



BBS Summer Meeting 2016

Donegal, Ireland, 6-12 August

Rory Hodd reports on last year's second week of the Summer Meeting in Donegal

Ireland has always received less bryophyte recording effort than Britain, and although targeted recording for the recent Atlas (Blockeel *et al.*, 2014) has filled most of the large areas with few or no bryophyte records in Ireland, resulting in a much improved picture, a number of glaring gaps still exist. One of the most obvious of these was in Donegal, with 19 hectads in East and West Donegal (H34 and H35) having less than ten (often zero) bryophyte records and many more hectads being significantly under recorded. A number of these under-recorded hectads were coastal slivers, but even discounting these, significant large gaps exist in Donegal, particularly in the mostly agricultural east of the county. Previous BBS meetings and surveys for rare and scarce bryophytes (Lockhart *et al.*, 2012) generally focused on well-known bryophyte hotspots, such as the Derryveagh Mountains, Glenveagh National Park, Bulbin and Slieve League, where numerous oceanic and montane specialities are known to occur. Survey work for rare and threatened bryophytes during the 2000s has increased the knowledge of Donegal

bryophytes, particularly along the northwest coast, where a number of excellent bryophyte sites were documented, and in certain parts of the Bluestacks Mountains. However, with the exception of the schistose crags of Bulbin on the Inishowen Peninsula, most previous activity has taken place in the west of the county. Therefore, the remit of this meeting was to focus on poorly recorded areas of the county that had previously not been visited by bryologists, with participants under strict orders to avoid known honeypot areas.

Ten bryologists from the UK and Ireland attended for all or most of the week, namely Neil Bell, Tom Blockeel, Gordon Haycock, Rory Hodd, David Long, Peter Martin, Andy McLay, Sean O'Leary, Gordon Rothero and Julie Smith. The group was based in the scenic Lough Gartan Outdoor Education Centre, which was basic but comfortable, despite the hordes of schoolkids occupying the other wing of the centre. Although remote from any major towns or villages, the advantage of being based at Lough Gartan was being centrally located for the majority of under-recorded areas.

◁Fig. 1. Gordon H, Sean, Pete and David in less than ideal conditions at Meentygrannagh. R. Hodd

Saturday 6th August

This day was generally a travel day for most of the group, but a number of recording stops were made. Tom targeted a hectad close to Derry (C31), but found that gaining access to interesting ground was difficult, while picking up **Schistidium elegantum*, **Colura calyptrifolia* and **Leiocolea badensis* new to H34. Rory was distracted by a BSBI meeting in the south of the county, but still managed a quick stop at a quarry west of Laghy, which yielded a good range of species, including **Riccardia incurvata*. A group of early arrivals at the HQ at Lough Gartan made a list from the surrounding woods and lakeshore, before settling in, finds including *Atrichum tenellum* and *Dichodontium flavescens*.

Sunday 7th August

Recording began in earnest on Sunday morning, with two groups heading to the hilly centre of the county. One group headed to an extensive flush system at Meentygrannagh (Fig. 1), which despite being a known site for *Hamatocaulis*

vernicosus, had only 26 previous records. En-route to the site, David spotted an interesting craggy hillside above the road on the slopes of Cronaglack, so it was decided to stop here. This proved to be a very worthwhile stop, with 106 species recorded in a diverse range of habitats, including **Sphagnum contortum*, **Sphagnum subnitens* var. *ferrugineum* (Fig. 2), **Sphagnum platyphyllum*, **Aphanolejeunea microscopica* and *Calypogeia azurea*. The group then proceeded to the flushes at Meentygrannagh, which although lacking in number of species, was rich in interesting species, including the expected *Hamatocaulis vernicosus*, as well as an excellent assemblage of uncommon *Sphagnum* species, including *S. warnstorffii**, *S. teres**, *S. flexuosum** and *S. subsecundum**. Confusion reigned over whether this site was located in East or West Donegal, with subsequent research revealing that the vice county boundary follows a stream which runs through the middle of the site, meaning that most of the rarer species (which are restricted, in Donegal, to this site) are in fact found in both East and West Donegal. In increasingly wet conditions, the group moved onwards to Murty's

▽Fig. 2. *Sphagnum subnitens* var. *ferrugineum* on flushed slopes of Cronaglack. R. Hodd





△Fig. 3. Julie and Neil clambering up the Deele Gorge near Drumkeen. G. Rothero

Town in search of lowland species, where a bridge crosses the River Finn. This stop served its purpose admirably, with the highlight being a soil bank near the river on which *Dicranella crispa* grew at only its third post-1970 Irish locality, alongside *Anthoceros punctatus* and *Phaeoceros laevis*. David picked up *Scapania subalpina* from a riverside rock, a species that had only been seen twice in Ireland since 1970. Despite being soaking wet and cold, one car load managed a final brief stop along a willow-shaded stream amongst coniferous forestry at Altadush, ideal habitat for *Daltonia splachnoides*, which is inexplicably absent from Donegal. However, despite a good cover of epiphytes including *Ulotia calvescens*, *Sanionia uncinata* and *Colura calyptrifolia*, there was no sign of *D. splachnoides*.

The other group went in search of the gorge of the River Deele, close to the village of Drumkeen

(Fig. 3). However, upon arriving at the river, there was no sign of any gorge. A roadside quarry was found nearby to occupy the group, in which a range of species were found, including **Leiocolea collaris* and *Phaeoceros laevis* and wooded riverbank and wet heath were explored at Aughgeely. A renewed effort was then made to find the ravine near Drumkeen, and after a pleasant walk along the riverbank, a short stretch of wooded ravine finally appeared. A search of the rocks alongside the river resulted in a long list of species, including *Lophocolea fragrans*, **Trichocolea tomentella*, **Neckera pumila*, **Ulotia calvescens*, **Hygrohypnum eugyrium*, **Homalia trichomanoides* and **Orthotrichum rivulare*, vindicating the effort required to find the gorge.

Monday 8th August

The plan for Monday was for both groups to have a mountain day, one group tackling the eastern end of the Bluestack Mountains and the other exploring the western end of the range. This extensive, remote mountain range is poorly explored, except for a couple of areas in the centre of the range, from which some excellent bryophyte finds had been made during the 2000s, including two species not found elsewhere in Ireland. Therefore, hopes of making further interesting finds were high. The hopes of the eastern group, who visited the Cronamuck valley, which cuts deep into the mountains, were quickly dashed. Upon arrival they were presented with an epic slog through dense tussocks of *Molinia*, often alongside forestry plantations, with their progress in most directions blocked by swollen, uncrossable streams. The reward for their valiant effort was unremittingly dull, acidic ground, with little diversity of species. Julie picked up **Cladopodiella fluitans* in wet ground on the valley floor, and a small wooded ravine was eventually found, yielding some of



△Fig. 4. *Pohlia elongata* on Carnaween. R. Hodd

the more widespread oceanic species including *Aphanolejeunea microscopica*, *Drepanolejeunea hamatifolia* and *Campylopus setifolius*. Despite being the worse for wear after a trying day, an

effort was made to boost the list for the area by exploring the bridge and roadsides near the car.

The other group had more pleasant underfoot conditions and a wider variety of habitats on the shapely peak of Carnaween at the western end of the Bluestacks. Although the geology map suggested the potential presence of somewhat calcareous rocks, most of the mountain was hard, acidic quartzite with occasional hints of a small amount of calcareous input. An ascent was made via the pretty Carn Lough, on the shores of which Gordon R found *Colura calyptrifolia* on heather, with *Anastrophyllum minutum* located nearby, the only record of this elusive hepatic made during the week. The crags between the Lough and the summit of Carnaween were largely disappointing, although *Grimmia funalis*, *Rhabdoweisia crenulata* and *Rhabdoweisia crispata* were encountered. After enjoying the view from the summit, steep crags and slopes to the west were investigated, with **Sphagnum skyense* and *Pohlia elongata* present (Fig. 4). Despite conditions seeming suitable, few large hepatics were found, with even *Herbertus hutchinsiae* eluding the group.

▽Fig. 5. Sean, Julie, Neil and David at the northernmost tip of Ireland on Malin Head. G. Rothero





△Fig. 6. Gordon R exploring the steep slopes above the sea at Glengad Head. P. Martin

Tuesday 9th August

For both groups, this day, focussing on the rugged northern coast, proved unexpectedly to be the highlight. A group of six was drawn to the Inishowen Peninsula and Ireland's northern tip, Malin Head (Fig. 5). A search for mainland Ireland's most northerly bryophytes yielded few surprises, with **Fossombronia angulosa* growing on soily coastal slopes. Next on the agenda was a visit to very steep, spectacular 200m high slopes above the sea at Cormra, near Glengad Head (Fig. 6), where it was hoped that the rare, usually coastal, hepatics *Acrobolbus wilsonii* and *Geocalyx graveolens* might turn up. Conditions were not right for either species, but the site still exceeded expectations due to the underlying calcareous schistose rock. The highlight was David's find of **Molendoa warburgii*, which was previously only known in Ireland from one site in Co. Mayo. Other rare species growing on the calcareous rocks, or nearby, were **Scapania cuspiduligera* and **Philonotis rigida*, alongside a range of base-requiring species such as *Isopterygiopsis pulchella*, *Solenostoma subellipticum*, *Solenostoma hyalinum* and *Jungermannia pumila*. On the way back to base, a stop was made at a coastal sliver of a mainly marine hectad on Doagh Island, as it

looked from the aerial photograph as if machair or dune slacks may be present. However, this site proved to be disappointing, after a long walk along the beach, consisting of a narrow strip of dry dune alongside a golf course, with little bryological interest.

One carload headed for the opposite side of Lough Swilly from Inishowen, targeting the area around Fanad Head. After a quick stop at the tourist-infested lighthouse at the tip of Fanad Head, which yielded little to suggest that filling in a recording card would be worthwhile, the group headed south to Pollet (Fig. 7), where a track leads to low sea cliffs. An accessible coastal gully was located at the end of this track, where fruiting *Philonotis rigida* was found covering loose soil banks (Fig. 8). The heath and bog above the cliffs were also explored, with fruiting *Sphlachnum sphaericum* growing on dung and *Barbilophozia attenuata* and *Tritomaria exsectiformis* on rocks. A quick stop in roadside woodland near Portsalon revealed **Ulota crispa* s.s. as well as *Gyroweisia tenuis* on a wall. While driving towards Fanad Head earlier in the day, a small but enticing very steep-sided hill, with green grassy slopes, named on the map as Dun More (Fig. 9), had been spotted, so it was decided that it would be worth an exploration. Handily, a road led to within a few hundred metres of the hill. Most of the hill had been recently burnt, but the vertical cliffs yielded *Grimmia funalis*, *Glyphomitrium daviesii*, *Porella arboris-vitae* and *Frullania microphylla*, leaving the group satisfied that this was a worthwhile diversion. On the final rockface, which was covered by a thin layer of vertical burnt peat, Rory spotted a tiny *Philonotis* with disproportionately large capsules. After pointing it out to Tom beside him, an incredulous conversation ensued, with the conclusion being that the only thing this could be was **Philonotis cernua*. This extremely elusive



△Fig. 7. Andy, Tom and Gordon H in coastal gully at Pollet. R. Hodd. ▽Fig. 8. *Philonotis rigida* in coastal gully at Pollet. R. Hodd



and transient species was last seen in Europe in 1987, on a BBS meeting in Co. Mayo, with a small handful of older records from Ireland and Britain. A careful search was carried out of the surrounding area, but no further populations were found, highlighting how much luck was needed to find this population. On the way back to base, more mundane bryology was resumed with a quick stop to record in the town of Ramelton and on a nearby wooded riverbank, but nothing of note was found to upstage *P. cernua*.

Wednesday 10th August

After the exciting day had by both groups the day before, a return to more mundane square bashing was made. The majority of participants opted to visit an intriguing area of scattered woodland interspersed with rocky outcrops and lakes near Doon Rock. The day's starting point met with Gordon R's approval, as there



△Fig. 9. Tom, Gordon H and Andy bryologising on the slopes of Dun More. R. Hodd

was a large parking area associated with a holy well, in contrast to many sites visited where vehicles had to be squeezed off narrow roads as best as possible. A good range of bryophyte habitats were explored, with finds including *Grimmia hartmanii*, *Adelanthus decipiens* on a walltop, *Glyphomitrium daviesii* in a crevice and *Campyliadelphus elodes* by a lough. After briefly mislaying the carpark due to dense vegetation, the group moved onwards to an old desmense near the sea at Castlewray. This was an unexpectedly rich site, with habitat including woodland, streamsides, paths and coastline. Neil found **Poblia lescuriana*, which was previously unknown from the northern half of Ireland, and Sean found **Aphanorrhagma patens* on bare soil. By far the less popular option was a visit to the ‘bryological desert’ of the intensively farmed area around Convoys, south of Letterkenny. Rory and Gordon H’s dedication was rewarded by a warm welcome at Ralph and Liz Sheppard’s farm at Carnowen, which is a nature-rich oasis in the agricultural desert. Fuelled with tea and soup, the

perfect protection against the prevailing damp conditions, an exploration was made of the many habitats around the farm, including the walls and yard around the house, maturing plantations of native trees, bare soil on the edge of potato fields and the wooded banks of the River Deele (Fig. 10). The small area of ground by the potato field which escaped spraying with weedkiller yielded a good range of arable bryophytes, including three species of *Riccia*, *Phaeoceros laevis* and a number of small ephemeral mosses, while **Orthotrichum rivulare* and *Homalia trichomanoides* were located alongside the river. After reluctantly leaving the farm, walls and riverbanks near Convoys were explored, with the most notable find being *Fissidens crassipes* on rocks in the river. Finally, forestry and heathland on Mongorry Hill were explored, yielding very different species to the previous stop, but a combination of the map not matching reality and flat GPS batteries resulted in an energetic bash through young Sitka spruce and over a number of barbed wire fences to end the day.



Thursday 11th August

As the northwest of Donegal has been the target of more recording than most other areas of the county, it was generally ignored during the week. An exception was made on this day, to visit the

▽Fig. 10. River Deele near Convoy. R. Hodd

previously unexplored corrie of Glentornan Lough (Fig. 11), which, from the map, looked promising for oceanic rarities, and also had an interesting looking wooded stream valley below the lake. Unfortunately, the forestry surrounding the stream valley had been recently felled, leaving the stream exposed and little of biological interest remaining. In extremely poor visibility, the group proceeded towards the lake and where the alleged cliffs of the corrie were meant to be. However, the poor visibility made it impossible to target the best ground, so it was not possible to fully explore the corrie. Gordon R collected **Trichostomum hibernicum* from the cliffs and the presence of abundant *Herbertus hutchinsiae* suggested that further oceanic species may be present.

The other group headed north and back to Inishowen. The main target was the deep river valley consisting of Glasalt and Craighorna Glens. Both glens were accessed, and proved to have a high cover of mossy vegetation, but little



out of the ordinary. Some base enrichment was present, yielding species such as *Amphidium mougeotii* and *Metzgeria conjugata* and a reasonable list of species was recorded. A brief stop on an open area of bog and heath above the glens yielded a long list of 60 species in a small area, including *Sphagnum molle*. On the way back to base, a stop was made at what looked from the road to be potentially rich dune slack, and suitable for *Petalophyllum ralfsii*, but closer investigation revealed that most of this area was saline and few bryophyte species were present.

Friday 12th August

As the group was diminished by a number of departures, it was decided that the remaining six participants would all head to the same site.

The target was north facing crags of Scaigs, near Fintown, at relatively low altitude, but underlain by calcareous rocks. Despite the persistent rain, an interesting day was had exploring the long calcareous escarpment. On the way to the site, an attempt to take a short cut cross country resulted in having to navigate a rough gravel track over a bleak upland area, but ended with both vehicles intact. The group spread out across the numerous ledges and gullies of the crags, with species encountered including *Trichostomum hibernicum*, *Gymnomitrium concinatum* and a wide range of calcicole species including *Isopterygiopsis pulchella* and *Bryoerythrophyllum ferruginascens*. The group retreated from the mountain very damp, but satisfied, with enough enthusiasm found by one carload to make one

▽Fig. 11. Pete and Sean enjoying the view somewhere above Glentornan Lough. G. Rothero



last attempt to add *Daltonia splachnoides* to the Donegal flora from the classic habitat of willows alongside coniferous forestry, but to no avail.

Summary

Despite the typically damp and grey weather that prevailed for most of the week, which is often the case during the western Irish summer, a good time was had by all, and many useful records were collected, with a few surprises thrown in. Many new vice-county records were made in both vice-counties visited, particularly in the less well-recorded East Donegal (H34). A total of 18 hectads were visited during the week, with 2477 records made of ca. 365 bryophyte species. More than 50 species were recorded in all but one hectad visited, more than 100 species were recorded from nine hectads (50% of those visited) and over 150 species recorded in five hectads, with the richest hectads being B90 (Scraigs) and C00 (Meentygrannagh), with 179 and 177 species recorded, respectively, both hectads having 26 previous records. C24 (Fanad Head) was perhaps the star performer though, with a count of one previous record being improved to 166 species, including the most unexpected find of the week, *Philonotis cernua* (Fig. 12). Much recording is still needed, particularly in the agricultural lowlands of East Donegal, where some significant gaps in recording still exist. However, this gap is now far smaller than previously and could be filled by the efforts of one person, rather than a group of ten. Many new records were made of rare or threatened species, with Irish red data list species found at new sites including *Molendooa warburgii*, *Gymnomitrium concinnatum* (both of which are also legally protected under the Flora (Protection) Order 2015), *Philonotis cernua*, *Philonotis rigida*, *Dicranella crista*, *Scapania gymnostomophila* and *Pohlia lescuriana*. New records were made of two rare species listed as Data Deficient, and in need



△Fig. 12. *Philonotis cernua* on Dun More. R. Hodd

of further survey work, namely *Sphagnum skyense* and *Scapania subalpina*, thus improving our knowledge of their distribution in Ireland.

Thanks particularly to Gordon Haycock for his assistance with planning the meeting, especially for arranging the accommodation at Lough Gartan, and to all participants for their enthusiasm and good humour, even when faced with less than ideal weather conditions and challenging terrain. Thanks are also due to Ralph Sheppard, who generously shared his in-depth knowledge of Donegal, which was a great help when planning where to visit, and invited us to record the bryophytes of his and Liz's farm.

References

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Rory Hodd
e rlhodd@gmail.com