

Mark Hill presents the 11th instalment in his occasional column reporting recent rare and interesting records.

In this batch of R&I, the rarest of the rare is undoubtedly *Leptodontium proliferum*, which has reappeared after a lapse of 10 years. Like several other bryophytes, it must have hidden away in very low quantities, waiting for the return of favourable conditions. *Orthodontium gracile* is one species that does this (Porley & Matcham, 2003); *L. proliferum* is presumably another. Even so, the thread of its survival in the Northern Hemisphere must be tenuous. Two other exceptionally rare species were found in new localities. *Grimmia muehlenbeckii*, very poorly known to most British bryologists, was found on a characteristic substrate at a completely new locality in Ayrshire. The elusive *Orthotrichum consimile* was found at a fifth British site. It still seems to behave like an occasional stray from the European continent, but unlike *Ptilidium pulcherrimum* which does not produce capsules in southern Britain, *O. consimile* fruits freely. Perhaps it will soon be established over here.

The north-east of England is particularly well represented. Not only have John O'Reilly and co-workers found several scarce and rare species, but David Shimwell has substantially raised the altitude limit for *Ricciocarpos natans* in Weardale. Altitude limits ought not to occur near the northern limit of range, though it admittedly goes further north in Sweden.

The BBS database is at the present not too hot on records of fruiting, especially of common

species that only fruit occasionally. This fact is shown up by Graham Motley's report of fruiting *Pleurozium schreberi*. In the database, fruiting is reported only in Wales, but in the past *P. schreberi* fruited more frequently in Scotland. The scarcity of such records may be due to the season when capsules mature. Most recording in Scotland happens in the summer, so species that fruit in winter and early spring tend to be missed. No doubt the old setae are there, but most of us do not spend our short time in Scotland digging about in tufts of common pleurocarps. As a result, it is impossible to find out about good fruiting years from the database. Tom Blockeel speculates that 2011 may have been a bumper year for fruiting *Syntrichia latifolia*, but then he partially refutes his own hypothesis by noting old setae from one of his sites. *Rhytidiadelphus squarrosus* (not included in the present report) must surely have had a bumper year back in March 1980, when it fruited copiously all over the lawn of my workplace in Bangor. In the six subsequent years, I never saw a single capsule there.

An unusual report is of protonemal gemmae in the field. Those of us who go into the field with Jeff Duckett will know that in some species such as *Dicranella heteromalla* and *Orthodontium lineare*, protonemal gemmae are really abundant. Des Callaghan's rediscovery of such gemmae in *Didymodon sinuous* is therefore remarkable. Its

normal means of propagation has always been mysterious. It is always female and therefore presumably a single clone. (I suspect it of being an intergeneric hybrid because of its atypical axillary hairs.) Are those fragile leaves important? Perhaps not. It could have been fooling us all along by reproducing from its nether parts.

Finally, in the regionally notable records, it is good to see that Sam Bosanquet has refound *Sphagnum strictum* in Wales after the lapse of 45 years. Small, isolated colonies can be remarkably persistent.

Nationally rare or scarce

69.13. *Scapania deganii*. 66: in exceptionally species-rich calcareous grassland in flood plain, with several other arctic-alpine species, 395 m alt., Sand Sike, NY84333093, 2009, O'Reilly, conf. Long. Third record for Co. Durham, 1 km down the sike from where Martha Newton found it in 1999. These two records are the first English records since 1972.

21.11. *Schistidium robustum*. 67: on limestone near stream, 450 m alt., near junction of Wolf Cleugh and Long Grain, NY6547, 2009, O'Reilly, conf. Bosanquet. Second Northumberland record of a species that may turn out to be relatively frequent.

22.17. *Grimmia orbicularis*. 9: South-facing wall of church, 40 m alt., Bradford Peverell church, SY6580393019, 2011, Callaghan. Third post-1950 record for Dorset and first record away from Portland since 1931.

22.23. *Grimmia muehlenbeckii*. 75: on rock slab on south-east-facing rocky slope, 228 m alt., Grey Hill, south of Girvan, NX15829229, 2009, Long 38320, conf. Maier. Second Ayrshire record of this newly recognized and very rare specialist of ultrabasic igneous rocks.

55.2. *Dicranodontium asperulum*. 67: crevices of large sandstone outcrops, 455 m alt., Dinmount

Lairs, NY593826, 2010, O'Reilly, conf. Rothero. Second Northumberland record and first since John Blackburn discovered it in 1995.

77.3. *Leptodontium proliferum*. 59: on dead grass matter within inside edge of bowling green, 220 m alt., Victoria Park, Haslingden, SD7869822287, 2011, Callaghan. Frequent, scattered colonies around edge of green. First record since 2000 following several previous unsuccessful searches at its only known European site.

83.4. *Tortula freibergii*. 58: on soft, damp sandstone blocks of dock wall near water-level, 0 m alt., Manchester Ship Canal (Runcorn Dock), SJ5017582905, 2011, Callaghan. First record from Manchester Ship Canal.

100.19. *Orthotrichum consimile*. 57: on small willow tree by disused railway on limestone, 335 m alt., Sparklow, 2.5 km west of Monyash,



SK129657, 2011, Blockeel 40/389. The capsules were newly dehisced on 26 July, revealing the pale whitish peristome. Second record for Derbyshire and fifth recent record for Britain. This locality also raises the altitudinal limit for this species in Britain by 35 m.

141.1. *Tomentypnum nitens*. **66**: calcareous mire, 380 m alt., Shield Green above Waskerley Reservoir, NZ016442, 2010, Mclay. Second modern record for County Durham; not seen in this area since 1832.

176.1. *Campylophyllum calcareum*. **17**: on hard, shaded, chalky soil beside a footpath, 50 m alt., Norbury Park, part of the Mole Gap to Reigate SSSI, TQ168537, 2010, Wallis; and in shade, on chalk exposed by a long fallen beech tree, 125 m alt., Sheeplees SSSI, TQ092517, 2011, Wallis. Second and third Surrey records since 1975.



◁ *Tortella inflexa*
with capsules in
Gloucestershire.
R.V. Lansdown

Altitude records

11.1. *Ricciocarpus natans*. **66**: pond, 0.5–1.0 m depth, in disused Carboniferous limestone quarry, with *Lemna minor* and *Typha latifolia*, 250 m alt., Red Vein Quarry, Weardale, NY 988408, 2011, Shimwell; also in a nearby pond, 0.4 m depth, with *Lemna minor*, *L. trisulca* and *Typha latifolia*, 250 m alt., Ashes Quarry, NY993400, 2011, Shimwell. Altitude 100 m higher than in Paton's flora.

50.1. *Schistostega pennata*. **57**: in recesses on Millstone Grit crag on high moorland, 480 m alt., Derwent Edge near Dovestone Tor, SK1965 8978, 2011, Blockeel. This is 120 m higher than previous British maximum; the crag was otherwise unremarkable.

Fruiting or with gemmae

22.20. *Grimmia trichophylla*. **26**: on siliceous stone capping of parapet on bridge over railway line, 35 m alt., near Thurston, TL955645, 2011, Fisk, conf. Porley. Capsules are rarely produced in lowland Britain, but were abundant here.

61.6. *Tortella inflexa*. **33**: on stones placed in spring outflow to reduce scour flowing through calcareous fen, 175 m alt., Brassey Nature Reserve, near Upper Slaughter, SP139223, 2011, Lansdown & Meakin, conf. Blockeel. Four clumps with mature capsules on one stone, abundant on other stones, forming extensive vegetative swards. There are only two other authenticated records with capsules in Britain (Porley, 1999).

79.11. *Didymodon sinuosus*. **1**: on mortar of bridge wall, 20 m alt., St Mawgan, SW87268 66002, 2010, Callaghan. Protonemal gemmae present and confirmed by Matcham. Neither he nor Jeff Duckett had previously seen such gemmae, although Whitehouse (1987) found them in cultivated material. However, Correns



▷ Epiphytic
Fissidens taxifolius.
C.R. Stevenson

(1899) had reported gemmae from a Sussex plant in the late 1880s.

89.8. *Syntrichia latifolia*. 38: on *Salix*, mixed with *S. laevipila*, 30 m alt., Stratford, by River Avon, SP198535, 2011, Blockeel. Capsules fully exerted but not yet mature. **57:** In 2011, capsules were found in three Derbyshire locations, and it is not clear whether these result from greater awareness, or from unusual environmental factors during the previous months. (1) On bole of ash tree by working limestone quarry, 190 m alt., Ballidon, SK2054, Blockeel. *S. latifolia* was abundant on trees by the quarry, but fertile plants were noted only on one tree in small quantity. Both emergent setae and the remnants of old capsules were present in mid-January, indicating that fruiting was not a one-off event at this site. (2) Base of ash tree, 25 m alt., by River Trent, near Sawley, SK478 308, 2011, Blockeel. Here in its typical riverside habitat, capsules were found on a single tree base and were fully exerted, but not yet mature in late February. (3) Base of ancient ash tree above normal flood level of river, with

S. papillosa, 115 m alt., above bank of River Wye near Haddon Hall, SK2267, 2011, Blockeel *et al.*

111.47. *Bryum alpinum*. 42: on riverside rocks, 350 m alt., River Tawe, about 2 km down from source, SN852200, 2011, Motley. Two patches with sparse fruits, of a species that is rarely found fruiting.

116.6. *Mnium stellare*. 42: on mortar with some seepage of water, entrance to disused railway, 330 m alt., Cwm Clydach near Blackrock, SO21791213, 2011, Motley. Very rare with capsules; there are no fruiting records in the BBS database. In this locality, *M. stellare* was first noted with capsules by Bosanquet and Motley in 2000 and has been seen fruiting at intervals over the past 11 years.

181.7. *Hypnum imponens*. 67: habitat not noted, 250 m alt., near East Horse Hill, NY 77U, 2009, O'Reilly, conf. Smith. Very rarely found fruiting in Britain, but here with mature capsules.

188.1. *Pleurozium schreberi*. 35: moorland, 450 m alt., head of Nant Llanellen, Bloreng,

SO270107, 2011, Motley. With ripe capsules on 2 March 2011. The only records of fruiting *P. schreberi* in the BBS database are three post-2000 records by Motley and Bosanquet from Wales, on shaded banks with *Vaccinium myrtillus*. However, Longton & Greene (1969, 1979) found that it fruited frequently in northern Scotland but rarely in southern Britain. This was due mainly to a shortage of male plants, though the possibility that male plants are less often fertile (the 'shy male hypothesis') was not completely ruled out as a contributory factor.

Unusual habitat or substrate

30.15. *Fissidens taxifolius*. 28: epiphytic on *Crataegus monogyna*, at a height of about 1 m in scrubby woodland by side of a track, 6 m alt., Marham Fen, TF722112, 2011, Stevenson. Exceptional habitat for a genus that is occasionally epiphytic in western ravines but is almost exclusively terrestrial in the east.

Regionally notable records

37.1. *Trichocolea tomentella*. 17: partially submerged on a stream side in mixed (mainly coniferous) woodland, 75 m alt., Frillinghurst Wood, SU930344, 2010, Wallis. First Surrey record since 1976, a single small patch.

60.5. *Barbilophozia attenuata*. 17: on sandy soil on a steep bank beside a footpath, 75 m alt., Moor Park LNR, SU870458, 2010, Hendey. Third record for Surrey since 1950. Several patches, refound 2011 by Wallis.

1.18. *Sphagnum strictum*. 48: on steep rock outcrop with *Campylopus atrovirens* and *Erica cinerea*, 380 m alt., Cwm Nant Llyn-du, Rhinog Fawr, SH665295, 2011, Bosanquet. Abundant over 3 × 3 m. Second confirmed record for Wales, close to where it was discovered by John Birks in 1966.

89.5. *Syntrichia virescens*. 58: on damp tarmac footpath, 60 m alt., South Hill Road, Helsby, SJ4906275036, 2011, Callaghan. Second record for Cheshire of a plant that is rare in western Britain.

112.1. *Rhodobryum roseum*. 68: at base of north-facing calcareous cliffs of volcanic rock, 220 m alt., west of The Cottage, NT8897131502, 2010, O'Reilly & O'Reilly. Third record for vice-county and first since 1963.

114.16. *Pohlia lutescens*. 59: on soil bank of stream in woodland, 35 m alt., Glass House Close Wood (ancient woodland section), SJ5397, 2011, Callaghan. Second record for South Lancs.

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