

Recording

Bryophyte news and records, August 2023

John Norton

This is an update to my report in the last issue (*Flora News* 64, p. 26–31) and completes the reporting of new county and vice-county records for the 2022/23 winter.

Publications

Tom Ottley's study of *Leucobryum* in Britain, mentioned in the last report, was published in March, and in April Des Callaghan published an updated Red List of British bryophytes (full references below). I have not fully checked to see what changes are applicable to Hampshire and Isle of Wight species, but *Codonoblepharon forsteri*, *Cephaloziella baumgartneri* and *Tortula cuneifolia* (the latter extinct in Hampshire) remain as EN (Endangered) and *Philonotis marchica* (the Isle of Wight speciality) is upgraded from EN to CR (Critically Endangered).

Callaghan, D.A. 2023. A new IUCN Red List of the bryophytes of Britain, 2023, *Journal of Bryology* 44(4): 271–389. doi.org/10.1080/03736687.2023.2185393

Ottley, T. Kučera, J. Blockeel, T & Langton, J. 2023. A molecular and morphological study of *Leucobryum* in Britain and Europe: the presence of *L. albidum* (P. Beauv.) Lindb. confirmed, *Journal of Bryology* 45(1): 1–29. doi.org/10.1080/03736687.2023.2188389

Meetings, surveys and other visits

Jonathan Sleath organised and led a meeting to Castle Bottom NNR at Yateley on 21 January 2023. I was unable to make it due to a recent bout of Covid and Jonathan reported that the bog was 'frozen solid making it difficult do the Sphagna justice'. The small group that attended was, however, rewarded with finding *Marchantia polymorpha* subsp. *polymorpha*, a new vice-county record and *Entosthodon obtusus*, a debracketer (first post-1969 record). On the walk to the site he found a small patch of *Platygyrium repens* on the trunk of an oak, the second VC record.

Jonathan also led a meeting to Walbury Hill (SU3761, VC12) in the north-west corner of the county on 18 March, which also looked at part of Gallows Down (SU3662) to the south of Combe Gibbet. Much of the grassland was fairly rank and uninteresting but we did find one slope with some shorter turf and added a lot of species from track edges along the Wayfarer's Walk as well as a good range of epiphytes from trees and woodland, ending up with a total of around 95 species. It was pleasing to find most of the chalk specialists during the trip; however, some of the nicer ones were only on the Berkshire (VC22) side of the vice-county boundary on Walbury Hill, including *Abietinella abietina*, *Encalypta streptocarpa* and *Entodon concinnus*. Other highlights were *Weissia sterilis*, *Bryum torquescens*, *Dicranum bonjeanii*, *Seligeria calycina* and *Tortella inflexa*.

Two days earlier, on 16 March, I had met up with Jonathan to show him an interesting area on the Greensand, at Ashford Chace north of Steep, near Petersfield (SU7426, VC12). Here both *Leptobarbula berica* and *Gyroweisia tenuis* (a



Marchantia polymorpha subsp. *polymorpha* specimen from Castle Bottom NNR. Jonathan Sleath



Entosthodon obtusus, Castle Bottom NNR, 21 January 2023. Jonathan Sleath

confusable pair) occur together on malmstone rocks and boulders strewn along the side of a small stream. We saw both species, including plenty of *Leptobarbula berica*, some of which was starting to produce sporophytes (which are apparently very rare or under-recorded in the UK). It was also nice to see *Fissidens gracilifolius* and *Rhynchostegiella curviseta* on a wall and *Orthotrichum stramineum* on an Ash tree. After looking at the *Leptobarbula* I left Jonathan to continue on, and a short distance farther along the footpath he came across a fruiting colony of *Campylostelium saxicola* on exposed rock, the first record in VC12 since 1967 (which was at Wheatham Hill, about 1km to the north).



***Campylostelium saxicola*, Ashford Chace,
16 March 2023. Jonathan Sleath**

In 2021 the Royal Armouries at Fort Nelson (at the western end of Portsdown Hill, SU6007, VC11) had approached the Wildlife Trust to enquire about getting some botanical surveys carried out. I offered to have a look at the bryophytes and visited the site for a brief look inside on 12 January 2022, but was not able to arrange a proper guided tour until this year, which took place on 15 March. I concentrated my survey on the well managed chalk grassland on the ramparts of the fort and also had a look at some bare gravel and concrete in the courtyard and the walls around the outside of the fort. However, most of the walls were too exposed, and did not support any bryophytes except along the base on the north-facing side where there was a little more moisture. I have not yet compiled a species list, but highlights included *Pseudocrossidium revolutum* on top of a low brick wall, *Bryum torquescens* in thin turf on top of the ramparts and *Seligeria calycina* on exposed chalk. The first two had not been recorded in the Portsdown Hill area before. *Pseudocrossidium revolutum* seems to have undergone a steep decline in Hampshire in recent decades, with only one known site (Netley Abbey) and one other record in the vice-county since 1960, though this could be due to under-recording of suitable habitat. *Bryum torquescens* has only been recorded twice before in VC11 since 1960, though is likely to be passed off as the very similar and ubiquitous *B. capillare* (it is only readily identifiable when fruiting capsules are present in spring). During the visit in January 2022 I also found *Sphaerocarpos michelii* in the car park south of the fort.

Following Cathy Wilson's discovery of *Bartramia pomiformis* in SU73 in a woodland area near Bordon in February 2022, mentioned in the last report, Jonathan Sleath visited the site on 9 February 2023 and recorded 62 taxa including several other species local in north-east Hampshire, including *Bryum alpinum*, *Dicranella rufescens* and *Cephaloziella rubella*. The last species was fertile and is probably the first record in the vice-county since 1975. It is another species likely to be under-recorded due to difficulty of identification when infertile, but has also probably undergone a decline in Britain in recent decades.

Jonathan also found *Brachythecium salebrosum* on a horizontal log in Micheldever Wood on 19 January 2023. There are only two previous records for VC12 and this is the first since 1984. It has not yet been recorded in VC10 or VC11. He also found *Dicranum tauricum* during the same visit (only two other VC12 records). On 23 January he found *Weissia longifolia* in an arable field at Bradley, near Preston Candover which was new to VC12 and the county. It is a species mainly of non-calcareous soils as distinct from the similar *W. angustifolia*, which is a fairly common species of chalk downland. These were previously known as *W. longifolia* var. *longifolia* and *W. longifolia* var. *angustifolia*. Another good find by Jonathan was the second VC12 record of the recently split *Ulota intermedia*, on *Salix* at the Flood Meadow, Alton on 2 June.

More Gosport finds

I reported on some interesting finds in Gosport in the last issue of *Flora News*, and since then have added three more species of interest (two being new for the county) and submitted a further voucher as a VC11 debracketer.



***Brachythecium salebrosum*, Micheldever Wood
19 January 2023. Jonathan Sleath**

The debracketer was *Weissia brachycarpa* var. *brachycarpa*, the much scarcer neutral to acid soil counterpart of the common and widespread *Weissia brachycarpa* var. *obliqua* which occurs on chalk and limestone. During some checking of the Hampshire records I realised that there was a Rod Stern record of var. *brachycarpa* for SU42 dated 1/1/1980. However, this was one of his 'marker' records which he had apparently entered for the purposes of producing his VC11 atlas; there were no 'proper' records for SU42 mapped in the atlas and none appear on Rod Stern's record cards or in the national database. The only other VC11 records for var. *brachycarpa* are three for the Holmsley area in the New Forest by Jean Paton, dated 1957-59, so it was therefore still needed as a debracketer. I checked some specimens that I thought might be this species and found a reasonably convincing one from Browndown Common which I sent to Sharon Pilkington (the national moss referee), explaining the mapping error. She agreed and duly confirmed the new record. I have one other specimen from Browndown from 2011 which at the time was identified as var. *obliqua* by Rod Stern, so I need to recheck this as well, as it is more likely to also have been var. *brachycarpa*.

On 9 February during a local walk I was crossing the small road bridge over Workhouse Lake, one of the coastal creeks in Gosport, and looked at the mosses on top of the concrete walls either side of the bridge. I was pleased to spot more *Grimmia orbicularis*, the second such colony in Gosport after finding this at Elson church in 2021, but then noticed something that I didn't recognise. It was in dry condition, forming a flattened patch of somewhat succulent, dark green leaves with obvious white hair points. I realised it was something exciting that I hadn't seen before so collected a small piece and examined it at home the next day. It resembled a *Hedwigia* species, but the leaves had a long, stout costa (nerve), ruling out that genus. I considered *Racomitrium*, *Schistidium* and *Grimmia* species and spent half a day examining, photographing and keying it out under the microscope until I eventually came to the conclusion that it was *Grimmia laevigata*, a relatively rare species of acidic to slightly base rich rocks and boulders, and not unexpectedly, new for Hampshire. It took some time to find comparable photos on the internet, and it didn't help that the photos in the field guide appear to be of a completely different species (probably *G. orbicularis*)! In Britain *G. laevigata* is scattered along the south coast, with a few recent hectad dots in West Sussex, and is frequent in parts of Wales and south-east Scotland. I posted some photos on the Facebook bryophytes group and Howard Matcham commented that the West Sussex records refer to colonies on old clay roof tiles on farm buildings in the Chichester area. I don't know how he was able to examine these, but this suggests it may also occur on roofs of houses and could be much more common than we realise.

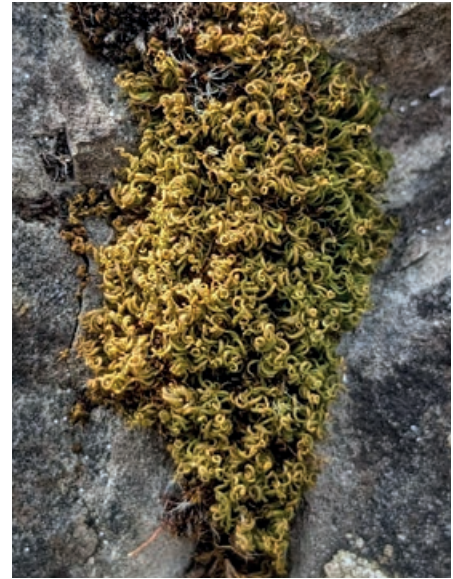
In my last report I mentioned finding possible *Tortula pallida* (a recently segregated species of saltmarsh habitats) on the cliffs at Alum Bay, Isle of Wight. Since then I have paid a couple of visits to Farlington Marshes where I felt sure it must occur, but only managed to find numerous colonies of the very similar *T. caucasica* (previously named *T. modica*). Then, during a walk along the Haslar Hospital sea wall (just west of Portsmouth Harbour entrance) I came across large patches of fruiting bryophytes on a grass verge which is subjected to regular inundation by salt spray. These included the expected coastal taxa *Henediella heimii* and *Tortula acaulon* var. *piliferum*, but the dominant species appeared to be something resembling *Tortula pallida*, but was growing



Grimmia laevigata, Workhouse Lake, Gosport. Top to bottom: colony in dry state; colony moistened; comparison of dry and wet shoots; February/March 2023. John Norton

so densely that it was difficult to dissect out typical looking leaves. I returned on 10 March and collected some better specimens which I was happier with and were later confirmed by Sharon Pilkington as the first Hampshire record. On a later date I found more on similar coastal grassland at Haslar Lake, though a check of all my other specimens from coastal parts of Gosport (e.g. from Browndown and Stokes Bay) did confirm these were *T. caucasica*.

Another interesting find concerns *Tortula tortuosa* which was spotted by chance during a stop on a cycle ride on 23 July. I would not normally look at bryophytes during the 'dry' season, but recent rain had moistened some mosses on a large limestone boulder that I had leant my bike on, and I noticed something different in a crevice on the north-facing side. I was hoping for *Tortella nitida* which is still inexplicably unrecorded in Hampshire, but was happy enough with *T. tortuosa*, which is rare in the county. It has been recorded from six hectads, but only three recently, including the localities of Netley Abbey, Butser Hill and Portsdown Hill where I have also seen it. *T. tortuosa* is described in the 2014 bryophyte atlas as a 'species of sheltered base-rich rocks' and has a strong bias to the west and north, with only scattered records in the dry south-east.



Tortella tortuosa, Rowner, Gosport, 23 July 2023. John Norton

It is therefore clearly very unusual to find it in the middle of an urban area in central southern England, but it is possible that it was transported with the rocks on which it was growing. It was mixed with some *Fissidens dubius*, which I have not seen on bare stone before. The locality was in a relatively sheltered situation next to the northern edge of Rowner Copse (SU 5861 0215); the adjacent wet grassland which we had stopped to have a look at had probably keeps the humidity high enough for it to survive.

List of new and debracketed (post-1969) records

Pete Flood's record of *Hedwigia ciliata* var. *ciliata*, mentioned in the last report, was confirmed. In addition to the records mentioned above, Rob Sharp emailed me to say he had found the liverwort *Lophocolea fragrans* on both sides of the VC9/VC11 border at Branksome Chine on 16 February 2023, which was new for Hampshire. It is a western species, very rare in our area with only one other locality on the Isle of Wight, where George Greiff refound it in 2018. Jonathan Sleath also found *Bryum pallescens*, a known zinc-tolerant species, under a galvanised roof at Preston Candover on 24 July, new for VC12.

***Bryum pallescens*, VC12.** Preston Candover, SU 6024 4143, 24 July 2023. At base of brick wall under galvanised roof of outbuilding. Jonathan Sleath, conf. S. Pilkington. New to VC12.

***Campylostelium saxicola*, VC12.** Ashford Chace, Steep, SU 7417 2636, 16 March 2023. On exposed rock by footpath. Jonathan Sleath, conf. S. Pilkington. Debracketer for VC12.

***Entosthodon obtusus*, VC12.** Castle Bottom NNR, Yateley, SU 7985 5981, 21 January 2023. Jonathan Sleath, conf. S. Pilkington. Debracketer for VC12.

***Grimmia laevigata*, VC11.** Workhouse Lake, Gosport, SZ 6097 9932. One main patch 11 × 8cm and several smaller ones 3-4cm dia (some coalescing), on flat top of weathered concrete wall on west side of road bridge over Workhouse Lake; with *Grimmia pulvinata* and *G. orbicularis*. Not fruiting. J. Norton, conf. S. Pilkington. New to Hampshire.

***Lophocolea fragrans*, VC11.** Branksome Chine, Bournemouth, SZ06019031, 16 February 2023. On bank of stream and on a fallen tree trunk. R. Sharp, conf. N. Hodgetts. New to Hampshire.

***Marchantia polymorpha* var. *polymorpha*, VC12.** Castle Bottom NNR, Yateley, SU 7988 5970, 21 February 2023. Jonathan Sleath, conf. S. Pilkington. Debracketer for VC12.

***Tortula pallida*, VC11.** Haslar sea wall, Clayhall, Gosport, SZ 6206 9871. Abundant in small densely-growing patches in bare areas of soil within mown grass verge above sea wall, subject to regular sea spray. With *Bryum dichotomum*, *Hennediella heimii*, *Tortula acaulon* var. *pilifera* and *Microbryum rectum*. J. Norton, conf. S. Pilkington. New to Hampshire.

***Weissia brachycarpa* subsp. *brachycarpa*, VC11.** Browndown Common, Gosport, SZ 5824 9960, 21 March 2021. On sandy humus at side of track through dry heath. J. Norton, conf. S. Pilkington. Debracketer for VC11.

***Weissia longifolia*, VC12.** Bradley Hill, Bradley, SU640428, 23 January 2023. Jonathan Sleath, conf. S. Pilkington. New to Hampshire.