Micarea adnata Nb (NS): Burley Old Inclosure, New Forest, SU 249 043, November 2018, N. A. Sanderson & the Wessex Lichen Group, on lignum on a Sweet Chestnut stump in old growth woodland. Second record for Hampshire and third lowland record for a mainly upland species.

Phylloblastia cf. ***bielczykiae*** (NR): French's Bushes, New Forest, SU 298 118, September 2017, N.A. Sanderson. On Holly leaves on the edge of a glade in pasture woodland. If correctly identified, a tropical species otherwise unknown from Europe. Third British record; previously recorded at Ebernoe Common and Epping Forest. Part of an increasing assemblage of lichens and associated fungi found growing on evergreen leaves (foliicolous lichens). This increasing diversity is likely to be associated with warmer summers.

Phylloblastia fortuita (NR) & ***Phylloblastia inexpectata*** (NS): Ferny Crofts, New Forest, SU 368 053, August 2017, N.A. Sanderson. On Holly leaves on the edge of a glade in pasture woodland. New to Hampshire; more new foliicolous lichens.

Ramonia nigra CR (NR/IR/S41): Sloden Inclosure, SU 2181 1286 January 2018, N.A. Sanderson & A.M. Cross. Mallard Wood, SU 316 088, March 2018, N.A. Sanderson. Both on lignum inside hollow Hollies in pasture woodland in the New Forest. New sites for an endemic fungus with its headquarters in the New Forest.

Grove of exceptionally lichen rich ancient Hollies in Sloden Inclosure. The tree is the centre supported *Ramonia nigra* inside a hollow stem.

Publications

As this account was being written the lichen chapter of the Guidelines for the Selection of Biological SSSIs for was published by JNCC (Sanderson *et al.*, 2018) http://jncc.defra.gov.uk/page-2303. This is the culmination of a great deal of work from the lower plant specialists of the country agencies and members of the British Lichen Society. It should put the conservation of lichens nationally on a firmer footing. If the country conservation agencies can do their jobs in these difficult times, it should result in some new SSSIs for lichens! New guidelines for bryophytes and non-lichenised fungi can also be downloaded from the same link.

Sanderson, N. A., Wilkins, T.C., Bosanquet, S.D.S and Genney, D.R. (2018) *Guidelines for the Selection of Biological SSSIs. Part 2: Detailed Guidelines for Habitats and Species Groups. Chapter 13 Lichens and associated microfungi*. Joint Nature Conservation Committee, Peterborough.

Key

CR = Critically Endangered Red Data Book species

EN = Endangered Red Data Book species

VU = Vulnerable Red Data Book species

NT = Near Threatened Red Data Book species

DD = Data Deficient Red Data Book species

NR = Nationally Rare

NS = Nationally Scarce

IR = International Responsibility species

Nb = Notable species (NR, NS, IR or S42 species not RDB NT or higher, which are not under-recorded ruderal species)

S41 = Section 41 species

BAP = BAP species discovered in England after the list of Section 41 species was made

Alien Bryophytes in Hampshire and Bryophyte Recording on the Isle of Wight

A report by John Norton

Alien bryophytes on the increase

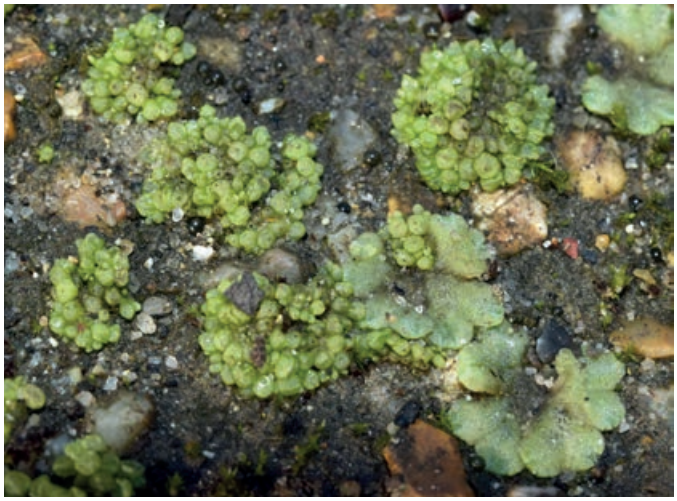
In my previous article on bryophytes (*Flora News* 51, Autumn 2016) I wrote a short summary of the past and present state of bryophyte recording in Hampshire and mentioned a few of the recent additions to the Hampshire list. *Hennediella macrophylla*, which I mentioned at the end of the article, is now confirmed for VC11. On about the fourth time of trying I eventually managed to find a good enough specimen to be accepted by the national moss recorder as this taxon, rather than the very similar *H. stanfordensis*. Both are likely to have been introduced into Britain (probably from New Zealand and California respectively), and are spreading in disturbed shady places, almost certainly on the feet of people and animals. I have since found another small patch of *H. macrophylla* at Burley car park (outside the public toilets!). This species is likely to turn up in other similar places in the county, though is easily overlooked as it resembles a number of other common species that grow on bare soil.

Disturbed or trampled soil where there is frequent human activity also supports some other interesting bryophytes, including the balloonworts *Sphaerocarpos* spp. There are two of these ephemeral liverworts in Britain, *S. michellii* and *S. texanus*, which are only identifiable by

microscopical examination of their spores. Both are well known from arable farmland on the Isles of Scilly and in parts of East Anglia, but records are more scattered through central southern England and both are nationally scarce. They are Mediterranean species that may originally be introductions to Britain (though *S. texanus* is currently designated as a S.41 species of principal importance in England). I had only previously recorded *S. michellii* from a municipal garden at Gosport Ferry, only the third VC11 record, so I was pleased to be given a specimen of a balloonwort by Neil Sanderson, which he had collected in November 2017 from Hollands Wood campsite, north of Brockenhurst. This was only a small piece with immature capsules, but I was able to grow the specimen on and mature the spores to confirm as *S. texanus*, which was new for VC11.

In order to collect a good voucher specimen I visited Hollands Wood several weeks later on 4 February, and was amazed to find abundant *Sphaerocarpos* along the edges of the campsite access road. Growing with it was another interesting liverwort, which I initially thought was *Riccia glauca*, a common species of arable habitats. Only later when checking photos and a specimen (which luckily I had collected), did I realise that it was actually *Riccia crystallina*, which was also new for Hampshire. This is another Mediterranean alien, which like *Sphaerocarpos texanus* is well established and locally abundant on the Isles of Scilly. However, apart from a 1967 Scottish record, it has otherwise only been recorded from a few sites in south-west Cornwall. It seems quite plausible that both species could have been spread here by campers using the site, perhaps even some that had recently been to Scilly, or that had arrived from somewhere in southern Europe. Also, it was clear that both species were well established here, and could have colonised over a period of several years.

I alerted Neil to the discovery, and he also managed to find a few plants of *Riccia crystallina* at Denny Wood campsite. I looked at a few other campsites in the New Forest without any further success, but did find good colonies of *Sphaerocarpos michellii* at Lodge Heath campsite, 3km east of Brockenhurst. I hope to do a more extensive survey of campsites and tourist spots in the New Forest and other south coast holiday destinations next winter! It will be interesting to see if these species are spreading generally on tented campsites, like some alien vascular plants have been doing recently.



***Sphaerocarpos texanus* (showing the inflated balloon-shaped structures which enclose the capsules in the female plants) with *Riccia crystallina*.**

Bryophyte recording on the Isle of Wight

The post of VC10 Isle of Wight bryophyte recorder had been 'vacant' for several years, so I decided to take it on in 2017 and undertake some exploratory visits there to familiarise myself with the Island. I only heard early in 2018 that the previous recorder, Lorna Snow, had passed away on 22 February 2017, aged 92. The island has been reasonably well recorded over the last three to four decades, by Lorna herself, resident naturalist Colin Pope and occasional visiting bryologists, including Rod Stern and Francis Rose. British Bryological Society national meetings were held there in 1964 and relatively recently in 2002. The bryophyte flora, written by Lorna Snow, was published in the 2003 *Isle of Wight Flora*.

Bryologically, the Island is moderately rich for its size, with 375 species and distinct taxa recorded (including the recent additions detailed below), compared to 492 for Hampshire (VC11/12 combined). Important bryophyte habitats include chalk grassland and bare chalk on the downs and in old quarries, and the semi-natural and wet woodlands on both acid and calcareous soils. There is some dry heath at Headon Warren and a few scattered small bogs and fens, though the bryological interest may have declined at some of these due to lack of management. There are of course plentiful and varied coastal habitats, which include dry calcareous cliffs and chines with wet seepages, and the landslips which provide areas of wet, calcareous mud, when fresh. These types of coastal habitats are of course very rare in Hampshire.

The Isle of Wight supports important populations of four national rarities, the liverworts *Southbya nigrella* and *Cephaloziella baumgartneri*, and the mosses *Acaulon triqetrum* and *Philonotis marchica*. The first three are all found at St Catherine's Point; the last at Shanklin Chine and another nearby site. In Britain, *Southbya nigrella* only occurs elsewhere on the Isle of Portland, where it is widespread; *Cephaloziella baumgartneri* also from Portland and very scattered sites along the south coast eastwards, including one locality in Hampshire (Netley Abbey). *Acaulon triqetrum* is a species of coastal cliffs with very few sites between Dorset and Sussex, where it has seriously declined. *Philonotis marchica* has only been recorded from one other British site in Yorkshire, in 1903. Another two nationally rare liverworts have been recorded from the Island historically: *Cephaloziella turneri* and *Solenostoma caespiticium*, the latter from the Wilderness in 1908, the first British record.

The Isle of Wight is also famous for *Leptophascum leptophyllum*, discovered in a stubble field on the 1964 BBS meeting and named after the Island as a species 'new to science', *Tortula vectensis*. It has since been

Dark green patches of the liverwort *Southbya nigrella* on a rock at St Catherine's Point, Isle of Wight, 31 March 2017 (*John Norton*).

found sporadically at sites on the Isles of Scilly, Lizard Point and Herefordshire, also typically in stubble fields or on footpaths. It is now realised to be widespread globally in warm temperate and subtropical regions, but had been described under several different names. In Europe it is present throughout parts of the Mediterranean, extending north-east to Germany. Another one to look out for in campsites perhaps?

Another new species to the British bryophyte flora was discovered relatively recently on the Island. This was the European species *Crossidium sqaumiferum*, found by Welsh bryologist Sam Bosanquet during a family holiday on cliffs near St Catherine's Point in June 2013.

With the *Isle of Wight Flora* in hand I spent two five-day trips there at the end of March and early December 2017, accompanied by George Greiff, a young botanist who had recently moved to the Island. We also met up with Colin Pope for a few days out. On the first trip we managed to add three new species to the VC10 list: *Fossombronia incurva*, *Fissidens crispus* and *Plagiomnium cuspidatum*, and found another 'debracketer' (a species not recorded since 1960). Unfortunately for George two of the new finds were found by me on the one morning that he could not accompany me (just a few hundred yards from my B&B in Shanklin). Details of these records are given in the list of new records below. We also met up with staff of the National Trust and Natural England at St Catherine's Point to survey the population of *Southbya nigrella*, finding two small patches on two adjacent rocks. Whilst there we visited the site of the *Crossidium sqaumiferum*, but realised that it was inaccessible without mountain climbing gear! George later refound both colonies of *Philonotis marchica* at Shanklin and *Acaulon triquetrum* at St Catherine's Point in spring 2018.

On our second trip in December 2017 we added two more VCRs and a debracketer: *Cephalozia lunulifolia, Tortella tortuosa* and *Fossombronia wondraczeckii*, but by this time George was getting his eye in and spotted the first two of these himself. He has also since added an impressive three further species to the Island list in 2018: *Sphaerocarpos michellii* (on a campsite), *Nowellia curvifolia* (an increasing liverwort of dead logs) and the moss *Hygroamblystegium humile* (at two sites); plus another debracketer, *Hygroamblystegium varium* (also at two sites). We are looking forward to our next visit in early winter 2018.

New Vice-County Bryophyte Records for Hampshire and the Isle of Wight

Compiled by John Norton (July 2018)

Recent additions and debracketers (new post-1960 records) to the VC10/11/12 lists are listed below.

Liverworts

Cephalozia lunulifolia, VC10, Parkhurst Forest, SZ 4789 9024, 13 December 2017. New VCR. Wet humic litter on tree roots at edge of shaded acid pond. G.R.L. Greiff & J.A. Norton.

Fossombronia incurva, VC10, Luccombe Chine, SZ 5832 7939, 29 March 2017. Damp, bare, base rich mud on recent coastal slippage. G.R.L. Greiff & J.A. Norton. New VCR.

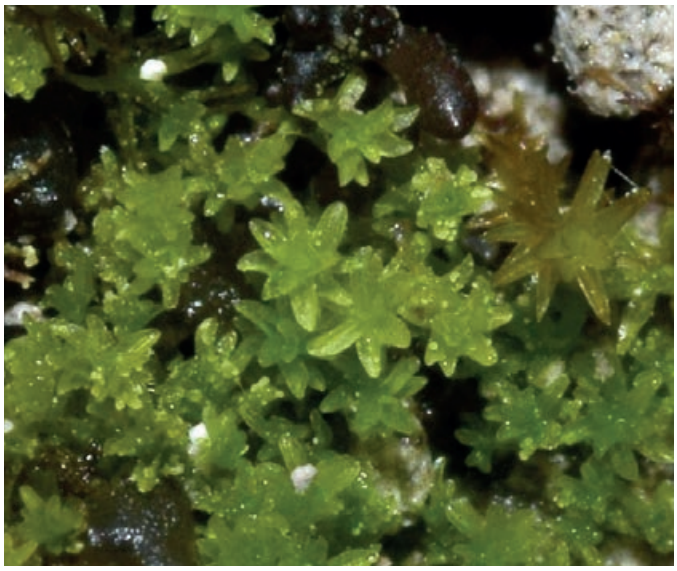
Fossombronia wondraczeckii, VC10, Parkhurst Forest, SZ 472 903, 13 December 2017. Wet clay ruts on ride. G.R.L. Greiff & J.A. Norton. Debracketer; previously recorded here and at Sandown in 1908.

Leiocolea badensis, VC11, Yew Hill Quarry, King's Somborne, SU 3504 3195, 17 August 2017. Bare chalk on quarry floor. J.A. Norton. New VCR.

Lophozia excisa, VC10, Headon Warren, SU 3138 8585, 30 March 2017. In bryophyte-rich mat on sandy/gravelly soil on covered reservoir. G.R.L. Greiff & J.A. Norton. VC10 debracketer; previous record from this site in 1926.

Nowellia curvifolia, VC10, Sainham Wood, Godshill, SZ 531 811, 22 April 2018. On fallen rotting wood. G.R.L. Greiff. New VCR.

Riccia crystallina, VC11, Hollands Wood, Brockenhurst, SU 3003/3004, 4 & 9 February 2018. At least 2500-3000 thalli, occasional to locally abundant in consolidated fine soil/sand at edges of asphalt road to Hollands Wood



***Gymnostomum viridulum*, Micheldever Spoilheaps, 18 February 2018 (*John Norton*). One of the smallest British mosses; leaves are 0.6 x 0.3 mm. Bright green gemmae on the leaves are also visible in this photo.**

campsite, within open Pedunculate Oak woodland. Colony extends 1km from SU303035 to SU305044 and to W side of campsite at SU303043. Main associate *Sphaerocarpos texanus*. D.R. Allan & J.A. Norton. New VCR.

Sphaerocarpos michellii, VC10 St Helens, SZ 6345 8963, 17 April 2018. Disturbed soil in holiday park. G.R.L. Greiff. New VCR.

Sphaerocarpos texanus, VC11, Hollands Wood, Brockenhurst, SU 303 034 to 304 042, 4 & 9 February 2018. Abundant in consolidated fine soil/sand at edges of asphalt road to Hollands Wood campsite and amongst gravel/stones around campsite washrooms. Associated with *Riccia crystallina*. D.R. Allan & J.A. Norton (first recorded by N.A. Sanderson, November 2017). New VCR.

Mosses

Dialytrichia saxicola, VC11, Stubbington, SU 5514 0413, 18 January 2018. Asphalt driveway, near to church; with *D. mucronata*. J.A. Norton. New VCR. A rare species likely to be spreading on tarmac.

Fissidens crispus, VC10, Alexandra Road, Shanklin, SZ 583 811, 1 April 2017. On steep bank with dry mesic soil, growing with *Bryum donianum* and other *Fissidens* spp. J.A. Norton. New VCR.

Gymnostomum viridulum, VC12, Micheldever Spoil-heaps, SU 5192 4448, 3 December 2017 (voucher obtained 18 February 2018). Partly shaded chalk spoil. J.A. Norton. New VCR. A rather scattered species, mainly recorded from south-western Britain and South Wales. A tiny species found within a specimen of liverworts collected from the site. Also refound at a second Isle of Wight site in December 2017.

Hygroamblystegium humile, VC10, Sandown Levels, SZ 607 852, 12 May 2018. Locally common on bases of grasses and reeds in ditches. G.R.L. Greiff. New VCR.

Hygroamblystegium varium, VC10, Sandown Community Orchard, SZ 5879 8505; 11 May 2017. Locally frequent on rotting wood and damp soil. G.R.L. Greiff. Debracketer.

Plagiomnium cuspidatum, VC10, Tower Cottage Gardens, Shanklin, SZ 5838 8111, 1 April 2017. Tower Cottage Gardens on N side of Shanklin Chine. In semi-shade under Magnolia tree in wet amenity grassland/ bare mesic soil. J.A. Norton. New VCR. This species is rather rare and possibly declining across south-eastern Britain (commoner elsewhere in mainly lowland sites). Not yet recorded for VC11.

Pottiopsis caespitosa, VC11, Portsdown Hill (SW of Fort Widley), VC11, SU 6521 0646, 26 November 2017 and SU 6075 0701, 17 February 2018. Bare chalk in chalk grassland. J.A. Norton. Debracketer; first records since 1959. The second collection was made because I was looking for *Microbryum davallianum*, var. *commutatum*, a taxon characteristic of chalk grassland not previously recorded for VC11; embarrassingly, however, the recorder told me I'd collected more *Pottiopsis caespitosa*. The second sample had fully developed capsules, so both were retained for depositing in the BBS herbarium. Also recorded recently from the Isle of Wight by George Greiff.

Rhynchostegiella teneriffae, VC12, Deptford Bridge, Greywell, SU 7214 5129, 29 January 2017. Debracketer. Found by Sharon Pilkington at the end of a BBS Southern Group meeting to Greywell Moors. First record for VC12 since an unlocalised record dated '1900'.

Rhytidiadelphus loreus, VC10, Brighstone Down, SZ 432 847, 16 April 2018. G.R.L. Greiff. New VCR. Although previously recorded from the Isle of Wight by Francis Rose, there is no record on the BBS database and no previous voucher specimen.

Sematophyllum substrumulosum, VC11, Creech Woods, Denmead, SU 633 112, 5 November 2016. Small fruiting patch near base of young birch under unthinned young spruce plantation (humid and densely shaded). J.A. Norton. New VCR. A species which has spread throughout southern Britain and other parts of Europe in recent years, and was predicted to do so as a consequence of global warming. Better knowledge of ID features has meant that it has now been recorded across most vice-counties in the south in the last few years, though not yet in VC12, where no-one has looked for it. Long-known from Scilly and Sussex.

Syntrichia virescens, VC11, Stubbington, SU 5550 0331, 23 December 2017. J.A. Norton. On asphalt pavement. New VCR. A species likely to be spreading on tarmac.

Tortella tortuosa, VC10, West High Down, SZ 307 852, 12 December 2017. North-facing chalk grassland/bare chalk exposures above road to Needles Battery. G.R.L. Greiff & J.A. Norton. New VCR (surprisingly).

***Ulota* species**. *Ulota crispa,* historically split from *U. bruchii*, was itself recently divided into three taxa, two of which appear to be widespread in the three vice-

counties. These are *U. crispa* sensu strictissimo (in the strictest sense) and *U. crispula*, both now confirmed by new vouchers submitted for the Isle of Wight, but not yet for VC11 or 12. The other taxon *U. intermedia*, appears to be mainly a northern and western species.

VC11 Records

The VC11 plant records will be published in the Spring 2019 edition of *Flora News*.

VC12 Records

Compiled by Tony Mundell (8 July 2018)

Here again is a set of my personal selections from the records received recently. As usual I have tended to select the scarcer native species with a sprinkling of interesting aliens. I would far prefer to include YOUR records rather than my own but sadly I was forced to include even more of my own this time.

Isn't it tragic that so many superb botanical sites get destroyed by housing developments? Looking at my old County Floras I see that botanists have complained about this for over a hundred years but with the unstoppable growth of the human population such losses can only continue to accelerate. I was recently amazed by the sight of vast uncountable numbers of Wild Pansy *Viola tricolor* and an outstanding population of many hundreds of plants of Bur Chervil *Anthriscus caucalis* in what used to be an arable field that is now abandoned and scheduled for housing – see the records below. The site also has lots of Bugloss *Anchusa arvensis* and is the only place where I have seen Pink Shepherd's-purse *Capsella rubella*. It is rather typical of the arable flora that none of these plants were obvious prior to the last time it was ploughed, though when I visited the same field on 22 Aug 2014 there were sheets of yellow from thousands of plants of Corn Marigold *Glebionis segetum* amongst the crop of Broad Beans. Even if the field could be saved from housing the sad truth is that these plants could not survive unless the soil was regularly ploughed.

Another danger for our flora is the 'tidying up' of formerly wildlife-rich habitats when they are designated as SANGs (Sites of Alternative Natural Greenspace). The government now requires a nearby SANG before large housing developments can proceed, and provides funding to 'improve' the area with drainage, hard surfaced paths, etc. mainly for dog walkers. We have a new SANG near me now called Bramshot Country Park and half of what was very wet marshy meadows is now closely mown grass. Two more SANGs are planned nearby; one is the best VC12 site for Pepper Saxifrage *Silaum silaus*. I hope that is not also mown to death. The other proposed SANG is at Southwood Meadows and again is in an area subject to flooding with a rich flora including Brown Sedge *Carex disticha*, much Cyperus Sedge *C. pseudocyperus*, Ragged Robin *Silene flos-cuculi* and Greater Spearwort *Ranunculus lingua* – see the records below.

Having griped about that, of course some plants are increasing, particularly those found near housing. Most are aliens but provided they don't get invasive it all adds interest to the flora. Examples are Great Lettuce *Lactuca virosa*, Round-leaved Crane's-bill *Geranium rotundifolium* and Water Bent *Polypogon viridis*. The latter has a curious English name as I never see it by water. In fact it is typically in the driest situation possible, growing from pavement cracks. Another example is Keeled-fruited Cornsalad *Valerianella carinata* that is now commoner in Hampshire than the so-called Common Cornsalad *Valerianella locusta*.

It is a sign of the times that many plants with the word 'Common' in their name are no longer common. Consider these, where I will abbreviate Common to 'C.' to save repetition:

C. Bistort *Polygonum bistorta*, C. Broomrape *Orobanche minor*, C. Butterwort *Pinguicula vulgaris*, C. Calamint *Clinopodium ascendens*, C. Club-rush *Schoenoplectus lacustris*, C. Cotton-grass *Eriophorum angustifolium*, C. Cudweed *Filago vulgaris*, C. Meadow-rue *Thalictrum flavum*, C. Milkwort *Polygala vulgaris*, C. Spotted-orchid *Dactylorhiza fuchsii*, C. Purslane *Portulaca oleracea*, C. Restharrow *Ononis repens*, C. Scurvygrass *Cochlearia officinalis*, C. Sedge *Carex nigra*, C. Water-crowfoot *Ranunculus aquatilis* and C. Wintergreen *Pyrola minor*. I would not call any of those common!

Of course some others like Common Nettle *Urtica dioica* really are common and clearly a few of them are given the 'Common' merely in a comparative sense because there is another species in the same genus that is much scarcer. The sad thing is that most of those listed above are native plants.

Nevertheless the following records show that many scarce plants continue to be found, or are still hanging on at their old haunts. The number of plants of Smooth Cat's-ear *Hypochaeris glabra* found recently at The Slab and at Woolmer Forest is wonderful and a new site for Heath Pearlwort *Sagina subulata* was also found at The Slab.

The very rare Green Hound's-tongue *Cynoglossum germanicum* first found in Hampshire in 2012 seems to be spreading which is splendid – I suspect its hooked seeds are getting carried along the Basingstoke Canal towpath and adjacent footpaths by dogs out with their owners. Another excellent VC12 find has been Clustered Clover *Trifolium glomeratum* in several sandy places in Bordon. This is more typically found in coastal sandy areas.

It is encouraging that winter scrub-cutting works by Hampshire County Council have re-vitalised the one surviving site for Tower Mustard *Turritis glabra* and their rotavation of the site of the extremely rare Red-tipped Cudweed *Filago lutescens* led to at least one plant of it germinating. I was pleased to have a record for River Water-dropwort *Oenanthe fluviatilis* as this is sharply declining in VC12, and I was also delighted to have an update on the Greater Broomrape *Orobanche rapum-*