



## The moss year – 2016

△Fig. 1. *Ditrichum pallidum* in Sussex. Tom Ottley

The overall volume of new records fell a little in 2016, but the reduction was limited to England and Scotland; Wales and Ireland saw a significant increase. These fluctuations are partly explained by the locations of BBS meetings. In 2015 the meeting in Renfrew produced many new records for Scotland, whereas the 2016 summer meeting in Tyrone and Donegal likewise boosted the Irish total. The figures for the two years are summarised in Table 1 (the figures for England include the Channel Islands). The total number

of additions and amendments in 2016 was 229, excluding revisions of *Sphagnum fuscum* and *Ulota crispa*, which accounted for a further 119 new entries of segregate species.

### Additions to the British and Irish list

In 2013, Howard Matcham discovered a patch of a distinctive *Ditrichum* in Sussex, which was subsequently identified as *Ditrichum pallidum* (Hedw.) Hampe new to Britain (Fig. 1). A full description and illustration of the species is now in press in the *Journal of Bryology* (Matcham &

**Table 1. Analysis of amendments to the Census Catalogue updates for 2016**

	2016				2015			
	England	Wales	Scotland	Ireland	England	Wales	Scotland	Ireland
New entries	55	31	39	41	62	15	87	23
Debrackets*	16	6	12	24	30	4	27	9
Reinstated	–	–	–	–	1	–	1	1
Bracketings*	–	–	–	–	1	1	–	–
Deletions	5	–	–	–	4	2	9	1
<b>Totals</b>	<b>76</b>	<b>37</b>	<b>51</b>	<b>65</b>	<b>98</b>	<b>22</b>	<b>124</b>	<b>34</b>

(\*Debrackets are existing vice-county entries for which a post-1960 record has been vouched. Bracketings are existing entries for which the post-1960 records are unconfirmed or erroneous but older record(s) are known or thought to be valid.)

Blockeel, 2017). Although the vegetative shoots of *D. pallidum* are similar to other *Ditrichum* and *Dicranella* species, it is distinctive in fruit, having the capsules raised on unusually long yellow setae (Fig. 1). Unfortunately the known patch is thought to have been destroyed by forestry operations, but other patches could be present elsewhere. *D. pallidum* could be a long-standing native in Sussex, or perhaps a recent colonist from wind-blown spores.

A recent paper in the *Journal of Bryology* by Kyrkjeide *et al.* (2016) has shown that *Sphagnum fuscum* in Europe consists of two species. One of these, which is generally darker in colour than the true *S. fuscum*, is *Sphagnum beothuk* R.E.Andrus, a species originally

described from North America (it is named after the aboriginal people of Newfoundland). Kyrkjeide *et al.* (2016) reported *S. beothuk* from NW Scotland, and Mark Hill has subsequently revised numerous British and Irish specimens. He has found that both species occur widely but *S. beothuk* is more lowland and oceanic, and *S. fuscum* is very rare in Ireland. Full details can be found in Mark's article in this issue of *Field Bryology* (Hill, 2017).

Another recent revision (Caparrós *et al.*, 2016) has clarified the difficulties surrounding *Ulota crispa*. They have shown that this notoriously variable moss actually consists of three separate species, *Ulota crispa* s.str., *U. crispula* Bruch and *U. intermedia* Schimp. I have prepared a separate paper in this issue of *Field Bryology* about the identification of the three segregates, as well as other species in the genus (Blockeel, 2017). Only a few vice-county records of the three segregates have been confirmed to date, but all three are likely to be widespread and frequent to common in Britain and Ireland.

▽Fig. 2. Tom Blockeel and Rory Hodd at the *Philonotis cernua* site in Donegal. Gordon Haycock.



### The moss year 2016

The summer meeting in Tyrone and Donegal boosted the number of new records from Ireland. The most notable record from the meeting, and surely the most significant record of the year, was the discovery of *Philonotis cernua* in West Donegal, not recorded anywhere in Britain and Ireland (and Europe!) since 1987. The habitat in Donegal was very ordinary (Fig. 2) – peaty soil on a steep bank recovering from burning – and as *P. cernua* is a colonist of open habitats, it seems certain that other surviving populations must occur in Ireland, providing a source for colonising spores. The summer meeting provided records of several other species that are rarely recorded in Ireland. *Philonotis rigida* was found on a sea-cliff in East Donegal on the same day as



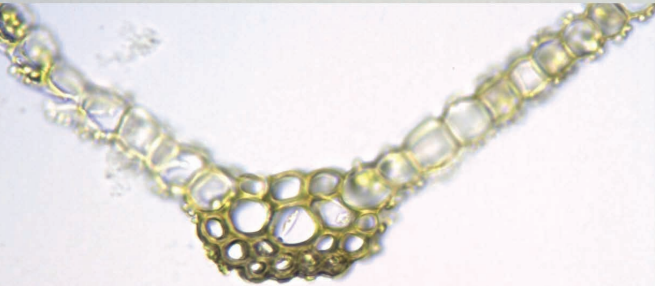
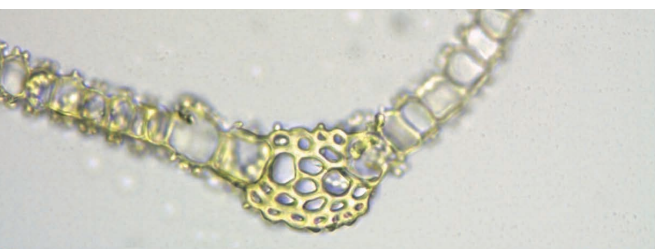
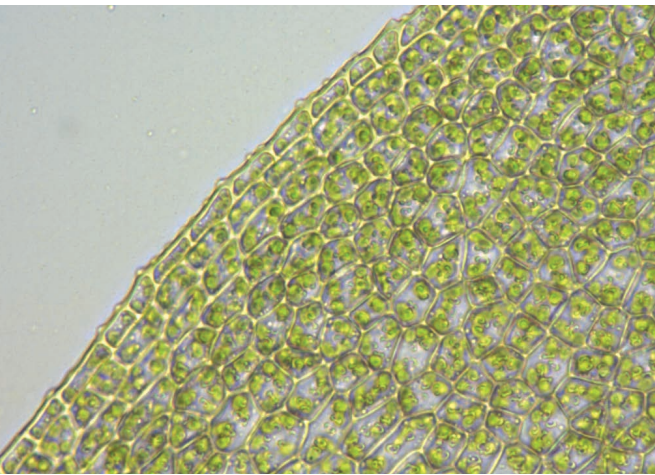


△Fig. 3. Errigal mountain, Co Donegal, home of *Oedipodium griffithianum*. Rory Hodd

*P. cernua*. Though not quite as rare as the latter, *P. rigida* has very few recent records anywhere in Ireland. Other excellent records from the meeting included a second Irish locality for *Molendoo warburgii* by David Long, on sea cliffs on the Malin Peninsula, and a fourth record of *Pohlia lescuriana* by Neil Bell on a coastal path in West Donegal. Away from the summer meeting, Rory Hodd has turned up numerous other new records in Ireland. *Isopterygiopsis muelleriana* in West Mayo and *Oedipodium griffithianum* on Errigal in West Donegal (Fig. 3) are of particular note. The *Isopterygiopsis* was previously known in Ireland only from three sites in the south-west and one on Muckanaght (West Galway) in 2015. The Mayo site is also of interest because of its low altitude (200m). *Oedipodium* was thought to have been lost on Errigal mountain, but Rory has re-found it in small quantity. It has only one other recent record from Ireland. Jeff Bates' *Pleurochaete squarrosa* from Co Wexford is a significant range extension for Ireland; it was previously known only in two other areas, in the Burren and around Dublin.

The most striking record in England is Pete Martin's discovery of a small population of *Orthodontium gracile* in West Gloucestershire. *O. gracile* appears to have declined markedly at its known sites, even within the last decade, and it

is critically endangered. In North Somerset, Paul Bowyer has found *Seligeria calcarea* at Weston-super-Mare, an unusual occurrence away from its typical habitat on chalk. *Dialytrichia saxicola* has turned out to be more widespread than first thought. Sharon Pilkington has now found it in three vice-counties along the River Avon. Sharon has also found a new site for the declining *Pterygoneurum ovatum* on Salisbury Plain, North Wiltshire. *Grimmia decipiens*, found by Sean O'Leary in Buckinghamshire, is an interesting record of a species with very few occurrences in the English lowlands, and scarce elsewhere. It demonstrates, not for the first time, the value of roof tiles as a habitat for rupestral mosses. Bryophytes sometimes surprise us by their ability to colonise unexpected sites. In 2016 Mark Hill came across a population of *Plasteurbynchium striatulum* on concrete under trees in Cambridgeshire. This species is normally found on natural rock outcrops, rarely on limestone walls, but Cambridgeshire is a long way from other sites for this species. *Thamnobryum maderense* is a problematic moss. Its flat (complanate) fronds are distinctive but its status as a separate species is unresolved. Uta Hamzaoui and Sara Botterell have found it in an unremarkable habitat on the brick wall of a stream channel in Leicestershire.



Further north in England, Des Callaghan has re-found *Grimmia atrata* at Coniston Coppermines in Westmorland, one of its very few English sites. *Fissidens celticus* is frequent in western and southern Britain, but there are very few records in more central areas. Its discovery on the Pennine fringe in Cheshire suggests that it may range more widely. Also in northern England, Johnny Turner has found a very interesting population of *Leptodontium gemmascens* near Hebden Bridge in SW Yorkshire. Not only is this a large northwards extension of its British range, but the habitat is unusual, being on bare peaty humus, sometimes on decaying grass, along the base of a wire fence at the edge of woodland (Fig. 4). The shoots are lax with widely-spaced leaves, probably induced by the shaded habitat. Morphologically, they suggest that the distinction between *L. gemmascens* and *L. proliferum* is not as clear-cut as documented in the paper by Porley & Edwards (2010). *L. proliferum* is said to differ in the presence of a distinct leaf border of rectangular cells, but the Yorkshire plant and other specimens of *L. gemmascens* can have a weakly developed, partial border (Fig. 5). In addition, the ventral epidermal cells of the nerve in section are not always enlarged in *L. proliferum* (Fig. 6). This is a problem that would benefit from molecular analysis. In the adjacent woodland at the Hebden Bridge site (young birch and oak, on a slope damaged by fire some years ago) Johnny has also found *Loeskeobryum brevirostre* (a debracket for

△Fig. 4 (top). Habitat of *Leptodontium gemmascens* at Hebden Bridge, SW Yorkshire. Tom Blockeel.

△Fig. 5 (middle). Leaf margin of *Leptodontium gemmascens* from Hebden Bridge, showing partial weak border. Tom Blockeel.

△Fig. 6 (bottom). Nerve sections (at around mid-leaf) of *Leptodontium proliferum* from Lancashire (top and middle) and *L. gemmascens* from Hebden Bridge (bottom). Tom Blockeel



VC 63) and *Ptilium crista-castrensis*, two species that can be surprisingly efficient colonisers of suitable habitat.

The star find in Scotland was Gordon Rothero's *Syntrichia norvegica* on Stob Coire nam Beith in Glencoe, Main Argyll, a new site for this critically endangered moss. *Buxbaumia viridis* was once thought to be highly threatened, too, but intensive surveys have shown that it is less rare in Scotland than once thought. Des Callaghan has now extended its range into the eastern edge of Westernness. *Dicranum flexicaule* is difficult to separate from *D. fuscescens* and therefore difficult to detect in the field. Nick Hodgetts has found a new site for it in Westernness. Other records from Scotland include a number of scarce Grimmiaceae: *Grimmia atrata* by Rory Whytock in Kirkcubrightshire, *G. dissimulata*, also by Rory, at a third Scottish vice-county in Ayrshire, and the taxonomically problematic *G. muehlenbeckii* by Nick Hodgetts from Colonsay (South Ebuades) and Glen Clova. Nick also solved the identity of an odd *Schistidium* that he collected in 1992 on the small Hebridean island of Lunga (Mid Ebuades). It turned out to be *S. maritimum* subsp. *piliferum*. Rory Whytock's *Campylopus gracilis* from Craignaw Hill in Kirkcubrightshire is notable as the first recent record in SW Scotland.

*Fissidens curvatus* is a difficult moss to find, and it is now an endangered species. Primarily a Mediterranean moss of open but usually sheltered habitats, it was always confined to Wales and SW England in Britain. Barry Stewart's discovery of a completely new site in Glamorganshire is therefore a highlight for Wales. Des Callaghan's find of *Dicranella crispa* by the Afon Dyfi (Montgomeryshire and Merioneth) is also notable. This is another rare moss of open habitats and not always easy to identify if good capsules are not present, but Des' material is very

fine. Elsewhere in Wales, a BBS group found the elusive *Bryum kunzei* at Stanner Rocks during the spring meeting in Radnorshire, Matt Sutton turned up *Fissidens rivularis* in Pembrokeshire, and Sam Bosanquet had *Grimmia ramondii* in Radnorshire near the edge of its British range. Sam also had a second Welsh vice-county for *Tortella densa*, on the limestone in eastern Denbighshire. Since moving to Cardiganshire, Tom Ottley has already filled seven gaps in the Census Catalogue for common mosses in VC 46.

Several species continue to increase, albeit within their newly expanded ranges. It is remarkable that *Sematophyllum substrumulosum* was unknown in Britain and Ireland until 20 years ago (although it had been collected as early as 1964). In 2016 seven new vice-counties were added, five in southern England, one in Wales and one in Ireland, and it is now known from 23 vice-counties in total. *Daltonia splachnoides* also continues to increase, though still with a restricted western distribution. It was seen in good quantity at a site in Co Tyrone during the summer meeting in Ireland, and Sam Bosanquet has found it in a third Welsh vice-county, Breconshire, unusually on a log with *Scapania nemorea*. The gaps in the newly expanded range of *Ulota calvescens* continue to fill, with two new vice-counties in SW England, one in Wales and two in Ireland. *Orthotrichum pallens* is easy to overlook and is probably much under-recorded. Sam has found a new site for it in Denbighshire. *O. speciosum* is more distinctive and is less likely to be passed over. David Strauss' locality in East Suffolk is in keeping with the eastern tendency of its British distribution. *Neckera pumila* has turned up in Derbyshire, in an area formerly subject to heavy atmospheric pollution, and its discovery in Kincardineshire is a further step northwards on the east side of Scotland.

**New vice-county records and amendments**

Vouchers are deposited in the BBS herbarium (BBSUK) unless otherwise stated. Other herbarium abbreviations are **CGE** = Cambridge University; **DBN** = National Botanic Garden, Glasnevin, Dublin; **E** = Royal Botanic Garden, Edinburgh; **NMW** = National Museum of Wales, Cardiff.

- 1.4.b. *Sphagnum palustre* var. *centrale*. 88:** flushed valley mire, 400 m alt., Trinafour, Maud Loch, NN7266, N.G. Hodgetts 9301; **89:** wet ground at edge of bog, 400 m alt., Forest of Alyth, NO1957, N.G. Hodgetts 9300.
- 1.7. *Sphagnum teres*. H34:** in fen/transition mire, Meentygrannagh, Donegal, C026059, R.L. Hodd & C. Campbell, *conf.* M.O. Hill (DBN).
- 1.9. *Sphagnum girgensohnii*. 51:** peat bank in conifer plantation, 330 m alt., Nercwys Mountain, SJ22155850, S.D.S. Bosanquet.
- 1.10. *Sphagnum russowii*. 34:** valley mire, bottom of slope, 183 m alt., Woorgreens Marsh, Forest of Dean, SO63041317, I.A. Diack.
- 1.12. *Sphagnum warnstorffii*. H34:** in fen/transition mire, Meentygrannagh, Donegal, C026059, R.L. Hodd & BBS, *conf.* M.O. Hill (DBN).
- 1.13.a. *Sphagnum capillifolium* subsp. *capillifolium*. 43:** wet moorland, above Cwm Coel, Elan Valley Park, SN894639, M.O. Hill; **46:** on slope above mine, 220 m alt., Bwlchglas Mine, SN710877, T.W. Ottley 16102601; **110:** steep heathery west-facing hillside, Mealaisbhal, Uig, Lewis, NB01682754, 2015, T. ap Rheinallt 110/15/137, *conf.* M.O. Hill; **111:** tightly packed hummocks in coastal heath, Ward Hill, South Ronaldsay, Orkney, ND464888, J.E. Crossley.
- 1.14. *Sphagnum fuscum*.** Rename the existing entry *Sphagnum fuscum* agg.
- 1.14A. *Sphagnum fuscum* s.str. (13), (65), (66), 67-70, 72, 74, 76-81, 83, 87-90, 92-98, 104, (105), 106, 108-112. H18, (22)** (Hill, 2017).
- 1.14B. *Sphagnum beothuk*. 9, 46, 48, 66, (69), (70), 73, 74, 87-89, 97, 98, 102, 104, 105, 107-110. H2, 9, 10, 14-18, (19), (23), 24, 25, (27), 28-30, (32), 33, 34, 36** (Hill, 2017).
- 1.15.b. *Sphagnum subnitens* var. *ferrugineum*. H34:** on flushed cliff ledge, Cronaglack, Donegal, C04150651, R.L. Hodd & BBS, *conf.* M.O. Hill (DBN).
- 1.16. *Sphagnum skyense*. H35:** on N-facing heathy/grassy slope, Carnaween, Donegal, G874892, R.L. Hodd & BBS, *conf.* M.O. Hill (DBN).
- 1.20. *Sphagnum subsecundum*. H34:** in fen/transition mire, Meentygrannagh, Donegal, C026059, R.L. Hodd & C. Campbell, *conf.* M.O. Hill (DBN).
- 1.23. *Sphagnum contortum*. H34:** basic flush, Cronaglack, C0405406619, S.V. O'Leary, *conf.* M.O. Hill (DBN).
- 1.24. *Sphagnum platyphyllum*. 78:** in sparsely vegetated flush, 600 m alt., below Stirk Craig, Upper Gameshope, Talla & Gameshope Border Forest Trust Reserve, NT14131499, E.M. Kungu, D.G. Long *et al.*, *conf.* M.O. Hill (E); **H34:** in flush on upland slope, Cronaglack, Donegal, C041066, R.L. Hodd & BBS, *conf.* M.O. Hill (DBN).
- 1.29. *Sphagnum pulchrum*. H18:** shallow wet depression in degraded bog, 70 m alt., Aghameelick, Bog of Allen, Clonbulloge, N59222142, M. Eakin, *conf.* M.O. Hill; **H19:** high bog remnant (raised bog), Clonroosk Bog, N6437522353, M. McCorry, *conf.* M.O. Hill (DBN); **H36:** on raised bog, Cranny Bog, H41256392, R. Weyl *et al.*



△Fig. 7. *Sphagnum flexuosum* in West Mayo. Rory Hodd

- 1.31. *Sphagnum flexuosum*. H27:** forming lawn in transition mire/poor fen, Rathavisteen, Mayo, F981371, R.L. Hodd & C. Campbell, *conf.* M.O. Hill (DBN). (Fig. 7)
- 1.32. *Sphagnum angustifolium*. H34:** on wet slump on steep bank above stream, Dee River, Aughgeely, C11710327, J.E. Smith (DBN).
- 2.4. *Andreaea mutabilis*. 73:** bottom of scree on rock, 600 m alt., Curleywee, NX4540276678, R.T. Whytock.
- 2.8. *Andreaea megistospora*. 72:** on rocks below crags, 560 m alt., Corehead Border Forest Trust Reserve, lower Hartfell shoulder, NT10141349, E.M. Kungu *et al.* (E).
- 3.1. *Oedipodium griffithianum*. H35:** Under shady north facing overhang, Near summit of Errigal, Donegal, B92812084, R.L. Hodd (DBN).
- 4.2. *Atrichum tenellum*. 3:** scattered along ca 25 m of unsurfaced forestry track, 115 m alt., Hore Wood, Moretonhampstead, SX750897, J.J. Day & M. Pool; **64:** margin of reservoir, Thruscross Reservoir, SE1427858100, M.P. Wilcox.
- 8.1.b. *Polytrichum commune* var. *perigoniale*. 43:** shaly bank at edge of road, 450 m alt., Cilfaesty Hill, SO12018347, T.W. Ottley 16040701; **70:** near edge of path, 270 m alt., River Calder valley, path north of Bomery Gill, NY072128, E.M. Kungu *et al.* (E).
- 9.1. *Tetraphis pellucida*. 110:** soil around roots of large rowan at edge of moorland loch, 51 m alt., Loch Mor a'Ghrianain, Arnish Moor, Lewis, NB40563059, T. ap Rheinallt 110/16/10.
- 10.1. *Tetrodontium brownianum*. H29:** On rock under dark overhang on mountain slope, Truskmore, Leitrim, G762474, R.L. Hodd & M. Molloy (DBN).
- 11.2. *Buxbaumia viridis*. 97:** fallen and very large Sitka Spruce trunk (70 cm diameter), rotten but with bark, at edge of mature conifer planting beside river, Poll nan Cuirteag, beside River Pattack, NN5650390212, D.A. Callaghan, record vouched by photograph (Fig. 8).
- 16.5. *Entosthodon obtusus*. 34:** abundant on steep clay bank by turning area on forestry track, Mailscot Wood, SO5589714197, R.V. Lansdown.
- 17.1. *Physcomitrium pyriforme*. 73:** on disturbed soil, 5 m alt., Mersehead RSPB Reserve, compartment 6, edge of vehicle tracks in disturbed ground just beyond bridge into compartment, NX93265595, E.M. Kungu, V. Heppel & E.-J. Sadler (E); **H36:** on bare soil on vertical bank by river, Strule River, north of Omagh, H43677767, R. Weyl, T.L. Blockeel & E.M. Kungu 45/670.





△Fig. 8. *Buxbaumia viridis*, voucher photograph, River Pattack (VC 97). Des Callaghan

- 18.1. *Aphanorrhagma patens*. 47:** damp soil, muddy track by oxbow, near Wernllwyd, SJ207026, M. Lawley; **73:** on earth slope at edge of pond scrape, 5 m alt., Mersehead RSPB Reserve, compartment 2, at edge of pond scrape in front of Mendia Hide, NX93255599, E.M. Kungu, V. Heppel & E.-J. Sadler (E); **H35:** on roadside mud, Castlewray, C2227914874, S.V. O'Leary (DBN).
- 21.1.b. *Schistidium maritimum* subsp. *piliferum*. 103:** dry rock on hillside, 50 m alt., Lunga, NM2741, 1992, N.G. Hodgetts 2568.
- 21.2. *Schistidium rivulare*. H24:** On rocks by Lough, Lough Naback, Longford, N250946, R.L. Hodd & J. Faulkner (DBN).
- 21.5. *Schistidium apocarpum*. 3:** on coping of bridge in sheltered valley, New Bridge, Dart Valley near Holne, SX711708, T.L. Blockeel 45/635; **6:** on sandstone rocks in splash zone of waterfall, 90 m alt., Stephens Vale Nature Reserve, Hallatrow, ST63815788, S.L. Pilkington; **46:** on shale outcrop in mine workings, 120 m alt., Banc y Castell, Goginan, SN69068179, T.W. Ottley 16122501.
- 21.9. *Schistidium strictum*. 110:** top of large dry boulder at edge of hill loch, 222 m alt., Loch

Clibh Cracabhal, Uig, Lewis, NB02172537, G.P. Rothero & T. ap Rheinallt.

- 21.17. *Schistidium elegantulum*. 49:** limestone wall top, 15 m alt., Bangor, SH58397315, G.M. Tordoff; **H34:** on top of concrete post under trees, Crevagh Hill Lake, C38991651, T.L. Blockeel 45/673; **H36:** on gravestone in old cemetery, Magherakeel Graveyard, H183796, T.L. Blockeel 45/665.
- 22.14. *Grimmia atrata*. 69:** iron-rich rocks on exposed montane slope, Coniston Coppermines, SD2831698815, D.A. Callaghan; **73:** block scree, 600 m alt., Nick of Curleywee, NX453768, R.T. Whytock.
- 22.20. *Grimmia trichophylla*. H36:** on gravestones in cemetery, 90 m alt., Donacavey Church ruin, near Fintona, H4474263020, E.M. Kungu (DBN).
- 22.21. *Grimmia lisae*. 102:** rock exposure at north end of island, 100 m alt., Carnan Eoin, Colonsay, NR4098, N.G. Hodgetts 9303.
- 22.22. *Grimmia dissimulata*. 75:** on rock, Knockdolian Hill, NX1162985116, R.T. Whytock.
- 22.23. *Grimmia muehlenbeckii*. 90:** sloping granite slabs below cliffs, Juanjorge, Glen Clova, NO2679, 1996, N.G. Hodgetts 3172; **102:** rock exposure at north end of island, 100 m alt., Carnan Eoin, Colonsay, NR4098, N.G. Hodgetts 9302.
- 22.24. *Grimmia hartmanii*. 79:** on old wall, damp woodland, 140 m alt., Shirra's Knowe, Glenkinnon Burn, NT43313463, D.G. Long 44178.
- 22.25. *Grimmia decipiens*. 24:** on roof tiles of church porch, north face of church, Ilmer churchyard, SP7692305508, S.V. O'Leary; **43:** on south-facing rocks, Stanner Rocks, SO2617758341, S.D.S. Bosanquet, T.L. Blockeel *et al.*
- 22.27. *Grimmia ramondii*. 43:** boulder in



- river, 225 m alt., Afon Marteg, Gilfach, SN95587140, S.D.S. Bosanquet.
- 23.2. *Racomitrium aciculare*. H24:** On rocks by lough, Lough Naback, Longford, N250946, R.L. Hodd & J. Faulkner (DBN).
- 23.8. *Racomitrium heterostichum*. H36:** on gravestones in old cemetery, Magherakeel Graveyard, H183796, T.L. Blockeel 45/664.
- 23.11. *Racomitrium ericoides*. H21:** Beside mast on summit, Kippure, Dublin, O115156, R.L. Hodd, P.M. Perrin & O. Daly (DBN).
- 24.1. *Ptychomitrium polyphyllum*. 39:** on drystone wall, Goldsitch Moss, SK00786543, 2015, M.F. Godfrey.
- 27.1. *Brachydontium trichodes*. 85:** damp rock outcrop in hollow in grassy slope, 326 m alt., Craigen Gaw, Lomond Hills, NO20550718, T. ap Rheinallt 85/16/5.
- 28.8. *Seligeria calcarea*. 6:** on stone on slope, Worle Hill, near Weston-super-Mare, ST3503063446, P. Bowyer.
- 30.1. *Fissidens viridulus*. 68:** on soil on rock ledge, 5 m alt., Holy Isle, The Links Quarry, NU12924369, E.M. Kungu, D.G. Long *et al.* (E).
- 30.3. *Fissidens pusillus*. 96:** on side of boulder in fast-flowing river, 110 m alt., R Findhorn, west bank, Cairnglass, NH9600846373, J. McDonald (E); **H34:** On rock in partially shaded stream valley, Ederdamone, Donegal, G93606024, R.L. Hodd (DBN); **H36:** small boulder at edge of river, Strule River, north of Omagh, H43687768, R. Weyl, T.L. Blockeel & E.M. Kungu 45/671.
- 30.7. *Fissidens rivularis*. 45:** rocks in stream, 75 m alt., Garness Mill, SN18570923, 2015, M.D. Sutton.
- 30.9. *Fissidens crassipes*. H36:** on rocks just above water level, by R. Blackwater, Augher, H56435411, R.L. Hodd & E.M. Kungu (DBN).
- 30.11. *Fissidens exilis*. 79:** on soil on roots of fallen tree, wooded glen, 140 m alt., Glenkinnon Burn below Shirra's Knowe, NT43493473, D.G. Long 44198 (E).
- 30.12. *Fissidens celticus*. 58:** on moist acid soil on near-vertical bank of small stream under pines, 340 m alt., Macclesfield Forest, above Trentabank Reservoir, SJ97447168, T.L. Blockeel, M.P. Wilcox & N. Bamforth 45/702.
- 30.13. *Fissidens curvatus*. 41:** on soil bank, Hillend, Llangennith, SS4169590597, 2015, B. Stewart.
- 31.2. *Pleuroidium subulatum*. 89:** on accumulated soil on upturned root plate at E edge of golf course, 5 m alt., King James VI Golf Course, Moncreiffe Island, R Tay, Perth, NO1245222105, E.M. Kungu & D.F. Chamberlain (E).
- 34.7B. *Ditrichum pallidum*. 13:** thin rendzina soil under beech, 130 m alt., Open Winkins, Hat Hill, Goodwood, ca 4 miles north-east of Chichester, SU9010, 2013, H.W. Matcham, new to Britain (Matcham & Blockeel, 2017).
- 34.9. *Ditrichum gracile*. H36:** on base-rich forestry track, Cole Glen Forest, H440528, R.L. Hodd, T.L. Blockeel & L. Stronge (DBN).
- 43.1. *Cynodontium bruntonii*. 65:** in crevice on dolerite crag, ca 310 m alt., Holwick Scar, Teesdale, NY90202695, T.L. Blockeel & Yorkshire Naturalists 45/294; **H35:** On shady rockface, Altnadewon, Donegal, G7261986896, R.L. Hodd (DBN).
- 45.2. *Dichodontium flavescens*. 85:** boulder at edge of stream in narrow wooded valley, 177 m alt., Maspie Glen, Falkland, NO23610694, T. ap Rheinallt 85/16/17; **H29:** On flushed rock in grassland below cliff, Peakadaw, Glenade, Leitrim, G80664641, R.L. Hodd (DBN).
- 47.1. *Arctoa fulvella*. 110:** crevice on north-

- facing crag, 370 m alt., Braigh Buidhe, Uig, Lewis, NB03912425, 2015, T. ap Rheinallt 110/15/44, *conf.* G.P. Rothero.
- 52.3. *Dicranella crispa*. 47:** eroding river bank, Afon Dyfi, near Machynlleth, SH7402801722, D.A. Callaghan; **48:** eroding soil bank of large river, Afon Dyfi, Pen-y-bont, SH7447401918, D.A. Callaghan.
- 52.7. *Dicranella rufescens*. 11:** mineral soil on shady stream bank, 75 m alt., Dockens Water, SU227126, J.A. Norton B1291.
- 53.9. *Dicranum flexicaule*. 97:** on rock outcrop by south-facing burn, 350 m alt., Allt Fearn, Loch Quoich, NH0402, N.G. Hodgetts 9128.
- 53.13. *Dicranum montanum*. 35:** well-rotted stump in woodland, Headless Hill, near Kymin, SO53941276, S.D.S. Bosanquet.
- 55.3. *Dicranodontium denudatum*. 34:** extensive colony on large conglomerate boulders in woodland, Mailscot Wood, SO5576614137, R.V. Lansdown.
- 56.4. *Campylopus gracilis*. 73:** upland crag, on dripping wet overhang, Craignaw Hill, NX4683, R.T. Whytock.
- 57.2. *Leucobryum juniperoideum*. 15:** sweet chestnut coppice, "Moat Rough", 3 km east of Canterbury, TR1858, 1991, M.C. Watling.
- 60.1.a. *Weissia controversa* var. *controversa*. H36:** on soil of bank at edge of forest track, 160 m alt., Knockmany Forest, H56265376, E.M. Kungu (DBN).
- 60.3. *Weissia rutilans*. 81:** bank by woodland ride, by track, 10 m alt., Paxton House grounds, NE of the Boathouse, by the River Tweed, NT926521, D.F. Chamberlain (E).
- 60.5.a. *Weissia brachycarpa* var. *brachycarpa*. 13:** along west side of ditch, 25 m alt., Bignor Park, SU98421582, T.W. Ottley 16022510.
- 60.7. *Weissia rostellata*. 23:** delete this entry, the locality (Studley, Whitecross Green Wood) is in VC 24; **24 in ():** Studley, Whitecross Green Wood, SP61, 1945, E.W. Jones, record originally attributed incorrectly to VC 23.
- 60.9. *Weissia multicapsularis*. 16:** delete this entry, the vouchers for the recorded localities (Bessel's Green, and Fawke Common, nr Ightham) are mis-identifications or have not been traced, *comm.* D.A. Callaghan.
- 60.12.a. *Weissia longifolia* var. *longifolia*. 13:** on west side of ditch on clay soil, Bignor Park, SU98421582, T.W. Ottley 16022506; **40:** delete this entry, the voucher (Wenlock Edge, *leg.* J.D. Sleath, 2000, BBSUK) is *W. longifolia* var. *angustifolia*, *det.* D.A. Callaghan).
- 61.2. *Tortella bambergeri*. 87:** base-rich crags/rocks, 350 m alt., Ben A'an, south side, NN5008, R.T. Whytock.
- 61.3. *Tortella densa*. 50:** steep limestone slope, 325 m alt., Eryrys, SJ19265846, S.D.S. Bosanquet.
- 62.3.a. *Trichostomum tenuirostre* var. *tenuirostre*. 35:** on sandstone rocks by track, Gurlus Grove, Wye Valley, SO523017, 2004, S.D.S. Bosanquet; **44:** on damp acid rocks, Allt Rhyd y Groes, SN770471, 2001, S.D.S. Bosanquet; **46:** shaly stream bank, 350 m alt., Pfrwyd yr Ydfan, SN82467609, T.W. Ottley; **48:** rock by waterfall, Pont Cwmnantcol, SH615267, 2011, S.D.S. Bosanquet; **72:** on damp craigs, 520 m alt., Corehead Border Forest Trust Reserve, Spout Craig, NT0856013717, E.M. Kungu, S. Buchan & D.G. Long (E).
- 62.3.b. *Trichostomum tenuirostre* var. *holtii*. 14:** on rocks in side-stream, 70 m alt., Long Wood, Ardingly, TQ33373176, T.W. Ottley, T.G.J. Rayner & S. Rubinstein 16042701; **46:** wet rocks above river on west side, 180 m alt., Parson's Bridge, Afon Rheidol, SN74877906, T.W. Ottley 16051201; **46:** wet shaly rocks just above stream level, 270 m alt., Nant Cwm-y-graig, SN71648299, T.W. Ottley 16100604;





△Fig. 9. *Diallytrichia saxicola* in North Somerset. Broken leaves can be seen on the lower parts of the shoots. S. Pilkington

- 98:** rocks beside river, 15 m alt., Benmore Botanic Garden, River Eachaig, NS142855, E.M. Kungu & A. Kovács (E).
- 62.3A. *Oxystegus daldinianus*.** **72:** on damp crags, 560 m alt., Corehead Border Forest Trust Reserve, lower Hartfell shoulder, NT101134, E.M. Kungu *et al.* (E); **78:** on damp rock slab, east-facing crags, 685 m alt., Talla Craigs, Tweedsmuir, NT15441851, D.G. Long 44615 (E).
- 62.4. *Trichostomum hibernicum*.** **H35:** in damp crevice in flushed, broken, north-facing crag, above Glentornan Lough, B878171, G.P. Rothero & BBS 2016016 (DBN).
- 64.1. *Pleurochaete squarrosa*.** **H12:** fixed dune bank with eroded patches, well to the rear of long but narrow coastal dune spit, 16 m alt., Ballyteige Burrow, S95740443, J.W. Bates & J.M. Bates 4803.
- 65.1.a. *Hymenostylium recurvirostrum* var. *recurvirostrum*.** **45:** wet cliff, Monkstone Beach, south end, SN14220261, M.D. Sutton, *det.* S.D.S. Bosanquet.
- 66.1. *Anoetangium aestivum*.** **H3:** On calcareous ledge, Above Lough Murtagh, Caherbarnagh, Cork, W191875, R.L. Hodd & BSBI (DBN).
- 68.2. *Gymnostomum calcareum*.** **C:** brick wall along roadside, on mortar, 40 m alt., Castel, Talbot's Valley, Route des Talbots, Guernsey, WV302781, 2015, T. Pyner, *conf.* J. Kučera.
- 69.1. *Molendoa warburgii*.** **H34:** damp crumbling schist ledges in small stream, steep sea cliffs and slopes, 170 m alt., Cormra, above Glentooskert, Malin Peninsula, C51505523, D.G. Long 44431 (DBN).
- 72.2. *Ephemerum sessile*.** **34:** trampled turf in clearing, Beechenhurst, Forest of Dean, SO61311232, S.D.S. Bosanquet.
- 74.2. *Diallytrichia saxicola*.** **6:** on lower trunk of a *Sycamore* by the weir, 20 m alt., Warleigh Weir, River Avon, ST7917464269, S.L. Pilkington; **7:** on masonry of old packhorse bridge across River Avon, 30 m alt., Bradford-on-Avon, ST82276054, S.L. Pilkington; **8:** on concrete outfall structure by bridge, 25 m alt., River Avon, Freshford, ST78236119, S.L. Pilkington. (Fig. 9).
- 76.2. *Bryoerythrophyllum ferruginascens*.** **H13:** On soil bank of carpark, Kilbrannish Wood, Carlow, S843568, R.L. Hodd *et al.* (DBN).
- 77.2. *Leptodontium gemmascens*.** **63:** on rotting grass and peaty soil below fence on bank in birch/oak woodland, Colden Clough, near Hebden Bridge, SD973280, J. Turner.

- 78.1.a. *Barbula convoluta* var. *convoluta*.** **H36:** in gaps in paving slabs, 60 m alt., Augher, parking for church of Ireland, H56265376, E.M. Kungu (DBN).
- 78.1.b. *Barbula convoluta* var. *sardoa*.** **H36:** at edge of path, 60 m alt., Augher, parking for church of Ireland, H56265376, E.M. Kungu (DBN).
- 79.4. *Didymodon nicholsonii*.** **26:** tarmac path at roadside, Chelsworth, TL972479, R.J. Fisk.
- 81.1. *Pterygoneurum ovatum*.** **8:** disturbed edge of track, 160 m alt., Cross Country Driving Area, Salisbury Plain SSSI, SU2127949742, S.L. Pilkington.
- 83.2. *Tortula schimperii*.** **5:** acid, clay bank by path, below The Beacon, Corton Hill, Corton Denham, ST631234, A. Branson.
- 83.16. *Tortula viridifolia*.** **5:** cliff path, 90 m alt., below old coastguard house, Hurlstone Point, SS8996449166, C. Halpin.
- 83.18. *Tortula truncata*.** **110:** hard-packed gravelly soil at edge of tarmac road, 54 m alt., Beinn Fhinealta, near Leurbost, Lewis, NB38782655, T. ap Rheinallt 110/16/59.
- 85.1. *Microbryum starckeanum*.** **11:** chalky soil, steep south-facing bank, 70 m alt., Fort Widley, Portsdown Hill, SU65480636, J.A. Norton B1313.
- 85.5. *Microbryum floerkeanum*.** **6:** on calcareous clay in recent ryegrass ley, 5 m alt., East Clevedon, ST420712, S.L. Pilkington.
- 86.2. *Hennediella macrophylla*.** **83:** shaded soil at top of cutting, 20 m alt., Edinburgh, Pilton to Leith cycle track, top of S bank, NT23917607, D.F. Chamberlain.
- 89.1.b. *Syntrichia ruralis* var. *ruraliformis*.** **43:** on tarmac, Maelienydd, 4 km ESE of Llanbister, SO1371, S.D.S. Bosanquet; **43:** on soil at edge of road, 215 m alt., Pilleth Church, junction of track from church and B4356, SO25486789, E.M. Kungu & BBS.
- 89.2. *Syntrichia norvegica*.** **98:** in bryophyte turf under overhang in base-rich crag, 1030 m alt., SE-facing crags below summit of Stob Coire nam Beith, NN13955452, G.P. Rothero 2016020.
- 89.7. *Syntrichia papillosa*.** **H36:** on branch fallen from oak, by R. Blackwater, Augher, H56435399, R.L. Hodd & E.M. Kungu (DBN).
- 89.8. *Syntrichia latifolia*.** **1:** on old tarmac in footway, 15 m alt., Carew Road, Truro, SW8211545113, M.J. Stribley 110; **H36:** on *Alnus* bole, by R. Blackwater, Augher, H56455393, R.L. Hodd & E.M. Kungu (DBN).
- 92.2. *Tetraplodon mnioides*.** **74:** on bird castings on top of dry-stone wall on moorland, 150 m alt., near Lochs of High Derry, NX2630074102, R.T. Whytock.
- 100.1. *Orthotrichum lyellii*.** **H36:** on *Fraxinus*, 140 m alt., Glenmore Woods, H65546073, E.M. Kungu (DBN).
- 100.2. *Orthotrichum striatum*.** **51:** *Salix* in damp woodland, 330 m alt., Gwernto Plantation, SJ248545, S.D.S. Bosanquet.
- 100.4. *Orthotrichum speciosum*.** **25:** on branch of young oak in mixed woodland, Tunstall, TM377546, D. Strauss.
- 100.10. *Orthotrichum cupulatum*.** **H20:** On concrete pipe in montane heath, near summit of Kippure, Wicklow, O116154, R.L. Hodd, P.M. Perrin & O. Daly (DBN).
- 100.11. *Orthotrichum rivulare*.** **H34:** On tree in floodzone of R Deelee, Carnowen, Donegal, H241996, R.L. Hodd, R. Sheppard & G. Haycock (DBN); **H36:** on trunks in flood zone, 60 m alt., Fairy Water, N bank, H326781, R. Weyl (DBN); **H36:** boulder on river bank, Strule River, north of Omagh, H43697765, T.L. Blockeel, R. Weyl & E.M. Kungu (DBN).



- 100.15. *Orthotrichum pallens*. 50:** sycamore on disused mine, 325 m alt., Eryrys, White Sands, SJ20095747, S.D.S. Bosanquet.
- 101.3 *Ulota crispa*.** Rename the existing entry *Ulota crispa s.lat., sensu* Smith (2004).
- 101.3A *Ulota crispa s.str.* 5, 9, 29, 43, 44, 46, 48-50, 56-58, 62, 69, 70, 71, (73), 76, (87, 97), 98, 105, (H2), H20, H35, C** (Blockeel, 2017).
- 101.3B *Ulota crispula*. 16, 31, 45, 57, 61, 69, H20** (Blockeel, 2017).
- 101.3C *Ulota intermedia*. 41, 52, 57, 58, 64, (73), 106, (H2), H36** (Blockeel, 2017).
- 101.5. *Ulota calvescens*. 5:** on horizontal oak branch, Webber's Post car park, Horner Wood, near Porlock, SS903439, A. Branson; **6:** on ornamental tree, 185 m alt., Bath University Campus, ST769646, M. Rayner; **43:** on rowan on sheltered but open slope of small valley, facing north-east, 530 m alt., Davy Morgan's Dingle, Radnor Forest, SO18096252, T.L. Blockeel 45/276; **H34:** on hazel in woodland by stream, Dee River, Drumkeen, C15440179 & C15540172, T.L. Blockeel 45/677 (DBN); **H36:** on *Salix* on bog margin, Cranny Bog, H4123364059, T.L. Blockeel 45/660 (DBN).
- 101.7. *Ulota phyllantha*. 51:** rowan by forestry track, 330 m alt., Nercwys Mountain, SJ21965839, S.D.S. Bosanquet; **78:** on *Salix*, wooded streamside, 250 m alt., Kirk Burn near Cardrona, west bank, NT29413651, D.G. Long 44359 (E).
- 102.2. *Hedwigia stellata*. 46:** on shaded rocks with *H. integrifolia*, 220 m alt., Pen y graig-ddu, Goginan, SN70638199, T.W. Ottley 16110201.
- 105.2. *Bartramia pomiformis*. 85:** under clump of soil and vegetation at base of basic crag, 352 m alt., Craigen Gaw, Lomond Hills, NO20700708, T. ap Rheinallt 85/16/3.
- 107.1. *Philonotis rigida*. H34:** on mossy ledges by small stream, steep sea cliffs and slopes, 170 m alt., Cormra, above Glentooskert, Malin Peninsula, C51505523, D.G. Long 44429 (DBN).
- 107.4. *Philonotis caespitosa*. 42:** poached marshy grassland, 210 m alt., Trebanog-Fach, SN94150716, S.D.S. Bosanquet.
- 107.9. *Philonotis cernua*. H35:** on vertical exposure of peaty soil on slope recovering from burning, Dun More, Murren, C2106342425, R.L. Hoddd, T.L. Blockeel *et al.*, 45/686.
- 110.2. *Anomobryum concinnatum*. 72:** on ledge on low crag, moorland slope, 510 m alt., Spout Craig, Corehead, NT08591364, D.G. Long 44602 (E).
- 111.14. *Bryum archangelicum*. 84:** seaside gravel, on waste ground, 2 m alt., Bo'ness, west of Bridgeness, NT0115581692, D.F. Chamberlain (E).
- 111.19. *Bryum moravicum*. 75:** on mortar on old wall, 200 m alt., Shiel Farm, NS5898824009, R.T. Whytock, *det.* D.T. Holyoak.
- 111.23. *Bryum pallescens*. 32:** big cushions in drip zone of corrugated iron barn roof, 100 m alt., Rectory Farm, Old, SP78077187, D. Freeman, *det.* R.H. Carter.
- 111.24.a. *Bryum pseudotriquetrum* var. *pseudotriquetrum*. 29 in ():** Gamlingay, TL25, 1838, J.S. Henslow, *det.* M.O. Hill (CGE).
- 111.25. *Bryum caespiticium*. 11:** in mortar on top of walled garden, Stanley Park, Gosport, SZ59229886, 2015, J.A. Norton B1101; **15 in ():** near Bredhurst, TQ76, 1903, J. Marten (E); **31 in ():** rotting log, Wood Walton Fen, TL28, 1955, C.C. Townsend (E); **33 in ():** limestone wall top, near Chedworth, SP01, 1954, C.C. Townsend 540419 (E); **37 in ():** cinder path, Redditch Gasworks, SP06, 1953,



△Fig. 10. Habitat and detail of *Daltonia splachnoides*, Co Tyrone. Jo Denyer

C.C. Townsend 530405/3 (E); **55**: roadside bank, 100 m alt., M1 junction 24, near Kegworth, Loughborough, SK42, 1975, D.G. Long 4677 (E); **67**: on a wall, near Highfield Farm, Catton, near Allendale Town, NY8258, 1976, C.C. Townsend (E); **87 in ()**: Blackford, NN80, 1903, R.H. Meldrum (E); **101**: on waste soil dump, Knapdale, Ormsary Water, NR7371, 1982, A.G. Kenneth (E).

**111.26. *Bryum kunzei*. 43**: in short vegetation on disturbed sunny slope, 215 m alt., Stanner Rocks, SO2625758359, S.L. Pilkington.

**111.29. *Bryum gemmiferum*. 11**: damp seepages on coastal clayey and silty soft cliffs, 5 m alt., Chilling, SU51180361, J.A. Norton B1360; **67**: on soil just above high-water level on north-facing sandstone cliff face, about 100m east of tunnel entrance, Holywell Dene, Whitley Bay, NZ327747, S.V. O'Leary.

**111.36. *Bryum klinggraeffii*. H36**: soil on field bank, Drumash, H31415519, T.L. Blockeel 45/668 (DBN).

**111.39. *Bryum tenuisetum*. 70 in ()**: mixed with *Bryum cyclophyllum*, shore of Derwent Water near Lodore, NY2619, 1919, W.E. Nicholson, *det.* D.A. Callaghan (voucher in Nicholson's specimen of *B. cyclophyllum*, BBSUK C96.14.2662); **73**: on disturbed, damp soil, 5 m alt., Mersehead RSPB Reserve, compartment 6, edge of vehicle tracks in disturbed ground just beyond bridge into compartment, NX93265595, E.M. Kungu, V. Heppel & E.-J. Sadler.

**111.41. *Bryum bornholmense*. 49**: soil on side of anthill near sea shore, Bardsey Island, SH1116620366, D.A. Callaghan.

**111.47. *Bryum alpinum*. H24**: On rocks by Lough, Lough Naback, Longford, N250946, R.L. Hodd & J. Faulkner (DBN).

**114.6. *Poblia drummondii*. 3**: eroded gully in path, 370 m alt., Vitifer Mine, Dartmoor, SX6819581001, S.L. Pilkington.

**114.17. *Poblia lescuriana*. H35**: soil by track in coastal woodland, Castlewray, C222148, N. Bell 10.08.16.001 (DBN).

**115.1. *Epipterygium tozeri*. H38**: low earth bank by woodland path, Stricklands Glen, Bangor, J490820, 2015, R. Weyl.

**119.5. *Plagiomnium ellipticum*. H34**: in hollows amongst *Sphagnum*, valley mire, 145 m alt., Meentygranagh, River Swilly valley, C02700602, D.G. Long 44403 (DBN).

**122.1. *Orthodontium lineare*. 110**: rotten



- tree root under overhang in woodland, 16 m alt., Allt Chlisgro, Stornoway Castle grounds, Lewis, NB41723267, T. ap Rheinallt.
- 122.2. *Orthodontium gracile*. 34:** rock face, 225 m alt., Lady Grove, near Mitcheldean, SO6621518024, P. Martin.
- 123.1. *Leptotheca gaudichaudii*. 34†:** 10x10 cm patch on *Dicksonia*, Bristol Zoo, ST568739, S.D.S. Bosanquet.
- 127.1. *Daltonia splachnoides*. 42:** three tufts among *Scapania nemorea* on log, Mellte Valley, SN92191042, S.D.S. Bosanquet; **H36:** on *Salix cinerea* by forestry track, Carrickaholten Forest, H19837679, R.L. Hodd & B.B.S. (DBN). (Fig. 10).
- 131.1. *Climacium dendroides*. 7:** damp unimproved neutral grassland, along path, 90 m alt., Clattinger Farm SSSI, SU0149093618, A.M. Cross & S.L. Pilkington.
- 132.1. *Palustriella commutata*. 46:** flushed rocky slope, 330 m alt., Banc y Garn, SN71028492, T.W. Ottley & S. Rubinstein 16103102.
- 134.2. *Campylium protensum*. H36:** damp ground at edge of forest track, 200 m alt., Carrickaholten Forest, track to Lough Mulken, H1986976827, R. Weyl (DBN).
- 135.2. *Campyliadelphus elodes*. 103:** growing through a carpet of *Calliergonella cuspidata*, *Scorpidium revolvens* and *Sphagnum contortum*, small base-enriched mire, 10 m alt., W of south end of Loch a'Chlàir, Tíree, NL984442, A.G. Payne.
- 136.1.b. *Amblystegium serpens* var. *salinum*. 60:** damp sandy soil near concrete blocks adjacent to salt-marsh, Cockersands, SD430543, 1978, M.J. Wigginton 78/1346.
- 137.1. *Hygroamblystegium fluviatile*. 87:** on rock in river, 100 m alt., River Devon below bridge at Rumbling Bridge, NT016993, G.P. Rothero & J.E. Smith 2016120.
- 137.4. *Hygroamblystegium humile*. 9:** shaded N-rich mud alongside visitors' path, Abbotsbury Swannery, SY574842, R. Harding 1054.
- 138.1. *Leptodictyum riparium*. H36:** wet ground among *Salix* at margin of lough, 100 m alt., Brantry Lough, W shore, H74755362, R. Weyl (DBN).
- 142.1. *Sanionia uncinata*. 54:** sandy heath, amongst *Calluna*, Risby Warren, SE92891385, S. Heathcote.
- 143.3. *Hygrohypnum luridum*. 16:** on rocks in cascade at outflow from lake, 110 m alt., Dunorlan Park, Tunbridge Wells, TQ601395, T.W. Ottley.
- 143.5. *Hygrohypnum eugyrium*. H34:** on shaded rocks by waterfall in stream, Deelee River, Drumkeen, C15750182, T.L. Blockeel 45/680.
- 148.1. *Hamatocaulis vernicosus*. H34:** In fen/transition mire, Meentygrannagh, Donegal, C026059, R.L. Hodd & C. Campbell (DBN).
- 149.1. *Scorpidium revolvens*. 29 in ():** Gamlingay, TL25, 1827 and 1829, J.S. Henslow, det. M.O. Hill (CGE).
- 149.2. *Scorpidium cossonii*. 45:** Ynysfawr Mire, SN148285, M.D. Sutton; **46:** on wet rocks, 330 m alt., Banc y Garn, SN71028492, T.W. Ottley & S. Rubinstein 16103103.
- 150.1. *Calliergon cordifolium*. H24:** In wet grassland near River Shannon, Bunanass, Longford, N061838, R.L. Hodd, M. Long & O. Duggan (DBN).
- 161.2. *Plasteurbynchium striatulum*. 29:** on shaded concrete under trees, Milton Country Park, TL48196242, M.O. Hill.
- 163.2. *Platyhypnidium lusitanicum*. 41:** locally abundant on submerged rocks, Nant-y-Ffyllon, SS847929, B. Stewart.
- 167.4. *Oxyrrhynchium speciosum*. H9:** On side of *Carex paniculata* tussock, Ballybeg

- Lake, Ennis, Clare, R3345274135, M. Long & J. Brophy, *det.* R.L. Hodd (DBN).
- 170.4. *Brachythecium salebrosum*. 67:** on horizontal fallen tree in wooded valley, Holywell Dene, Whitley Bay, NZ3244574437, S.V. O'Leary.
- 171.1. *Scleropodium cespitans*. H36:** on sycamore on river bank, Strule River, north of Omagh, H4366877711, R. Weyl, T.L. Blockeel & E.M. Kungu 45/672 (DBN).
- 179.1. *Pylaisia polyantha*. 51:** roadside *Salix*, 330 m alt., Gwernto Plantation, SJ248545, S.D.S. Bosanquet.
- 181.7. *Hypnum imponens*. 37:** delete this entry, the voucher (mire, Hartlebury Common, 2008, M. Lawley) is *H. jutlandicum*; **40:** delete this entry, the voucher (wet pasture, Brynmawr Farm, upper Clun valley, 2008, M. Lawley) is *H. jutlandicum*.
- 186.1.b. *Heterocladium heteropterum* var. *flaccidum*. 83:** shaded humid basalt rock face, 100 m alt., Hermitage of Braid, E of House, ca 10 m S of Braid Burn, NT2570, D.F. Chamberlain.
- 190.1. *Loeskeobryum brevirostre*. 63:** in young birch scrub on north-facing woodland bank, with *Sphagnum quinquefarium* and *Rhytidiadelphus loreus*, Colden Clough, near Hebden Bridge, SD973280, J. Turner. (Fig. 11).
- 197.1. *Plagiothecium latebricola*. 24:** south face of short rotten stump, ca 3m north of path and ca 10cm from ground level, Northmoor Hill Wood Local Nature Reserve, TQ0366889255, S.V. O'Leary.
- 197.6. *Plagiothecium platyphyllum*. H27:** In wet spring high on N-facing slope, Barrclashame, Sheefry Hills, Mayo, L84406953, R.L. Hodd (DBN).
- 198.1. *Isopterygiopsis muelleriana*. H27:** In shady crevice on N-facing slope, 200 m alt., Devilsmother, Mayo, L925655, R.L. Hodd & E. Ní Dhuill (DBN).
- 198.2. *Isopterygiopsis pulchella*. 110:** among *Amphidium mougeotii* under overhang at base of cliff, 278 m alt., Loch Clibh Cracabhal, Uig, Lewis, NB02342523, G.P. Rothero & T. ap Rheinallt.
- 204.2. *Sematophyllum substrumulosum*. 6:** in conifer plantation, on well-rotted fallen trunk, 260 m alt., East Harptree Woods, ST55435445, S.L. Pilkington; **11:** near base of young birch under unthinned young spruce plantation, 40 m alt., Creech Woods, Denmead, SU633112, J.A. Norton B1362; **16:** on decaying birch log in ditch under pines, 80 m alt., Combwell Woods, TQ70723400, R.V. Lansdown, T.W. Ottley & F Rumsey 16011501; **23:** on decorticated rotten logs of Leyland Cypress within conifer plantation, Cogges Wood, SP3818711305, D.A. Callaghan; **34:** Norway Spruce log in mature Western Red Cedar plantation, 123 m alt., Abbots Wood, Forest of Dean, SO6606511427, D.A. Callaghan; **41:** conifer stump in mixed woodland, 70 m alt., Craig y Parc wood, near Creigiau, ST092807, G.M. Tordoff; **H13:** On *Picea sitchensis* trunk in plantation, Kilbrannish Wood, Carlow, S8396457099, R.L. Hodd *et al.* (DBN).
- 210.2. *Neckera crispa*. 26:** trunk of lilac in churchyard, West Stow, TL819705, R.J. Fisk.
- 210.3. *Neckera pumila*. 57:** one 6x4 cm patch on trunk of Ash tree, Scarcliffe Wood, 4 km east of Bolsover, SK5172670645, T.L. Blockeel & A.J. Hodgson 45/692; **91:** on hazel, Mergie Wood, Fetteresso Foresst, by Banchory, NO7888, J.E. Smith; **H34:** on hazel and ash in woodland by stream, Deelee River, Drumkeen, C15710178, T.L. Blockeel 45/679 (DBN).
- 211.1. *Homalia trichomanoides*. H34:** base of hazel by stream, Deelee River, Drumkeen,





△Fig. 11. *Loeskeobryum brevirostre* at Hebden Bridge. Tom Blockeel

C15710178, A. McLay & T.L. Blockeel 45/678 (DBN).

**212.2. *Thamnobryum maderense*. 55:** base of brick wall of stream channel, Charnwood Lodge NR, SK46951562, U. Hamzaoui & S. Botterell.

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