

The moss year – 2020

2020 was certainly not business as usual for the BBS and its members but perhaps surprisingly, the COVID-19 pandemic did not appear to suppress the flow of moss submissions. There were 193 additions and amendments to the Census Catalogue, excluding a revision of the *Dicranella howei/ varia* complex by Tom Blockeel. This total is almost the same as 2019 which is impressive considering the inevitable cancellation of both Spring and Summer BBS field meetings. These figures are summarised in Table 1.

Many recorders responded imaginatively to the movement restrictions imposed by the first pandemic lockdown. Some took the opportunity to review their herbaria and to catch up on identification backlogs. One of the best such ‘cupboard finds’ was Ambrose Baker’s *Orthotrichum obtusifolium* from a Sheffield park in 2016.

Overall, the new records were distributed across 71 of the 153 British and Irish vice-counties, and 54 individuals were involved in contributing them (as the first-named recorder

on a voucher). Rory Hodd contributed 29 vouchers or amendments, Sharon Pilkington 26, Rory Whytock 14, Matt Sutton 11, Andrew Branson 10, Sean O’Leary 9, Mark Lawley 8, Tom Blockeel and Tristan ap Rheinallt 6 each, Des Callaghan, Gordon Rothero, John O’Reilly, Sue Rubinstein and Tom Ottley 4 each and Claire Halpin and George Greiff 3 each.

Additions and amendments to the British and Irish list

Dicranella howei is an established member of the European moss flora, with its distribution centred on the Mediterranean region. It is closely related to *D. varia*, is found in many of the same habitats and is now confirmed in Britain (Blockeel, 2020). Judging by the number of reports of this species since Tom’s article was published, it seems likely to be common, at least on southern chalk and soft limestones.

Racomitrium obtusum has long been the source of considerable taxonomic confusion in Britain and Ireland and has been treated as a variety or form of *R. heterostichum*, even after Frisvoll (1988) made a sound case for treating it as a

Table 1. Analysis of amendments to the Census Catalogue for 2020.

	2020				2019			
	England	Wales	Scotland	Ireland	England	Wales	Scotland	Ireland
New entries	70	32	27	25	55	30	20	47
Debrackets*	18	7	4	8	13	1	7	19
Reinstated	-	-	-	-	-	-	-	-
Bracketings*	1	-	-	-	-	-	-	-
Deletions	-	-	1	-	3	-	1	-
Totals	89	39	32	33	71	31	28	66

*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. New records include persisting introductions.

distinct species. Although considerable difficulties remain in separating forms with hair-points from *R. heterostichum*, it has now been given species status in the new Checklist (Blockeel *et al.*, 2021). Tom Ottley's review of *R. obtusum* (Ottley, 2021) indicates that it may in fact be more common in some regions than *R. heterostichum*.

Microhypnum sauteri has also been added to the British list, following Gordon Rothero's recent discovery at Inchnadamph, West Sutherland (Rothero, 2020).

Country additions

There were some outstanding moss finds, including new species for all four countries. One of the best was Rory Hodd's *Sphagnum majus* in South-east Galway, new to Ireland. His discovery represents an important western range extension for this rare species; it surely must be present elsewhere in Ireland. Joshua Styles found *Sphagnum subnitens* var. *ferrugineum* at Winmarleigh Moss in West Lancashire, new to England. This is likely to be an overlooked variety, but it does seem genuinely rare in Britain.

Claire Halpin's *Hennediella macrophylla* from Crickhowell was not only new to Wales but was a significant westerly extension of range for this predominantly south-eastern species. It was also found new to four other (English) vice-counties in 2020. Interestingly, three of the sightings were in riverbank habitats normally regarded as more typical of *H. stanfordensis*.

In West Ross, Nick Hodgetts' *Leptotheca gaudichaudii* on a *Dicksonia antarctica* tree fern was new to Scotland and a long way north of its other locations in Cornwall, Co. Kerry and Gloucestershire. A native of Australia, New Zealand and Tasmania, it seems likely that it was imported to Attadale Gardens with its host and has found the oceanic climate of northwest Scotland to its liking.

Other highlights

Ranscombe Farm in Kent is well known to botanists as a hotspot for rare and declining plants, but its bryophytes have attracted far less attention. Stephen Lemon's *Ephemerum cohaerens* from a field in the reserve is significant as a south-easterly range extension for this rarity. Its habitat there is also noteworthy as it is most characteristically a pioneer of damp mud in the drawdown zone of pools and reservoirs.

Hedwigia ciliata var. *ciliata* turned up on a roof tile at Bodiam Castle in Sussex, whilst one of its finders (Sue Rubinstein) also collected it from on a standing stone in Cornwall. Also in Sussex, Sue's luxuriant fruiting population of *Schistidium apocarpum* on a gravestone is an outstanding record for south-east England. On the Isle of Wight, George Greiff's *Didymodon acutus* s. str. from a chalk pit is only the third British find and, like the other populations, close to the sea.

Sean O'Leary's recording efforts added five new species to Buckinghamshire. *Orthotrichum schimperi* is an outstanding find; when Sean found candidate plants with immature capsules in January, he took a few home and secured them to a tree in his garden with mint-flavoured dental floss (Fig. 1). One survived the gales until May by which time the capsules had matured to perfection. His *Didymodon australasiae* on a church wall is also very significant as only the second record for England; Sam Bosanquet's sharp eyes also spotted this species on the road verge of the busy A465 north of Abergavenny, a very welcome second record for Wales.

In south-west England, careful targeting of under-recorded Exmoor valleys by Andrew Branson (with guest appearances by Sharon Pilkington) added or restored no fewer than seven species to the South Somerset list including *Sphagnum teres*, *Pohlia flexuosa* (Fig. 2) and



△ Figure 1. *Orthotrichum schimperi* maturing under dental floss. Sean O'Leary

▽ Figure 2. *Pohlia flexuosa* bulbils. Sharon Pilkington



Blindia acuta. Exmoor was quite well surveyed in the 1990s (Perry, 2001) making this all the more remarkable.

Welsh submissions were higher than in 2019 and much of the credit for this must go

to Matt Sutton, who made some outstanding discoveries, including *Weissia multicapsularis* (*wilsonii*) from West Wales Airport and the rare and declining *Tortula cuneifolia* from a coastal slope near Llanrhystud (Fig. 3). In Wales, the hyperoceanic *Campylopus setifolius* (Fig. 4) is more or less restricted to the mountains of Snowdonia and so Tom Ottley's find in Cardiganshire marks a significant extension of range to the south.

Claire Halpin's recent move to mid-Wales resulted in lots of recording in her local area, both



△ Figure 3. Habitat of *Tortula cuneifolia* in Cardiganshire. Matt Sutton

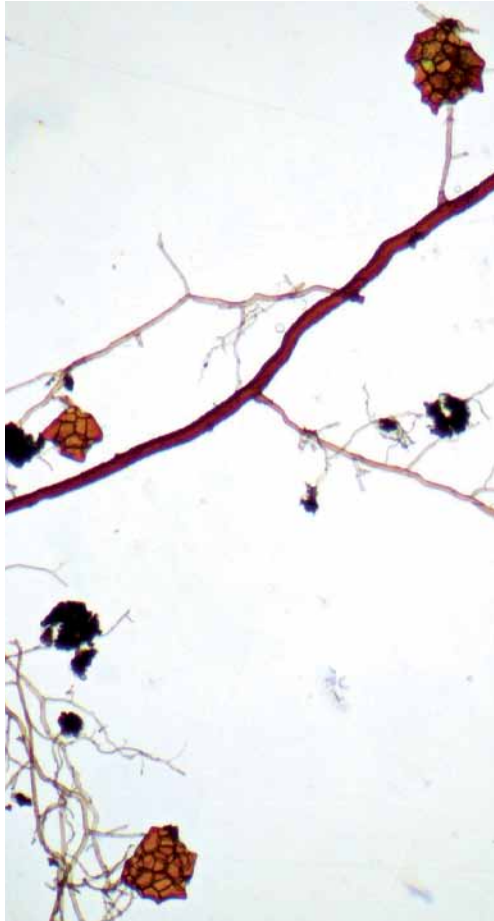
on her own and with friends, when it was safe to do so. As a result, no fewer than nine mosses have been added or restored to Breconshire, including *Ulota intermedia* and *Didymodon icmadophilus*, the latter from one of its usual haunts on a forestry track.

Campylostelium saxicola is a rare and easily overlooked moss of sheltered ravines, gullies and valleys. It usually requires very diligent searching to find as it is diminutive and often grows in deep shade. Mark Lawley's discovery of a population in Downton Gorge in Herefordshire demonstrates that new species can still be found in even well-bryologised localities.

In Nottinghamshire, Tom Blockeel and Mags Crittenden's survey of a disused Magnesian limestone quarry added *Ditrichum gracile*, *Entodon concinnus* and *Pleurochaete squarrosa* to the vice-county inventory and debracketed two more species. A productive day! In Derbyshire, Tom's *Bryum riparium* (Fig. 5) from Kinder Scout extends the English range of this uncommon species quite a long way south.

North of the border, Rory Whytock's *Aongstroemia longipes* from a forestry track in Kintyre is an excellent find of a tiny and probably overlooked moss. His *Sphagnum divinum* in woodland on a raised mire in West Perthshire

◁ Figure 4. The distinctive nerve section of *Campylopus setifolius*. Tom Ottley



△ Figure 5. The remarkable rhizoidal gemmae of *Bryum riparium*, new to Derbyshire. Sharon Pilkington

is also notable as only the second confirmed Scottish incidence of this species.

Gordon Rothero, meanwhile, made the most of lockdown time to go back through his herbarium and found two collections of *Dicranum spadicium*, from hills in Westernness and West Sutherland. Gordon discovered this montane species new to the British Isles in the Cairngorms in 2010 (Rothero, 2014) and the latest finds show that it is more widespread in Scotland than previously thought.

In Ireland, Rory Hodd undertook contract

surveys of various peatland sites. His survey efforts generated a remarkable number of new vc records and demonstrate how under-recorded parts of the Republic of Ireland still are. In Co. Clare, he collected *Sphagnum contortum*, *S. teres* and *S. warnstorffii* (Fig. 6) from a single base-rich flush at Glendree. In Co. Dublin, fruiting *Tortula wilsonii* from Howth is an outstanding find, restoring this rare coastal pioneer to the Republic's list.

Nearby, Nick Stewart demonstrated that notable species sometimes hide in plain sight with his find of *Fissidens fontanus* in the Grand Canal, Dublin. Nick found other populations in loughs elsewhere in Ireland when he was undertaking aquatic macrophyte surveys, which perhaps suggests that it is more widespread in the Republic than is currently thought.

New vice-county records and amendments

Vouchers are deposited in the BBS herbarium (**BBSUK**) unless stated otherwise; codes for other herbaria cited are the National Botanic Garden, Glasnevin, Dublin (**DBN**), the Royal Botanic Garden, Edinburgh (**E**) and the University of Cambridge (**CGE**). The symbol † indicates a persisting introduction.

- 1.5. *Sphagnum divinum*. 87:** wet woodland on raised bog, 50 m alt., Slack Wood, NS9482591854, 11/3/2020, R.T. Whytock, det. M.O. Hill; **H9:** on floating transition mire, by Lough Nacally, Glendree, R508881, 11/8/2020, R.L. Hodd; **H18:** quaking bog, raised bog, Raheenmore Bog, N4461832201, 22/9/2020, G.F. Smith (**DBN**).
- 1.5A. *Sphagnum medium*. 8:** perched flush, 45 m alt., Furzley Common, SU28371577, 25/10/2020, S.L. Pilkington; **11:** transition mire, locally plentiful, 30 m alt., New Forest: Wootton Bridge, SZ24959973, 27/6/2020, S.L. Pilkington 20063; **13:** bog, Heyshott Common, SU908195, 18/4/1985, H.W. Matcham; **24:** bog at northern end of Upper Pond, Burnham Beeches, SU9526584871, 23/6/2020, S.V. O'Leary; **27:** fen, 50 m alt., Holt Lowes SSSI, TG08643721, 28/10/2018, R.W. Ellis, det. M.P. Ghullam,

- collected as *S. magellanicum*; **28**: mire, in vegetated machine tracks, 10 m alt., Roydon Common, TF68382206, 10/9/2020, J.E. Masson, conf. M.O. Hill; **41**: eroded peat feature adjacent to area of highly drained wet modified bog, 505 m alt., Pen-y-Cymoedd East Windfarm, Mynydd Ystradferiol, Rhondda Cynon Taf, SN9437100232, 31/7/2020, J. Pickard; **63**: raised mire on PFA, Cromwell Bottom NR, SE1330922655, 7/10/2020, S.J. Heathcote, conf. M.O. Hill; **65**: Stopes Moss, Rise Hill, SD6908289593, 17/9/2020, S.J. Heathcote; **66**: acid bog with calcareous flush, Wanister Bog, NZ253493, 12/10/2020, R. Clark.
- 1.6. *Sphagnum squarrosum*. H15**: in fen basin, Derrygoolin South, R69489348, 18/8/2020, R.L. Hodd.
- 1.7. *Sphagnum teres*. 5**: in base-rich flush by River Exe, Exe Cleeve, nr Warren Bridge, Simonsbath, SS803401, 4/11/2020, A.J.P. Branson; **H9**: in mildly basic flush near Loughea River, Glendree, R50708925, 6/8/2020, R.L. Hodd.
- 1.12. *Sphagnum warnstorffii*. 67**: flushes, 336 m alt., south-east of Gunstone, NY8257591588, 22/3/2014, J. O' Reilly; **H9**: in mildly basic flush near Loughea River, Glendree, R50708925, 6/8/2020, R.L. Hodd.
- 1.14. *Sphagnum fuscum* s. str. 66**: 495 m alt., Widdybank Fell, south of Red Sike, NY8195829053, 30/8/2017, J. O' Reilly.
- 1.15.b. *Sphagnum subnitens* var. *ferrugineum*. 60**: Winmarleigh Moss, SD4465147971, 26/11/2020, J. Styles, conf. M.O. Hill, new to England; **H9**: in blanket bog, Glendree, R5088, 6/8/2020, R.L. Hodd; **H15**: in flushed stream valley, Scalp, R66979299, 12/8/2020, R.L. Hodd.
- 1.20. *Sphagnum subsecundum*. H1**: in flush in woodland glade, Doogary Lower, Killarney National Park, V8952182234, 5/11/2020, R.L. Hodd, conf. M.O. Hill.
- 1.21. *Sphagnum inundatum*. H15**: in flush near Loughea River, Derrygoolin South, R69729334, 12/8/2020, R.L. Hodd.
- 1.23. *Sphagnum contortum*. 66**: Widdybank Fell, above Sand Sike, NY8315930765, 18/2/2015, J. O' Reilly; **H9**: in mildly basic flush near Loughea River, Glendree, R50708925, 6/8/2020, R.L. Hodd; **H15**: in fen basin, Derrygoolin South, R69489348, 18/8/2020, R.L. Hodd.
- 1.24. *Sphagnum platyphyllum*. H9**: in upland flush, Glendree, R51598849, 7/8/2020, R.L. Hodd; **H15**: in muddy flush, Derrygoolin South, R69649328, 12/8/2020, R.L. Hodd.
- 1.27. *Sphagnum majus*. H15**: at edge of pool in wet blanket bog, Derrygoolin South, R6892, 14/8/2020, R.L. Hodd. New to Ireland.
- 1.29. *Sphagnum pulchrum*. 11**: sloping springline mire with abundant *Sphagnum medium*, 55 m alt., Nomansland: Lord's Oak, SU26221745, 27/6/2020, S.L. Pilkington 20062; **108**: lawn by pool in mire area, 225 m alt., west of The Crask, NC51162672, 18/7/2020, G.P. Rothero 2020023; **H15**: forming carpets across wide area of very wet bog, Derrygoolin South, R68959265, 14/8/2020, R.L. Hodd.
- 1.31. *Sphagnum flexuosum*. 66**: in M5 mire with *Sphagnum squarrosum*, *S. teres*, *S. palustre*, *S. fallax* and *Straminergon stramineum*, Wanister Bog, NZ253493, 21/2/2015, J. O' Reilly; **H9**: on floating scraw at lake edge, Lough Nacally, Glendree, R50858816, 11/8/2020, R.L. Hodd.
- 1.32. *Sphagnum angustifolium*. H9**: in flush near Loughea River, Glendree, R50738925, 6/8/2020, R.L. Hodd; **H15**: in *Molinia* flush, Derrygoolin

▽ Figure 6. *Sphagnum warnstorffii* in Co. Clare.
Rory Hodd



- South, R69769334, 12/8/2020, R.L. Hodd.
- 2.1. *Andreaea alpina*. 66:** Falcon Clints, NY8192428193, 18/3/2015, A. McLay.
- 2.6.a. *Andreaea rothii* subsp. *rothii*. 42:** boulder top, Craig Cerrig-gleisiad, SN9627522002, 15/3/2020, P. Martin.
- 5.1. *Oligotrichum bercynicum*. 5:** bare stream bank, 375 m alt., The Warren: River Exe, SS78624097, 16/10/2020, S.L. Pilkington & A.J.P. Branson 20101; **H5:** on track at edge of forestry, Knocknafutera, Ballyhours, R59611712, 10/7/2020, R.L. Hodd.
- 9.1. *Tetraphis pellucida*. H15:** on bare rocky escarpment, Scalp, R67509358, 12/8/2020, R.L. Hodd.
- 14.4b. *Encalypta pilifera*. 39:** limestone crag, 250 m alt., Hall Dale, SK1336753876, 17/12/2020, D.A. Callaghan 91539.
- 16.4. *Entosthodon fascicularis*. 42:** anthill in rough ground, Slwch Tump, Brecon, SO05752851, 7/3/2020, C. Halpin; **47:** soil in churchyard, Welshpool, SJ225078, 3/2020, M. Lawley.
- 18.1. *Aphanorrhagna patens*. 10:** on bare mud that is seasonally flooded by the reservoir, 34 m alt., Reservoir beside Northpark Copse, SZ436886, 14/7/2020, G.R.L. Greiff GG383.
- 21.5. *Schistidium apocarpum*. 13:** flat top of gravestone in churchyard, Shermanbury, TQ21431883, 11/10/2020, S. Rubinstein.
- 22.8. *Grimmia donniana*. 5:** on derelict drystone wall, 445 m alt., Little Ashcombe, SS78534090, 16/10/2020, S.L. Pilkington & A.J.P. Branson.
- 22.11. *Grimmia longirostris*. 75:** on dry, base-rich boulder, 160 m alt., Byne Hill, NX1784494395, 3/8/2020, R.T. Whytock.
- 22.24. *Grimmia hartmanii*. 46:** on a boulder about 1.5 m above normal water level at edge of a river below Mynach Falls, 90 m alt., Devils Bridge, SN74167724, 1/12/2020, T.W. Ottley & M.D. Sutton 20120101; **82:** steep rocky ravine: on dry rocks by cascade, 240 m alt., Kate's Cauldron waterfall, Linn Dean, Soutra, NT46565972, 21/9/2020, D.G. Long 46981 (E).
- 23.4. *Racomitrium fasciculare*. 52:** boulder on mountainside, 130 m alt., Parys Mountain, SH4435690720, 14/10/2020, D.A. Callaghan.
- 23.6. *Racomitrium sudeticum*. 35:** on sandstone rocks, above Noyaddlwyd, Llanthony Valley, SO284251, 20/1/2000, S.D.S. Bosanquet, det. T.W. Ottley; **52:** rock outcrop on mountainside, 85 m alt., Parys Mountain, SH4454590739, 13/10/2020, D.A. Callaghan.
- 23.11. *Racomitrium ericoides*. 52:** old mine track, 90 m alt., Parys Mountain, SH4488090395, 14/10/2020, D.A. Callaghan; **100:** stony moorland track, 56 m alt., High Whitefarland, Isle of Arran, NR86454142, 31/12/2019, T. ap Rheinallt 100/19/37; **H15:** on edge of track, Derrygoolin South, R70039338, 18/8/2020, R.L. Hodd.
- 24.1. *Ptychomitrium polyphyllum*. H15:** on rock in heathland, Derrygoolin South, R69449200, 19/8/2020, R.L. Hodd.
- 25.1. *Campylostelium saxicola*. 36:** shaded rock by path, Downton Gorge, SO445742, 6/2020, M. Lawley.
- 26.1. *Blindia acuta*. 5:** on flushed rocky slope above the Exe, Warren Bridge, Simonsbath, SS78614089, 16/10/2020, A.J.P. Branson & S.L. Pilkington.
- 28.8. *Seligeria calcarea*. 49†:** on a block of limestone in churchyard, Porthmadog, SH566387, 3/2020, M. Lawley, det. S.L. Pilkington, apparently on oolitic limestone so probably a persisting introduction.
- 30.2. *Fissidens crispus*. 34:** red sandy soil between exposures of Keuper Sandstone in road cutting, south of Hillend Green, SO7068127891, 22/12/2020, R.V. Lansdown.
- 30.4. *Fissidens gracilifolius*. 5:** base of church wall (NE side to E of entrance), Church of St Michael & All Angels, East Coker, Yeovil, ST5389812203, 16/3/2020, A.J.P. Branson.
- 30.5. *Fissidens incurvus*. 75:** on grassy/muddy bank next to bridge, 38 m alt., Templeton, NS3948434620, 3/3/2020, R.T. Whytock.
- 30.11. *Fissidens exilis*. 75:** on soil mound in woodland, 60 m alt., Armsheugh Plantation, NS46893828, 13/4/2020, R.T. Whytock.
- 30.14. *Fissidens osmundoides*. 58:** on wet rock ledge on dripping cliff by stream, west bank of R. Goyt above Errwood Reservoir, SK011741, 23/10/2020, T.L. Blockeel 49/227; **H15:** in base-rich flush, Derrygoolin North, R685936, 2/9/2020, R.L. Hodd.
- 30.15.b. *Fissidens taxifolius* var. *pallidicaulis*. 45:** on stone at base of shady crag in drip zone of waterfall, Monkstone, SN14180264, 23/1/2020, M.D. Sutton, det. T.W. Ottley.
- 30.20. *Fissidens fontanus*. H21:** in 10 cm of water

- at base of retaining wall, abundant along south side of canal, Grand Canal, west of La Touche Bridge, Dublin, O1532, 27/8/2019, N.F. Stewart.
- 34.9. *Ditrichum gracile*. 56:** calcareous grassland overlying Magnesian limestone, Hills and Holes SSSI, near Warsop Vale, SK55446784, 17/1/2020, M. Crittenden & T.L. Blockeel, det. T.L. Blockeel.
- 41.2. *Amphidium mougeotii*. H9:** on base-rich rockface, near Lough Ea, Glendree, R50028828, 5/8/2020, R.L. Hodd.
- 44.2. *Oncophorus wahlenbergii*. 96:** north-facing slope, 850 m alt., Druim nan Bo, Glen Feshie. Delete this entry. Specimen re-examined by G.P. Rothero and redetermined as *O. virens*.
- 49.1. *Glyphomitrium daviesii*. 46:** rock face by waterfall, 320 m alt., Craig y Pistyll, SN71298557, 20/1/2020, M.D. Sutton.
- 51.1. *Aongstroemia longipes*. 101:** on forestry track edge next to old quarry entrance, 100 m alt., Minen, Kintyre, NR7533951667, 26/8/2020, R.T. Whytock.
- 52.9A. *Dicranella howei*. 7:** very rich unimproved chalk grassland on steep, east-facing slope, 195 m alt., Pewsey Downs National Nature Reserve, Walker's Hill, SU11256302, 31/12/2020, S.L. Pilkington 20124; **8:** very short-grazed chalk turf by path, 180 m alt., Westbury: Wessex Ridgeway, ST88635064, 30/12/2020, S.L. Pilkington 20125; **9:** steep chalky slope in woodland, 245 m alt., Hilfield: Ruppen Coppice, ST63900439, 12/12/2020, S.L. Pilkington 20122; **14:** soil in meadow, Herstmonceux, TQ63301166, 3/1/2020, S. Rubinstein, conf. T.L. Blockeel; **42:** broken limestone grassland at cliff-top, 480 m alt., Craig y Cilau NNR, SO18551607, 6/12/2020, S.L. Pilkington 20121. Also **2, 6, 13, 35, 39, 41, 45, 46, 57, 63** and **C** (Blockeel, 2020).
- 53.9A. *Dicranum spadicum*. 97:** cushions in grassland on thin soil over limestone, 800 m alt., E-facing slopes on the N ridge of Beinn na Socaich, Nevis SSSI, NN233746, 18/7/2005, G.P. Rothero 15275; **108:** in flushed grassland on N-facing slope, 665 m alt., steep slope above Loch a' Choire Dheirg, Assynt, NC25442691, 22/7/2015, G.P. Rothero 2015111.
- 53.12. *Dicranum tauricum*. 87:** wet woodland, on birch tree, 50 m alt., Slack Wood, NS9502691822, 11/3/2020, R.T. Whytock.
- 56.7. *Campylopus flexuosus*. H15:** in wet hummocky bog, Derrygoolin North, R687937, 2/9/2020, R.L. Hodd.
- 56.8. *Campylopus setifolius*. 46:** under dripping wet rocks by track, 170 m alt., Esgair Nantyrarian, SN70908184, 4/11/2020, T.W. Ottley 20110401.
- 56.10b. *Campylopus atrovirens* var. *falcatus*. 75:** 270 m alt., Long Craig, NS398002, 26/4/2020, R.T. Whytock.
- 60.1.b. *Weissia controversa* var. *crispata*. 24:** chalk grassland on south-facing slope, Slough Lane Woods, SU81859615, 3/6/2020, S.V. O'Leary.
- 60.5.a. *Weissia brachycarpa* var. *brachycarpa*. 40:** on soil, Caynham churchyard, SO554733, 5/2020, R. Pickering, det. M. Lawley.
- 60.9. *Weissia multicapsularis* (*W. wilsonii*). 46:** seasonally damp clay with ruts in a compound, West Wales Airport, Aberporth, SN24624941, 30/1/2020, M.D. Sutton, det. D.A. Callaghan.
- 60.10. *Weissia sterilis*. 7:** in rich unimproved chalk grassland on steep, east-facing slope, 195 m alt., Pewsey Downs National Nature Reserve, Walker's Hill, SU11256302, 31/12/2020, S.L. Pilkington 20125.
- 61.9. *Tortella flavovirens*. 62:** South Gare, near Redcar, NZ52NE, 16/6/2019, A. Baker & G. Southon.
- 62.3.b. *Trichostomum tenuirostre* var. *holtii*. 100:** wet rock at edge of stream in woodland, 23 m alt., Allt Domhain, Imachar, Isle of Arran, NR86644016, 10/4/2019, T. ap Rheinallt 100/19/38, conf. T.L. Blockeel; **110:** base of low wet crag, 196 m alt., Conostom, nr Great Bernera, Isle of Lewis, NB06843004, 1/3/2019, T. ap Rheinallt 110/19/10, conf. T.L. Blockeel.
- 62.3A. *Oxystegus daldinianus*. 100:** wet crevice at base of low crag on ridge, 691 m alt., Beinn Bharrain, Isle of Arran, NR89754230, 8/4/2019, T. ap Rheinallt 100/19/39, conf. T.L. Blockeel.
- 63.1. *Pottiopsis caespitosa*. 7:** in rich unimproved chalk grassland on steep, east-facing slope, 195 m alt., Pewsey Downs National Nature Reserve, Walker's Hill, SU11256302, 31/12/2020, S.L. Pilkington.
- 64.1. *Pleurochaete squarrosa*. 56:** with *Trichostomum crispulum* and *Hypnum lacunosum* on soily Magnesian Limestone rock ledge in old quarry diggings, 60 m alt., Warsop Hills and Holes, SK55786809, 17/1/2020, T.L. Blockeel & M. Crittenden 49/004.

- 67.1. *Gyroweisia tenuis*. 48:** mortared wall of abandoned building, Gwaith Powdwr, near Penrhyndeudraeth, SH6239, 9/2020, M. Lawley.
- 72.1. *Ephemerum recurvifolium*. 47:** soil, Llanymynech Quarry, SJ264217, 11/2020, M. Lawley.
- 72.4. *Ephemerum cohaerens*. 16:** on uncultivated north-east facing slope, just E of a public footpath among unharvested bird seed crop sown last year, Ranscombe Farm Reserve, Cuxton: Southern Fields (Little Bottoms), TQ70496732, 15/3/2020, S. Lemon, also collected nearby in April 2019.
- 76.2. *Bryoerythrophyllum ferruginascens*. 75:** on mine spoil, 144 m alt., Barony A Frame, NS5263321820, 28/11/2020, R.T. Whytock.
- 79.1. *Didymodon acutus*. 10:** on disturbed turf, Lych Lane Chalkpit, near the entrance, SZ4229484380, 21/12/2020, G.R.L. Greiff, conf. T.L. Blockeel.
- 79.2. *Didymodon icmadophilus*. 42:** surface of forestry track made of limestone chippings, 365 m alt., Cwm Callan, SO05931467, 12/7/2020, S.L. Pilkington 20071.
- 79.6A. *Didymodon australasiae*. 24:** on mortar at base of church wall, N side., Clifton Reynes Church, SP899513, 11/10/2015, S.V. O'Leary, sequenced as *D. australasiae* s. lat. by J. Kucera but without sight of the gametophytes; **35:** abundant on fine dusty road verge soil, 120 m alt., A465, Triley, SO310174, 29/1/2020, S.D.S Bosanquet.
- 79.16. *Didymodon ferrugineus*. 47:** on soil, Llanymynech Quarry, SJ265216, 3/2020, M. Lawley; **56:** soil on rock ledge over Magnesian Limestone in old quarry diggings, 60 m alt., Warsop Hills and Holes, SK55786787, 17/1/2020, T.L. Blockeel & M. Crittenden 49/005.
- 82.2. *Aloina rigida*. 44:** damp silty ground over limestone track across dunes, Laugharne Burrows, SN3167307270, 12/11/2020, M.D. Sutton; **45:** stony limestone/clay in dragline gully, Castlemartin Range West, SR92079481, 25/10/2020, M.D. Sutton.
- 83.3. *Tortula cuneifolia*. 46:** damp clay-covered rock ledges on south-facing coastal slope, N of Llanrhystud, SN53857098, 17/2/2020, M.D. Sutton.
- 83.14. *Tortula lanceola*. 56:** soil on rock ledge over Magnesian Limestone in old quarry diggings, 60 m alt., Warsop Hills and Holes, SK55796787, 17/1/2020, T.L. Blockeel & M. Crittenden 49/006.
- 83.15. *Tortula wilsonii*. H21:** on compacted soil by sea, Red Rock, Howth, Dublin, O27683639, 30/11/2019, R.L. Hoddd & M. Pecchiari.
- 84.1.d. *Phascum cuspidatum* var. *papillosum*. 11:** steep south-facing coastal bank on bare mesic soil under a gappy elm hedge, 4 m alt., Little Anglesey Lagoon, Gosport, SZ60499879, 29/1/2020, J.A. Norton.
- 85.4. *Microbryum curvicollum*. 45:** crumbling calcareous clay soil at very top of cliff face, Stackpole National Nature Reserve: Box Bay, SR9827694327, 10/1/2020, M.D. Sutton.
- 85.5. *Microbryum floerkeanum*. 45:** centre of track across limestone grassland, on stone/clay matrix with *Pottiopsis caespitosa*, Castlemartin Range West, SR9166295215, 25/10/2020, M.D. Sutton.
- 86.2. *Henediella macrophylla*. 5:** muddy bank under fallen walnut by River Yeo, nr Ashlington, ST5656921605, 26/11/2020, A.J.P. Branson; **23:** on muddy path by arable field, at top of slope, Swyncombe, SU677894, 14/3/2020, S.V. O'Leary & S. White; **30:** on sandy forest track, Warden Warren, TL1442243561, 29/7/2020, S.V. O'Leary; **34:** on river bank, Wye Valley: Symonds Yat East, SO558154, 25/5/2012, T.W. Ottley 12052503, conf. T.L. Blockeel; **42:** footpath along northern bank of the Usk, Crickhowell, SO21251848, 1/10/2020, C. Halpin, new to Wales.
- 87.1. *Acaulon muticum*. 10:** on bare soil (ant hill) with *Bryum*, Golden Hill Country Park, Norton Green, SZ3406687858, 21/12/2020, G.R.L. Greiff; **42:** in disturbed thin vegetation over quarry spoil, 390 m alt., Craig y Cilau, SO18171668, 2/2/2020, S.L. Pilkington 20021.
- 89.1.b. *Syntrichia ruralis* var. *ruraliformis*. 8:** surface of little-used service road with *Didymodon vinealis*, 140 m alt., Salisbury Plain Military Area, Royal Aircraft Establishment, SU10254617, 21/6/2020, S.L. Pilkington 20061.
- 89.5. *Syntrichia virescens*. 62:** edge of tarmac path, St Nicholas Fields, York, SE61695180, 28/10/2020, S. Buckton, conf. T.L. Blockeel.
- 100.6. *Orthotrichum rupestre*. 63:** single tuft on sycamore trunk, Calder Holmes Park, Hebden Bridge, SD99482700, 27/1/2020, J.M. Turner.
- 100.8. *Orthotrichum obtusifolium*. 63:** bark of ornamental poplar trunk, 1.5 m high, with *Orthotrichum diaphanum*, SK33758853, Ruskin Park, Sheffield, SK337885, 10/1/2016, A. Baker

- GES & AGB 6234.
- 100.14. *Orthotrichum tenellum*. 21:** on trunk of a roadside *Tilia*, Muswell Hill: Colney Hatch Lane, TQ284907, 2/1/2020, J.G. Duckett.
- 100.16B. *Orthotrichum schimperi*. 24:** horizontal branch of a small tree, about 1 m above ground, N of a path, Cockshoots Wood, SP8731904132, 21/1/2020, S.V. O'Leary, plant attached to tree to mature capsules until May.
- 101.2. *Ulota drummondii*. 86:** on ash tree, 267 m alt., Drummarnock, NS7380686686, 20/8/2020, R.T. Whytock.
- 101.3A. *Ulota crispa* s. str. 8:** on branch of *Salix cinerea* in carr., 180 m alt., Gutch Common, ST897258, 13/5/2020, S.L. Pilkington 20051; **47:** bark of young oak tree, 185 m alt., Pont-Llogel: Coed Cop'r Graig SSSI, SJ032154, 24/7/2020, S.L. Pilkington 20072; **83:** on lower branch of *Cercidiphyllum magnificum* to N of Caledonian Hall, 15 m alt., Royal Botanic Garden, Edinburgh, NT24817529, 7/2/2020, E.M. Kungu (E); **88:** on *Salix caprea* in disused quarry, Birnam Quarry, NO03814031, 2/11/2020, S.L. Pilkington 20112; **110:** branch of willow by stream on steep coastal slope, 19 m alt., Cala Ghlumaig, Arnish, Isle of Lewis, NB42283084, 7/2/2016, T. ap Rheinallt 110/16/7, conf. T.L. Blockeel.
- 101.3B. *Ulota crispula*. 25:** branch of oak, Rendlesham Forest, Capel St Andrew, TM3570349095, 10/9/2020, R.J. Fisk, conf. T.L. Blockeel; **38:** growing on oak branch in shaded position in damp hollow in woodland, Sutton Park, Hartopp Gate, SP11259710, 15/11/2018, S. M. Phipps, det. T.L. Blockeel; **82:** partly wooded ravine, on *Salix* by stream, 280 m alt., Linn Dean SWT Reserve, Soutra, NT46715961, 21/9/2020, D.G. Long 46988 (E).
- 101.3C. *Ulota intermedia*. 25:** branch of oak tree, Tunstall Forest, Tunstall, TM3876654564, 6/9/2020, R.J. Fisk, conf. T.L. Blockeel; **38:** on birch bark in shaded wet woodland, Sutton Park, N side of Bracebridge Pool, SP098983, 23/10/2018, S. M. Phipps, det. T.L. Blockeel; **42:** on Ash, Bwlch Quarry, SO15952232, 30/6/2020, C. Halpin, conf. T.L. Blockeel; **75:** wet woodland, 80 m alt., Merkland Loch, NS3533, 11/2/2020, R.T. Whytock; **110:** branch of aspen at edge of moorland loch, 73 m alt., Loch Lathamul, Arnish Moor, Isle of Lewis, NB39153058, 21/8/2017, T. ap Rheinallt 110/17/32, conf. T.L. Blockeel.
- 101.5. *Ulota calvescens*. 87:** on *Salix* sp., 50 m alt., south of Slack Wood, NS9483991631, 11/3/2020, R.T. Whytock.
- 102.1.a. *Hedwigia ciliata* var. *ciliata*. 1:** on standing stone, Men-an-toil, SW429348, 28/9/2020, S. Rubinstein, conf. T.W. Ottley; **14:** on clay tile roof of gift shop, west facing, above vent, Bodiam Castle, TQ78332538, 18/10/2020, S. Rubinstein, J. Hutson & P. Howarth, BBS SE Group field meeting.
- 107.3. *Philonotis arnellii*. 3:** bare soil on side of a small stream running into the reservoir, 220 m alt., Burrator Reservoir: north shore, SX559689, 19/7/2020, T. Purches, det. N.G. Hodgetts.
- 111.18. *Bryum elegans*. 33:** thin soil over limestone boulder, 280 m alt., Cleeve Common, SO98362595, 23/2/2020, S.L. Pilkington 20022.
- 111.23. *Bryum pallescens*. 23:** on boardwalk under chicken wire, Withymead Nature Reserve, SU60058286, 14/10/2020, S.V. O'Leary.
- 111.24.a. *Bryum pseudotriquetrum* var. *pseudotriquetrum*. 42:** base-rich *Palustriella commutata* flush above stream, 510 m alt., Cwm Sere, SO02082170, 14/10/2020, S.L. Pilkington & P. Martin.
- 111.25. *Bryum caespiticium*. 5:** quarry (calcareous Upper Greensand), Higher Chillington, nr Crewkerne, ST39441020, 15/10/2020, A.J.P. Branson; **15:** edge of artificial pond, Sandwich Bay, TR3557, 7/10/2020, J. Langton & S. Buckingham.
- 111.33. *Bryum radiculosum*. 100:** on old mortar on wall, 37 m alt., Machrie Moor, Isle of Arran, NR9090932402, 13/10/2020, R.T. Whytock.
- 111.39. *Bryum tenuisetum*. 24:** on soil on S. side of moat, Harmanutes Moat, Burnham, SU9464785634, 24/7/2020, S.V. O'Leary.
- 111.43. *Bryum riparium*. 57:** in crevices on wet, near-vertical exposure of shale on steep bank, 340 m alt., Bray Clough, Kinder Scout, SK05809169, 15/7/2020, T.L. Blockeel 49/187.
- 111.47. *Bryum alpinum*. H15:** in stony flush, Derrygoolin South, R69809342, 18/8/2020, R.L. Hodd.
- 112.1. *Rhodobryum roseum*. 46:** on steep, shaded bank on SW side of stream, 100 m alt., Nant Fothau, SN35625493, 21/3/2020, T.W. Ottley & M.D. Sutton 20032101.
- 114.14. *Poblia flexuosa*. 5:** on sheer rock face, 410 m

- alt., Raven's Nest, SS77724097, 16/10/2020, S.L. Pilkington & A.J.P. Branson.
- 114.17. *Poblia lescuriana*. 45:** damp clay at edge of base-rich flush, Mynydd Dinas, SN0149036672, 5/12/2020, M.D. Sutton, conf. T.W. Ottley.
- 119.4. *Plagiomnium elatum*. 5:** scattered in M13 mire with abundant *Scorpidium cossonii*, Cobhay Moor (Clean Moor), ST087252, 15/5/2020, A.J.P. Branson; **6:** in flushed area with *Palustriella commutata*, Asham Wood, ST705465, 12/5/2007, A.J.P. Branson.
- 119.5. *Plagiomnium ellipticum*. H1:** on soil on raised ridge in dune slack, Maherabeg, Maharees, Q608150, 4/6/2020, R.L. Hodd.
- 123.1. *Leptotheca gaudichaudii*. 105†:** epiphytic on *Dicksonia antarctica* tree fern, 50 m alt., Attadale Gardens, NG925389, 6/10/2020, N.G. Hodgetts. New to Scotland, persisting introduction.
- 136.1.b. *Amblystegium serpens* var. *salinum*. 48:** on concrete, Gwaith Powdwr, near Penrhyndeudraeth, SH6138, 9/2020, M. Lawley.
- 137.4. *Hygroamblystegium humile*. 13:** poached damp neutral grassland near stream, with *Oxyrrhynchium hians*, 15 m alt., Knepp Estate, TQ13662051, 29/1/2020, S.L. Pilkington 20012.
- 140.2. *Drepanocladus aduncus*. H15:** in transition mire, north end of Lough Belsrah, M56870937, 9/9/2020, J. Conaghan.
- 142.1. *Santonia uncinata*. 52:** dune slack, with *Salix repens* and *Erica cinerea*, Cymyran, SH2986475748, 4/8/2020, R.A. Finch & S.J. Heathcote.
- 148.1. *Hamatocaulis vernicosus*. H15:** Derrygoolin South, R69489348, 18/8/2020, R.L. Hodd.
- 149.1. *Scorpidium revolvens*. 5:** basic flush, Nutscale Water, Wilmersham, SS85854280, 29/9/2020, A.J.P. Branson & S.L. Pilkington.
- 163.2. *Platyhypnidium lusitanicum*. 5:** in stream, Bincombe, near Dunkery Bridge, SS907407, 6/2/2020, A.J.P. Branson; **45:** splash zone of waterfall over edge of slate rock face, Foel Quarry, SN16632999, 7/11/2020, M.D. Sutton.
- 167.3. *Oxyrrhynchium schleicheri*. 47:** on soil, shaded bank by lane, south of Sarn, SO212900, 3/2020, M. Lawley.
- 170.3. *Brachythecium glareosum*. 7:** in tightly-grazed and species-rich CG2 chalk grassland, 220 m alt., Pewsey Downs National Nature Reserve, Walker's Hill, SU11446335, 13/6/2020, S.L. Pilkington.
- 170.5. *Brachythecium mildeanum*. 42:** gateway of stone track, 105 m alt., Llangenny, SO23981842, 29/8/2020, S.L. Pilkington & C. Halpin 20081.
- 171.1. *Scleropodium cespitans*. 72:** on stonework at edge of river, 10 m alt., Dumfries town, Whitesands, N bank of R. Nith, NX97177584, 24/5/2019, E.M. Kungu (E).
- 181A.1. *Microhypnum sauteri*. 108:** on top of limestone boulder on slope, 285 m alt., Creag nan Uamh, Inchnadamph, NC26951700, 6/4/2019, G.P. Rothero 2019005, det. T.L. Blockeel, conf. V. Hugonnot (Rothero, 2020).
- 186.2. *Heterocladium wulfsgerii*. 88:** a few scattered patches on sloping crag that is periodically irrigated, in sheltered location (east-facing), 640 m alt., Creag an Loch, near Farragorn Hill, NN8267654758, 30/8/2020, O. Moore; **101:** on rocks by river, 28 m alt., Avinigillan, NR8367, 26/8/2020, R.T. Whytock.
- 189.4. *Rhytidiadelphus loreus*. 31:** on ground in ancient wood, Salome Wood, nr Old Weston, TL12357796, 14/3/2020, M.O. Hill.
- 195.1. *Platydictya jungermannioides*. 45:** recess under flat limestone boulder on coastal cliff, St Govan's Head, SR9758392855, 3/2/2020, M.D. Sutton.
- 197.5. *Plagiothecium curvifolium*. 87:** base of tree, on roots at ground level, 55 m alt., Craigmad Wood SSSI, NS9620191789, 10/3/2020, R.T. Whytock.
- 197.6. *Plagiothecium platyphyllum*. 47:** on dripping rocks in ravine, W of Llawr-y-glyn, 4 miles NW of Llanidloes, SN99, 2/4/1975, M.F.V. Corley, det. G. Wolski (E00905428), ex. herb H. & M. Corley. As *Plagiothecium sylvaticum*, redetermined 2020.
- 197.7. *Plagiothecium cavifolium*. 69:** rock face at the top of a steep slope with scree, in a damp recess permanently flushed by water, 470 m alt., Mardale Waters, above Haweswater, NY456104, 10/12/2020, C. Shaw, conf. N.G. Hodgetts.
- 199.1. *Pseudotaxiphyllum elegans*. H15:** on bare rocky escarpment, Scalp, R67509358, 18/8/2020, R.L. Hodd.
- 200.2. *Herzogiella seligeri*. 5:** on fallen log, Newtown Copse, Yeovil, ST564155, 21/2/2020, A.J.P. Branson; **20:** on fallen decaying tree in semi-natural broad-leaved woodland, 45 m alt., Wormley, Watercress Trot, TL35580477, 19/6/2020, S.L. Pilkington; **33:** decaying wood by stream, 200 m alt., Birdlip: Fly-up Bike Park, SO92531537, 8/12/2020, S.L. Pilkington.

- 201.1. *Entodon concinnus*. 56:** with *Ditrichum gracile* and *Homalothecium lutescens* on thin soil over Magnesian Limestone in old quarry diggings, 60 m alt., Warsop Hills and Holes, SK5547967746, 17/1/2020, T.L. Blockeel & M. Crittenden 49/007.
- 204.2. *Sematophyllum substrumulosum*. 12:** on decaying coniferous log, Basingstoke: Peak Copse, SU591474, 2/1/2020, J.D. Sleath; **28:** on decaying fallen pine in mixed woodland, with *Herzogiella seligeri* and *Lophocolea heterophylla*, 15 m alt., Snettisham: Ken Hill Wood, TF67093510, 10/3/2020, S.L. Pilkington 20031; **29:** with *L. heterophylla* on decorticated conifer log in belt of woodland, 25 m alt., Barton Road Riffle Range, TL41285649, 6/7/2020, C.D. Preston; **30:** on rotten pine trunk by path near 'Queen Anne's Summerhouse', Warden Warren, TL1411843748, 28/7/2020, S.V. O'Leary & L. O' Leary.
- 208.1. *Antitrichia curtispindula*. 10 in (): among loose flints on the NE face, Boniface Down, SZ57, 4/1853, C.J.F. Bunbury, conf. C.D. Preston (CGE), luxuriant herbarium specimen.**
- 210.2. *Neckera crispa*. 31:** on elm trunk in ancient wood, Hamerton Grove, nr Hamerton, TL11797968, 14/3/2020, M.O. Hill.
- 210.3. *Neckera pumila*. 63:** on trunk of young *Fraxinus* in woodland, Crow Nest Lane, Hebden Bridge, SE00122637, 8/2/2020, J.M. Turner.
- 211.1. *Homalia trichomanoides*. H21:** large patch at base of tree adjacent to edge of reservoir, 150 m alt., Bohernabreena Reservoir, Glenasmole Valley SAC, O09002264, 16/4/2020, J.L. Denyer.

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Correction to 2019 Report

In the Moss Year Report for 2019, the record of *Oxyrrhynchium speciosum* for vc 46 (streamside clay at edge of willows and reeds, 10 m alt., Traeth y Coubal, SN37275935, 6 October 2019) was incorrectly attributed to Tom Ottley. It was in fact collected by Matt (M.D.) Sutton and forwarded by Tom. Apologies to both Matt and Tom for this error.

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