

April 2009 saw a break with tradition as BBS members travelled to Scotland for the first time for a spring meeting. Although not as busy as some of the more southerly meetings, it was nevertheless well-patronized with a total of 33 people attending during the week and, in contrast to the recent spring meetings in England and Wales, there was a complete absence of snow! Participants for part or all of the meeting were: Ian Atherton, Jeff Bates, Joan Bingley, Sam Bosanquet, Des Callaghan, Rachel Carter, David Chamberlain, Jo Denyer, Diane Dobson, Bob Ellis, Richard Fisk, Mary Ghullam, Martin Godfrey, Gordon Haycock, Mark Hill, Sandra Hutchinson, Simon Kennedy, Liz Kungu, Mark Lawley, Theo Loizou, David Long, Oliver Moore, Pam Murdoch, Sharon Pilkington, Chris Preston, Gordon Rothero, Jennifer Rowntree, Jonathan Sleath, Jill Smart, Robin Stevenson, Mike Walton, Keith Watson and Jo Wilbraham.

In a further break with tradition, this spring meeting focused on recording under-recorded hectads which was combined with a BRECOG meeting, to provide a brief introduction to ecological recording for those interested individuals who were new to the skill. We were fortunate in having the headquarters for the week at the Scottish Agricultural College at Auchincruive, just outside Ayr. This provided a range of rooms for meetings and evening microscope work, as well as basic accommodation.

The week proved to be very successful, with a total of 21 hectads recorded, 48 new vice-county records (VCRs) for v.-c. 75 and v.-c. 77, and 36 de-bracketings; surely a record for a spring meeting.

Under-recorded areas of Ayrshire in Scotland were the target of this first ever Scottish spring meeting. Despite slightly lower than usual attendance, this somewhat overlooked area of mainland Britain did not disappoint, as

**Liz Kungu** describes.

### WEDNESDAY 1 APRIL 2009 (NS72, 91)

The Edinburgh and Glasgow contingent started the meeting with three sites in v.-c. 77, en route to Ayr. The first stop was a Trout Farm in NS94, where a range of common woodland species were found along the Mouse Water at Newmills (NS918456), near Carstairs. We then moved on to NS72 at Monksfoot (NS790284), where *Weissia brachycarpa* var. *obliqua* grew on the earth banks, and *Lophozia excisa*\* was found on soil overlying rocks. *Dichodontium flavescens*\* and *Lejeunea patens*\* were both found at the edge of the water of the Podowrin Burn, a tributary of the Douglas Water. A brief stop at the willow carr fringing Glenbuck Reservoir (NS757284) brought the total tally for NS72 to a respectable 130 species, with three VCRs for v.-c.77.

### THURSDAY 2 APRIL 2009 (NS60, 61)

Thursday dawned hot and sunny as we headed off to NS61 and 'sweet Afton Water'. The first stop for the day for the majority of the party was just outside New Cumnock. Here we recorded the wooded banks and pastures beside Lower Afton Water, before dispersing to Upper Afton Water and Knockshinnoch Lagoons Scottish Wildlife Trust (SWT) reserve. The east bank of Lower Afton Water had *Orthotrichum stramineum* and *Zygodon rupestris* on the ash trees along the river.

New Cumnock Cemetery was the first of four such sites visited during the week. Typically, the cemeteries managed by Ayrshire councils are treeless, regimented and manicured, with perfectly cut, precisely edged lawns. They look desperately



Auchincruive campus, Ayr. Ian Atherton

unpromising as bryophyte habitats, but the lawns are clearly unfertilized and support some surprising species. The tiny earth ‘cliffs’ at the edge of the lawns and the bare soil at the foot of each grave often have quantities of *Fossombronina pusilla*, *Pleuridium acuminatum* and *Weissia* spp., with few vascular plants other than frequent *Montia fontana* (blinks). At New Cumnock, *Bartramia ithyphylla* and *Pleuridium acuminatum*\* grew on the lawn edges, and *W. brachycarpa* var. *brachycarpa*\* and *W. rutilans*\* were seen on the gravel paths.

The high ground party proceeded immediately to Upper Afton Water and had a productive day in NS60 on Craigbraneoch Hill, where *Sphagnum quinquefarium*\* grew among *Calluna* heath on a north-facing slope, and the acidic crags yielded *Andreaea alpina*, *A. rupestris*\*, *Cynodontium jenneri*\* and *Philonotis caespitosa*\*. *Dicranella rufescens*\* and *Bryum riparium*\* were found on damp gravel in the eroding gully of a small tributary by the Afton Water with *Hygrohypnum eugyrium*\* on rocks in the burn. The highlight of the day was undoubtedly sheets of *Marsupella alpina*\* on a west-facing vertical rock face high above Glen Afton.

Lower ground in Upper Afton Water NS60, was recorded at Craigdarroch (NS631076) and Black Craig (NS 630081), where *Orthotrichum lyellii*\* grew on trees along the bank of the Afton Water.

Knockshinnoch Lagoons SWT reserve (NS6113) is a post-industrial reserve where the large area of landscaped slag heap provided the main interest, as it has been colonized by vascular plants to various degrees. The open areas had a mixture of calcifuges (including *Polytrichum* spp. and *Racomitrium ericoides*) and species of mildly basic conditions (e.g. *Cratoneuron filicinum*, *Didymodon tophaceus*, one patch of *Loeskeobryum brevirostre* and even a patch of *Encalypta streptocarpa*). Some of the scattered *Lophocolea* patches turned out to be *L. bidentata* and others *L. semiteres*\*. There was a range of epiphytes on willow bushes by the subsidence lagoons, but the lagoons themselves were eutrophic and surrounded by dense

emergents. *Ulota calvescens*\* grew with *U. bruchii* on a willow in a dry area of slag colonized by birches, the first record from Ayrshire since the 19th century.

We finished the day with a quick visit to woodland alongside the River Ayr Way, east of Haugh (NS5125); unfortunately our list does not do the site justice. Mary Ghullam found *Pohlia camptotrachela*\* on cattle-poached ground in a nearby pasture, and Chris found *Conocephalum conicum*\* on wet masonry on a shaded roadside bank.

Sam, en route to Ayr, visited an area in the northern part of the hectad (NS61) and recorded similar species to those found by the main party. Highlights in a sandstone gorge at Dalblair (NS648192) included *Jungermannia exsertifolia*\*,

▽ David Long with Oliver and Sharon admiring the sheets of *Marsupella alpina* on crags above Glen Afton. Gordon Rothero



*Solenostoma paroicum*\*, *Preissia quadrata* and only the second record for Ayrshire of *Didymodon spadiceus*. *Bartramia ithyphylla* and *Schistidium platyphyllum* were in the river slightly downstream (NS628194).

The combined efforts for the day resulted in 166 species recorded for NS60, and 170 species for NS61, including 18 VCRs, a very encouraging start to the meeting.

In the evening, in addition to microscope identification, Gill Smart gave us an introductory talk on the work of the SWT and their reserves in Ayrshire, some of which we hoped to visit during the week.

#### FRIDAY 3 APRIL, (NS33, 34, 40, 42)

Following the talk by Gill Smart the previous evening, which included details of some of SWT's local nature reserves, one party set off to record in a number of the urban reserves around Irvine (NS34). First stop was at Eglington Country Park (NS3242). *Marchantia polymorpha* subsp. *ruderalis*\* was quickly found at the edge of the path near the house and a reasonable list soon built up. One tree near the house had *Syntrichia laevipila*, and others near the river were covered with *Ulota phyllantha*, *Orthotrichum pulchellum* and *Frullania dilatata*. *Cryphaea heteromalla*\* was found growing with *Syntrichia papillosa* on Poplar. One side of the bridge over the river had *Gyroweisia tenuis* and an expanse of *Tortula marginata* which would have been a new VCR had we realized it was ‘wanted’. Because there were a number of other sites to be visited, we had set a time limit to our stay and we somewhat reluctantly moved on from what was a promising location. The next stop was at Corsehillmuir Wood SWT Reserve, east of Kilwinning (NS316437), which also deserved more time than we had allocated to it. Mary spotted not only *Cololejeunea minutissima*, but also *Colura calyptriifolia*\*. After lunch we moved on to Sourlie Wood SWT Reserve (NS342415). This had been a mix of gravel workings and coal yards; it was now wooded and contained heaps of waste shale. Once

we managed to gain access across very busy roads *Brachythecium mildeanum* was found on the site of a concrete track. Much of the shale was carpeted with *Eurhynchium striatum*. *Oxyrrhynchium pumilum* was also found, and again we had not realized it was on the ‘wanted’ list, but there was little to tempt us to stay for long. Neither Lawthorn Wood SWT Reserve (NS345411) a short distance away nor the last stop at Perceton Wood SWT Reserve (NS355403) produced anything of note.

Bob and Sharon, en route to Kindrogan stopped off at Dykeneuk Moss SSSI (NS3447), and as well as the usual range of lowland bog species found *Dicranum tauricum*\* growing on birch in wet woodland.

A second party tackled NS33, starting with another SWT Reserve, Shewalton Wood, which surrounds a derelict raised bog known as Shewalton Moss (NS3435). The adjacent capped landfill site was too well vegetated to be of any interest, with common pleurocarps in the dense grass and only a few vehicle ruts and dumped concrete blocks to relieve the monotony. However, Shewalton Moss (NS352355) proved more interesting with *Calypogeia sphagnicola*, *Drepanocladus polygamus*\*, and *Sphagnum molle* in the cut-over bog.

Troon Cemetery (NS333309) was the second cemetery visited, and the highlight here was locally frequent *Ptilidium ciliare*, growing in closely mown lawns with low *Calluna vulgaris* (heather), and *Lophozia excisa* on soil at the edge of the paths.

At Loans (NS343313) we stopped to look at a stubble field. The coastal site and sandy soil were unpromising, and the bryophyte cover was indeed low, but the species included *Ephemerum serratum* var. *minutissimum*, *Phascum cuspidatum* var. *cuspidatum*\* and *Riccia glauca*\* and *R. sorocarpa*. Although arable fields are not infrequent in the more fertile parts of Ayr we under-sampled them on this meeting; most had already been ploughed and some members were disinclined to visit the few that still retained stubble.

A climb through rubbish down to the wooded bank of the River Irvine at Drybridge (NS3536) was



△ *Bartramia halleriana* present in quantity in Ness Glen.  
Jo Denyer

▷ 'Don't do it!' Gordon contemplates the river, but unfortunately the water level was too high in Ness Glen to search the river or the far bank. Jo Denyer

an unpropitious start, but the banks supported an intriguing community dominated by alien flowering plant species, together with a second Ayrshire record for *Lophocolea semiteres* on a rotting log. The trees had *Syntrichia latifolia* and Sam found both *Orthotrichum rivulare* and gemmiferous *O. sprucei* (at only the second site in Ayrshire) on the silt encrusted riverside trees and *Chiloscyphus pallescens*\* on marshy ground.

At Ayr Gorge SWT Reserve and SSSI (NS4625) the group was able to walk in shallow water along the riverside, to examine the vertical sandstone cliffs and admire the abundance of *Tetradontium brownianum* leaves (but very little fruit) and some large patches of *Hygrobrella laxifolia* and *Solenostoma hyalinum* on flushed rock faces, and sizable plants of *Fissidens crassipes* in the river.

The main party headed off to NS40 and Ness Glen SSSI, north of Loch Doon, to try and locate some of the interesting species recorded there, and re-find some old records. The first stop (NS4803), dubbed the dead motor cycle Glen by David Long because of the assortment of wreckage discovered scattered along the glen, yielded 83 species in a

quick half-hour visit whilst waiting for the rest of the party.

Ness Glen itself is a narrow, steep-sided ravine cut through greywackes and shales that are locally calcareous with mixed ash woodland dominating the vegetation. Unfortunately the exploration of Ness Glen was constrained by the volume of water being released from Loch Doon which made it impossible to search either the river rocks or the interesting sheer rock faces on the east bank of the river, and a return to this site during low water flow is recommended. There was no opportunity for a detailed search for *Radula voluta*, and *Orthothecium intricatum* was not re-found. However, the path along the west bank of the river did allow easy access to the ravine walls on the west bank and such delights as *Aphanolejeunea microscopica*\*, *Grimmia hartmanii*\*, *Heterocladium wulfsbergii*\*, *Leiocolea bantriensis*\*, *Lophocolea fragrans*, *Metzgeria leptoneura*\*, *Plagiochila punctata*\*, *Platydictya jungermannioides*\* and *Trichostomum hibernicum*\*. The party was very impressed with the extent of *Bartramia halleriana* alongside the path, and other notable finds included a second v.-c. 75 site for *Cephalozia leucantha* by David Long and *Conocephalum salebrosum*\*.

En route back to Ayr, another quick stop at Dalmellington Moss SWT Reserve and SSSI (NS 4606) also proved interesting with a complete change of habitat. The lowland raised bog, with

fringing willow-dominated carr had 12 species of *Sphagnum*, including *S. austini*\* on the raised bog and *S. teres* in the carr. There was a small population of *Pleurozia purpurea*; other hepatics included *Calypogeia sphagnicola*\* and *Cephalozia lunulifolia*.

The daily tally for Friday was 136 species recorded in NS33, 132 species recorded in NS34 and 187 species recorded in NS40, with 19 VCRs.

#### SATURDAY 4 APRIL (NS20, 51, NX29)

West coast Scotland would not be what it is without rain, and sadly the day Sam had chosen to lead a group to the Dailly area in a rather unlikely hunt for *Orthotrichum shawii* proved to be our rain day. The heavy rain at Bargany Gardens limited our searching somewhat, but suggested that the epiphyte flora was unremarkable. However, the stop proved useful, not only because it straddled two hectads, NS20 and NX29, but also the highlights included *Zygodon rupestris*\* on one parkland tree, small quantities of *Orthotrichum striatum*, and a large population of fruiting *Mnium marginatum*\* by the river. *Bryum radiculosum*\* and *Eucladium verticillatum* grew on the stonework of the bridge over the River Girvan, and both *Syntrichia latifolia* and *S. laevipila* were found growing on the large *Acer* in pasture near the river.

The historic site for *O. shawii*, Kilkerran Castle (NS 293005), had a slightly more diverse *Orthotrichum* flora, including locally frequent *O. striatum* (including one tuft with a damaged endostome that gave us some hope), frequent *O. stramineum*, and common *O. diaphanum* and *O. pulchellum*. The ruined vaults of Kilkerran Castle provided a dry spot for lunch before the party split. Those remaining in the Glen found that *Grimmia hartmanii* was astonishingly abundant on rocks in the gorge below the castle. *Riccardia chamedryfolia*\* was found on the roadside bank near the farm. *Barbula convoluta* var. *sardoa*\* was also found at the Kilkerran Castle site.

En route back to Auchincruive, Sam called out "stop the car" in a conifer plantation (NS272043) on the way to Kirk Hill, allowing Gordon to get out

and find *Colura calyptriifolia* on willow in less than a minute. Nearby, on Kirk Hill (NS2704) *Entosthodon obtusus*\* was growing in a moorland ditch, and *Ulota drummondii*\* was found on willow in a gully.

The split from the Kilkerran Glen group started recording Penwhapple Burn around Penwhapple Bridge (NX2397) which was not excessively base-rich in the middle stretch, but nevertheless species-rich, and calcicoles were evident where moisture percolated down steep slopes in the dingle. Notable finds included *Hygroamblystegium varium*\* *Rhodobryum roseum*\* and *Plagiochila britannica*.

▽ The party sheltering from the rain, having lunch in the vaults of Kilkerran Castle. Ian Atherton





< From top to bottom: *Grimmia decipiens* (Jo Denyer), *Grimmia funalis* (Jo Denyer), a mixed mat of *Hedwigia integrifolia* and *H. stellata* (Jo Wilbraham) and *Bryum alpinum* (Jo Denyer) on Byne Hill.

△ *Rhodobryum roseum* in Penwhapple burn. Ian Atherton

The other main party for the day visited the Country Park, part of the National Trust for Scotland (NTS) property at Culzean (NS2409). Here also it started wet and windy, a decidedly unpleasant combination by the sea. Within a few seconds of our arrival *Physcomitrium pyriforme*\* surfaced at the edge of the Swan Pond car park. Coastal cliffs with ravines supported *Plagiochila bifaria* and *Pterogonium gracile*. While much of the well-wooded park was manicured, our list still contained over 100 species, including abundantly fruiting *Gyroweisia tenuis* on a sandstone block and *Oxyrrhynchium pumilum*\* on a shaded ditch bank.

En route for Ayr, two groups converged at an old, abandoned limestone quarry and lime kilns near Craighead (NS234013). This proved an interesting additional habitat; the quarry had been abandoned some years ago, judging by the ash-dominated secondary woodland that has now become established. The calcareous substrate provided a considerable contrast to other sites visited during the week. *Plagiochila britannica* and *Anomodon viticulosus*\* were found as well as the second v.-c. 75 locality for both *Brachythecium glareosum* and *Leiocolea badensis*, and interesting material of one of the new *Aneura* species for David Long.

One car-load tackled NS51, an unrecorded square in an area of the county dominated by open-cast mining (which in places has obliterated the roads and tracks shown on older maps) and large conifer plantations. We started at Burnock Water for riverside and woodland species, which produced *Fontinalis antipyretica* var. *gracilis*\*, and then went on to Cumnock Cemetery for the now expected 'shuttle species'. The open-cast waste we inspected at Dalricket Mill was calcareous,

supporting large, abundantly fruiting stands of *Aneura pinguis*. After these short stops, we spent most of the afternoon in an area east of Polmath Burn, walking through conifer plantations to open ground by the River Nith, south-west of Waterhead. Fruiting *Racomitrium ericoides* was abundant on the chippings of open forest tracks. The richest area was a broad ride in a mature plantation carpeted by *Sphagnum*. There were sheets of *Hypnum jutlandicum* hanging from the Sitka spruce branches and small tufts of *Colura calyptrifolia* on the twigs, with *Nowellia curvifolia* and *Riccardia latifrons*\* on stacked, decaying logs. The ride was nicely sheltered from the wind and rain which hit us as we emerged onto open ground. As we walked along the river, we found *Campylium protensum*\* on vertical stonework and *Entosthodon attenuatus*\*, *Pleuridium acuminatum*, *Weissia brachycarpa* and *Preissia quadrata* on a single, tiny outcrop of calcareous rock in an otherwise uniformly acid area. Despite the uninspiring terrain and poor weather, we had recorded 144 species for NS51 by the end of the day.

The hectad tally for NS20 was 201 species recorded and there were 17 VCRs in total.

**SUNDAY 5 APRIL (NS10, NX19)**

Sunday dawned bright and sunny for our only hill day for the whole group. The hill ground south of Girvan, although only rising to 297 m, is of considerable interest because of its geology, with extensive outcrops of serpentinite. The area includes Grey Hill Grassland SWT Reserve, Pinbain Burn to Cairn Hill SSSI and Byne Hill SSSI. As this was such a large site, and some people were departing during the day, we split into three groups at the outset. The two main groups tackled Grey Hill and Byne Hill, whilst a smaller party recorded the lower ground in Caldron Glen.



Grey Hill proved to be deserving of the attention given to it. There were numerous flushed grasslands and base-rich mires, with extensive rock outcrops near the summit. *Hedwigia integrifolia* festooned rocks and boulders in several places; sometimes right next to *H. stellata*, causing one to wonder how their habitat requirements differ. Of course, Gordon Rothero's *Dicranum spurium*\* was the best find, this being the most westerly record in Scotland for this species. Other species of interest included *Dicranum bonjeanii*, *Ditrichum gracile*\*, *Mnium marginatum* var. *marginatum*, *Tortella nitida*\* and only the second Ayrshire record for *Kurzia pauciflora*. On the lower ground below Grey Hill, both *Pogonatum nanum*\* and *Cephalozia loitlesbergeri*\* were found. This is such a large site that one wonders what else we might have overlooked.

There was no sign of *Grimmia sessitana* on Byne Hill, its only known British site, but abundant *G. decipiens*\*, *G. funalis*, *G. trichophylla* and *Hedwigia integrifolia*, as well as small quantities of *G. ramondii*\* and *G. donniana* made up for this. Straight-leaved *Andreaea rothii* subsp. *falcata-rothii* intergrade was abundant and puzzling, not least because it grew next to typical subsp. *falcata* and looked very different. In addition, *Dicranum scottianum* and *Plagiochila bifaria*\* were found as were the second mainland v.-c. 75 localities for both *Frullania teneriffae* and *Pohlia cruda*.

Caldron Glen (NS1894) at the foot of Byne Hill is a steep-sided, wooded valley, with intermittent flushes. This site provided a second Ayrshire locality for *Trichocolea tomentella* on the west bank of the burn and *Archidium alternifolium*\* on open ground at the foot of Byne Hill.

To end the day, three separate parties headed for the coast. Although Black Neuk, south of Girvan (NX1795), proved rather barren, it did add *Brachythecium mildeanum*\* to the hectad.



to the River Stinchar, was more sheltered and less regimented than the others we had visited. *Barbilophozia barbata* and *Plagiochila porelloides* grew in the mown turf, *Encalypta streptocarpa* was abundant on the surrounding walls, with *Sciuro-hypnum populeum*, *Bryum algovicum*\* and *Schistidium elegantulum*\*. *Fossombronina pusilla* was frequent on the soil edge of the lawn in the cemetery and on a bank in the village; riverside trees supported *Orthotrichum stramineum*.

We left time on the return journey to record the second tetrad in NS10, just north of Girvan. The steep cutting of the A77(T) looked from a distance to be dry and acidic, but it proved to have basic seepage and large masses of fruiting *Fissidens adianthoides* and *Bryum pseudotriquetrum* var. *bimum*\*. Jonathan Graham found *Campyllum protensum* and *Aloina aloides*\* here. A nearby field of maize stubble had been grazed by cattle and

was devoid of bryophytes, but the stream alongside it provided enough additions to take the total for NS10 to 86.

Another group returned to Upper Penwhapple Burn in NX29 where the burn flows over a stepped series of waterfalls. Here, in the steep-sided valley, another site was found for *Aphanolejeunea minutissima*, *Colura calyptrifolia* and *Plagiochila bifaria*.

The day's efforts in NX28 provided the second highest hectad count for the week with 223 species, and the final effort in NX29 brought the eventual total up to 134 species with 6 VCRs during the day.

◁ From left to right: Mark Hill, Sam Bosanquet, Gordon Haycock, Jenny Rowntree, Des Callaghan, Jonathan Sleath and Jo Wilbraham on the summit of Byne Hill. Jo Denyer

▽ *Dicranum spurium* on Grey Hill, one of the finds of the week. David Long

The coastal ground to the north of Kennedy's Pass (NX152935) offered added diversity for the Caldron Glen party, and this proved well worth the brief stop, with *Pterogonium gracile*, *Weissia perssonii*, *Plagiochila bifaria*, and the third v.-c. 75 record for *Porella obtusata*.

On the return to Ayr one party stopped at Turnberry Point, one of two terrestrial tetrads in NS10. We wondered, as we walked along the shore to the point, whether we would see any bryophytes at all, but we managed to rustle up 50 species on coastal rocks and walls, the highlights being *Pterogonium gracile*, found by Richard Fisk, another location for *Weissia perssonii* and the most unexpected *Syntrichia papillosa* on an asphalt path.

NX19 proved, not unexpectedly, to be the richest hectad of the week, with 245 species recorded and 10 VCRs.

#### MONDAY 6 APRIL 2009 (NS10, NX28, 29)

Many people had to return home after the weekend, and on Monday the remaining members all headed for Feoch Meadows SWT Reserve and SSSI where

Gill Smart was able to accompany us into the field and show us round the reserve. One group started recording alongside the Feoch Burn from the road and found *Dicranodontium denudatum*, whilst the rest of the party headed straight onto the reserve. The burn in the vicinity of Feoch Meadows provided a second record for this week of *Heterocladium wulfsbergii* and also *Colura calyptrifolia* on spruce twigs and *Plagiothecium laetum*\*. On the reserve, free-draining neutral banks are interspersed with flushes, drainage lines and marshy areas. The burn is fast flowing with deep pools and several small rocky gorges. The flatter fields over the majority of the site are a mosaic of dry and wet acidic grassland, rush pasture and mire. *Colura calyptrifolia* grew on willow twigs, and *Sphagnum teres*\* was found in several of the small flushes. Other species of interest included *Brachythecium mildeanum* in grassland near the entrance, *Trichocolea tomentella* in the riverside flushes and *Pohlia camptotrachela*.

At lunchtime several people had to depart for home, and only one group was left to record at Barrhill. The cemetery, on a slope leading down



**TUESDAY 7 APRIL (NS42, 43, 44)**

This was departure day, so the small remaining party tackled a couple of local hectads near Kilmarnock. However, before that we had a brief visit to Ayr Gorge for those who had not had time to visit it during the week. Mark Hill found *Heterocladium heteropterum* var. *flaccidum*\* on overhanging sandstone rocks by the river, and Keith found *Bazzania trilobata*.

Our next stop was the Cessnock Water, at Carnel Estates (NS467322) where we found *Didymodon luridus*\* on stones near the house. We were able to record a total of 95 species here for NS43 on the grounds extending down to and alongside the river.

Finding suitable sites to record in NS44 proved rather a challenge. We started off at Craufurdland Water (NS463412), just north-east of Kilmarnock. In spite of a rubbish-strewn bank to the burn, which made access problematic, we managed to find a good range of woodland and riverine species, including *Fissidens pusillus*\*.

A further brief stop near Balgray Mill was followed by a visit to the remnants of moorland at Floak Quarry on Drumboy Hill (NS495495). This most depressing site, right at the edge of v.-c. 75, within sight of both the county boundary and the M77, nonetheless had *Sphagnum angustifolium* on the quarry floor, and David Chamberlain found *Andreaea megistospora*\* on the rocks above the quarry. Also, a most unusual habitat for *Straminergon stramineum*, massed over a fallen drystone dyke.

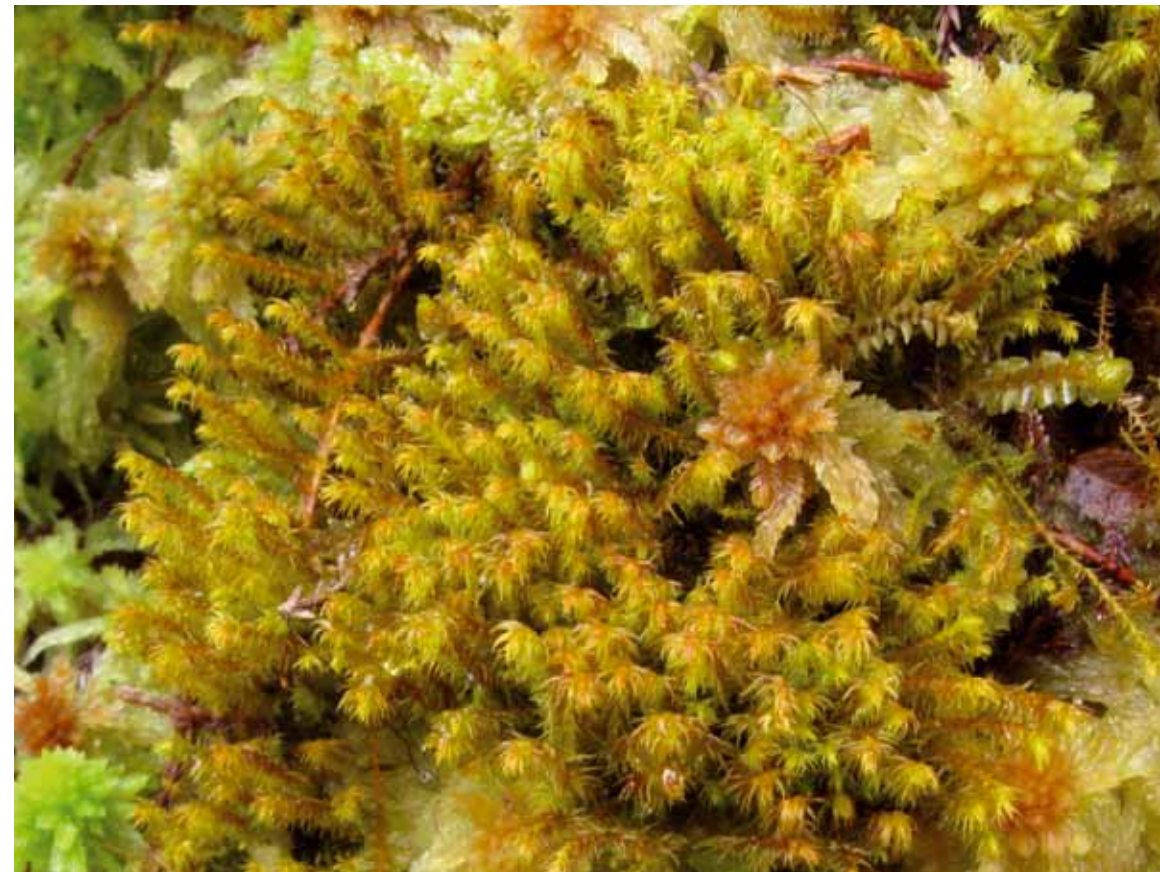
David Long needed some samples of *Herbertus* so he returned to Edinburgh with a detour via Mulwarchar in the Galloway Hills South of Loch Doon where, in spite of damage from a very extensive fire, he found *Dicranodontium uncinatum*\*, *Lepidozia pearsonii*\*, *Kurzia trichoclados*\*, *Bazzania tricrenata*, *Herbertus aduncus* subsp. *hutchinsiae* and the second Ayrshire locality for *Anastrepta orcadensis*.

By the end of the day, NS44 had yielded 119 species, and the total for NS42 was up to 117, including 7 VCRs.

**NS32**

Throughout the week, different groups tackled the grounds of Auchincruive College and the adjacent stretch of the River Ayr. The diversity of habitats produced a range of interesting species, including the epiphytes *Syntrichia papillosa*\* and *Orthotrichum tenellum*\*, and *Leiocolea turbinata* and *Jungermannia atrovirens* on stonework around the main house. Although not part of the college grounds, the river bank and exposed rocks in the flood zone, had both *Schistidium platyphyllum*\* and *Scleropodium cespitosum*\* on the rocks, along with *Orthotrichum rivulare*. By the end of the week the total for NS32 was a respectable 115 species with 4 VCRs.

▽ *Herbertus aduncus* on Mulwarchar. David Long

**BRECOG at the spring meeting in Ayr 2009**

Last year the Bryophyte Ecology Group decided that, rather than holding separate field meetings, it would be sensible to incorporate a field meeting into the normal BBS spring meeting. This would enable us to put in some intensive group fieldwork and train any newcomers in the techniques. Ayr was the first opportunity to try this out.

**THURSDAY 2 APRIL**

First on the scene were Jeff Bates and Joan Bingley who spent Thursday exploring the western side of Barlosh Moss. They started with tussocky *Molinia* (purple moor-grass) fen merging into rough pasture, then took a break from the wet to sample

a large pile of cobbles which looked as if they had been left over from field clearance. The cobbles had a similar flora to a local drystone wall with *Racomitrium fasciculare* and *R. heterostichum*, plus *Andreaea rupestris*. Water beckoned again, so they inched their way into very sloshy willow carr to put quadrats on the tree branches. The main part of the fen proved too wet for the available footwear, so they were able to go no further.

**FRIDAY 3 APRIL**

Martin joined the team on Friday when we went to look at the SSSI raised bog portion of Barlosh Moss. As there had been little recent rain, we were able to get onto the bog quite safely, and our quadrats turned up a decent cross section of *Sphagnum* species and associated liverworts, such as *Odontoschisma sphagni*, *Cephalozia connivens* and *Lophozia ventricosa*. One of the interesting aspects of this kind of work is identifying whatever turns up in your quadrat, no matter how tatty, and this day was no exception – we ended up with a very tiny piece of what turned out to be *Riccardia multifida* and a very strange-looking example of *Plagiothecium undulatum*. After lunch we wanted to sample some more 'artificial' habitat, so after looking at some drystone walls, we arrived at grassed-over coal tips with an associated wet, species-poor mire and retaining wall. The wall proved to be base-rich and turned up *Mnium stellare* and *Encalypta streptocarpa*.

BRECOG work requires the measurement of environmental variables, and in the field we were busy noting down such things as slope, aspect and insolation, measuring pH and conductivity for the wet areas and identifying the species in the quadrats. This also meant that the evening lab work for us was supplemented by assessing soil sample pH.

**SATURDAY 4 APRIL**

Heavy rain was forecast, so we joined Rachel Carter, another BRECOG regular, at the farm on which she

was staying; this had the prospect of some shelter. Theo Loizou had also arrived, so we split into two pairs, Theo and Jeff sampled the floor of a nice bit of Atlantic woodland, and Rachel and I looked at the rocks in a stream running through a steep-sided gully. We completed our morning work, but by this time even the best waterproofs were beginning to leak a bit, so we retreated to Rachel's holiday cottage for some lunch and to dry out.

Jonathan Sleath had promised to join us after lunch and, as he arrived, the rain stopped so we were able to pop out once more. Rachel took Jonathan to sample fallen logs, while the remaining three of us did the same for standing trees. Standing trees are sampled in three height zones, so we were able to carve up the work between us. We finished quite quickly in the now sunny conditions, so Jeff, Theo and I took in a sizeable woodland flush on the way back and left Rachel with her quadrat on the top of a species-rich and lush farm wall.

#### SUNDAY 5 APRIL

Rachel, Theo and Martin went south to look at more coastal areas in another 10-km square, while Jeff, who was going home at lunchtime, made a return visit to Barlosh Moss. Unfortunately, the rain had made the moss difficult to access, so Jeff was restricted to sampling muddy tracks with their attendant *Pohlia* species.

Meanwhile, further south we stopped just north of Ballantrae to sample some maritime rocks. Again, getting our noses into the quadrats proved instructive with the flora of the seaward and landward sides of the rocks proving different. *Syntrichia papillosa* and *Orthotrichum rupestre* (which would have been another VCR if the voucher had been retained) were found on the landward sides, as well as the more usual maritime suspects. We then moved on to a steeply sloping woodland at Knockdolian where we took in both trunk and ground flora, some old concrete walls by a stream and a base-rich flush in the hills; the latter having both *Calliergon giganteum* and *C. cordifolium*, so we were able to compare their field characters. Walking back

to the car at Knockdolian turned up a real surprise in the form of fertile female *Lunularia cruciata* growing in some quantity on the sides of a damp ditch (NX119847). As far as I am aware, this is the most northerly record for this species in a fertile state.

As various folks had to leave on Sunday or early Monday, we concluded our fieldwork at this point, leaving the remaining team members to get back to more traditional 'square-bashing' for the remainder of the meeting.

Ayrshire provided an interesting focus for the week, despite the initial reservations of some members having glimpsed the more industrial nature of much of rural Ayrshire where the combination of coal mining, extensive forestry plantations and wind farms have destroyed many bryophyte habitats. However, we were fortunate to be able visit some of the more interesting and beautiful areas that remain within the vice-county and the weather was kind to us, dry and bright and sunny for most of the week.

We are grateful for the assistance of SNH with a grant to pay for the cost of hiring rooms at Auchincruive for the evening identification sessions with microscopes. These were very well attended during the meeting. We are also grateful to the administrative staff of Auchincruive, SAC and especially Peter McDonald for arranging the loan of microscopes for the week to augment those brought by members, enabling many more people to benefit from the evening sessions. Also thanks to Graham King for patiently waiting each night to lock up for us after the evening identification sessions which, on occasions, extended to 23.30. Thanks to Gill Smart for suggesting sites, and for helping with arrangements and access to SWT sites, to NTS for help with access to Culzean, and to Bargany Gardens and Carnel Estates for allowing us to record on their ground.

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