

***Crambe maritima*, Sea Kale**

Notes on Distribution in Great Britain

Before the first *Atlas of the British Flora* (Perring & Walters, 1962) the only way of finding an overall view of any species, other than the rarest, was to leaf through all/any County Floras, and to summaries of county distribution in Watson's *Topographical Botany* (1873) or Druce's *Comital Flora* (1932), which just gave presence or absence.

The first Atlas spawned systematic recording by hectads (10 x 10km squares), and then from the end of that decade, many individual counties produced tetrad (2km x 2km squares) atlases. This dramatically changed our ability to look at the real distribution of any species, although of course distribution is only one part of the equation – scarcity, ie how frequent individual colonies within that recording square, is quite another matter.

National picture

The 1962 Atlas showed *Crambe* present in 90 hectads post 1930. Accordingly it was classified as a 'Scarce Plant' (one present in less than 100 hectads) and chosen for further work in *Scarce Plants in Britain* (Stewart *et al*, 1994). By this time, as explained above, Britain was much better recorded systematically, and we received records from 137 hectads post 1970.

Moving on again, the *New Atlas* (Preston *et al*, 2002) showed it present in 185 hectads post 1987, and 200 post 1970.

I have no idea whether this is better recording or a genuine expansion. I think a bit of both, and certainly my Dorset experience and the comments in recent County Floras, suggest the latter. Several sources have cited picking a contributor to decline in the past. I would be very surprised indeed if there is actually the slightest evidence for this. Not only has the plant a very substantial root system, which is probably the main source of recruitment, but has anyone actually observed a death caused by picking?

Dorset

I was resident here from 1982 to 2003, studied the flora intensively, and was the BSBI county Recorder here from 2001 to 2009. I co-wrote the Dorset Rare Plant Register as well as initiating other detailed recording projects.

The various *Dorset Floras* (Pulteney in Hutchings, 1799; Mansell-Pleydell, 1895; Bowles Barrett, c 1900, Good, 1948) all gave the plants as rare or declining or both. I am as certain as I can be that none of them comprehensively sampled the county as Bowen (2000) did. Pulteney & Mansel-Pleydell both lived in the east of the county where it is much rarer, and anyway the former only gave a very sketchy account. Bowles, though he lived at Weymouth, concentrated entirely in that area, and there is little evidence from his manuscript that he went to the west end of Chesil. Good, living in Hull and visiting Dorset in the vacations, surveyed lots of vegetational stands but not systematically every square.

Bowen, on the other hand, visited every tetrad, and recorded *Crambe* from 21 tetrads, commenting 'fairly frequentbetween Charmouth and the west end of Chesil bank, and sporadic on beaches elsewhere.'

That would be my take, and oddly, the major increase was after the hurricane of 1987 (or was it 1989?), where the beaches were dramatically churned up, and I recall seeing *Crambe* roots all over the place at the west end of Chesil Bank. Incidentally much of the major colonies are on the relatively inaccessible parts of Chesil, a nightmare to walk along, trudging through the pebbles, and I cannot believe that earlier botanists realised this. Bowen, by the way, did walk the length of Chesil!

Incidentally I must apologise for a statement that I made in my account in *Scarce Plants* (1994), saying that Professor Good had said that 'it was much gathered in his day for culinary use' He said no such thing, and I have no idea now why I attributed that to him.

The sites at the west end are accessible from Abbotsbury, and must be relatively trampled. It does no apparent harm, and in any event, would be minor compared with the effect of the sea and storms. A similar picture seems (despite much print to the contrary) to be true of other strand and shingle species. I have noticed that species are surviving and even increasing at some of the most heavily used beaches and shingle bars in Cornwall and Dorset - including Studland, that must be the heaviest used of all. The best site in Britain for *Polygonum maritimum*, Sea Knotgrass, a very rare species, is on a very heavily used beach at Gunwalloe in Cornwall.

Summary

I believe that *Crambe* is in no danger in Britain, other than from natural threats (storms etc.), and even those seem to be of net benefit to the habitat.

I am a past President of the Botanical society of Britain and Ireland (BSBI), the premier botanical body in these islands, and a Fellow of the Linnean Society. I am the co-author of the *New Atlas* (Preston *et al*, 2002), *Scarce Plants* (Stewart *et al* 1994) and the recent *Hybrid Atlas of Britain*. I act for the BSBI on the national body that updates the Red List – the list of all the threatened plants in Britain.

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