

# The moss year – 2017

There were 260 additions and amendments to the Census Catalogue in 2017, but this figure was inflated by 54 entries for the three recently recognised segregates of the *Ulota crispa* complex (*U. crispa*, *U. crispula* and *U. intermedia*). Discounting these entries, the number of updates for 2017 (206) was slightly lower than in 2016 (229). The figures for the two years are summarised in Table 1; those for 2016 exclude revisions of *Sphagnum fuscum* s.lat. and *Ulota crispa* s.lat.

The lower numbers in 2017 are accounted for by the big reduction in the flow of records from Ireland, mainly because Rory Hodd's field work was less bryo-centric and less exploratory than in previous years. The spring meeting in Jersey and the first week of the summer meeting in Scotland were both productive, with 21 and 22 vice-county updates respectively, but the week at Applecross (vc 105) generated only 5 updates, hardly surprising in a much-visited vice-county.

## Additions to the British and Irish list

It is a remarkable fact that in every one of the

eight years since I took over as moss recorder there have been additions to the British and Irish moss list. This year is no exception. In April 2017, Richard Fisk found *Orthotrichum patens* Bruch & Brid. in Suffolk, and later in the year I found it at a second site in Derbyshire. *O. patens* is closely related to *O. stramineum*, but has fatter capsules with narrow ribs normally only 2 cells wide. As a species that is widespread in nearby continental Europe, it was perhaps the most likely of the remaining European species to turn up in Britain. A full account with illustrations can be found in the *Journal of Bryology* (Blockeel & Fisk, 2018). Like many of the rarer *Orthotrichum* species it is surely under-recorded in Britain.

A paper by Köckinger & Hedenäs (2017) has shown that the moss widely known as *Tortella bambergeri* actually consists of two species, *T. fasciculata* (Culm.) Culm. and *T. pseudofragilis* (Thér.) Köckinger & Hedenäs. A study of the British and Irish vouchers by Tom Ottley has found that almost all our material belongs to *T. fasciculata*, which is therefore the correct name for the moss that we have previously called *T.*

**Table 1. Analysis of amendments to the Census Catalogue for 2017 . Records for the Channel Islands are included in the column for England.**

	2017				2016			
	England	Wales	Scotland	Ireland	England	Wales	Scotland	Ireland
New entries	99	47	56	8	55	31	39	41
Debrackets*	24	7	14	3	16	6	12	24
Reinstated	–	–	–	–	–	–	–	–
Bracketings*	–	–	–	–	–	–	–	–
Deletions	2	–	–	–	5	–	–	–
<b>Totals</b>	<b>125</b>	<b>54</b>	<b>70</b>	<b>11</b>	<b>76</b>	<b>37</b>	<b>51</b>	<b>65</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.)



△Fig. 1. Habitat of *Daltonia splachnoides* (tree in left foreground) at Ogden Clough, South-west Yorkshire. T. Blockeel

*bambergeri*. A very few specimens show some features of *T. pseudofragilis*, but their status is not yet clear, pending further study. In the meantime, my grateful thanks are due to Tom Ottley for his help in checking the existing vouchers.

#### The moss year 2017

Epiphytic bryophytes have sprung some big surprises on us in the past two decades. Yet even allowing for the many newcomers and some big extensions of range, Johnny Turner's discovery of *Daltonia splachnoides* in South-west Yorkshire in 2017 is surely one of the most astonishing of all. At the time of the first edition of the Atlas (Hill *et al.*, 1994) this elusive moss had been recorded from only seven hectads in Britain, all in the far west of Scotland, and 13 in Ireland. Since then it has, admittedly, expanded its range in Ireland and a few tufts have been found in South Wales, but the notion that its first English record would come from the Pennines would have seemed fanciful before it happened. This is not a case of an isolated vagrant tuft. At the original site at Hebden Bridge, Johnny found many tufts on a live sycamore tree, on dead wood and on gritstone boulders. Not long afterwards Johnny and I found it 7km eastwards, in unremarkable woodland at Ogden Clough near Halifax (Fig. 1), and in October Johnny found a third population at Colden Clough, about 1.5 km from the original site.

This is not the only good epiphytic record. Fred Rumsey found *Orthotrichum scanicum* at Bricksbury Hill just inside the Surrey border, a second vice-county and third locality for this species in Britain, suggesting yet again that the rare *Orthotricha* are probably under-recorded. Elsewhere Nick Jardine spotted *Uloa coarctata* in Norfolk, another species that seems to turn up randomly in England, and Chris Preston found *Orthotrichum pumilum* in Cambridgeshire. Chris' specimen belongs to the segregate species *O. schimperi*, but is listed here as *O. pumilum s.lat.* pending a full revision of British material. *Habrodon perpusillus* is a rather different case. It has declined in Britain and seems to have a low dispersal ability here. Most new records recently have come from the English-Welsh border region, and Sharon Pilkington's record from Herefordshire falls into that category.

*Sematophyllum substrumulosum* continues its rapid expansion, and with seven more new records in 2017 it surely won't be long before the remaining gaps in southern England and Wales have been filled. Another species of dead wood, *Herzogiella seligeri*, was found by Sharon Pilkington in West Gloucestershire near the edge of its British range, and it may be spreading westwards slowly. Another very interesting find by Sharon was *Calypstrochaeta apiculata* under coastal scrub at Bodieve, East Cornwall. This is an introduced species with very few scattered

localities, all on or near the coast. The origin of the new population is unknown, but it is remote from the other Cornish localities on the Isles of Scilly.

Disturbance to stable habitats can sometimes be a good thing, as Yorkshire Naturalists found during a meeting on Skipwith Common in East Yorkshire, although in that case it was some uncommon liverworts that turned up on poached peaty soil. A similar case is Liz Kungu's *Ephemerum cohaerens* on disturbed peat at Chippenham Fen during the Autumn Meeting in Cambridgeshire. The habitat is an interesting one, as this rare *Ephemerum* is normally found by lakes, reservoirs and rivers.

England produced a good mix of scarce Pottiaceae in 2017. In most counties *Acaulon* is an elusive genus, but it was even more surprising when a specimen from a new site in Derbyshire was found to have spinulose spores (Fig. 5). This is a diagnostic character for *A. mediterraneum*, previously thought to be confined to the southernmost counties of England. That assumption is no longer valid. Sharon Pilkington's record of the declining *Tortula canescens* from South Devon also stands out, and other uncommon Pottiaceae included *Microbryum floerkeanum* by Sharon Pilkington in North Wiltshire, *Pottiopsis caespitosa* by John Norton in South Hampshire, *Tortula vahliana* by Richard Fisk in West Norfolk and *T. schimperi* by Mags Crittenden in Northamptonshire. Matt Stribley found *Dialytrichia saxicola* on tarmac in East Cornwall, perhaps its first record from a ruderal habitat. Sean O'Leary's record of *Heterocladium heteropterum* var. *flaccidum* from High Wycombe in Buckinghamshire is the first from south-central England, and Steven Heathcote's *Entodon concinnus* is a welcome update from South Lincolnshire, a vice-county that rarely features in these reports!

Last year's revision of *Sphagnum fuscum* by Mark Hill (2017) confirmed that the southernmost sites for *S. fuscum* s.str. were in Upper Teesdale, apart from one locality in West Sussex, last seen in 1954. Its discovery on Wybunbury Bog in lowland Cheshire by Fred Rumsey and Helena Crouch is therefore of great interest, especially as a species that may be susceptible to nitrogen deposition. Another moss that was recently shown to be rare in Britain and Ireland is *Hedwigia ciliata*, following the recognition of *Hedwigia striata* as a separate species (Blockeel & Bosanquet, 2016). Mark Lawley has found a new site for it in Cumberland on the roof of a house, which is one of its most characteristic habitats in Britain.

The spring meeting on Jersey generated 21 new and updated records, but most of these concerned taxonomic segregates and species that are known to be spreading, as well as some imports on limestone from Cumbria, though interestingly these imports have apparently persisted in situ for more than 80 years. The pick of the species new to the Channel Islands was perhaps *Racomitrium aquaticum*, on sloping rock by a cliff path at La Tour de Rozel.

Wales had a good year in 2017, with records from 12 of the 13 vice-counties. Tom Ottley has continued to fill gaps in Cardiganshire, including records of *Acaulon muticum*, *Bryum tenuisetum* (Fig. 7) and *Weissia rutilans*. But he has also had new sites for some scarce species: *Amblystegium radicale* in a rushy field at Neuadd-lwyd, *Campyliadelphus elodes* on a cliff edge at Upper Borth, and *Rhynchostegiella curviseta* on a river bank at Llanerchaeron, the latter species previously known in Wales only from old records in Monmouthshire. Mark Lawley has been working his way around Montgomeryshire, and his finds have included *Acaulon muticum*, *Campylophylum calcareum*,





◁Fig. 2. Tony Church at the habitat of *Tortula freibergii*, Isle of Arran. F. Rumsey

*Ditrichum flexicaule* and *Tortula marginata*. Mark has also rediscovered *Grimmia laevigata* in Caernarvonshire, and Des Callaghan's survey of the dunes at Presthaven in Flintshire revealed a new site for *Bryum warneum*, one of our rare and declining coastal species.

In South Wales, a notable find was the montane moss *Ditrichum zonatum* at Cwar Du in Glamorganshire by Sam Bosanquet. Elsewhere in the same county, Barry Stewart found *Campyliadelphus elodes* in the Kenfig dunes, and *Tortella fasciculata* (*T. bambergeri*) on limestone chippings along a verge at Merthyr, possibly its first record from an artificial habitat. Pembrokeshire was thoroughly recorded by Sam Bosanquet for his Flora, but Matt Sutton has managed to add *Ditrichum lineare* at Tyrch Quarry, and Barry Stewart collected *Didymodon umbrosus* on Caldey Island.

Outstanding in Scotland was Nick Hodgetts' discovery of a new site for *Anomodon longifolius* on Creag Spardain, Ben Vrackie (East Perthshire), with the added bonus of *Dicranum flexicaule* nearby. *Anomodon longifolius* is an endangered moss in Britain, and new sites are rare indeed. Another exceptional find was *Tortula freibergii* by Fred Rumsey and Tony Church on the Isle of Arran, the first report of this moss on the west coast of Britain, and growing in a natural habitat very close to the shoreline (Fig. 2).

Gordon Rothero's *Grimmia incurva* in Carrifran Glen, Dumfriesshire, is the first in

SW Scotland for more than a century. Rory Whytock's recording in Ayrshire continues to be productive, with notable new records of *Sphagnum warnstorffii*, *Andreaea mutabilis*, *Schistidium pruinatum* and *Didymodon ferrugineus*, as well as updates for *Rhabdoweisia crenulata* and *Rhizomnium pseudopunctatum*. Rory has also found *Sphagnum subnitens* var. *ferrugineum* in Ayrshire. There are three further records of var. *ferrugineum* northwards, one on Skye by Nick Hodgetts and two in West Ross during the summer meeting, suggesting that it is widely under-recorded in Scotland. Another good *Sphagnum* record was Fiona Cameron's *S. pulchrum* on Jura. River surveys in Scotland have produced some useful records, including *Hygrohypnum duriusculum* and *Schistidium agassizii* at low altitudes in East Ross and Kincardineshire respectively.

There was a cluster of good records from the summer meeting in and around the Trossachs (Stirlingshire and West Perth). The day on Ben Lomond (Stirlingshire) was particularly productive, with a long list of new and updated records that included *Sphagnum molle*, *Oncophorus virens*, *Dicranoweisia crispula*, *Kiaeria falcata*, *Dicranella subulata*, *Conostomum tetragonum*, *Pohlia flexuosa* and *Herzogiella striatella*. The highlight from West Perth was *Buxbaumia viridis* on Flanders Moss (Fig. 4), another extension of range for this much-surveyed bryophyte. Other records from West Perth included *Sphagnum affine* and *Dicranodontium uncinatum* in the Loch Doine area, *Anomobryum concinnum* and *Racomitrium canescens* in Kirkton Glen, and *Pohlia scotica* on Beinn Tulaichean.

Of the small number of Irish records, Melinda Lyons' *Drepanocladus sendtneri* from North Bull



△Fig. 3. Habitat of *Rhodobryum roseum* in calcareous grassland, Co Clare. R. Hodd

Island, Co Dublin, leads the way. Like a number of other wetland species, *D. sendtneri* has been lost from many of its historic sites, but has perhaps fared better in Ireland than in Britain, though still classified as Near Threatened there. Rory Hodd's *Rhodobryum roseum* from Co Clare (Fig. 3) is also a nice addition for a species that is very thinly distributed in Ireland. In Co Dublin, Jo Denyer's collections have shown that there is still good habitat close to the city, with records of *Calliergon giganteum* and *Heterocladium heteropterum* var. *flaccidum*.

### New vice-county records and amendments

Vouchers are deposited in the BBS herbarium (BBSUK) unless otherwise stated. Other herbarium abbreviations are BTH = Bath Royal Literary & Scientific Institution; CGE = Cambridge University; DBN = National Botanic Garden, Glasnevin, Dublin; E = Royal Botanic Garden, Edinburgh; NMW = National Museum of Wales, Cardiff. The symbol † indicates a species considered to be a persisting introduction at its recorded site.

- 1.2. *Sphagnum affine*. 87:** flushed N-facing slope just above shore of loch, 140 m alt., south shore of Loch Doine west of Monachyle Tuarach, NN47391903, N.G. Hodgetts 9353.
- 1.3. *Sphagnum papillosum*. 29** in (): Gamlingay Bogs, TL25, 1824, L. Jenyns, *det.* M.O. Hill (BTH).

- 1.7. *Sphagnum teres*. 29** in (): Gamlingay Bogs, TL25, 1824, L. Jenyns, *det.* M.O. Hill (BTH).
- 1.11. *Sphagnum quinquefarium*. 35:** steep *Vaccinium* heath with *Polytrichum* and *Rhytidiadelphus loreus*, 505 m alt., Cefn Coch, SO22190953, S.D.S. Bosanquet.
- 1.12. *Sphagnum warnstorffii*. 75:** at edge of flush, 530 m alt., Maiden's Bed, NX4191, R.T. Whytock, *conf.* M.O. Hill.
- 1.13.a. *Sphagnum capillifolium* subsp. *capillifolium*. 47:** forming a hummock on moorland bank, Upper Wye Valley, SN814864, M. Lawley; **54:** forming mounds in wet heath, Linwood Warren NR, TF13448748, S. Heathcote, J. Fraser & G. Cooper; **55:** wet heath, Timberwood Hill, Charnwood Lodge NR, SK4728414788, 2016, U. Hamzaoui, *conf.* M.O. Hill.
- 1.14A. *Sphagnum fuscum*. 58:** forming dense orange-brown hummock on wet mire with *Vaccinium oxycoccos*, Wybunbury Bog NNR, SJ6966650170, F.J. Rumsey & H.J. Crouch, *det.* M.O. Hill.
- 1.15b. *Sphagnum subnitens* var. *ferrugineum*. 75:** near flush on heather slope, 565 m alt., Maiden's Bed, NX4127191212, R.T. Whytock, *conf.* M.O. Hill; **104:** wet heath with base-rich flushes, 170 m alt., Loch an Starsaich, NG64901841, N.G. Hodgetts 9338; **105:** edge of wet ground, 20 m alt., N of Fearnmore, Applecross, NG7260, M. Lüth, *conf.* M.O. Hill; **105:** in damp heath near

stream, Culduie, NG71973972, R.L. Hodd.

- 1.17. *Sphagnum molle*. 86: on steep wet N-facing slope below crags, 850 m alt., Ben Lomond, NN36950260, N.G. Hodgetts 9358.
- 1.21. *Sphagnum inundatum*. 29: delete this entry: the voucher (NMW: Gamlingay, TL25, leg. C.E. Moss, 1910) originally named *S. contortum* and published in Proctor (1956) as *S. subsecundum* var. *inundatum* is *S. denticulatum*, det. M.O. Hill.
- 1.29. *Sphagnum pulchrum*. 102: edge of bog pool, 179 m alt., flanks of Corra Bheinn, Isle of Jura, NR546746, F. Cameron, conf. M.O. Hill.
- 1.32. *Sphagnum angustifolium*. 86: damp heathy bank by burn running through conifer plantation, 150 m alt., Milton of Buchanan, Burn of Achlais, NS4591, N.G. Hodgetts 9346; 102: very old Scots Pine/Oak plantation, with *Polytrichum* and *Calluna*, 70 m alt., near Strone, 2 miles south of Craighouse, Isle of Jura, NR5164, F. Cameron, conf. M.O. Hill.
- 2.2.a. *Andreaea rupestris* var. *rupestris*. 74: on dry stone dyke, Whitehill, south of Barrhill, NX2646573764, R.T. Whytock.
- 2.4. *Andreaea mutabilis*. 75: on vertical rock face with dripping water, 352 m alt., White Row Scars, NX3445496392, R.T. Whytock.
- 6.3. *Pogonatum urnigerum*. 61: on bare sandy soil on steep bank of ditch on lowland heath, 10 m alt., Skipwith Common, SE65443750, T.L. Blockeel & M. Wilcox.
- 8.1.b. *Polytrichum commune* var. *perigoniale*. 72: by path on north bank of river, 180 m alt., Kello Water, Kelloholm, NS737107, 2016, E.M. Kungu *et al.* (E).
- 8.4. *Polytrichum strictum*. 61: forming hummock on lowland heath, 10 m alt., a little west of Horseshoe Pond, Skipwith Common, SE65983722, P.N. Gaunt



△Fig. 4. *Buxbaumia viridis*, Flanders Moss, VC 87. G. Rothero

- 11.2. *Buxbaumia viridis*. 87: on rotten birch log in wet woodland, 25 m alt., Flanders Moss NNR west of Ballangrew Farm, NS61799837, G.P. Rothero & BBS party, record vouched by photograph (Fig. 4).
- 21.3. *Schistidium platyphyllum*. 62: concrete bridge parapet, Layerthorpe, York, SE608521, S.D.S. Bosanquet.
- 21.4. *Schistidium agassizii*. 91: on rocks in river, 75 m alt., east bank of Water of Feugh, downstream of Bridge of Feugh, NO7010794506, 2016, J. Lawrie (E).
- 21.8. *Schistidium pruinsum*. 75: on base-rich rock by coast, 8 m alt., Heads of Ayr, NS2842118714, R.T. Whytock.
- 21.17. *Schistidium elegantulum*. 47: on a concrete sluice, by river Vyrnwy, Meifod, SJ155127, M. Lawley; C†: limestone boulder in lawn, Japanese Garden, Jersey Botanic Garden, Samarès Manor, St Clement, Jersey, WV66964732, C.D. Preston, presumed to have been introduced on rock imported in 1930 from Cumberland and therefore treated as a persisting introduction.
- 22.3. *Grimmia laevigata*. 49: on rock near top of hill, 130 m alt., Moelypenmaen, near Llannor, SH338386, M. Lawley.
- 22.15. *Grimmia incurva*. 72: on rock at base of exposed acid crag, 620 m alt., Gupe Craig, Carrifran Glen, NT154144, 2000, G.P. Rothero 100095.

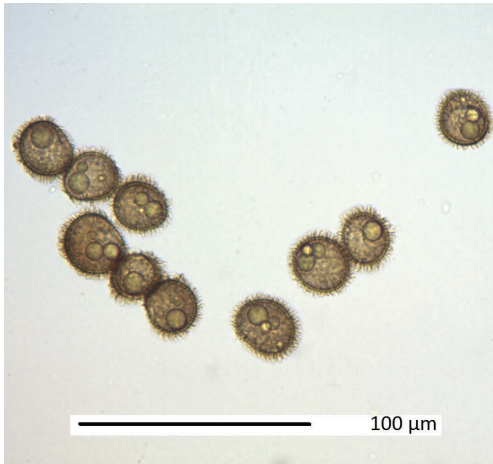


- 22.23. *Grimmia muehlenbeckii*. 97:** on boulder in burn, near *Bryum dixonii*, 20 m alt., Choire nam Muc, Sallachan, NM96736398, N.G. Hodgetts 9339; **103:** rock outcrop in coastal dunes, 10 m alt., Mullach nan Gall, Tiree, NM0948, N.G. Hodgetts 9333.
- 23.2. *Racomitrium aciculare*. C:** sparsely with *R. aquaticum* on shaded sloping rock by cliff path, La Tour de Rozel, St Martin, Jersey, WV69135454, T.L. Blockeel 46/177.
- 23.3. *Racomitrium aquaticum*. 9†:** on granite boulder gravestone, St Andrew's Church, Fontmell Magna, ST8651816999, A. Branson, probably introduced with the granite boulder and therefore treated as a persisting introduction; **C:** on shaded sloping rock by cliff path, La Tour de Rozel, St Martin, Jersey, WV69135454, T.L. Blockeel 46/176.
- 23.8. *Racomitrium heterostichum*. 9†:** on granite boulder gravestone, St Andrew's Church, Fontmell Magna, ST8651816999, A. Branson, probably introduced with the granite boulder and therefore treated as a persisting introduction.
- 23.11. *Racomitrium ericoides*. 28:** very open sandy area with *Carex arenaria*, 11 m alt., Bawsey Country Park, King's Lynn, TF6659619574, C.R. Stevenson.
- 23.13. *Racomitrium canescens*. 87:** on bare, eroding limestone ledge on crag, 620 m alt., Meall an Lochain, head of Kirkton Glen, NN514238, G.P. Rothero 2017027.
- 28.11. *Seligeria patula*. 64:** on wet limestone rocks on bank of gill, 370 m alt., Pen-y-ghent Gill, SD858735, T.L. Blockeel & J.M. Turner 46/439.
- 30.1. *Fissidens viridulus*. C:** on roadside bank, Waterworks Valley, St Lawrence, Jersey, WV63085211, T.L. Blockeel 46/187.
- 30.2. *Fissidens crispus*. 10:** bare soil, urban, shady road bank, 40 m alt., Shanklin, Isle of Wight, SZ583811, J.A. Norton B1544; **46:** on soil near base of Cornish hedge by track, 15 m alt., Llanrhystud, SN53096970, T.W. Ottley; **C:** earth on cliff above beach, Rozel Bay, St Martin, Jersey, WV69515420, C.D. Preston.
- 30.9. *Fissidens crassipes*. 47:** retaining wall of canal, with *F. fontanus* submerged below, Welshpool, SJ226073, M. Lawley.
- 30.10. *Fissidens rufulus*. 88:** on sandy soil spoil among rocks at edge of river, 50 m alt., east bank of Water of May, south of Ardargie, NO07531542, E.M. Kungu *et al.* (E).
- 30.11. *Fissidens exilis*. 46:** soil bank at edge of path, 40 m alt., Coed Gogerddan, SN626840, T.W. Ottley 17091302N.
- 31.1. *Pleuridium acuminatum*. 74:** on trackside in forestry, 148 m alt., Whitehill, south of Barrhill, NX2711373269, R.T. Whytock.
- 32.1. *Pseudephemerum nitidum*. 105:** muddy ground at edge of small, probably intermittent, pond, 45 m alt., Milltown Woods, Applecross, NG71134390, E.M. Kungu (E).
- 34.3. *Ditrichum lineare*. 45:** on rock, lower part of SW-facing crag, Tyrch Quarry, SN15622962, M. Sutton.
- 34.6. *Ditrichum zonatum*. 41:** base-poor crag, 450 m alt., Cwar Du, SN93010093, S.D.S. Bosanquet.
- 34.8. *Ditrichum flexicaule*. 47:** on soil, Llanymynech Rocks, SJ262217, M. Lawley.
- 34.9. *Ditrichum gracile*. 46:** in large dune slack near small path, 5 m alt., Ynyslas dunes, SN60799383, T.W. Ottley & S. Rubinstein 17030703; **C:** sand dunes, Les Blanchés Banques, St Brelade, Jersey, WV56524936, T.L. Blockeel 46/165.
- 42.3. *Rhabdoweisia crenulata*. 75:** in large boulder crevice, 600 m alt., Maiden's Bed, NX4090, R.T. Whytock.

- 44.1. *Oncophorus virens*. 86:** in flush on steep north-facing slope with *Tritomaria polita*, 850 m alt., Coire a' Bhathaich, Ben Lomond, NN369028, G.P. Rothero 2017035.
- 45.1. *Dichodontium pellucidum*. 32:** on stones edging gravel, north side of church, 160 m alt., Eydon churchyard, SP541499, R.H. Carter.
- 46.2. *Dicranoweisia crispula*. 86:** on the side of a boulder, Ben Lomond, NN3727802871, M. Lawley.
- 48.1. *Kiaeria falcata*. 86:** rock in gully on steep N-facing slope, 850 m alt., Ben Lomond, NN37040268, N.G. Hodgetts 9360.
- 52.1. *Dicranella schreberiana*. C:** maize field, Ville au Bas, St Lawrence, Jersey, WV614519, T.L. Blockeel 46/173.
- 52.4. *Dicranella subulata*. 86:** on a damp ledge at the base of a cliff, Ben Lomond, NN3702, M. Lawley.
- 53.9. *Dicranum flexicaule*. 89:** rocks on NE-facing cliff, 500 m alt., Creag Spardain, Ben Vrackie, NN97376489, N.G. Hodgetts 9344.
- 55.1. *Dicranodontium uncinatum*. 87:** in turf at base of crag, 450 m alt., An Stoc on north slopes of Ceann na Baintighearna above L Doine, NN468182, G.P. Rothero 2017030.
- 56.13. *Campylopus brevipilus*. 29:** delete this entry: no voucher can be traced for the record (Wicken Fen, TL25, leg. A. Leslie, 1974) in BBSUK, NMW, CGE and E, and the record has not subsequently been confirmed.
- 57.2. *Leucobryum juniperoideum*. 65:** on rocky bank at edge of oak/birch woodland, Crag Wood, near Eskeleth, Arkengarthdale, NY994039, T.L. Blockeel 46/198.
- 59.1. *Eucladium verticillatum*. 19:** brickwork above shallow stream E of R Cam, 45 m alt., N of Stable Bridge, Audley End, near Saffron Walden, TL522384, C.D. Preston.
- 60.3. *Weissia rutilans*. 46:** on peaty soil in crevices in rocky bank near stream, 410 m alt., Upper Cwm Ceulan, SN72039103, T.W. Ottley 17061601.
- 60.5.b. *Weissia brachycarpa* var. *obliqua*. 47:** soil bank, Dolforwyn Castle, near Abermule, SO151948, M. Lawley; **H18:** esker grassland, scrub and gravel quarry, Ballagh, Clara, N2730, G.F. Smith 1701003 (DBN).
- 61.1. *Tortella tortuosa*. 10:** very sparse with *Weissia* sp., 75 m alt., West High Down, Isle of Wight, SZ307852, J.A. Norton.
- 61.2. *Tortella fasciculata* (*T. bambergi*). 41:** on limestone chippings along verge, Merthyr LNG facility, SO0000607690, B. Stewart.
- 61.5. *Tortella nitida*. H18:** limestone pavement, Clorhane Wood, M9927, 2015, G.F. Smith *et al.* 1502029 (DBN).
- 62.3.b. *Trichostomum tenuirostre* var. *holtii*. 42:** wet cliff above river, Sgwd Isaf Clun-gwyn, SN92441061, S.D.S. Bosanquet; **73:** on rocks at edge of burn, 110 m alt., Dunveoch Burn, Garroch, NX59348110, E.M. Kungu, V. Heppel & E.-J. Sadler (E); **80:** at edge of burn, on sandy soil among rocks, Black Burn, Newcastleton, NY4689, 2014, E.M. Kungu *et al.* (E).
- 62.3A. *Oxystegus daldinianus*. 47:** declivity of wet shaded rock, Pistyll y Llyn, SN754944, M. Lawley; **87:** on low irrigated rock face, north-facing calcareous crags, 385 m alt., Creag a Chonnaidh, above Calair Burn, Balquidder, NN51671673, D.G. Long 44880 (E); **104:** rock crevices in NW-facing cliff, 130 m alt., Harta Corrie, Bloody Stone, NG48892330, N.G. Hodgetts 9324; **105:** on wet rocks by stream, 60 m alt., Slochd na Beinne, Applecross, NG72203941, T.L. Blockeel 46/423; **105:** rock crevice in dripping NE-facing coire, 610 m alt., Sgurr a' Chaorachain, NG78714302, N.G. Hodgetts 9364.
- 63.1. *Pottiopsis caespitosa*. 11:** bare, chalk, chalk grassland, 87 m alt., Fort Widley,



- Portsmouth Hill, SU65210646, J.A. Norton.
- 72.4. *Ephemerum cohaerens*. 29:** disturbed peat by fenland ride, with *Bryum klinggraeffii* and *Dicranella varia*, 15 m alt., Compartment 9 by Baxter West Ride, Chippenham Fen NNR, TL64636918, E.M. Kungu, *det.* C.D. Preston.
- 74.2. *Dialytrichia saxicola*. 2:** on tarmac path at base of wall, east end of St Stephen's church, Saltash, SX4170258328, M.J. Sibley.
- 76.2. *Bryoerythrophyllum ferruginascens*. 34:** beside forestry track surfaced with limestone chippings, 85 m alt., Russell's Inclosure, Forest of Dean, SO61261030, D.A. Callaghan & P.D. Golding; **45:** forestry track, Coed Llwyn-drain, SN16323175, M. Sutton; **73:** on sparsely vegetated ground at edge of gateway onto track, 85 m alt., Glenlee, track to Old Glenlee, NX59738080, E.M. Kungu, V. Heppel & E.-J. Sadler (E).
- 78.1.b. *Barbula convoluta* var. *sardoa*. 47:** on shallow soil over an outcrop of rock, Llanymynech Rocks, SJ261219, M. Lawley.
- 79.4. *Didymodon nicholsonii*. H21:** on tarmac in Botanic Garden, 20 m alt., Glasnevin, Dublin, O152371, T.L. Blockeel 46/188; **C:** on churchyard path, St Brelade's church, Jersey, WV580481, S.L. Pilkington.
- 79.6. *Didymodon umbrosus*. 45:** on walls, The Priory, Caldey Island, SS140962, B. Stewart; **62:** bridge base, park opposite Clifford's Tower, York, SE604513, S.D.S. Bosanquet.
- 79.16. *Didymodon ferrugineus*. 63:** on calcareous gritstone wall, 300 m alt., Withens Clough Reservoir, SD979230, J.M. Turner; **75:** on calcareous soil on crags, 216 m alt., above Benan Farm, NX23709251, R.T. Whytock.
- 83.2. *Tortula schimperi*. 32:** on ground, 120 m alt., Lodge Ground Spinney, Kelmarsh, SP735806, M. Crittenden.
- 83.4. *Tortula freibergii*. 100:** on fine-grained sandstone boulders/pebbles at head of the beach and margin of Alder/Sallow swampy woodland, Lamlash Bay, SE of Cordon, Isle of Arran, NS04412887, F.J. Rumsey & A.R. Church.
- 83.6. *Tortula marginata*. 47:** sandstone pavement beneath seat, garden of Powys Castle, SJ215065, M. Lawley.
- 83.7. *Tortula vahlbiana*. 28:** bare chalk on W-facing slope, in shade, 15 m alt., Cockthorpe Common SSSI, Stiffkey, TF98544291, R.J. Fisk.
- 83.8. *Tortula canescens*. 3:** on south-facing sea cliff, 30 m alt., Noss Mayo, Greylake Cove, SX52424715, S.L. Pilkington.
- 83.19. *Tortula protobryoides*. 56:** thin soil overlying tarmac of old car park, Attenborough Nature Reserve, Nottingham, SK514344, M. Crittenden.
- 84.1.c. *Phascum cuspidatum* var. *schreberianum*. 14:** grassy, mossy, north-facing bank in front of cottage, 20 m alt., Northease, Whiteway Lane, TQ410065, S. Rubinstein.
- 85.2.a. *Microbryum davallianum* var. *davallianum*. 46:** soil bank near lime kiln, 2 m alt., Wallog, SN589856, T.W. Ottley 17091201.
- 85.5. *Microbryum floerkeanum*. 7:** on chalky clay exposed in trackway, 170 m alt., All Cannings, Cliffords Hill, SU08116376, S.L. Pilkington.
- 86.2. *Hennediella macrophylla*. 11:** bare disturbed soil at edge of wet track, old lane with steep wooded banks, 6 m alt., Pook Lane, Warblington, SU724054, J.A. Norton B1492.
- 86.3. *Hennediella heimii*. 46:** bare soil on path just above shoreline, 2 m alt., Aberaeron, SN452627, T.W. Ottley 17110101.
- 87.1. *Acaulon muticum*. 46:** on bare trampled



△Fig. 5. Spinulose spores of *Acaulon mediterraneum* from Derbyshire. T. Blockeel

soil on edge of low cliffs, 2 m alt., Aberarth, SN47926409, T.W. Ottley; **47**: soil mound on grave, Welshpool, SJ225078, M. Lawley.

**87.2. *Acaulon mediterraneum*. 57**: on bare soil by path at field edge, 130 m alt., Lees Bridge, near Dronfield, SK343767, T.L. Blockeel 46/432. (Fig. 5).

**89.5. *Syntrichia virescens*. 11**: on asphalt pavement, 10 m alt., Stubbington, SU55500331, J.A. Norton; **46**: on tarmac at edge of road, 60 m alt., Morfa Bychan, SN57107728, T.W. Ottley 17100501.

**89.7. *Syntrichia papillosa*. 63**: on sycamore trunk, Highroyd Wells Lane, Halifax, SE067255, J.M. Turner.

**89.8. *Syntrichia latifolia*. C**: on silty wall base on roadside, Gigoulande, St Peter's Valley, St Peter, Jersey, WV60065254, T.L. Blockeel 46/174.

**90.1. *Cinclidotus fontinaloides*. 55**: wall of stream, Bradgate Park, SK52961006, S.F. Woodward.

**92.2. *Tetraplodon mniioides*. 87**: on dung on mountain ridge, 860 m alt., Stob Coire an Lochain, NN441208, R.L. Hodd & B.B.S.

**94.2. *Splachnum ampullaceum*. 73**: on dung on blanket bog, Loch Urr, NX7340485579, R.T. Whytock.

**100.6. *Orthotrichum rupestre*. 57**: on ash tree

along disused railway trail, 180 m alt., Sett Valley, near Hayfield, SK0281387089, T.L. Blockeel 46/199.

**100.10. *Orthotrichum cupulatum*. C†**: vertical face of Carboniferous Limestone rock with *O. anomalum* and *Homalothecium sericeum*, Japanese Garden, Jersey Botanic Garden, Samarès Manor, St Clement, Jersey, WV66934731, C.D. Preston, presumed to have been introduced on rock imported in 1930 from Cumberland and therefore treated as a persisting introduction.

**100.13B. *Orthotrichum patens*. 25**: on sweet chestnut, Tangham part of Rendlesham Forest, Capel St Andrew, TM348487, R.J. Fisk; **57**: on elm, Tissington Trail at Hartington Station, SK149610, T.L. Blockeel 46/434. New to Britain (Blockeel & Fisk, 2018).

**100.14. *Orthotrichum tenellum*. H21**: on *Acer cappadocicum* and other trees in Botanic Garden, 25 m alt., Glasnevin, Dublin, O1437, T.L. Blockeel 46/191.

**100.16. *Orthotrichum pumilum* s.lat. 29**: with *O. diaphanum* on Hawthorn in thin strip of woodland alongside railway, 10 m alt., S side of railway, Coldham's Common, Cambridge, TL472585, C.D. Preston.

**100.20. *Orthotrichum scanicum*. 17**: one small discrete tuft on oak, 190 m alt., Bricksbury Hill, between Hale and Ewshot, SU82544918, F.J. Rumsey.

**101.1. *Ulota coarctata*. 28**: on horizontal branch of oak by ride, Frost's Common, near Great Hockham, TL93949356, N. Jardine. (Fig. 6).

**101.3A. *Ulota crispa* s.str. 2**: on willow, Carthamartha Wood, SX37237772, M.J. Stribley 256; **4**: on hazel in wet woodland, Roadford Reservoir, SX4384891528, 2014, D.A. Callaghan; **14**: on Ash, 90 m alt., Great Wood, Withyam, TQ48453955, B. Scott



△Fig. 6. Pyriform capsule of *Uloa coarctata* from Norfolk.  
J. Masson

7709; **17**: on *Salix cinerea*, bog and willow carr, 42 m alt., Chobham Common, SU972658, J.A. Norton; **24**: on willow, Bloom Wood, SU8739289698, 2016, S.V. O'Leary; **25**: branch of oak tree in forest, Dunwich, TM46727210, R.J. Fisk; **26**: trunk of willow in fen carr, Theltham, TM013788, 2015, R.J. Fisk; **28**: epiphytic on oak, Wootton Woods/Ling Common, TF65192388, C.R. Stevenson; **33**: branch of ash in ash woodland, near Sapperton, SO941033, D.A. Callaghan; **34**: trunk of beech in mixed woodland, Serridge Inclosure, Forest of Dean, SO618141, D.A. Callaghan; **35**: *Salix* in hedge, 75 m alt., Llanga Church, SO390256, S.D.S.Bosanquet; **42**: on rowan, Epynt Visitor Centre, SN993437, S.D.S.Bosanquet & G.S. Motley; **51**: on sycamore in woodland, Holywell, SJ183763, S.D.S.Bosanquet; **52**: willow branch in conifer plantation, Newborough Forest, SH406633, 2014, D.A. Callaghan; **55**: on oak tree by car park, Beacon

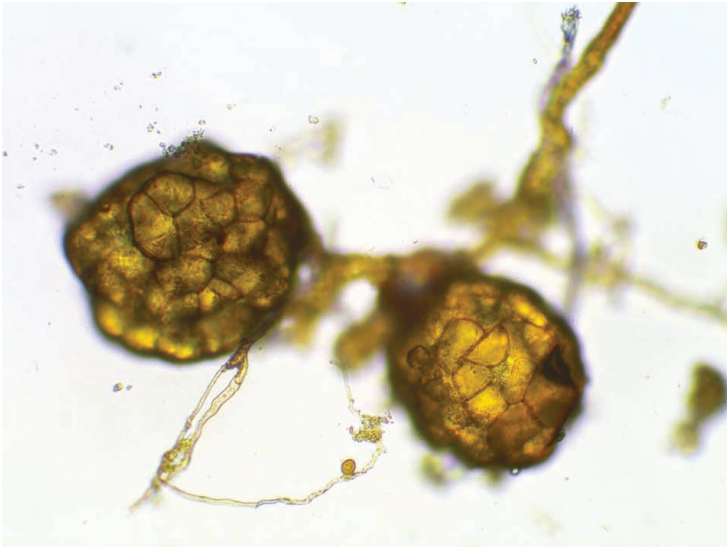
Hill, Charnwood, SK509146, T.L. Blockeel 46/441; **61**: on *Salix* on lowland heath, 10 m alt., east side of Horseshoe Pond, Skipwith Common, SE662372, T.L. Blockeel *et al.*, 46/454; **63**: on *Salix* by disused railway track, 290 m alt., Trans-Pennine Trail, near Dunford Bridge, SE17220263, T.L. Blockeel 46/430; **65**: on sycamore by lane, Arkle Beck, near Langthwaite, Arkengarthdale, NZ01200202, T.L. Blockeel & Yorkshire Naturalists 46/194; **72**: on elder in garden of cottage, 70 m alt., Williamwood Farm, Brydekirk, NY20157141, E.M. Kungu *et al.* (E); **81**: on *Fraxinus* above stream, open wooded valley, 25 m alt., Nabdean Burn, Paxton Dean, NT93165217, D.G. Long 44657 (E); **87**: on *Fraxinus*, wooded river bank, 130 m alt., River Balvag, Stronvar Bridge, NN53512061, D.G. Long 44884 (E); **104**: on hazel shrub by crag in wet heath, Cnoc Steud, Earlish, Isle of Skye, NG381605, N.G. Hodgetts.

**101.3B. *Uloa crispula*.** **1**: on oak branch, 4 m alt., south side of Calenick Creek, Truro, SW82484318, M.J. Stribley 212; **2**: oak trunk in grassy heathland, Goonzion Downs, Bodmin Moor, SX1710467242, 2014, D.A. Callaghan; **3**: on willow in damp woodland, Riggle's Farm, Devon, ST18420941, M.J. Stribley 213; **14**: on hazel, 75 m alt., Willer's Meadow, Weir Wood Reservoir, Forest Row, TQ37913450, B. Scott BS7071; **22**: on alder, beside edge of Letcombe Brook, Wantage, SU38868699, M.J. Stribley; **24**: on willow by railway crossing, Chilton, SP700122, S.V. O'Leary; **28**: epiphytic on oak, Ling Common, TF65282389, C.R. Stevenson; **35**: *Salix* by pylons, 410 m alt., Mountain Air, SO15450913, S.D.S.Bosanquet; **41**: willow branch at woodland edge, Cwm-nant-Lleiky, near Glamorgan, SN736074, 2015, D.A. Callaghan; **43**: on *Salix*, Rhewey Bottom,



- SO15015791, S.D.S.Bosanquet; **44:** Hazel by pond, 160 m alt., Garth, Gwernogle, SN531328, S.D.S.Bosanquet; **46:** on small oak tree at edge of wood, 170 m alt., Capel Bangor, SN67068008, T.W. Ottley 17060901; **47:** on an oak trunk by track, Cwm Tafolog, SH892105, M. Lawley; **47:** *Acer platanoides*, Gregynog, SO08569759, S.D.S.Bosanquet; **48:** on Downy Birch in oak/birch woodland, Coed Garth Gell, SH6848619930, 2014, D.A. Callaghan; **49:** *Salix*, 300 m alt., Ogwen Willows, SH67076051, S.D.S.Bosanquet; **53:** on willow bough in swamp by reservoir, Denton Reservoir, SK871335, 1995, N.G. Hodgetts 3100; **55:** on oak tree by car park, Beacon Hill, Charnwood, SK509146, T.L. Blockeel 46/442; **79:** on *Acer pseudoplatanus*, wooded river bank, 120 m alt., Ettrick Water above Selkirk Bridge, NT45862788, D.G. Long 44818 (E); **83:** on elder in woodland, near S. margin of reservoir, 255 m alt., Bavelaw Marsh, Balerno Reservoir, NT16316337, 2016, E.M. Kungu, D. Chamberlain & N. Bell (E); **C:** on sycamore, Bouley Bay, Trinity, Jersey, WV66665430, T.L. Blockeel 46/170.
- 101.3C. *Ulota intermedia*.** **4:** wood of tree guard, 80 m alt., Millcombe Valley, Lundy, SS13924413, S.D.S.Bosanquet; **24:** on *Fraxinus*, College Wood, Nash, SP7910133236, S.V. O'Leary; **36:** willow beside track in mixed woodland, Dymock Forest, SO67422755, D.A. Callaghan; **56:** on *Salix* by pond in woodland, 90 m alt., Quarry Banks, Linby, SK53475241, T.L. Blockeel & M. Crittenden 46/011; **63:** on *Salix* by disused railway track, 290 m alt., Trans-Pennine Trail, near Dunford Bridge, SE16100240, T.L. Blockeel 46/429; **67:** Holywell Dene, NZ3353175239, 2016, S.V. O'Leary; **72:** epiphyte in riverine woodland, south bank of river, 170 m alt., Kello Water, Kelloholm, NS7310, 2016, E.M. Kungu *et al.* (E); **73:** on fallen branch, in mixed oak woodland, 45 m alt., Carstramon Wood, NX590602, E.M. Kungu (E); **80:** *Salix* at edge of river, Black Burn, NY4771388574, 2014, D.A. Callaghan; **89:** on shrub in woodland, 40 m alt., SW of Cambusmichael, woodland beside east bank of R Tay, NO109316, 2011, E.M. Kungu (E); **105:** on hazel, 40 m alt., Applecross, NG71184402, T.L. Blockeel 46/407; **107:** on spruce twig in old conifer plantation, Achany Wood, NC57140100, D.A. Callaghan.
- 101.5. *Ulota calvescens*.** **35:** one large tuft on Hawthorn, Dixon Embankment LNR, SO52661500, S.D.S.Bosanquet; **36:** willow beside pond, Dymock Forest, SO67912744, D.A. Callaghan; **47:** trunk of sycamore tree, Coed Cwmglog, SO196876, M. Lawley; **56:** on deciduous tree in woodland, 90 m alt., Quarry Banks, Linby, SK53485230, T.L. Blockeel & M. Crittenden 46/010.
- 102.1.a. *Hedwigia ciliata* var. *ciliata*.** **70:** on the roof of a house, Kirkoswald, NY556411, M. Lawley.
- 102.2. *Hedwigia stellata*.** **C:** on granite boulder in coastal heath, Corbiere, Jersey, WV55804780, S.L. Pilkington.
- 106.1. *Conostomum tetragonum*.** **86:** on peaty hummock among rocks on steep N-facing slope, 790 m alt., Ben Lomond, NN37150277, N.G. Hodgetts 9359.
- 107.5. *Philonotis fontana*.** **55:** waterlogged edge of path in heathy grassland, Bradgate Park, SK53211147, S.F. Woodward; **C:** on wet, near-vertical roadside bank, Bouley Bay, Trinity, Jersey, WV66535424, T.L. Blockeel 46/169.
- 110.2. *Anomobryum concinnatum*.** **87:** shallow soil over limestone on crag, Kirkton Glen, NN516242, M. Lawley.
- 111.1. *Bryum marratii*.** **105:** on damp soil,

- margin of saltmarsh, 0 m alt., Meallabhan Bay, Applecross, NG68324893, T. Kiebacher (E).
- 111.2. *Bryum warneum*. 51:** damp sand of dune slack, Presthaven Holiday Park, SJ09728446, D.A. Callaghan.
- 111.11. *Bryum algovicum*. 51:** damp sand of dune slack, Presthaven Holiday Park, SJ10398472, D.A. Callaghan.
- 111.14. *Bryum archangelicum*. 32:** side of recently cut ditch on NE side of roundabout, soil calcareous rather sandy, 2 m alt., A16 roundabout, east of Newborough, TF222061, J.J. Graham & C.D. Preston; **86:** on the side of a boulder, Ben Lomond, NN37290289, M. Lawley.
- 111.19. *Bryum moravicum*. 10:** base/roots of Ash, 95 m alt., Brading Down, SZ595868, G.R.L. Greiff.
- 111.20. *Bryum torquescens*. C:** soil on roadside bank with *Targionia hypophylla*, Mont es Tours, St Brelade, Jersey, WV604483, C.D. Preston.
- 111.21. *Bryum canariense*. C:** on dune, St Brelade, Les Blanchés Banques, Jersey, WV56504931, S.L. Pilkington.
- 111.23. *Bryum pallescens*. 28:** on ground under eaves of wire-netting-covered thatched roof of church, Caston, TL959975, R.J. Fisk.
- 111.24.a. *Bryum pseudotriquetrum* var. *pseudotriquetrum*. 46:** on wet rocks in wood, 125 m alt., Goginan, Coed Troed-y-rhiw, SN688817, T.W. Ottley 17011501.
- 111.34. *Bryum rudemale*. 46:** on soil at edge of road, 10 m alt., Llannon, SN512674, T.W. Ottley 17092801.
- 111.39. *Bryum tenuisetum*. 46:** peaty soil near gateway, 235 m alt., Cors Ian, SN67356959, T.W. Ottley 17091701. (Fig. 7).
- 112.1. *Rhodobryum roseum*. H9:** in calcareous grassland, nr Fanore, M130041, R.L. Hodd (DBN).
- 114.6. *Poblia drummondii*. 86:** on damp soil at base of cliff, Ben Lomond, NN3713302673, M. Lawley; **86:** on soil on rock ledge, steep grassy slope, 775 m alt., Coire a'Bhathaich, Ben Lomond, NN37140281, D.G. Long 44904 (E).
- 114.7. *Poblia scotica*. 87:** on rock in burn with *Anomobryum julaceum*, 375 m alt., burn below Creag nan Sputan, Beinn Tulaichean, NN428195, G.P. Rothero 201723.
- 114.14. *Poblia flexuosa*. 86:** on soil at base of cliff, Ben Lomond, NN3703, M. Lawley; **86:** on eroding soil bank of gully, steep grassy slope, 730 m alt., Coire a'Bhathaich, Ben Lomond, NN37270288, D.G. Long 44902 (E).
- 114.17. *Poblia lescuriana*. 46:** bare soil on steep bank at edge of lane, 70 m alt., Llanerchaeron, Crossway Wood, SN49025957, T.W. Ottley 17111502.
- 118.3. *Rhizomnium pseudopunctatum*. 75:** in wet birch woodland, 106 m alt., Crawfaurdland woodland, NS4602641447, R.T. Whytock.
- 119.1. *Plagiomnium cuspidatum*. 10:** damp mesic mown grassland, urban park with trees, 40 m alt., Shanklin, Isle of Wight, SZ58388111, J.A. Norton B1545; **87:** on damp gravelly slope by water, wooded lake shore, 129 m alt., east end of Loch Voil, Balquidder, NN53282054, D.G. Long 44888 (E).
- 119.2. *Plagiomnium affine*. C:** grassland by church, St Brelade's church, Jersey, WV581482, S.L. Pilkington.
- 121.3. *Aulacomnium androgynum*. 46:** on decayed wood at edge of bog, 145 m alt., Goginan, above Allt Goch, SN670816, T.W. Ottley 17051001.
- 122.1. *Orthodontium lineare*. 107:** rotten stump in alder woodland, Mound Alderwoods, NH7669797891, D.A. Callaghan.
- 126.1. *Calypstrochaeta apiculata*. 2:** under



◁Fig. 7. Rhizoidal tubers of *Bryum tenuisetum* from Cardiganshire. T. Ottley

- scrub fringing the edge of upper salt-marsh, 15 m alt., Bodieve, Camel Estuary, SW98697331, S.L. Pilkington.
- 127.1. *Daltonia splachnoides*. 63:** on log in woodland by old mill pond, 165 m alt., Nutclough, Hebden Bridge, SD99722763, J.M. Turner.
- 132.2. *Palustriella falcata*. 29 in ():** “mixed sedge”, Wicken Pools’ Fen, TL5670, 1929, P.W. Richards, *det.* M.O. Hill (NMW: 76.66B.4658).
- 135.2. *Campyliadelphus elodes*. 41:** several scattered patches amongst leaf litter from *Molinia* and *Carex nigra* in rank SD15a dune slack, Kenfig NNR, SS79408067, B. Stewart; **46:** cliff edge, in short turf, 20 m alt., Upper Borth, SN59988820, T.W. Ottley 17092602.
- 136.1.b. *Amblystegium serpens* var. *salinum*. 46:** in dune slack, 2 m alt., Ynyslas dunes, SN60809437, T.W. Ottley 17050201.
- 136.2. *Amblystegium radicale*. 46:** in rushy field, 160 m alt., Neuadd-lwyd, SN47025847, T.W. Ottley 17121801.
- 137.1. *Hygroamblystegium fluviatile*. 55:** on rock in stream in shady woodland, Charley Hall, Charnwood Forest, SK479146, U. Hamzaoui.
- 137.3. *Hygroamblystegium varium*. 10:** wet woodland, 9 m alt., near Sandown, SZ585851, G.R.L. Greiff; **102:** in willow carr with *Calliargon cordifolium*, 30 m alt., Lily Loch, S of Port Askaig, Islay, NR42586834, G.P. Rothero & F. Cameron 2017020.
- 137.4. *Hygroamblystegium humile*. 5:** in wet cow pasture, near gate, Lois Farm, near Horsington, ST727246, A. Branson; **56:** base of *Phragmites*, Attenborough Nature Reserve, Nottingham, SK5273534881, M. Crittenden.
- 140.3. *Drepanocladus sendtneri*. H21:** dune slack with *Campylium stellatum* and *Equisetum variegatum*, 3 m alt., North Bull Island, Dublin, O2266936167, M.D. Lyons, *conf.* M.O. Hill (DBN).
- 143.3. *Hygrohypnum luridum*. 46:** wet rocks by road, 350 m alt., Nant-y-Moch, SN752862, T.W. Ottley 17070101.
- 143.5. *Hygrohypnum eugyrium*. 107:** on rocks in river, 15 m alt., R. Brora, E. of Kilbrora, NC8876703626, 2015, M. Nicolson (E); **H33:** the recent voucher (BBSUK: Owenbreen River above ravine, H1233, 2005, G.P. Rothero) belongs to *H. ochraceum*; replace with: on submerged rock in stream, Correl Glen, H05, 1960, R.D. Fitzgerald (NMW 096.16.1131).
- 143.8. *Hygrohypnum duriusculum*. 106:** mid channel of river, with *Hygrohypnum ochraceum*, 5 m alt., R. Alness, downstream of A9 bridge, NH6570768455, J. McDonald & M. Nicolson, *det.* E.M. Kungu (E).
- 145.1. *Warnstorfia fluitans*. H24:** flushed pool on cutover raised bog, Ardagullion Bog,



- N3182675405, 2016, G.F. Smith & W. Crowley 1615003 (DBN).
- 150.2. *Calliergon giganteum*. 3:** in flush, 370 m alt., south of White Tor, Peter Tavey, SX540779, T.N. Purches; **H21:** marsh/fen, possibly spring-fed, in old glacial valley, 200 m alt., Ballybetagh Bog, near Glencullen, O2040619975, J. Denyer (DBN).
- 160.1. *Scorpiurium circinatum*. H26:** with other mosses on unshaded tops of limestone boulders on shore of lake ca 1m above water-level, 18 m alt., E shore of Lough Mask, SW of Caher, M14006327, 2003, D.T. Holyoak 03-182.
- 165.3. *Rhynchostegiella curviseta*. 46:** on top of boulder on river bank in calcareous habitat, 25 m alt., Llanerchaeron, SN469609, T.W. Ottley 17111501.
- 165.4. *Rhynchostegiella teneriffae*. 12:** close to surface of River Whitewater on bridge masonry, 75 m alt., Deptford Bridge, Greywell, SU72145129, S.L. Pilkington.
- 166.2. *Cirriphyllum crassinervium*. 75:** top of tomb stone, 50 m alt., Auld Kirk, Alloway, NS3321818066, 2016, R.T. Whytock.
- 167.4. *Oxyrrhynchium speciosum*. 56:** base of tree by water, Attenborough Nature Reserve, Nottingham, SK5182334190, R.H. Carter.
- 170.4. *Brachythecium salebrosum*. 88:** on damp calcareous bank in wooded ravine, 175 m alt., Beich Burn, Glenbeich, Loch Earn, NN61952587, G.P. Rothero 2017014.
- 170.5. *Brachythecium mildeanum*. 5:** on gravel farm track, Lois Farm, near Horsington, ST727247, A. Branson; **55:** on concrete on brownfield site, Coalville, SK419143, U. Hamzaoui.
- 176.1. *Campylophyllum calcareum*. 47:** rock face in wooded dingle, Cwm Cae, SO279914, M. Lawley.
- 179.1. *Pylaisia polyantha*. 24:** on *Acer campestre*, Millbank Wood, near entrance gate, SU8107885126, S.V. O'Leary.
- 185.1. *Habrodon perpusillus*. 36:** ash tree in open woodland, 85 m alt., Hayleasow Wood, Hereford SW, SO48193757, S.L. Pilkington.
- 186.1.b. *Heterocladium heteropterum* var. *flaccidum*. 24:** on flint in shaded pit by footpath in woodland, Common Wood, near High Wycombe, SU9097895052, S.V. O'Leary; **H21:** east-facing boulder in wooded glen, 100 m alt., Dingle Glen, Glenamuck, O21512269, J. Denyer (DBN); **C:** on shaded boulders by springhead in woodland, Trinity, Egypte, Jersey, WV66045536, S.L. Pilkington.
- 197.3.b. *Plagiothecium denticulatum* var. *obtusifolium*. 86:** shaded wet crevice at base of cliff, Ben Lomond, NN3702, M. Lawley.
- 197.4. *Plagiothecium laetum*. 28:** on stump, Frost's Common, near Great Hockham, TL938936, S.J. Buckton; **55:** on alder, The Outwoods, Charnwood Forest, SK5115, U. Hamzaoui.
- 197.7. *Plagiothecium cavifolium*. 65:** on sheltered earthy bank by track near stream, Arkle Beck, near Langthwaite, Arkengarthdale, NZ00840215, T.L. Blockeel & Yorkshire Naturalists 46/193.
- 200.1. *Herzogiella striatella*. 86:** in shaded crevice beneath rock overhang in boulder scree on N-facing slope, 810 m alt., Ben Lomond, NN37220282, N.G. Hodgetts 9356.
- 200.2. *Herzogiella seligeri*. 34:** on fallen and decaying conifer in N-facing conifer plantation, 115 m alt., Woodchester Park, Nailsworth, SO830008, S.L. Pilkington.
- 201.1. *Entodon concinnus*. 53:** limestone grassland, Elsea Pit, Grimsthorpe Estate, TF0327320527, S. Heathcote.
- 204.2. *Sematophyllum substrumulosum*. 5:** on decaying branch of *Picea abies* in plantation, Rams Combe, Quantocks, ST16283806,

A. Branson; **8**: on decorticated conifer log in deep shade, woods south of Alfred's Tower, Stourhead Estate, ST7493634747, A. Branson; **9**: on decaying wood, in west-facing conifer plantation, 160 m alt., Wootton Fitzpaine, Wootton Hill, SY35379696, S.L. Pilkington; **24**: on rotten stump by small path, under conifers, Hampden Coppice, Great Hampden, SP8482900796, S.V. O'Leary; **36**: on rotten log of Leyland Cypress in mixed wood, 30 m alt., Queen's Wood, SO67732791, D.A. Callaghan & P.D. Golding; **46**: on a conifer stump, 40 m alt., Coed Gogerddan, SN631838, T.W. Ottley 17091301N; **C**: on old log in woodland, St Catherine's Woods, St Martin, Jersey, WV70235253, T.L. Blockeel 46/179.

**210.2. *Neckera crispa*. C†**: vertical face of N-facing Carboniferous Limestone rock edging stream, Japanese Garden, Jersey Botanic Garden, Samarès Manor, St Clement, Jersey, WV66944732, C.D. Preston, presumed to have been introduced on rock imported in 1930 from Cumberland and therefore treated as a persisting introduction.

**211.1. *Homalia trichomanoides*. C**: concrete edge of water channel, Waterworks Valley, St Lawrence, Jersey, WV6315352244, J.W. Bates.

**214.1.b. *Isothecium myosuroides* var. *brachythecioides*. 75**: among boulders and heathland, 550 m alt., Maiden's Bed, NX4190, R.T. Whytock.

**216.1. *Anomodon longifolius*. 89**: deep in rock crevice in NE-facing cliff, 500 m alt., Creag Spardain, Ben Vrackie, NN97376489, N.G. Hodgetts 9343.

**216.3. *Anomodon viticulosus*. C**: trunk of small pollard willow on flat, muddy, recently flooded ground, Gigoulande, St Peter's Valley, St Peter, Jersey, WV60085256, C.D. Preston.

### Contributors/collectors of records

J.W. Bates, N. Bell, T.L. Blockeel, S.D.S. Bosanquet, A. Branson, S.J. Buckton, D.A. Callaghan, F. Cameron, R.H. Carter, D. Chamberlain, A.R. Church, G. Cooper, M. Crittenden, H.J. Crouch, W. Crowley, J. Denyer, R.J. Fisk, R.D. Fitzgerald, J. Fraser, P.N. Gaunt, P.D. Golding, J.J. Graham, G.R.L. Greiff, U. Hamzaoui, S. Heathcote, V. Heppel, R.L. Hodd, N.G. Hodgetts, D.T. Holyoak, N. Jardine, T. Kiebacher, E.M. Kungu, M. Lawley, J. Lawrie, D.G. Long, M. Lüth, M.D. Lyons, J. McDonald, G.S. Motley, M. Nicolson, J.A. Norton, S.V. O'Leary, T.W. Ottley, S.L. Pilkington, C.D. Preston, T.N. Purches, P.W. Richards, G.P. Rothero, S. Rubinstein, F.J. Rumsey, E.-J. Sadler, B. Scott, G.F. Smith, C.R. Stevenson, B. Stewart, M.J. Stribley, M. Sutton, J.M. Turner, R.T. Whytock, M. Wilcox, S.F. Woodward.

### References

- Blockeel, T.L. & Bosanquet, S.D.S. (2016).** *Hedwigia striata* in Britain and Ireland. *Field Bryology* 115: 10–18.
- Blockeel, T.L. & Fisk, R.J. (2018).** *Orthotrichum patens* Bruch & Brid. (Bryophyta, Orthotrichaceae) in Suffolk and Derbyshire, another epiphytic moss new to Britain. *Journal of Bryology* 40: 56–61
- Hill, M.O. (2017).** *Sphagnum fuscum* and *Sphagnum beothuk* in Britain and Ireland. *Field Bryology* 117: 24–30.
- Hill, M.O., Preston, C.D. & Smith, A.J.E., eds. (1994).** *Atlas of the bryophytes of Britain and Ireland. Volume 3. Mosses (Diplolepidae)*. Colchester: Harley Books.
- Köckinger, H. & Hedenäs, L. (2017).** A farewell to *Tortella bambergeri* (Pottiaceae) as understood over the last decades. *Journal of Bryology* 39: 213–225.
- Proctor, M.C.F. (1956).** A bryophyte Flora of Cambridgeshire. *Transactions of the British Bryological Society* 3: 1–49.

### Tom L. Blockeel

9 Ashfurlong Close, Sheffield S17 3NN.

e Tblockeel@aol.com