

Ebbor Gorge: A Case Study of a Voluntary SSSI Survey

The BBS is currently considering a fund to assist members who wish to undertake voluntary bryophyte surveys of Sites of Special Scientific Interest.

Sharon Pilkington writes about her own recent experience of this.

Do you have a favourite local Site of Special Scientific Interest? One perhaps where you go to enjoy wildlife and landscapes or to escape from the stresses and strains of modern life? Our SSSIs have been notified for all kinds of ecological and geological interest and may or may not be important for bryophytes. However, many of them do support species and communities of lower plants that have become increasingly scarce in the wider countryside.

With this in mind, SSSIs are pretty much top of the list of places I am visiting in the course of systematically recording bryophytes in North Somerset (v.-c. 6). Eventually and with similar effort from Andrew Branson who is recording South Somerset (v.-c. 5), these data will underpin a new bryophyte flora of Somerset.

Back to SSSIs. Just south of Bristol Airport, the Mendip Hills represent part of the southernmost significant exposure of Carboniferous limestone

in the British Isles. Mendip has not been well documented bryologically. It boasts extensive tracts of unimproved limestone grassland, periglacial gorges, limestone heath and ancient woodland and has numerous SSSIs, only a few of which have notified bryophyte features.

During my ongoing recording in the area I have found that many Mendip SSSIs with no formally documented bryophyte interest support species and communities of high conservation importance. For example, the southern scarp of the Mendip Hills is well endowed with SSSIs which support nationally important populations of vascular plants including *Dianthus gratianopolitanus* (Cheddar Pink), *Galium pumilum* (Slender Bedstraw), *Trinia glauca* (Honewort), *Koeleria vallesiana* (Somerset Hair-grass) and *Lithospermum purpureocaeruleum* (Purple Gromwell). Bryophytes of equally high national conservation importance including *Gymnostomum viridulum*,



◀Fig. 1: Ebbor Rocks – caves and sheer cliffs in the wild wooded upper part of the SSSI. ▶Fig. 2: *Bryum canariense* – a subtle beauty, liking sunny crevices in rocky limestone grassland.



Entosthodon muhlenbergii, *E. pulchellus* and *Fossombronia caespitiformis* are also characteristic of such places but it seems that the majority of populations have not been previously recorded or documented.

Arguably one of Mendip's loveliest SSSIs is Ebbor Gorge, a small wooded periglacial gorge close to the small city of Wells (Fig.1). It is not far from Cheddar Gorge, but much less known, probably because the only way to access it is on foot. As well as the gorge itself, with its dramatic limestone cliffs and scree, the SSSI includes a stream, limestone grassland, natural caves (with horseshoe bats) and an extensive tract of ancient broadleaved woodland. Part of it is also a National Nature Reserve, so it's possible to enjoy the site from an extensive network of paths.

I had been meaning to visit Ebbor Gorge to survey its bryophytes for quite a while. When I looked at the existing BBS dataset to see what I might find there were tantalising old records that hinted of a rich bryological flavour. Would those species still be there? For example, *Bryum canariense* (Fig. 2) had been recorded there as early as 1887, but not since 1976 and frustratingly both records were only localised to the 10km grid square that Ebbor Gorge lies in. It was the same story for *Amblystegium confervoides* (most recent record 1970) and *Plasteurhynchium striatulum* (most recent record 1959) (Fig. 3). For *Cololejeunea rossettiana* the situation was a little better as I had seen and recorded it on a walk through the gorge in 2009.

It struck me that Ebbor Gorge would also make an excellent location for a Wessex Bryology

Group field meeting. Bob Corns of Natural England helpfully suggested where we might go and was very keen to receive any records made there and also any suggestions for management appropriate to conserving populations of more notable bryophytes. Bob also came to the WBG meeting (in February 2015) as he was keen to familiarise himself with the special species.

Whilst undertaking a recce for the WBG meeting, I discovered a population of about 50 patches of *B. canariense* doing well, perched rather precipitously in rocky limestone grassland on a high cliff above the gorge. *P. striatulum* was also easy to find as it was frequent on rocks in the bottom of the gorge and even grew on the wall of the public car park.

However I was bothered that we hadn't found *A. confervoides* and a few other species during the WBG meeting so when I mentioned this to Bob he suggested that I take a look at the upper part of the SSSI, a deep wooded valley with no formal public access. There is an indistinct path leading to an impressive vertical cliff and caves but beyond that the valley is hard going as the woodland has been left pretty much to its own devices and is littered with numerous rock outcrops, old stone walls and fallen trees.

Returning alone, I took Bob's advice and spent a most enjoyable day exploring and recording this part of the SSSI. It turned out to be very rich in bryophytes (by Somerset standards) and supported populations of a number of locally notable species such as *Marchesinia mackaii* (Fig. 4), *Porella arboris-vitae*, *Loeskeobryum brevirostre* and *Rhodobryum roseum*. Fertile *A. confervoides*



△Fig. 3 (left): *Plasteurhynchium striatulum* – a locally abundant species on Mendip, often seen with sporophytes.

△Fig. 4 (right): *Marchesinia mackaii* – the ‘black graffiti liverwort’ likes sheltered dry limestone exposures

was found near the caves and *P. striatulum* was abundant on old drystone walls and rocks. Best of all, a deep crevice in a cliff supported *Orthothecium intricatum*, a common enough species of northern and western limestone but one formerly thought to be extinct in N. Somerset.

So what’s the message here? A number of good things came out of involving Natural England in my voluntary efforts at Ebbor Gorge, not least of which was the dataset that I was able to give them. The results of the survey confirmed that under SSSI selection guidelines the bryophyte interest would be sufficient to make the site a SSSI (if it wasn’t already). A case was also presented for revising the notification of Ebbor Gorge SSSI to include bryophytes in the notified features. However, given the current squeeze on NE’s time and resources I am not sure if this will happen. Notwithstanding this, I was also able to highlight the exact locations of the ‘important’ species and make some specific habitat management recommendations.

As somebody who relies on paid botanical and bryological contracts to make a living, it may seem paradoxical that I would advocate giving up my own time to survey a site that should, in an ideal world, be surveyed by a professional. Many people think that SSSIs have lots of good quality biological data provided by species specialists but while this may be true for some, my own experience suggests that many have very few recent species records. With ever-deepening cuts to the budgets of our statutory

conservation organisations they are likely to become more dependent on the voluntary sector to provide important information about species in SSSIs, especially those in the more difficult taxonomic groups. I am certainly not a fan of the government’s views that the work of highly skilled and experienced professional specialists can readily be undertaken by volunteers. However I do think that there is a danger that in some SSSIs important bryophytes will be lost unless skilled volunteers (such as BBS members) stick up for them, or at the very least make the site custodians aware of what they have.

SSSI managers can also become very focussed on managing their sites solely for the benefit of the notified features, as this is what SSSI condition assessment is based on. If they do not know that they have notable bryophytes in a site then they cannot be expected to make any effort to conserve those species.

Do you know of a local SSSI that might support interesting bryophytes? If you express an interest in surveying such a site in a voluntary capacity and would be willing to share the results of your efforts, then your statutory nature conservation body will almost certainly be very willing to help you get access to the site and to provide maps and other help.

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