales is situated in the spacious Civic Centre of Cardiff at grid ref. 31/184.769. It is easily reached by road, leaving the M4 at Junction 32. On-street parking requires vouchers (two for a full day, total £2.40) available from the shop in the Museum. Note that all-day parking spaces are usually unobtainable on weekdays (they are all filled early on), and there is the possibility of weekend street closures beside the Museum if there is a sporting fixture. Parking in Museum car park at rear of building, from Museum Avenue (at street level, not down the ramp) needs a voucher purchased in the Museum shop (£2.40) to operate the exit barrier. There is a multistorey car park in Greyfriars Road, a few hundred metres from the Museum. Cardiff Central rail station is approximately 20 minutes walk away in Cardiff city centre, and is served by buses and taxis. Cardiff airport is about 15 km away, and a fast bus service (Airbus Xpress 91) leaves here every 30 minutes Monday to Friday daytimes and every hour on weekday evenings, Saturdays and Sundays, for Cardiff bus station (next to the rail station). Contact the organiser (address below) for more details.

Nominations

Nominations for Officers for 2006 and five members of Council for the period 2006–2008 should be sent in writing to the Secretary, c/o Department of Botany, The Natural History Museum, Cromwell Road, London, SW7 5BD before 16 December

2006. No person may be nominated without their consent. Retiring members of Council, Jack Laundon, Jacqui Middleton and Stephen Ward are thanked for their contributions over the past two years.

Thursday 12 January 2006

Education and Promotions Committee
The committee will meet at 12.45 on Thursday 12 January, 2006 in the Icons Suite of the National Museum of Wales (arrive at back entrance of Museum, in sunken courtyard accessible on foot from Museum Avenue or Park Place).

Friday 13 January 2006

Conservation Committee
The committee will meet at 10.00 on Friday, 13th January, 2006 in the Icons Suite of the National Museum of Wales (arrive at back entrance of Museum, in sunken courtyard accessible from Museum Avenue or Park Place).

Council Meeting
Council will meet at 14.00 on Friday 13 January 2006, in the Icons Suite of the National Museum of Wales (arrive at back entrance of Museum, in sunken courtyard accessible from Museum Avenue or Park Place). Please let the Secretary have any items you wish Council to discuss by 12 December 2004.

Evening lecture

Identification and Classification: from Gutenberg to Internet

Professor P.L. Nimis (University of Trieste)

The talk examines the basic operational differences between classification and identification processes, and on the use of computers for creating identification tools which - contrary to the past - are completely free from the constraints of biological classification

18.30 in the Reardon Smith Lecture Theatre, National Museum of Wales. Doors open at 17.45 for tea, coffee and biscuits. The entrance is from Park Place, towards the rear of the Museum building on the east side (right side as you face the front of the Museum).

Lichenological Exhibition and Soirée

19.30-21.00 Main Hall, National Museum of Wales.

This follows immediately from the Evening Lecture. The spacious Main Hall of the Museum has been booked for this event, which will include the following:

Buffet supper: Please book and pay for this in advance by completing the flier enclosed within this Bulletin. The cost includes one glass of wine; additional glasses can be bought during the evening.

Lichenological exhibition: Members attending the AGM are encouraged to contribute posters or displays concerning any topic of lichen interest, such as ongoing work, or new or neglected species or habitats. Please let organiser Alan Orange (address below) know the subject or title of your exhibit by 12 December 2005, and approximately how much space you require on display boards and on tables. Note that table space may be limited.

Since the Main Hall is only available to us on Friday evening, exhibits will need to be set up within a narrow time-interval, between 17.45 and 18.30 on Friday evening (Museum staff may be able to assist), and thereafter moved by Museum staff to the Icons Suite for viewing during coffee breaks on Saturday. For this reason it would be helpful if each exhibit comprised a small number of items that are easily associated and moved. If necessary, exhibits can also be set up once the soirée has commenced, or on Saturday morning.

Book auction: A book auction will be held during the soirée; if members have any books to sell, contact Mark Seaward beforehand; 40% of proceeds will go to the BLS. The auction will include books owned by Oliver Gilbert, the proceeds of these to go towards a specific project outlined in Oliver's will. (see also notice on p 85)

ANNUAL GENERAL MEETING/LECTURE MEETING

Saturday 14 January 2006
The Annual General Meeting will be held in the Reardon Smith Lecture Theatre of the National Museum of Wales (entrance from Park Place) at 10.30, Saturday 14 January 2006.

PROGRAMME

09.45 Reception and coffee (served in Icons Suite, accessible from the Lecture Theatre)
10.30 Annual general Meeting

AGENDA

1. Apologies for absence
2. Minutes of the Annual General Meeting January 2005
3. Matters arising
4. President's address
5. Officers and Committee Chair Reports
6. Ursula Duncan Award
7. Field Meetings 2006-2007
8. Election of Officers and four members of Council
9. Any other business
10. Date and place of the next AGM

12.45 Lunch (make own arrangements, Museum restaurant or local venues).

Lecture meeting: Lichen Communities

14.00 Welcome by Dr Graham Oliver, Head of the Department of Biodiversity and Systematic Biology, National Museum of Wales.

Lecture session, chaired by Pat Wolseley, President

14.05 **Saxicolous communities in upland Britain – Alan Orange**
The British uplands are floristically well known, but there is no modern account of the lichen communities that occur on rock. Numerous relevés have been recorded during the last three years, covering many kinds of saxicolous vegetation, and with as few preconceptions as possible. It is hoped that these will form the basis of a preliminary new framework for cryptogamic vegetation in treeless uplands.

14.35 **Lichen communities in relation to bryophyte communities and the NVC – Ben Averis**

Assemblages of lichens are often distinct from bryophyte communities, but mixed communities also occur. The abundance of certain lichens defines some communities of the National Vegetation Classification, but the NVC does not cover the numerous small-scale cryptogamic communities of rock and bark. A classification of vegetation can be produced in a variety of ways; the NVC took one approach; previous classifications had different approaches and hence different structures. The 'perfect' classification is a fascinating (and perhaps impossible) challenge, both for larger-scale vegetation and for small-scale lower plant communities; ideally it would integrate the two.

15.05 Coffee

15.45 **Lichen communities at Stonehenge – David Hill**
The unusual lichen communities on Stonehenge have been sampled by quadrats as part of a monitoring project. The data have been analysed, and are compared with communities already described in the literature.

16.15 **Monitoring lichen communities using boulders: a trial methodology – Vince Giavarini**
Upland sites where trees are rare or absent are little monitored. Yet change is just as evident here as in more low lying areas. Methodologies for monitoring saxicolous lichens are required to track the progress of formerly polluted slopes as well as those recovering from fire damage or threatened by other impacts or developments. Could studies of this nature also provide some insights into how to study populations of montane lichens threatened by climate change?

16.45 Questions and discussion

17.00 Close

Evening Meal

It is suggested that members may like to join each other for a purely informal meal at a local venue, rather than try to find their own food on a Saturday night. If the idea appeals, contact Alan Orange directly by 10 December so that tables can be booked. Either Indian or Italian cuisine are suggested, please state any preferences.

Sunday 15 January
Field Excursion

There will be a Field Excursion to a site of local interest, details to be announced at the AGM. It would be helpful if you could let the organiser know whether you will be bringing your own car, and whether you can offer seats to other people.

Organiser contact
Alan Orange, Department of Biodiversity and Systematic Biology, National Museum of Wales, Cathays Park, Cardiff CF10 3NP. E-mail: alan.orange@nmgw.ac.uk. Phone: 029 20 573264.

BOOK AUCTION. THE LIBRARY OF OLIVER GILBERT

It was the wish of Oliver that his books should go to the Society's Library—if needed —and those publications not required be sold and a fund set up to assist budding lichenologists. These remaining books are to be auctioned during the AGM at Cardiff in January. There are a number of important volumes that rarely come onto the market e.g.: Leighton 1851 **The British Species of Angiocarpous Lichens elucidated by their Sporidia,** with hand tinted Figs. Leighton's **Lichen Flora of Great Britain** 2nd and 3rd Editions 1872,1879. A L Smith **British Lichens** 2nd Edition in two volumes. There are also more recent books and monographs (**Lichens of Israel, Lichens of The United States**" etc). A copy of **"Lichen Ecology"** Ed. Mark Seaward, a particularly sort after book, is in the auction together with a lovely edition of Praegler's **Tourist's Flora of The West of Ireland**, 1909 with maps, photographs etc. Most of the volumes have Oliver's signature inside the front cover and will be a fine memento of a much loved and respected man. Other books from Mark Seaward's library and early copies and short runs of ***The Lichenologist*** will also be in the sale. A list of all the books available will be sent to anyone interested and those members unable to attend the auction may place confidential bids with Ivan (Tel. 0116 2876886 e-mail ivan@pedley 3997.freeserve.co.uk). Some money has already been raised and it is hoped that with this sale the final amount achieved will be significant

PHOTOGRAPHIC EXHIBITION

Exhibit your photographs of lichens

You are invited to share your favourite images of lichens with other members at our next AGM Members' Exhibit (January 2006).

Here is your opportunity to exhibit the images you have taken at a field meeting - or a special one from your archives. With the advent of digital techniques the scope for producing superb prints has expanded enormously. Have you noticed how many lichenologists now bend over specimens with creative compacts!

- Interpret the subject "*lichens*" as broadly as you like - you may find "*lichen communities*" (the theme of the AGM) especially interesting
- Both colour and black and white prints are welcome
- Enter up to four prints per person
- Any size or format is acceptable up to A4 (unmounted)
- Mount photographs, if possible, maximum size mounted 26x36 cm (10x14")
- For each photograph give the title, your name and, if you wish, a brief explanation (up to 30 words) of why you took the image, which could be included in a caption
- Notify Barbara Hilton by 15 December of the number of prints being submitted, to ensure exhibition space
- Bring photographs between 1 – 4pm on Friday at the start of the Annual Meeting and collect at the close of the session on Saturday afternoon
  (Alternatively, send the photographs to Barbara Hilton and enclose postage for return)

While every care will be taken of your photographs, no responsibility can be taken for the care of photographs submitted for exhibition.

Barbara Hilton, Chair, Education and Promotions Committee
Beauregard, 5 Alscott Gardens, Alverdiscott, BARNSTAPLE EX31 3QJ
bphilton@eclipse.co.uk

SECRETARY'S REPORT 2005-2006

This year the society suffered a great loss when Oliver Gilbert, lichenologist and naturalist extraordinaire died on 15th May after a long struggle to recover from the failure of the kidney transplant which we had all hoped would give him a new lease of life. He will be greatly missed by many members and former students alike for his wonderful spirit and inspiring energy. William Purvis, who has known Oliver since he was a boy, has written an appreciation of him for *The Lichenologist*. Meanwhile his legacy is in all his contributions to research and literature, and especially in the task he has left us to complete for him; namely the new edition of the Lichen Flora of the British Isles. Oliver had such a vision of this as a practical guide that would enable all students of lichenology to identify their lichens in the field and in the lab. Many people have contributed to this, and Clifford Smith and Peter James have been editing the drafts as they come in, so that we still hope to get the book out by the end of 2006.

Membership fell a little after the subscription rates were increased so that there are now 603 members (down 15 from 2004). Of these 313 are in the UK, 182 in Europe, 74 in the American continents and 34 in the rest of the world. It is interesting that this last category has actually increased following cryptogamic workshops with a lichen component by Harrie Sipman in Indonesia and Pat Wolseley in Thailand. Enquiries about membership are still coming in and we are in process of setting up PayPal which will make payment from abroad easier and cheaper, so that foreign membership is likely to increase. Inevitably many members from abroad join to receive the Lichenologist with its papers of international interest that include a range of aspects of lichenology from taxonomy to the use of lichens as indicators of pollution, and of biodiversity. The latter has come to importance recently in countries that have signed up to the CBD, but where the components of biodiversity are still relatively unknown.

Three council meetings have been held two at the Natural History Museum and one at the autumn field meeting in Ashburnham, Sussex, and Council members have been active in looking for ways to expand both the membership and the Societies interests. As you will see from this *Bulletin* committees have also been active and new projects are happening, such as the preparation of a threatened lichens database by the Conservation Committee under Bryan Edwards supported by English Nature. Much has been learned from BLS participation in the Scottish project under Sandy Coppins, where checking records and incorporation of past data has become part of the process of making an accurate record of the sites in Scotland (*Bulletin* nos 95, 2004; 96,2005). But these projects highlight the essential need for data inputters with computer skills. Perhaps we should try and run a basic computer course for BLS members who would be interested to contribute in this way?

This relationship between recorders and data collection was investigated by Jacqui Middleton in her report on the results of a questionnaire sent out to recorders in January 2005. The results showed that there is a big gap between data being collected, identified and getting it into a BLS database such as BioBase or to Mark Seaward. This report makes very interesting reading and highlights the need to encourage the establishment of local groups with regular field meetings where new lichenologists can get more experience. You can e-mail Jacqui for a copy of the file at jacqui@brucemiddleton.freeserve.co.uk.

Future events

Following the successful field meeting in Holland last year the BLS are now planning to visit the Guadarrama in Spain, arranged by David Hawksworth in collaboration with the Spanish Lichen Society. For a flavour of this field meeting see Simon Davey's article in this *Bulletin* p60. Other future events are mentioned in his Field Meetings secretaries report.

The next AGM will be at the National Museum and Art Gallery of Wales which is situated in Cathays Park in the centre of Cardiff, and we look forward to visiting this city, and to an exciting programme arranged by Alan Orange including a field visit to be arranged for the Sunday.

In 2008 the BLS will be 50 and we are now discussing what to do to celebrate this occasion. We are thinking of an international meeting around the time of the AGM so that it would give members abroad a chance to attend. Please send any ideas for other activities to me?

Pat Wolseley

FROM THE ASSISTANT TREASURER

Gift Aid

The response by UK members to my request for Gift Aid declarations was truly impressive: 58% of the draft Gift Aid declarations sent out were returned. Of these, the overwhelming majority were completed in such a way as to make it possible for the Society to reclaim tax from the Inland Revenue in respect of 2001-2005. The same declarations can be used also to make claims in future years, except, of course, in cases where members resign, or tell me that their tax position has changed.

The total reclaimed for 2001-2005 is £3,880, which is extra income for the Society. Of this sum, the proportion relating to 2005 was £1,194, so we can expect to reclaim approximately this amount in future years.

If you meant to return a declaration, but forgot to do so, it is still not too late; if you have mislaid the form, let me know, and I can easily send you another.

Subscription renewals

As announced in the Summer Bulletin, we are, as an experiment, handling all 2006 subscription renewals in the way in which renewals have been, for some time, handled in North and South America. Therefore, there is no renewal form enclosed with this Bulletin. **Instead, if your subscription expires on 31 December 2005, you should by now have received a letter from me, inviting you to renew, and giving full details of how to pay – unless, of course, in 2005 you paid by Standing Order, in which case I have assumed that you will also pay in this way in 2006.**

So, if you have not heard from me, but you think that you should have done, please contact me, and I will sort the matter out. Equally, if you have received a letter from me, but think that no subscription is due for 2006, please let me know.

To repeat one important request: ***Even if you have done so in the past,*** please do not make any payment by credit transfer into our UK sterling CAF Bank account or into our Alliance and Leicester (Girobank) account, without consulting me first. (My e-mail address is: BLSmembers@blueyonder.co.uk) I can accept payments in this way, but I do need to know that the payment is coming.

In particular, could you please note that the facility to pay in euros by direct bank transfer is no longer available? (However, it is now possible to pay in euros, using PayPal – see below for this important announcement.)

Payment using PayPal

It is now possible for members to pay their subscriptions through the Internet, using the well-established PayPal service, which many members already use for other purposes. This payment option is certain to be useful to overseas members, many of whom have difficulty in making payments without incurring swingeing bank charges.

The BLS website gives further information, but, briefly, to use PayPal, all you need is an e-mail address and a credit or a debit card. For the first year, the PayPal service charge will be borne by the Society, though Council will review this policy before the

2007 renewals become due. Since payment is made in sterling at the prevailing exchange rates, most overseas members will find this the most economical and efficient way of paying their subscriptions.

PayPal is also available to UK members, but, because of the service charge, UK members who renew their subscriptions year by year are requested to pay by cheque – or, best of all, by Standing Order.

Will Stevens

DATA COMMITTEE REPORT FOR 2004-2005

Since the last report, the committee met on three occasions.

This has been an important year for data recording by the BLS. Mike Thurner, the developer of BioBase, retired and the program has been taken over by Adit, who has been selling another recording system, AditSite since 1982. We decided that this was a good opportunity for the Society to take another close look at the way the Society had been undertaking recording, and what improvements could be made in the future. A questionnaire was devised by Sandy Coppins and sent to 80 known lichen recorders. Jacqui Middleton organised and analysed the results which showed that, in addition to the more comprehensive system currently provided by BioBase, there was a need for a simple system of electronic data recording and submission to a BLS central database. Will Stevens wrote a prototype version and this confirmed the value of such a program. It was agreed that something similar was needed as a component of whatever system was finally adopted in the place of BioBase and that this system should be fully compatible with the data already held by the BLS.

Adit is proposing to merge the two systems, AditSite and BioBase, into a new product incorporating the best features of each, that will probably be called AditBio. Janet Simkin has been working with them on this, and the initial results look very promising. AditBio will include a simple recording program that should meet the requirements of users who don't want to use the full system, and some members may wish to use this for direct entry in the field onto a palmtop. It is hoped that AditBio may be sufficiently advanced for us to give a demonstration at the AGM. At the same time we have looked into the other options available to us, such as MapMate and Recorder, but have concluded that they do not fulfill our particular needs as a recording system for use by our members. However, when the latest version is fully developed, Recorder6 is likely to be the best system for our very large central

database. Whatever route we take, it is essential that all the programs we use are fully compatible with each other and with national developments such as the National Biodiversity Network Gateway. The ease of transfer of records from one system to another is one of the areas on which we are concentrating. It is also important that we simplify the internal systems of the BLS for sending in data and are expecting to devise a simpler system. Nevertheless, work has continued on entering records, especially with the contracts with EN and SNH and the BioBase main databases now contain almost 12,000 record cards (402,000 individual records) from 11,100 sites. Although some of these records are being input directly to BioBase and exported to the database, many members are now using the simple spreadsheets developed by Janet, and these continue to be welcome. It is important that we simplify the internal systems of the BLS for sending in data to the database and this is being actively discussed.

Mark Seaward (the Mapping Recorder) has been kept busy with supplying maps to provide distribution data for those working on the Flora. For the last few years this work has prevented the production of any map fascicles, as the limited time that people have to spare for this type of work has been spent on working to get out the new Flora. Nevertheless, we now have two fascicles nearing completion. The lirelliform genera are now written and this is going though the consultation stage. The first draft of *Usnea* and *Ramalina* is now undergoing revision and it is hoped that both will be published in 2006. One problem is checking records in herbaria and the literature. This is important as old records can often show major changes in distribution. It would be of great assistance if any members were able to spend a small amount of time in herbaria etc. to see if they contain any records of species in proposed fascicles.

New churchyard and general mapping cards have been produced using the revised checklist and both these cards are available to members from either Brian Green or at most BLS meetings. Both cards are on the BLS website from which they can be downloaded.

Frank Dobson

CONSERVATION OFFICERS REPORT, 2004 – 2005

This year has been extremely hectic with many different projects on the go and several in the pipeline. JNCC is undertaking a major of the Biodiversity Priority (BAP) Species in the UK. The committee has put forward a preliminary list of 158 species

that will be further refined in January. Instead of each species having its own Action Plan, those sharing similar habitat s or other ecological requirements will be put into groupings and have a Group Action Plan. Those species which are very rare but not unduly threatened or for which little conservation work can be done may just have a Species Statement. There is a lot more work to do on this in the coming year.

Plantlife have sent out a list of Important Plant Areas (IPAs) for consultation, and includes 92 lichen sites. The major task for the committee now is to put boundaries around the sites, indicating where the core areas of lichen interest are found.

The major project to occupy us for the next few years is the setting up of a Threatened Lichen Database. English Nature and the Countryside Council for Wales have kindly contributed money to start this process, and this work will complement that started in Scotland. Over the next year we will be gathering information on the rare and more threatened species by looking through the existing BLS BioBase database, major Herbaria, survey reports, papers in *The Lichenologist*. More on this project will appear in the next *Bulletin*.

In Scotland the SNH Lichen project continues apace with more site and species information being verified and then input into the Database. In the field the 'rockers meeting' was a huge success attracting overseas participants and making headlines in the Scottish press. Many important records of montane species were also made. Brian and Sandy Coppins and Janet Simkin are thanked for their continuing hard work on this project.

There have been several changes to the committee. Barbara Benfield and Tony Fletcher have both stepped down and are thanked for their hard work and support over many years. The death of Oliver Gilbert has of course been a great loss. His work in the mountains and on neglected habitats such as lake margins and soft cliffs was pioneering, and opened our eyes to what could be found with diligent searching and a keen ecological mind.

The members of the committee are thanked for their hard work this year, and the Society is particularly grateful the representatives of the Government Agencies, CCW, EN, JNCC and SNH, and to Plantlife who give us support and assistance.

Bryan Edwards
Conservation Officer

EDUCATION AND PROMOTIONS COMMITTEE

2005 Report for the winter Bulletin and AGM of the BLS, 15 January 2006

The Education and Promotions Committee held three productive meetings in 2005. Lively discussion has focused on the following approaches to furthering understanding of lichens:

Publications, which include the following, for which we have much to thank Frank Dobson:

- The fifth edition of Frank's book *Lichens an Illustrated Guide* has been published, equipping many lichenologists with a compact yet comprehensive guide to British lichens. As expected, this has attracted widespread interest, was reported in a variety of journals and the national press, including *The Times*.
- The *Urban Lichen Card,* which will be published in the AIDGAP series by the FSC, has been prepared by Frank, assisted by Rebecca Farley, and follows the Urban Lichen Identifier CD which Frank prepared with Linda Davies.
- It is anticipated that the latest version (third) of Frank's *Lichen Identifier* will be ready in time for the AGM.

Projects and publicity, which have flourished in a variety of ways, notably by:

- The availability of leaflets on lichens in popular venues, namely the Chelsea Physic Garden (Ann Allen and Peter James) and RHS Rosemoor (Ann Allen and Jeremy Gray) - see *Best Seller* in the winter Bulletin.
- Activities fostered locally, especially by the many members of the Churchyard Project, represented on the Committee by Ishpi Blatchley. BLS members have kept in touch with local activities in Dioceses as widespread as in Bedfordshire, Cornwall, Leicestershire, London and Shropshire.
- Talks to local groups, including Watford Camera Club (where Frank's presentation attracted a huge amount of interest) and Biodiversity Action Planning Committees (leading, for example, to a lichen walk in a Bromley park, led by Ishpi).
- The scope for future developments has been explored through discussion. At our March meeting Pat Wolseley described developments in the national twig and trunk project involving the use of macrolichens as indicators.

Attracting the interest of students:

- BLS Council has agreed to fund a coursework/project prize of £250 in 2006. It is hoped to attract the interest of A-level and degree-level students, and has been advertised in Education in Science and on a popular web-site.

Reaching members:

A small survey was carried out in July 2005 to inform the Committee about members' interest in lichens and their expectation of the services the BLS provides. Responses reflected:

- Members' initial interest in lichens, which fell into three categories:
  (a) incidental (eg captured through the appearance and photographic potential of lichens - see the opportunity to exhibit photographs of lichens at the AGM in January 2006, described in the winter Bulletin);
  (b) progressive (eg developed through interest in other life-forms such as fungi, ferns and mosses);
  (c) academic/professional (eg as study or research for a degree).
- Interest in reading about lichens in related journals, the most popular being *British Wildlife*, and *Plantlife*.
- Several topics of interest which recurred, including ecology, conservation biology, community descriptions, developing keys, tips on identifying common species/rare species/species new to Britain.
- Appreciation of local lichen contacts and how members' understanding was deepened through meetings and field courses.

These responses may not surprise you - but if you would like to receive a copy of the survey, or comment on how we can help you deepen your understanding and enjoyment of lichens - contact Barbara.

Warm thanks to all Committee members for their hard work and enthusiasm during 2005: Ann Allen (Committee secretary), David Hill (as president of the Society), Ishpi Blatchley, Linda Davies (APRIL), Frank Dobson, Rebecca Farley (FSC), Tony Fletcher, Jeremy Gray, Michael Holland (CPG), Peter James, Scott LaGreca, Don Palmer, William Purvis, Pat Wolseley; and corresponding members: Andrew Branson (*British Wildlife* journal), Robin Crump, Jenny Duckworth (Plantlife), Alan Orange, Janet Simkin, Carol Simpson and Will Stevens.

Barbara Hilton (Chair)
Beauregard, 5 Alscott Gardens, Alverdiscott, BARNSTAPLE, Devon EX31 3QJ

FIELD SECRETARY'S REPORT FOR 2005

The year 2005 has seen another satisfactory and active field programme for the Society. Events have been very well attended by members, and it gives me great pleasure to give warm thanks to all the organisers on behalf of the Society.

Our first meeting occurred as is traditional on the day after the AGM. We visited the Royal Botanic Gardens, Kew and I think most members were astonished at the large number of unusual species we saw. Kew Gardens offers a considerable range of saxicolous lichen habitats, some of which are probably imported along with the lichens they support. Trees, both mature and young also held several surprises for us, and we were most fortunate to have Andre Aptroot with us to point out species such as *Bacidia neosquamulosa* and *Bacidia adastra*, the latter found growing on a palm actually inside one of the larger glass houses.

We all admired the fine development of *Cyphelium notarisii* on seats outside the same hot house, and Frank Dobson was able to demonstrate his theory of the connection between this species and human contact! Many unusual saxicolous species were also seen, notably *Acarospora veronensis* and *Stereocaulon dactylophyllum.*

Pat Wolseley was our leader for the main spring meeting, which this year took place in Pembrokeshire centred on Orielton. Members were able to see a wide range of exciting coastal lichen species and habitats, as well as the rich lichen flora of St David's Cathedral. (See account p16 in this *Bulletin*)

The summer meeting was held at the Kingcombe Centre in Dorset where we have been on several occasions. As always, we are extremely indebted to Peter James for all the enthusiasm and hard work he puts into organising his workshops. It is encouraging to report that all accommodation at the Centre, and in most B and B's in the area was taken by the Society for the event. This summer, we had *Collema, Leptogium* and their relatives interpreted for us. As always, Peter explained with clarity and patience the finer points of this very difficult group of lichens. Facilities at the Centre were excellent as usual, and the food quite outstanding. As well as the formal workshop, we visited a number of exciting lichen localities including inevitably Portland. Here we saw an exciting range of lichens including scarcer species belonging to *Collemataceae*, such as *Leptogiums tenuissimum* and *diffractum.* Thanks are due here to Bryan Edwards for his efforts in arranging our days in the field.

Our final meeting took place at Ashburnham Place in East Sussex. Originally, we had only intended to spend one day here as it was thought to have deteriorated due to the Great Storm and tree loss over the years. In the event, the Church, many old walls and

especially the trees proved sufficiently interesting to spend both days there, and we could have spent more. Perhaps the best species found were on an ancient beech, and were *Lecanora sublivescens* and *Pertusaria velata*. We were also very fortunate with the weather, which was pleasantly warm and sunny on both days.

Next year should prove to be equally, if not more exciting. For our first meeting, we will be the guests of David Hawksworth in the Sierra de Guadarrama in Spain. This will be a most exciting area lichenologically, and an account of a reconnaissance visit is given elsewhere in the *Bulletin*. In July, Alan Orange is organising a workshop concentrating on aquatic pyrenocarps. Originally we were to go to Inchnadamph, but for a variety of reasons, it is now more likely to concentrate on suitable habitats in the Lake District. Finally, Peter James was so encouraged by to this summer's event that he has offered to organise a short *Usnea* workshop in the autumn in Devon. This will mean that our autumn weekend meeting will be extended slightly, but will occur as usual at the beginning of October.

Simon Davey

PROGRESS ON THE LICHEN FLORA

The revision of the Lichen Flora of Great Britain and Ireland continues though somewhat behind the original schedule. Eighty-nine percent of the generic and 80% of the species accounts are completed. Several of the largest genera are only partially finished or not yet started. During Dr Oliver Gilbert' long illness several unresolved problems accumulated. Dr Tony Fletcher has since agreed to take over the leadership role that Oliver had played. This will enable the team to get back on track rapidly. A new timetable is being developed which will be reported to the membership at the AGM. Perhaps the most important decision will be the cut-off publication date for additions to the Flora. New species and genera are being described quite frequently and some species are being assigned to different genera. A date will be set after which additional species and name changes will not be included in the revised Flora. There are possibly as many as 150 taxa that await formal description. These will be noted in discussion of their nearest counterpart but not described in detail. Generic accounts are available to all members of the Society for review and comment. The best way of obtaining them is to send a request to Cliff Smith at cliffard7@aol.com. In fact, members are encouraged to review those genera in which they have an interest or problem. Your review comments will help improve the various treatments.

Clifford Smith

SNH GRANT TO BLS FOR SCOTTISH LICHEN DATABASE AND TRAINING

Fourth 6-month claim – progress so far (beginning April to end September 2005)

Progress towards the site-based Scottish lichen database continues steadily, with the team of data-inputers gradually working through batches of BLS record cards as well as Ursula Duncan's typed species lists, and entering these onto spreadsheets. Brian carries out an initial check, and picks up any highlighted problems the data-inputters have not been able to solve. This often relates to spelling of Gaelic place-names; Gaelic being an oral-based language, there are frequently variations in spellings between different maps, and there is no 'definitive' spelling – almost as much fun as lichen nomenclature. We are now about three-quarters of the way through extracting data from the 'Bradford resource' of over 1,000 record cards, and we expect a big push over the coming autumn/winter months to get all these finished. Brian has extracted Scottish data from two of his five Determination Books.

Repeated pleas to the general BLS membership for Scottish records has had a few results, with Don Smith contacting us with the offer of all his Scottish churchyard data. At his recent visit to the UK, Alan Fryday rummaged in the attic of his Darlington house, and came up with a boxful of his lichen record cards, which he has now deposited with Brian. As we are accruing more data from a variety of sources, one of the problems to check for is that we do not waste time duplicating entries.

The highlight of this period, though, has been the successful running of a workshop on montane lichens (the Rockers' Workshop). This was organised as part of the training aspect of the SNH grant, to tackle the acute shortage in the UK of young, active lichenologists able to undertake work in montane habitats. In a time of growing awareness of the effects of global warming, it is vital that we record and attempt to understand more about these fragile and ancient montane lichen communities that will be at the forefront of climate change.

The workshop took place over two weeks and was for all 11 Lichen Apprentices. It was run by Alan Fryday (Michigan State University) and Brian Coppins (Royal Botanic Garden, Edinburgh). Other experienced lichenologists were also involved (Steve Chambers, Ray Woods and Vince Giavarini), and Alan Orange (National Museums & Galleries, Cardiff) who demonstrated the use of Thin Layer Chromatography (TLC) as an essential tool in identifying some montane species. The workshop had an international element, with five lichenologists from Germany and the States. 24 localities in the Eastern and Western Highlands were covered, and initial results indicated that 400 additional records have been made, all of which are entered

onto the Scottish Lichen Database. A dedicated Rockers' web-site has been set up: http://www.herbarium.msu.edu/Rockers/

Sandy Coppins

NEW MEMBERS

We welcome the following new members to the Society. In particular, we owe an apology to Mr F D Kelsey, who joined in 2002, but who has not previously been listed.

Ms L Brodekova, c/o Mulligans, The Paddock, Kilmacanogue, Co. Wicklow, IRELAND

Dr K Bürgi, Kaspar-Koppstrasse 94, CH- 6030 Ebikon, SWITZERLAND

Dr J Case, 5836 Silver Ridge Drive NW, Calgary, Alberta T3B 3R9, CANADA

Ms N Casey, Filley Park Lodge, Upper Dargle Road, Bray, Co Wicklow, IRELAND

Ms A Culverhouse, 127 Rosehill Road, Burnley, Lancashire, BB11 2QZ, UNITED KINGDOM

Mr N Cutler, 47 / 8 Raeburn Place, Edinburgh, EH4 1HX, UNITED KINGDOM

Mr D Geddes, 2 Ryecroft Park, Wooler, Northumberland, NE71 6AS, UNITED KINGDOM

Dr E Gillock, Dept. of Biological Sciences, Fort Hays State University, 600 Park Street, Hays, KS 67601, U.S.A.

Ms G L Gutting, 1261 Yale Avenue, Salt Lake City, Utah, USA 84105, U.S.A.

Mr E Heath, 45 Canonbury Park South, London, N1 2JL, UNITED KINGDOM

Mr J Jones, 31 Bridgefields, Kegworth, Derby, DE74 2FW, UNITED KINGDOM

Mr F D Kelsey, White Cottage, Church Lane, Cley next the Sea, HOLT, Norfolk, NR25 7UD, UNITED KINGDOM

Dr H Lättman, IFM Dept of Biology, Linköpings University, SE-581 83 LINKÖPING, SWEDEN

Mrs P R W Lester, Valley Farm, Leckhampstead, BUCKINGHAM, MK18 5NS, UNITED KINGDOM

Mr F McBirnie, 10 Forties Place, Lossiemouth, Morayshire, IV31 6SS, UNITED KINGDOM

Mr M Murphy, Sherkin Island Marine Station, Sherkin Island, Co. Cork, IRELAND

Dr G Neuwirth, A-4910 Ried, Rabenberg 41, AUSTRIA

Dr V Otte, Obersteinweg 2, D-02826 Görlitz, GERMANY

Mrs E M Paton, 4 Duff Place, Booragoon 6154, AUSTRALIA

Mrs V Stubbs, 6 Warwick Avenue, Illogan, Redruth, Cornwall, TR16 4DZ, UNITED KINGDOM

Dr T Thorp, 179 Heathervue, Greystones, Co Wicklow, IRELAND

Mr I Wall, 85 Warrender Park Road, Edinburgh, EH9 1EW, UNITED KINGDOM

Mr T Wilkins, 41 Barrack Row, Durweston, Blandford Forum, Dorset, DT11 0QA, UNITED KINGDOM

Dr S Wurthmannn, 91 Ormonde Drive, Netherlee, Glasgow, G44 3RF, UNITED KINGDOM

PUBLICATIONS AND OTHER ITEMS FOR SALE
(Subject to availability)

(All prices include postage and packing - U.S. Dollar rates are double the Sterling Rate)

For publications and other items please send orders to **Brian Green, 3 Tyn y Coed, Carneddi, Bethseda, Gwynedd, LL57 3SF, UK**, E-mail brian@regreen.co.uk Sterling Postal Orders, or cheques in Sterling or US Dollars should be made payable to **'The British Lichen Society'**, and drawn on a UK bank or on a bank with a UK branch or agent. *Overseas members may also pay by direct transfer into the Society's UK bank account. Please contact Brian Green for details if you wish to pay by this method.* Purchases in US dollars can be made through the Americas Treasurer. Cheques should be made out to 'British Lichen Society' and sent to J W Hinds, 254 Forest Avenue, Orono, Maine 04473-3202, USA.

Publications

Bulletin back numbers each £1.00
Please check for availability.

The Lichen Flora of Great Britain and Ireland (1992) edited by Purvis, Coppins, Hawksworth, James and Moore.
for members £35.00
for non-members £55.00

Lichen Atlas of the British Isles edited by Seaward
Fascicle 2 (*Cladonia* Part 1: 59 species)
for members £7.50
for non-members £10.00

Fascicle 3: The Foliose Physciaceae (*Anaptychia, Heterodermia, Hyperphyscia, Phaeophyscia, Physcia, Physconia, Tornabea*), *Arctomia, Lobaria, Massalongia, Pseudocyphellaria, Psoroma, Solorina, Sticta, Teloschistes*
for members £7.50
for non-members £10.00

Fascicle 4: *Cavernularia, Degelia, Lepraria, Leproloma, Moelleropsis, Pannaria, Parmeliella*
for members £7.50
for non-members £10.00

Fascicle 5: *Aquatic lichens and Cladonia (part 2)*
for members £8.00
for non-members £10.00

Fascicle 6: *Caloplaca*
for members £8.00
for non-members £10.00

Identification of (UK) *Parmelia* Ach. on CD-Rom - ISBN 0 9523049 4 5
for members £8.00
for non-members £13.00
for multiple users at one site £24.00

browser for Acorn computers free

Microchemical Methods for the identification of Lichens
for members £8.00
for non-members £11.00
(Airmail, additional at cost)

28 page Booklet "Lichens & Air Pollution" by James
each £1.50

Key to Lichens and Air Pollution by Dobson
each £2.00

Lichens on Rocky Shores
A1 Dalby 'Wallchart' each £6.00

A4 laminated Dalby 'Wallchart' each £1.50
Key to Lichens on Rocky Shores by Dobson
each £2.00

Proceedings of the symposium 'Taxonomy, Evolution and Classification of Lichens and related Fungi - London 10-11 January 1998' (reprinted from *The Lichenologist* Vol 30)
for members £8.00
for non-members £13.00

Bibliographic Guide to the Lichen Floras of the World (second edition) by Hawksworth and Ahti (reprint from The Lichenologist Vol. 22 Part 1).
each £2.00

Checklist of British Lichen-forming, Lichenicolous and Allied Fungi by Hawksworth, James and Coppins (1980).
each £2.00

Checklist of Lichens of Great Britain and Ireland by B J Coppins (2002)
for members £7.00
for non-members £9.00
Lichen Habitat Management Handbook
for members £10
for non-members £15.00

Mapping Cards: General, Churchyard, Woodland, Mines, Coastal, Urban, Chalk and Limestone, Moorland free

BLS leaflets: Churchyard lichens - Lichens on man-made surfaces (encouragement and removal) free

Horizons in Lichenology by Dalby, Hawksworth and Jury (1988).
each £3.50

Aide Mémoire: *Usnea* by P W James
for Members £3.90
for non-members £5.90

A Field Key to Common Churchyard Lichens by F.Dobson Members £5.50 Non-members £6.50 Postage £1.50

A Guide to common churchyard Lichens. By F.Dobson
Each £2.50

A Conservation Evaluation of British Lichens by R.G. Woods & B.J. Coppins
Members £4.00 Non-members £6.00

Indices of Ecological Continuity for Woodland Epiphytic Lichen Habitats
Of the British Isles by A.M & B.J. Coppins
Members £3.50 Non-members £6.00

Lichen Photography by Dobson (1977).
(Photocopies of A4 sheets) £1.00

Lichen Society Postcards: Lichens in full colour in assorted packs of 16.
per pack £3.00
(Orders for more than five packs are available at a reduced rate.)

British Lichen Society Car Sticker
5 colour 4" diameter self-adhesive plastic each £1.50

Other Items

All the following items have the British Lichen Society logo in three colours - black outline, silver podetia and red apothecia.

Woven ties with below-knot motif of BLS logo.
Colours available: maroon, navy blue, brown, black and charcoal £7.00

Sweatshirts with breast pocket size embroidered motif of BLS logo.
Light-grey, Navy-blue, Bottle-green, Red: £16.00

Sweaters, wool with breast pocket size embroidered motif of BLS logo.
Colours available: maroon, bottle-green and navy (various sizes) £14.00

T-shirts with screen-printed full chest motif of BLS logo encircled by the words 'British Lichen Society'. Please specify size and colour options.
Light-grey, Navy-blue, Bottle-green, Tangerine (One old stock Yellow - small). £10.00

Earthenware mugs (white) with coloured logo on both sides and encircled by the words 'British Lichen Society' below £3.00

Hand lenses
Gowlland x10 plastic lens - a useful spare or second lens, handy when taking a friend with you! £3.00
x10 glass lens in metal body, lens diam 18mm £8.50
x30 lens diam 21mm. A new top quality lens £12

NEW FOR LOAN: For UK members only
A microscope stage-micrometer slide for the calibration of eye-piece graticules in 10µm divisions is available for loan. A deposit of £40 is required.

When ordering items through the post, please allow a month for delivery, as many items have to be ordered specially, or in bulk.
Postage - please add the appropriate postage below (ties and badges are post free).

BACK NUMBERS OF *THE LICHENOLOGIST*

Cambridge University are pleased to announce that from 2006 all BLS members will be able to purchase back numbers of the Lichenologist (ISSN 0024-2829) at £10.00 per back issue and back volumes at £40.00. Cambridge holds issues back to and including Volume 33 (2001).
Contact:
Tel. 0044 1 233 326070
Fax 0044 1 223 325150
E-mail: journals@cambridge.org

Back stock is also held at SWETS. For details see:
http://backsets.swets.com/web/show/id=47067/dbid=16908/typeofpage=47001
A complete volume from SWETS costs 200 euros.

SUBMISSION DEADLINE

Please would intending contributers to the Summer 2006 issue of the Bulletin submit their copy to the Editor by 21 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 3.5inch floppy disc in addition to hard copy. This should preferably be in MS Word, but can be in RTF. Word Perfect, any format from an Apple Mackintosh. Alternatively it can be sent by e-mail to plambley@aol.com as an attachment. This should preferably be in MS Word.

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REFEREES (Regional & Specialist) See Web-site: wwwthebls.org.uk

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