

Worcestershire Bryophyte Group 2015

Ann Hill

Email ann@gahill.f9.co.uk

The Worcestershire Bryophyte Group held seven recording days and one microscopy day in 2015. The group comprises enthusiastic bryologists with varying levels of expertise from the local expert through to the eager beginner. We meet on one day a month between September and April/May and new members of the group are always welcome.

Overall, 2015 was a busy year for Worcestershire bryophyte recording. The group has submitted 334 bryophyte records to the Worcestershire Biological Records Centre and to the British Bryological Society. A species of special interest for 2015 and new to VC37 was *Ditrichum pusillum* Brown *Ditrichum* found in November at Birchfield in the Teme Valley. *Ditrichum pusillum* is a rare calcifuge moss of open or thinly vegetated ground and arable field communities. Mark Lawley spotted the small moss growing in a patch of bare soil in the orchard to the north of the house. The species is easily overlooked and there are only a scattering of records around the UK. Mark must have excellent eyesight because the species is so small (it grows up to 10mm high).

January

The year began in January with a microscopy day held at the Wildlife Trust headquarters at Lower Smite Farm. January is a good month to retreat indoors and so avoid the worst of the weather. The day was concentrated on using the microscope to check the distinguishing characteristics of the small acrocarpous mosses such as *Orthotrichum* species and common liverworts that we struggle with in the field.



01. *Orthotrichum affine*. Ann Hill

February

In February, the group held its annual joint meeting with the Border Bryologists at Upper Rochford in the Teme Valley. The joint meeting is always a good time to make use of the expertise of Mark Lawley (co-editor of the *Field Guide to Mosses and Liverworts*). Twelve intrepid bryologists survived an extreme weather day with heavy rain and strong winds: the air temperature was only just above freezing. Recording started along the dingle and through the wet woodland, ponds and stream but the weather conditions impeded recording and the marshy area in the lower reaches of the dingle, the veteran orchard, meadow and built-up areas were given only a cursory inspection in our dash for cover. In total we recorded fifty bryophytes (nine liverworts and 41 mosses) despite the fogged-up hand lens and only half a day of recording! No rarities were recorded but of note was the epiphytic bryophyte cover on the elder and hazel branches in the dingle with the mosses *Orthotrichum affine* (01), *O. diaphanum*, *O. lyelli*, *O. pulchellum*, *O. stramineum* and liverworts *Metzgeria consanguinea*, *M. furcata* and *M. violacea*.

In addition, the very small pale green liverwort *Microlejeunea ulicina* Fairy beads was found growing on a tree trunk by Rita Holmes and the leafy liverwort *Calypogeia arguta* was abundant covering the crumbly acidic soil on vertical track-side banks.

March

It was dry and sunny in March for the recording day on Hartlebury Common Site of Special Scientific Interest (SSSI). There were strong winds blowing across the upper terrace but it was pleasantly warm in more sheltered spots on the lower terrace. Seven bryologists started the day by recording species growing in the dry heath on the upper terrace and then moved down to the mire habitat in the lower terrace. Epiphytic mosses growing on the scattered trees were recorded in passing. In the afternoon we puzzled over the minute bryophytes colonising the bare sand around the edges of disturbed areas on our way back to the cars. In total we recorded thirty-nine bryophytes (two liverworts and 37 mosses) during the visit, nine of which had not been recorded at the site before. Of particular interest were the scattered shoots of *Straminergon stramineum* growing in the bog amongst *Sphagna*: an odd feature of *S. stramineum* is in the tufts of rhizoids which emerge from cells just below the leaf apex. *S. stramineum* has been recorded before at Hartlebury but not since 1976. We added three new *Orthotrichum* species to the site list (most likely due to our concentration on the species during our indoor microscope day held in January). A bonfire site had *Funaria hygrometrica*. *Mnium hornum* was locally abundant in the wet woodland in and around the bog.

April

In April the group visited Severn Brow, Upper Arley (a site recommended to us by Becky Lashley of the Orchard Project). The site had an old orchard taken over by woodland regeneration that the owners were doing some gentle clearing and restoration of, some mature woodland and also a rock exposure. The weather was dry and sunny with a bitter wind. However, by the afternoon the wind had reduced and temperatures reached 16-18°C (and possibly more in sheltered spots). Five bryologists and Becky Lashley met at the house where refreshments were provided by the owners. In total we recorded thirty-nine bryophytes (six liverworts and 33 mosses) during the visit. Bryophyte cover in the orchard was poor with *Hypnum cupressiforme* var. *cupressiforme* on the lower branches and trunks and *Orthotrichum affine* tufts on branches. Cherry trees in the orchard had a sparse bryophyte cover of common mosses although many of the higher branches were too high to be surveyed. A mature apple tree had a more diverse bryophyte cover with seven bryophytes recorded growing on the bark including the small acrocarpous mosses *Orthotrichum affine* and *O. lyellii*. *Cryphaea heteromalla* with conspicuous secondary stems and the rounded cushions of *Orthotrichum stramineum* were recorded on a sycamore. After lunch we began to explore the disused sandstone quarry that was found to have an interesting and varied bryophyte flora but we soon realised that this habitat deserved another survey visit. Expansive areas of the common liverwort *Conocephalum conicum* covered the often vertical or near-vertical sandstone substrate. Tufts of *Mnium stellare* were occasionally growing on soil on sandstone outcrops, in crevices in the quarry and on earthy banks along track: the plant was distinctive with a light pale green colour and unbordered leaves. Small bryophytes of *Amblystegium serpens* var. *serpens*, *Rhynchostegiella tenella* and the minute moss *Fissidens pusillus* were noted on inclined sandstone.

September

In September, nine bryologists had a dry warm and sunny day on British Camp, Malvern Hills for the first field meeting after the summer break. We were all very excited to find the strange green luminescence of *Schistostega pennata* also known as "Goblins Gold" glowing from deep within many of the rabbit holes (02). The luminous effect is due entirely to reflected light. The protonema of the moss develops emerald green cells with lenses which concentrate the feeble light upon the chlorophyll granules; these absorb such wave lengths as serve their purpose, reflecting back the remainder in the direction of its source. In total we recorded 33 bryophytes (two liverworts and 31 mosses) during the day.



02. *Schistostega pennata* glowing in a rabbit hole. Ann Hill.

October

In October 2015 ten bryologists had an enjoyable and rewarding field day at Shawley Wood SSSI. The weather was dry but chilly. The group probably walked further and covered a greater distance (approximately 2.5km) during the visit than on any other bryophyte recording day of the year. The majority of the bryophyte species recorded were widespread in Worcestershire. Species of interest were the very small *Microlejeunea ulicina*, a diminutive liverwort epiphytic on coppiced hazel branches (the species is seldom recorded in the county); *Homalia trichomanoides* locally frequent on the base of trees in the flood zone of Dick Brook but above the normal water level; and the small mid-green cushions of *Dicranum montanum* that grew on the base of a few lime trees and on exposed roots under the coppice. In general, epiphytic bryophyte cover in the small-leaved lime coppice was species-poor. Common pleurocarpous moss cover was limited to living tree bases and more rarely to an individual coppice pole and consisted mainly of the mosses *Hypnum* species and *Isoetecium myosuroides*. *Brachythecium rutabulum* and *Kindbergia praelonga* were frequent on fallen timber and on the ground. *Amblystegium serpens* was frequent on both living and dead wood. The large pleurocarpous moss *Eurhynchium striatum* was locally abundant as ground cover between old coppice stools. On coppiced hazel there was a more varied epiphytic flora in which the liverwort *Metzgeria furcata* was very common, dotted with the small dark green tufts or cushions of *Ulota*, *Orthotrichum* and *Zygodon* species and the moss *Cryphaea heteromalla* (an uncommon, pollution-sensitive epiphytic species which has evidently declined in some parts of Britain as a result of sulphur dioxide pollution). Sandstone rock exposures in the east supported more bryophyte interest. Extensive patches of the moss *Orthodontium lineare* grew on the substrate: this is an invasive bryophyte characteristic of shaded base-poor habitats. Other species included the mosses *Mnium hornum* and *Pseudotaxiphyllum elegans* and the liverworts *Lepidozia reptans*, *Calypogeia arguta* and

Lophocolea bidentata. Extensive mats of the large thalloid liverworts *Conocephalum conicum* and *Pellia endiviifolia* were locally abundant on damp substrates along Dick Brook. In total we recorded fifty-two bryophytes (14 liverworts and 38 mosses) during the visit. There are still areas still not visited and the group has expressed an interest in returning next year!

November

In November the group paid a second visit to Birchfield in the Teme Valley hopping for better weather than on the previous visit. The day was dry and bitterly cold but there were occasional sunny periods to warm us up. Thirteen bryologists surveyed the built environment around the house then looked at the veteran cherry orchard with old and fallen trees. Acrocarpous mosses were frequent in the stones and brickwork and included *Didymodon insulanus*, *D. sinuosus*, *D. rigidulus* and *D. vinealis*. In the orchard, *Calliergonella cuspidata* was frequent whilst *Bryum rubens*, *Ceratodon purpureus*, *Pleuridium acuminatum* and *Tortula truncata* grew on soil covering the ant hills. *Campylopus introflexus* was locally frequent on fallen timber. After a picnic lunch we recorded in the wetter habitats around the small stream, lakes and wet woodland. The wet woodland held *Isoetecium alopecuroides*, *Isoetecium myosuroides* var. *mysosuroides*, *Mnium hornum* and *Neckera complanata*. *Plagiomnium undulatum* was locally abundant on banks and under the canopy. Trees in general had *Orthotrichum affine*, *O. diaphanum*, *O. stramineum* and *Zygodon viridissimus* var. *viridissimus*. The foliose liverwort *Fossombronia pusilla* was found growing on mud on the clay banks of pond. We recorded sixty-four bryophytes (11 liverworts and 53 mosses) during the second recording day to give a total of seventy-eight bryophytes (14 liverworts and 64 mosses) for the site: so well worth the second visit!!

December

In December the group visited Beggarboys Wetland, part of the Kemerton Estate. Eight bryologists braved the weather on a grey, damp and windy day. Two species of special interest that we do not record very often in Worcestershire were noted on the day, the acrocarpous moss *Syntrichia papillosa* and the tiny moss *Fissidens exilis*. The small green tufts of *Syntrichia papillosa* were found growing on elder branches in the thicket just inside the entrance gate. The species declined over much of central England when levels of pollution were high but is now slowly spreading back. The species is probably under-recorded in the UK. Scattered shoots of *Fissidens exilis* were found on bare patches of clayey soil under the woodland scrub: this is possibly an ephemeral population of the moss. We recorded the epiphytes *Cryphaea heteromalla*, *Orthotrichum affine*, *O. diaphanum* and *Syntrichia papillosa* growing on elder. *Hypnum cupressiforme* var. *cupressiforme* was the most abundant moss on trees. At the approach to the wetland we were all startled by an ear-piercing screech of a barn owl from the adjacent field. *Calliergonella cuspidata* and *Drepanocladus aduncus* were locally abundant in the tall-herb fen. *Fissidens taxifolius* var. *taxifolius* was locally frequent on mud. On concrete slabs in the overflow to the lake grew *Didymodon insulanus*, *D. luridus* and *D. sinuosus*. In total we recorded twenty-nine bryophytes (three liverworts and 26 mosses) during the visit. After the field

meeting we warmed up with a lunch at the local pub.

For anyone wishing to discover a bit more about bryophytes, the following field days are planned and people are welcome to join us (although please email me ann@gaehill.f9.co.uk prior to the day to advise that you will be joining us).

Saturday 23 April 2016 Habberley Valley Local Nature Reserve
 Saturday 7 May 2016 Severn Brow, Upper Arley

We are a small informal group that goes out to Worcestershire sites to record and learn about bryophytes. Our broad aim is to assist everyone, especially those who are new to mosses and liverworts, to become more experienced and confident at identifying bryophytes. Beginners are always very welcome, the only equipment needed is a hand lens (x10 or x20) and some paper packets for collecting specimens. In the field, the group will often work through the keys in the British Bryological Society's *Mosses and Liverworts of Britain and Ireland: a Field-guide* (2010). Whilst we usually spend the morning concentrating on bryophyte identification, during the afternoon our attention tends to wander towards more general natural history, dependent on the interests of the individuals present on the day. Some people stay all day whilst some people leave at midday.

Please contact me for further details. ann@gaehill.f9.co.uk



03. The Worcestershire Bryophyte Group December 2015

Images

- 01. *Orthotrichum affine*. Ann Hill
- 02. *Schistostega pennata* glowing in a rabbit hole. Ann Hill.
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