

The liverwort year – 2022

I have processed a healthy total of 69 liverwort specimens this year. The numbers are considerably up on 2021, largely thanks to a very productive trip to the Isle of Man by Des Callaghan. Vouchers from Scotland have also increased, while England and Ireland have stayed about the same (Table 1). There has been a significant decrease only in Wales, and there are no new vouchers from the Channel Islands. In addition to the vouchers, Tom Blockeel has contributed a bracketing (of *Moerckia flotoviana* from the 1923 BBS meeting in Derbyshire) and a deletion (*Douinia ovata*, also from Derbyshire). Unsurprisingly, then, the top contributor this year – by a long way – is Des Callaghan, with 14 vouchers. After Des, in descending order, are Rory Whytock (8), Nick Hodgetts (7), Sharon Pilkington (4) and Gordon Rothero and George Smith (3 each), with many other recorders contributing one or two vouchers. Five vouchers resulted from the summer meeting on Jura.

The most striking thing about the vouchers

from the Isle of Man is the high proportion of debracketings. This not only reflects the fact that both resident bryologists and visits by bryologists are, and have always been, few and far between, but also that records from Jean Paton's bryophyte flora of the island (Paton, 1971) are mostly pre-1970, and so have gone into brackets in the new Census Catalogue. Of the species that have not previously been recorded from the Isle of Man, the apparent absence of *Colura calyptrifolia* was a clear gap to be filled, and this has now been done.

The hot, dry summer in the south resulted in a good exposure of mud on the margins of ponds and reservoirs, and a remarkable outbreak of records of *Riccia huebeneriana*. As well as being recorded from many of its known sites, it was seen for the first time in West Cornwall and both of the Hampshire vice-counties (Fig. 1). Another liverwort notable for multiple vouchers is *Marsupella aquatica*. Now that we are learning to distinguish it from *M. emarginata*, it

Table 1. Analysis of amendments to the Census Catalogue for 2022

	2022					2021				
	England	Wales	Scotland	Ireland	Isle of Man	England	Wales	Scotland	Ireland	Isle of Man
New entries	8	3	18	11	6	6	7	13	9	-
Debrackets*	7	1	7	1	7	8	2	4	4	-
Persisting	-	-	-	-	-	-	-	-	-	-
Bracketings*	1	-	-	-	-	1	-	1	-	-
Deletions	1	-	-	-	-	-	-	-	-	-
Totals	17	4	25	12	13	15	9	18	13	-

*Debrackets are existing vice-county entries for which a post-1970 record has been vouched. Bracketings are existing entries for which the post-1970 records are unconfirmed or erroneous but older record(s) are known or thought to be valid.



△ Figure 1. Searching for *Riccia huebeneriana* (inset) along the drawdown zone of a pond at Avon Heath Country Park, S. Hampshire. John Norton, Andrew Branson (inset)

is emerging as a fairly common plant in upland and northern areas. The other side of this coin, though, may be that some of the existing records

▽ Figure 2. *Southbya tophacea* on chalk bank, Melbury Wood, Dorset. Andrew Branson



of '*M. emarginata*' may in fact refer to *M. aquatica*. I know that I was not very assiduous in distinguishing between these two taxa in the past, when they were regarded as varieties of *M. emarginata*. *Lophocolea semiteres* has also been newly recorded from four vice-counties, including one in Ireland, as it continues its vigorous onward march.

Andrew Branson's record of *Southbya tophacea* from a chalk bank by a forestry track in Dorset is one of the most pleasing records of the year (Fig. 2). This rare plant also had a new record last year (in Ireland), and should be looked out for on disturbed calcareous substrates in the south. Andrew also managed to find *Aneura mirabilis* in Somerset's Blackdown Hills, another plant that is always exciting. Peter Rooney's *Sphaerocarpos michelii* from Somerset is significant, being a small south-western extension of its range on the English mainland. In North Somerset, Sharon



△ Figure 3. Habitat of *Plagiochila exigua* and *Radula voluta*, Scalpnagown, Co. Clare. Rory Hodd

Pilkington found *Targionia hypophylla* on a cliff in Draycott Sleights Nature Reserve, the first time it has been recorded in the vice-county since P.G.M. Rhodes's 1915 record in Cheddar Gorge. *Targionia* is widely perceived to be on the decline in Britain, but perhaps the increasingly Mediterranean climate of southern England will favour it. One of Des's Isle of Man vouchers is of *Lophozia excisa* on quarry spoil; Mark Hill had the same species on what he describes, with characteristic flair, as 'fell-field' vegetation developing over industrial waste at Redcar in Yorkshire.

Scotland has produced what are possibly my favourite records of the year: *Dumortiera hirsuta* and *Phaeoceros laevis* from a waterfall by 'a car park behind a block of flats' on Arran, from Liz Kungu and Hannah Udall: wonderfully incongruous, yet somehow typical of the often unexpected nature of bryophytes. *Riccia fluitans* was recorded new

to Scotland twice, independently. Could one speculate that it is moving north in response to climate change? *Colura calyptrifolia* has appeared at another eastern site, found by Gordon Rothero at Loch Leven in Fife. Rory Whytock's record of *Lophocolea bispinosa* at Grantown-on-Spey represents a considerable range extension north of this introduced species, and his Perthshire record of *Calypogeia suecica* is some way south-east of previous records of that species. Rory has also been following in the footsteps of the great Symers M. Macvicar, finding two plants last seen in their respective vice-counties by Macvicar in 1898: the beautiful *Sphenobolus saxicola* from crags just above Aviemore and *Nardia breidleri* from Coire an t'Sneachda in the Cairngorms. Both were at the same locations where they were found by Macvicar over 120 years ago.

Two records of alpine species have emerged from re-examination of herbarium specimens.

Rory Whytock's 2017 record of *Gymnomitrium brevisimum* on Ben Lomond is the furthest south this plant has been seen since David Long's 1981 record of it on Ben Ime, on the other side of Loch Lomond. Nick Hodgetts returned to a 2014 *Marsupella* specimen from the Cairngorms that had been put aside unidentified, and eventually concluded it was the rare (but probably overlooked) *M. sparsifolia*.

In Ireland, *Plagiochila exigua* and *Radula voluta*, both recorded from Co. Clare by Rory Hodd and Micheline Sheehy Skeffington (Fig. 3), satisfyingly fill gaps between the Kerry and Galway populations of these two oceanic species. The finding of *Mesoptychia fitzgeraldiae* in Co. Antrim likewise fills a gap, this time between the limestone of north-west Ireland and the Scottish populations. George Smith has been particularly

busy in the still under-recorded Irish Midlands, with useful vouchers from Cos Laois (Leix) and Offaly.

The entry for *Lophozia ventricosa* var. *silvicola* will be the last for a while. The *L. ventricosa* complex has been something of a muddle for some time, with bryologists in different parts of Europe having very different views on the taxa involved. The oil body character that has traditionally been used to differentiate the two varieties of *L. ventricosa* seems to be pretty worthless, as the nature of the oil bodies changes as specimens age. The good news is that there are people working on the *L. ventricosa* complex, using both morphological and molecular techniques, so we can (I hope) look forward to clarification in due course. Anyway, I have decided only to accept vouchers for *L. ventricosa* sens. lat. until the taxonomy is resolved.

As usual, my sincere thanks to everyone who has taken the trouble to submit a voucher. I've always been a fan of recording on a vice-county basis, as there is always a small *frisson* of excitement when one finds something new, and the vice-county is a stable and user-friendly spatial unit. I can remember the time when there was a lot of debate over the value of recording vice-counties, some recorders encouraging the replacement of the 'vice-county unit' with the '10 km² square unit'. These days, though, it is so straightforward to include *all* spatial data in a record, that the debate has largely become redundant.

New vice-county records and amendments

Vouchers from England and Wales, and most of those from Scotland, are deposited in the BBS herbarium (**BBSUK**); some from Scotland are deposited at the Royal Botanic Garden, Edinburgh (**E**), and these are indicated in the text; those from Ireland are in the National Botanic Garden, Glasnevin, Dublin (**DBN**).

▽ Figure 4. *Targionia hypophylla*, Draycott Sleights, N. Somerset. Sharon Pilkington



Hornworts

- 2.1. *Phaeoceros laevis*. 100:** at base of sandstone cliff forming side wall to car park, 10 m alt., Lamlash, car park at back of flats, NS02833128, 16 May 2022, E.M. Kungu & H. Udall, E.

Liverworts

- 3.1. *Sphaerocarpos michelii*. 5:** compacted soil with standing water in places along field margin, extending into arable crop, 90 m alt., Kingstone, S. of All Saints' Church, entire northern field margin, ST3798713580, 22 March 2022, P. Rooney.
- 5.1a. *Marchantia polymorpha* subsp. *polymorpha*. H18:** reedswamp in lakeshore fen and cutover bog, 70 m alt., Lough Nahinch, R9975293476, 23 November 2021, G.F. Smith & W. Crowley 2127043.
- 5.1b. *Marchantia polymorpha* subsp. *ruderalis*. 112:** tarmac footpath in housing estate, 30 m alt., Lerwick, Sound, HU459404, 8 July 2022, N.G. Hodgetts 11474.
- 8.1. *Targionia hypophylla*. 6:** thin soils on S.-facing limestone cliff, 230 m alt., Draycott Sleights Nature Reserve, ST48335175, 10 April 2022, S.L. Pilkington (Fig. 4).
- 9.1. *Conocephalum conicum*. H18:** travertine boulder in stream in riparian hazelwood with tufa stream, 135 m alt., Glenafelly stream upstream of Ballyshane Bridge, N186038, 12 September 2022, G.F. Smith 2207030.
- 10.1. *Riccia cavernosa*. 24:** in drawdown zone, 40 m alt., Stanton Low Lake, SP83714328, 12 August 2016, A.M. McVeigh, conf. F. Higgs.
- 10.3. *Riccia huebeneriana*. 1:** on mud in the drawdown zone, 160 m alt., Stithians Reservoir, SW71583582, 12 November 2022, L. Parkerson; **11:** draw-down margin of pond on dry heath, 30 m alt., Avon Heath Country Park, Brocks Pine, Ringwood, SU13300391, 25 September 2022, R.J. Sharp (Fig. 1); **12:** on damp, trampled margin of partly dried-out shallow pond in sandy heathland, with *Pseudephemerum nitidum*, 80 m alt., Hogmoor Inclosure, Bordon, SU78893494, 28 September 2022, J.A. Norton.
- 10.4. *Riccia fluitans*. 99:** locally abundant, free floating among *Lemna trisulca*, 70 m alt., Caldervan Loch, NS423838, 3 September 2022, N.F. Stewart & S. Bell; **106:** edge of pond amongst vegetation, in good quantity, 18 m alt., Allangrange Mains,



△ Figure 5. *Aneura mirabilis* under *Sphagnum palustre*, Fresh Moor, S. Somerset. Andrew Branson

- NH6253251289, 9 June 2022, G. Routledge & R.T. Whytock.
- 10.9. *Riccia glauca*. 104:** soil in flower beds, with *Solenostoma gracillimum*, 30 m alt., Viewfield Garden Collective, Portree, NG475431, 22 September 2022, N.G. Hodgetts 11479.
- 12.1. *Dumortiera hirsuta*. 100:** rock at base of waterfall over sandstone cliff, 10 m alt., Lamlash, car park at back of flats, NS0283531290, 16 May 2022, E.M. Kungu & H. Udall, E.
- 14.9. *Fossombronia incurva*. 6:** on top of long-disused coal tip, 200 m alt., Chilcompton, Downside, ST64975056, 22 January 2022, S.L. Pilkington; **71:** short turf along footpath through dune heath, 5 m alt., The Ayres NNR, NX4246003171, 16

March 2022, D.A. Callaghan.

- 16.2. *Moerckia flotoviana*. (57):** near Burbage, Buxton, SK07, August 1923, BBS (LIV) (T.L. Blockeel, pers. comm., Jan. 2023).
- 20.2. *Aneura mirabilis*. 5:** under hummock of *Sphagnum palustre* by birch, 200 m alt., Fresh Moor SSSI, nr. Buckland St Mary, Blackdown Hills, ST27981251, 20 December 2022, A. Branson (Fig. 5).
- 21.5. *Riccardia latifrons*. 71:** damp peat along walled track through *Molinia* mire, 10 m alt., The Curragh, SC3630894975, 18 March 2022, D.A. Callaghan.
- 22.5. *Porella pinnata*. H29:** 40 m alt., Dromahaire Bridge, R. Bonet, G798316, 1 September 2021, N.F. Stewart, conf. R.L. Hodd.
- 23.3. *Radula voluta*. H9:** damp rock faces on wooded scarp, 80 m alt., Scalpnaigow, R462915, 21 April 2022, R.L. Hodd & M. Sheehy Skeffington (Fig. 3).
- 25.1. *Jubula hutchinsiae*. H31:** earth bank in deeply shaded river gorge, 120 m alt., Marble Bridge, Ravensdale, J082157, 27 September 2022, M. Lyons & D. Doogue.
- 27.1. *Myriocoleopsis minutissima*. 73:** on willow in woodland between rivers, 30 m alt., Newton Stewart, NX41016631, 13 October 2022, S.L.

▽ Figure 6. *Colura calyptrifolia*, Cornelly Mine, Isle of Man. Des Callaghan



Pilkington & P. Thompson 22108.

- 28.1. *Colura calyptrifolia*. 71:** trunk of *Salix*, 140 m alt., Cornelly Mine, SC2965079539, 9 March 2022, D.A. Callaghan (Fig. 6); **85:** on leggy heather at base of crag, 265 m alt., N.E. of Benarty Hill, RSPB Loch Leven reserve, NT16319835, 6 November 2022, G.P. Rothero 2022152.
- 29.1. *Drepanolejeunea hamatifolia*. 41:** on hazel stem in flushed woodland, 340 m alt., Cwm Taf Fechan, SO0611310346, 2 November 2022, D.A. Callaghan.
- 30.1. *Harpalejeunea molleri*. 2:** epiphyte on oak by bouldery woodland stream, 200 m alt., Withey Brook, Trebartha, SX25387693, 28 March 2022, T.L. Blockeel 51/033; and on hazel by stream at the same site, SX25727722, G.P. Rothero 2022019.
- 31.3. *Lejeunea patens*. H18:** on hazel in riparian hazelwood with tufa springs, 135 m alt., Glenafelly stream upstream of Ballyshane Bridge, N1866303846, 12 September 2022, G.F. Smith 2207032.
- 33.1. *Microlejeunea ulicina*. 32:** creeping through *Platygyrium repens* growing on cherry, 140 m alt., High Wood, SP5854, 23 April 2022, R.H. Carter.
- 39.2. *Kurzia sylvatica*. 102:** vertical mossy rock face, 50 m alt., Glenpatrick, NR5074480039, 22 June 2022, S.V. O'Leary.
- 44.2. *Lophocolea bispinosa*. 95:** sandy/fine grit on pathside in park, 210 m alt., Grantown-on-Spey, Grant Park, NJ0295027242, 9 February 2022, R.T. Whytock.
- 44.3. *Lophocolea heterophylla*. 71:** rotten log, 80 m alt., Molly Quirk's Glen, SC4036378876, 18 March 2022, D.A. Callaghan.
- 44.4. *Lophocolea semiteres*. 49:** damp soil/gravel on quarry floor, 25 m alt., Penrhyn Glas Quarry, Pen Llyn, SH33494372, 6 December 2022, M. Lawley & P. Thompson; **74:** in peaty hollow on open rocky knoll in woodland garden, 100 m alt., Glenwhan Garden, nr. Dunragit, NX15185867, 29 August 2022, D.G. Long 47524, **E; 95:** rotting log in woodland, 215 m alt., Speybridge, NJ0345426840, 18 February 2022, R.T. Whytock; **H2:** beside small road in woodland, 30 m alt., Dinis, Killarney National Park, V9481984840, 31 December 2021, R.L. Hodd.
- 48.6. *Plagiobhila spinulosa*. 71:** rock outcrop in deep ravine, 40 m alt., Groudle Glen, SC4164578650, 11 March 2022, D.A. Callaghan.



△ Figure 7. *Sphenobolus saxicola*, Creag na h-Iolaire, Moray. Rory Whytock

- 48.9. *Plagiochila exigua*. H9:** rock faces on wooded scarp, 80 m alt., Scalpnagown, R462915, 21 April 2022, R.L. Hodd & M. Sheehy Skeffington (Fig. 3).
- 53.1. *Southbya tophacea*. 9:** single patch on chalky bank above forestry track, 225 m alt., Melbury Wood, nr. Shaftesbury, ST9122019724, 4 January 2022, A. Branson (Fig. 2).
- 54.7. *Calypogeia suecica*. 89:** on large rotten log by track, 110 m alt., Loch Faskally, Dunmore Hill, NN9200158718, 14 September 2022, R.T. Whytock.
- 57.4. *Mesoptychia fitzgeraldiae*. H39:** damp crevices in N.E.-facing limestone cliff, 160 m alt., Fair Head & Murlough Bay ASSI, D193417, 14 October 2022, N.G. Hodgetts 11487.
- 60.1. *Jungermannia atrovirens*. 71:** rock crevice beside stream, 75 m alt., Great Laxey Mine, SC4323585317, 13 March 2022, D.A. Callaghan.
- 65.3. *Nardia geoscyphus*. H39:** turf below N.E.-facing limestone cliff, 160 m alt., Fair Head & Murlough Bay ASSI, D19304171, 14 October 2022, N.G. Hodgetts 11491.
- 65.5. *Nardia breidlerii*. 96:** solifluction terrace at base of crags, 960 m alt., Coire an t'Sneachda, NH993030, 2 September 2021, R.T. Whytock.
- 66.2. *Gymnomitrium obtusum*. 102:** steep rocky hillside, on large boulder in scree, 270 m alt., Gleann Astaile, Aonach Bheinn N. slope, NR48017107, 19 June 2022, D.G. Long 47438, E.
- 66.6. *Gymnomitrium brevissimum*. 86:** south of summit, 950 m alt., Ben Lomond, NN3685002690, 20 July 2017, R.T. Whytock.
- 67.2. *Marsupella emarginata*. 71:** rock outcrop beside stream, 190 m alt., Great Laxey Mine, SC4320785624, 13 March 2022, D.A. Callaghan.
- 67.3. *Marsupella aquatica*. 42:** rock face, 610 m alt., Brecon Beacons, Llyn Cwm Llwhc – Corn Du, SO0016421822, 4 March 2022, P. Martin; **97:** growing where regularly submerged at edge of loch, 390 m alt., Loch Ossian, NN393677, 2 August 2022, O. Moore; **102:** dry streambed, 280 m alt., Gleann Astaile, NR47877104, 19 June 2022, C. Halpin; **111:** damp, shaded, acid rocks, 20 m alt., Hoy, Runcigill, ND213987, 6 May 2022, J. Crossley.

- 67.9. *Marsupella sparsifolia*. 96:** in hepatic crust in area of late snow-lie, 1160 m alt., Cairn Gorm, nr. Marquis' Well, NJ00820444, 3 September 2014, N.G. Hodgetts 8420.
- 71.6. *Cephalozia lunulifolia*. H14:** pine stump in cutover bog and lagg woodland, 100 m alt., Abbeyleix Bog, S4383, 22 March 2021, G.F. Smith 2109034.
- 71.7. *Cephalozia pleniceps*. 102:** creeping through *Sphagnum subnitens* in coastal heath, 30 m alt., Ruantallain, NR50798352, 20 June 2022, N.G. Hodgetts 11467.
- 71.9. *Cephalozia connivens*. 71:** damp peat along wallaby track through *Molinia* mire, 10 m alt., The Curragh, SC3631094979, 18 March 2022, D.A. Callaghan.
- 72.1. *Odontoschisma fluitans*. 95:** sparsely wooded *Sphagnum* mire, 205 m alt., Anagach Woods, NJ0390927202, 15 February 2022, R.T. Whytock; **H30:** amongst *Sphagnum papillosum* in old *Sphagnum*-filled peat trenches in cut-over bog, 40 m alt., Cranaghan, Ballyconnell, H287172, 6 December 2022, M. Eakin.
- 74.1. *Sphenobolus minutus*. 62:** with *Leucobryum* on N.-facing slope on side of acidic gully, 300 m alt., Dunsforth's Hill, Kewwick Moor, SE48789164, 9 September 2022, C.D. Preston.
- 74.2. *Sphenobolus saxicola*. 95:** block scree, 465 m alt., Creag na h-Iolaire, NH8742712464, 29 October 2022, R.T. Whytock (Fig. 7).
- 76.2. *Orthocaulis atlanticus*. 85:** on open rock on broken crags, 265 m alt., N.E. of Benarty Hill, RSPB Loch Leven reserve, NT16329835, 6 November 2022, G.P. Rothero 2022153.
- 81.6. *Barbilophozia sudetica*. 71:** stone ledge of old mine building, 170 m alt., Glen Auldyn Mine, SC4195190985, 17 March 2022, D.A. Callaghan; **102:** boulder scree on N.-facing hillside, 350 m alt., Corra Bheinn, NR5276, 23 June 2022, N.G. Hodgetts 11470.
- 87.1b. *Lophozia ventricosa* var. *silvicola*. 71:** peaty bank in wooded ravine, 30 m alt., Dhoon Glen, SC4578186467, 12 March 2022, D.A. Callaghan.
- 87.5. *Lophozia excisa*. 62:** on flat soil in 'fell-field' derived from industrial waste, 5 m alt., South Gare, nr. Redcar, NZ557271, 11 September 2022, M.O. Hill; **71:** bank of spoil in disused sand quarry, 5 m alt., Point of Ayre Nature Reserve, NX4603403877, 19 March 2022, D.A. Callaghan.
- 89.3. *Tritomaria quinquedentata*. 71:** steep N.-facing coastal slope, 110 m alt., Bradda Head, SC1857870305, 10 February 2022, D.A. Callaghan.
- 93.1. *Douinia ovata*. Delete 57:** Kinder Scout, March 1882, J. Whitehead & G.A. Holt (**BM, OLD**). The record from Kinder Scout (J. Whitehead and G.A. Holt, March 1882) is unconfirmed. Vouchers in **BM** and **OLD** are very poor and scanty, and appear to contain only *Scapania umbrosa* mixed with other species (T.L. Blockeel, pers. comm., Jan. 2023).
- 94.1. *Scapania compacta*. 71:** open turf on coastal headland, 100 m alt., Bradda Head, SC1855270249, 10 March 2022, D.A. Callaghan.
- 94.21. *Scapania gracilis*. 8:** fallen and decorticated oak, 140 m alt., Norridge Wood, ST84804579, 6 February 2022, S.L. Pilkington 22016.
- 94.5. *Scapania scandica*. 45:** crevice in igneous boulder scree, 365 m alt., Carnmenyn, Mynydd Preseli, SN1443832451, 9 January 2022, M.T. Sutton.

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Reference

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