

Prospectus for the post of BSBI vice-county recorder for Berwickshire VC 81

Michael Braithwaite

Introduction

The post of BSBI vice-county recorder for Berwickshire is vacant following my retirement from this post which I had held for 35 years. I published a Site Register in 2013 and a Flora in 2014 after completing a post-2000 sample survey of the county. This survey was adequate for BSBI Atlas 2020 purposes, so there has been no immediate need to start on a new comprehensive survey. However, Robin Cowe has already shown what can be achieved by fieldwork following up on the accounts in my publications. He has made some very remarkable finds in the period 2014-2019.

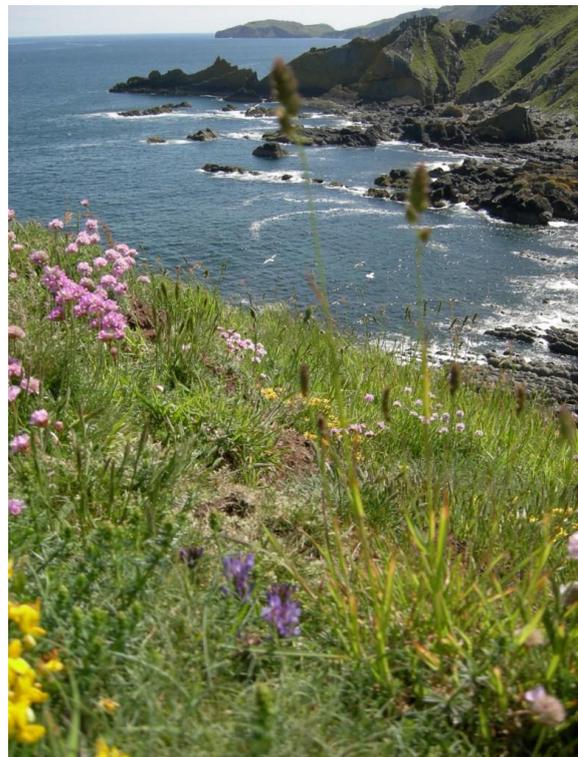
I set out below an outline of the county and its botanical opportunities.

I have very much enjoyed my time as recorder despite living well outside the VC, at Hawick. This post would be ideal for someone living in the Scottish Borders, the Lothians or north Northumberland.

Berwickshire

Berwickshire is situated just north of the Scottish Border and has a character that includes strong English elements as well as Scottish ones. There is a fine coastline, much botanical interest along the River Tweed and its tributaries and extensive moorland in the Lammermuirs. Arable and pasture are well represented and there is forestry of various sorts, by no means all extensive conifer plantations. The natural woodland is rather meagre, but it includes dramatic deans with grassland as well as woodland interest. There is no true montane habitat and unusually little urban habitat. Berwick upon Tweed is not in the county.

The human population is low and visitor pressure is very modest. The farming community is very approachable. These factors, coupled with Scottish rights of access, means that there are virtually no access problems and the road network makes the whole VC accessible without excessive walk-ins. The main line railway is the only sizable no-go area. The size of the VC at 1,202km² is very manageable. It is divided into 24 part or whole hectads of which 14 are over 35% of a full hectad and the other 10 are fragments.



View south to St Abbs Head

The botanical recording history

1807 J V Thompson *Plants growing in the vicinity of Berwick upon Tweed* – modest checklist with localities based on fieldwork in the 1790's

1829, 1831 Dr G Johnston *Flora of Berwick upon Tweed* – full Flora with a fair number of localities.

1853 Dr G Johnston *Natural History of the Eastern Borders* – full Flora with a fair number of localities

1831 onwards *History of the Berwickshire Naturalists' Club* – journal which includes many botanical papers and notes. Many species localities

1950-1970 Drs A G and D G Long (and others) – fieldwork related to the BSBI Atlas and follow-up – in effect a sample survey at monad scale (1km²). Some survey at hectad scale

1990 M E Braithwaite and D G Long *The botanist in Berwickshire* – annotated check-list

1979-2013 M E Braithwaite (and others) – three sample surveys – 1979-1986, 1987-1999, 2007-2013 – sample monads, many 100m GRs

2013, 2014 M E Braithwaite, *BSBI Botanical Site Register, A short Flora of Berwickshire* – effectively a two-volume Flora. The site register has detailed maps and descriptive notes plus full detail of all rare or scarce species with less detailed records of further selected species.

Taken together the above recording has resulted in exceptional detail over a very long period. The few hectad scale records have not been digitised (except *Rubus*), but all the records to monad scale or finer have been digitised and their history can be summarised as:

Dateclass	Taxa	Monads
1740-1831	243	368
1832-1902	749	2,610
1903-1944	649	1,315
1945-1969	938	7,625
1970-1986	902	12,033
1987-1999	1,104	33,071
2000-2013	1,300	55,419
1740-2013	1,635	85,391

The monads column gives a good indication of the survey sample size for each dateclass. However the taxa column is a little confusing. There are unrealistically few taxa for the first survey as no locality detail was recorded for the widespread taxa. The taxa for recent dateclasses are distorted by the large number of microspecies recorded in only one of the dateclasses.

Many monads have never been recorded. Thus *Ranunculus repens*, the most widely recorded species, has only been recorded from 450 monads (some of the monads on the VC boundary are of less than 1km²), compared with the VC area of 1,202km². The coverage is in some



River Tweed opposite Norham Castle

ways considerably better than this suggests, as on a particular walk, especially on the moorland, full lists were only recorded from selected monads with just additional and scarce species being recorded from the other monads traversed.

The surveys have been far from random. Every effort has been made to visit all the monads thought likely to contain interesting habitat, both natural habitats and artificial ones (urban areas etc). Arable weeds have surveyed by targeting suitable cropping.

Since 1970 every effort has been made to record the scarcer species at 100m scale. Since GPS became available much 10m detail has been recorded. Habitat information and other detail has sometimes been added. The volume of 100m or finer records is very notable and gives a firm foundation for future monitoring.

Both the 1987-1999 survey and the 2007-2013 surveys were planned with the BSBI Atlases in mind. Hectads were worked in a pre-planned sequence so that a few full hectads and part hectads were 'finished' by the end of a recording season in the sense that as complete a species list as possible had been obtained. This requirement meant that part hectads were more intensively recorded than full hectads. Much the same sequence was followed for the two surveys so there is now an opportunity to re-survey hectad by hectad in such a way that there is a similar time interval between surveys for all hectads.

Opportunities open to an incoming VCR

A new VCR has the opportunity to make an original contribution in a way that is enjoyable, so my comments may not be helpful as I have inevitably become set in my ways.

Nevertheless I see the key opportunity to be the repeat recording of the sites in the Botanical Site Register (which is *inter alia* a Rare Plant Register organised by site rather than species). This will inevitably provide evidence of change (and new discoveries). I see the fact that this information is site-structured as a big plus towards making such a task enjoyable and rewarding. Analysis of the records to date has shown losses of 14% a decade for site-faithful scarce species at monad scale and 11% at hectad scale. The losses have been ongoing fairly evenly over the period 1828-2013. No other VC has prepared such statistics. Berwickshire is unlikely to be unusual in this respect.



View south to Greenlaw Kaims and Moor

I have always planned my recording with an emphasis on personal projects, with BSBI requirements being met as a by-product. Nevertheless if the incoming VCR has the prospect of adequate available time, perhaps with a small team of helpers, a full VC re-survey should be considered at some point, but maybe scheduled as a lower priority than site re-survey. By 2020 thirteen years will have passed since the last survey was begun in 2007.

Opportunities for involvement directly or indirectly in educational outings and in conservation always exist and can lead to very rewarding personal relationships. The St Abbs Head NNR is a great place to get involved in.

There are very many other possibilities, including single species ecological studies.

Contact

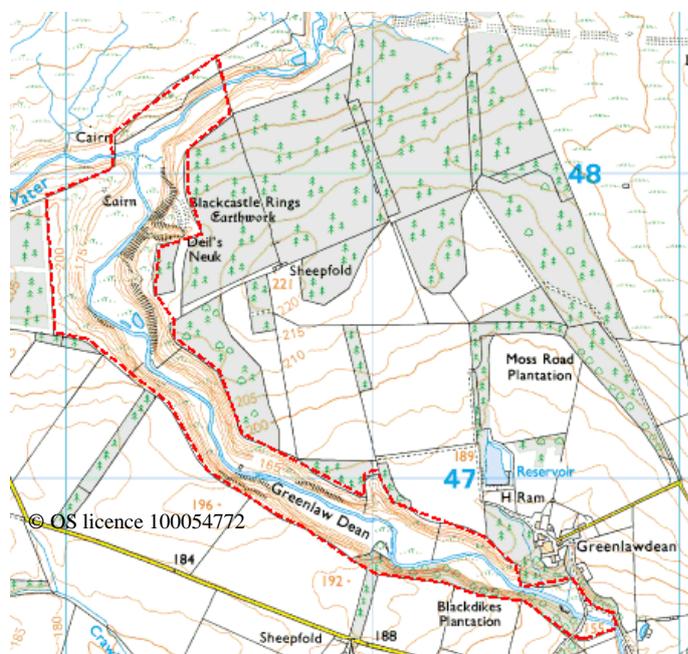
Please contact Jim McIntosh, the BSBI Scottish Officer, in the first instance if you seek further information or wish to apply for the post. Email: jim.mcintosh@bsbi.org

Appendix

Example site account from Berwickshire BSBI Botanical Site Register

64.30. Greenlaw Dean, (part NT74), 6946, 6947, 6948, 7046, Habitat fine ♥♥♥

Haughs, sandstone banks and scaurs by Blackadder Water. 62.3 hectares.



In Greenlaw Dean the Blackadder Water runs through a spectacular cut in the Old Red Sandstone especially striking at De'il's Neuk. *Helianthemum nummularium* is abundant on some of the outcrops but the associated species are rather modest with *Polygala vulgaris*, *Leontodon hispidus*, *Helictotrichon pratense* and *Hieracium* species some of the highlights. More locally *Saxifraga granulata* occurs with *Ranunculus bulbosus* and *Carex caryophylla* while a few wet banks have modest quantities of *Geranium sylvaticum*.

The flushed areas in the haughs down the Blackadder support *Dactylorhiza incarnata* with a rich variety of associates including *Blasmus compressus*. However the best example has now been compromised by the digging of a duck pond.

S	Rare or scarce species	Popul ⁿ	GR-NT	10m	Date	Rec ^{der}	P	Comment
	<i>Blasmus compressus</i>	Large	692474	60	2000	MEB	1	
		Large	695470	14, 23	2000	MEB	1	
	<i>Catabrosa aquatica</i>	Few	692475	13	2002	MEB et al	1	New pond, recent colonist
	<i>Dactylorhiza incarnata</i> <i>subsp. incarnata</i>	28	691475	67, 95	2000	MEB	1	Flush, damaged by pond construction, colony reduced
			693475		1987	MEB	¼	
	<i>Genista anglica</i>		7046		1990	PSL, COB	½	Lusby, top of bank, south side slopes
	<i>Lemna trisulca</i>		691475	90	2000	MEB	1	In ox-bow

Selected axiophytes: *Agrimonia eupatoria*, 701468, *Berula erecta*, 6946, 6947, 6948, 700467, 706465, *Geranium sylvaticum*, 6946, 7046, *Helianthemum nummularium*, 6946, 6947, 701468, *Polygala vulgaris*, 698469, 704466, *Prunus padus*, 705465, *Ranunculus trichophyllus*, 6947, *Saxifraga granulata*, 699467, 7046

Other axiophytes: *Anemone nemorosa*, *Alchemilla filicaulis subsp. vestita*, *Briza media*, *Callitriche hamulata*, *Carex disticha*, *Carex flacca*, *Conopodium majus*, *Crepis paludosa*, *Dactylorhiza purpurella*, *Dryopteris carthusiana*, *Festuca pratensis*, *Geum rivale*, *Helictotrichon pratense*, *Iris pseudacorus*, *Leontodon hispidus*, *Linum catharticum*, *Luzula pilosa*, *Lychnis flos-cuculi*, *Mercurialis perennis*, *Polystichum aculeatum*, *Ranunculus aquatilis*, *Ranunculus bulbosus*, *Stellaria holostea*, *Thymus polytrichus*, *Trifolium medium*, *Veronica scutellata*

Former rare or scarce species: *Lythrum portula*, 6946, 1843, Dr F Douglas, *Ranunculus circinatus*, 6947, 1969, AGL