

BOOK REVIEWS

New Atlas of the British and Irish Flora, by C.D. Preston, D.A. Pearman, and T.D. Dines, BSBI, Oxford University Press, 2002; priced variously between £30 and £100; 910 pp., hardback, 31.5cm x 24.5cm, and about as heavy as a church bible (6.35kg); ISBN 0 19 851067 5

Being lazy I reviewed this fat and magisterial tome by collecting views from other Somerset botanists, both professional and amateur. I indicated to them that *Ecology in Somerset* provides a scientific basis for practical conservation in the County, and so a review should be based on the value of the work to those carrying out conservation here – readers wanting general reviews are well served by those that have appeared in ‘*British Wildlife*’ etc. We have only focused on Somerset.

This approach worked a treat. A lot of people gave me precise comments useful to field botanists based here or visiting here, and some of the remarks they made should be directly valuable to those actively conserving sites and species in Somerset. Indeed, I can only summarise here about 10% of what I received or thought up myself. So I am considering putting the rest on a CD, which is precisely what the publishers of the Atlas have done with 942 introduced taxa ‘too uncommon to merit a printed account’! This CD is tucked into the back of the volume in the place where the first (1962) version of this book held nice little overlays of the 10km grid etc, entirely lacking from the present work. By my estimate, at least 50 of these electronic accounts might be peculiar to, or particularly relevant to Somerset, and so this CD approach could be a problem for those botanists without computer access. More than one person said to me that they would rather have all the accounts in written form, but in two or three volumes (the 1962 book was eventually in two) that can be more readily carried about without getting damaged.

Somerset flavour in the text?

You might be forgiven for thinking that the Atlas has a peculiarly Somerset bias. In just 35 minutes I found 50 references in the species descriptions (three to a page, accompanying the dot maps, which have a 100km grid superimposed) particular to this county. One of the reasons for this is that a great deal was put into the Atlas by people from this part of the nation, and we in Somerset must surely benefit. In particular, Simon Leach of English Nature, Taunton, contributed very many of the grass descriptions and he is renowned for precision of writing and local knowledge. One example is the clear statement that *Leersia oryzoides* Rice Grass is now definitely gone from the banks of the Taunton and Bridgwater canal – so those of us involved in Environmental Assessments for example, can have particular confidence that we don’t have to go looking for it, or bothering the Somerset Environmental Records Centre (SERC).

Treatment of rare species

The authors have mostly been very careful, with rare species, not to name the actual sites in which they occur. For example, the notorious locations of *Himantoglossum hircinum* Lizard

Orchid are conspicuously not named, and nor are the habitats in which they are found in Somerset. Sometimes, though, the location could be worked out from the combination of dot-location and description. For example, *Potamogeton friesii* Flat-stalked Pondweed has a dark blue ('recent') record in central Somerset and the description refers to its spread via canal traffic. *Juncus subulatus* Somerset Rush has a single ('introduced') dot on the Somerset coast and its habitat is described precisely. The type-site for *Dianthus gratianopolitanus* Cheddar Pink is, unusually, named very precisely in the text. It is really for the conservation bodies to decide whether they think this a safe policy on the part of the authors, but it may be that descriptions veer towards exact locations only when the site is actively protected or the species is introduced.

Species gained

Where a species has spread into one county this is clearly stated and there are many such references to Somerset, e.g. for *Potamogeton trichoides* Hairlike Pondweed: '... genuine increase in frequency since 1960 in the Somerset Levels, perhaps because of eutrophication'.

Species lost

The authors have been very precise about losses where there was previously just a single or a few sites. For example, the single recent dot for *Rorippa amphibia* Great Yellow-cress is accompanied by a detailed description of its habitat along with 'lost from Somerset after 1972'. Ironically, the related *Rorippa islandica* Northern yellow-cress now has a station here (see article on it in this issue of *Ecology in Somerset*) – a straight swap! But note that the Atlas does not contain this new record – an infrequently produced national Atlas is always likely to be more out-of-date than county records at SERC or in local publications. The equally precise reference to the loss of *Leersia* has been referred to above. Where there have been losses of a species in one part of the country only, the volume usually avoids referring to the exact locations of extant sites: *Wolffia arrhiza* Rootless Duckweed 'remains frequent in the Somerset levels, but has clearly declined ... in the eastern part of its range'.

Distributions that are on their edges in Somerset

The clear distinction made between native (blue dots) and introduced (red dots) illustrates very well some changeovers in status that occur in Somerset. Often these come as a bit of a shock to those of us who can't quite keep up-to-date, and they stick in the mind very usefully. *Hedera helix* Ivy is now two species, and the changeover from the eastern to the western one occurs in the middle of Somerset. This is very clearly shown on the dot maps, which are even better on the CD (and therefore perhaps very useful for high-quality display via overheads or Powerpoint in local talks). *Sorbus aria* Whitebeam is shown as native in the far east of the County, but introduced elsewhere, no doubt a matter of some interest in woodland conservation management. *Carpinus betulus* Hornbeam, in contrast, is shown as native throughout Somerset, which I found almost as surprising, but the authors make clear that they feel there is currently much uncertainty about this tree and they opt rather strangely for making all Somerset records *and all others right up to Inverness* native.

Searching the index for 'Somerset'

With all these precise references to our county, I would have liked to search under 'Somerset' in the index. This is the sort of thing that a visiting botanist might want to do in order to concentrate on the local specialities, too. Unfortunately the Index does not work like this; for

example 'Somerset Hair Grass' appears under 'Hair-grass, Somerset', rather in the manner of labelling on military ammunition boxes. So the visitor would have to know the names of all our specialities first. This certainly prevents the riff-raff from getting at too many of our plants but is not as friendly as it might have been. It *may* be possible to search on 'Somerset' electronically using the information on the CD, but nobody seems to have tried.

Related species in other counties: the 10km grid problem

A famous botanist pointed out that a national Atlas also helps Somerset botanists to identify close relatives of our species when visiting elsewhere. A number of people said that this was both easy and frustrating with this Atlas. It is easy because of the clear descriptions, and the distinctions between recent and past records; it is frustrating because of the lack of a 10km grid either on the dot maps or as an overlay. I understand that transparent 10km grid overlays are now separately available, and a talk with Botanical Society of Britain and Ireland (BSBI) will reveal how to get hold of one. Being a woodland botanist I looked with interest at the dot map for *Lamiastrum geleobdolon* Yellow Archangel, now divided into two native subspecies *montanum* (which we have here) and *galeobdolon* which occurs in three 10km squares in Lincolnshire and one in Scotland. Were I to visit Lincolnshire I would no doubt be fairly sure of it because the three squares are contiguous, but not so in Scotland where I might easily be just outside the boundary of its single square.

This problem is at its worst for us when the dots for a species are tightly packed in an adjacent county, right up to the apparent border but not obviously over it. An example is *Thesium humifusum* Bastard Toadflax, a calcicole on the Wiltshire chalk; but we do have a little chalk in Somerset near there and it is not clear without a county-boundary overlay whether we also have the plant.

Introductions

Enormous numbers of plant species have been classified as 'introduced' and several botanists found this very revealing. I had been under the impression that *Eryngium campestre* Field Eryngo was native in our county. Indeed, the Atlas description actually states that 'Sites in Somerset have statutory protection, and the species is persisting there with appropriate management'. Nevertheless the dots are in red, for 'introduced' and classified as 'Archaeophyte', the special term introduced by the authors of this book (and for which they are rapidly becoming famous!) to indicate that the species was brought in before 1500 AD. One begins to wonder whether it was brought in with fodder and whether this is taken into account by those managing it.

Reproductive ability and likelihood of spread

In conservation, the ability of a rare species to spread by itself can be very important. This is particularly important for us where a species is on the border of the county and might spread in. For many such species the authors of the Atlas have provided a really valuable piece of information: whether the species spreads by seed, vegetatively, both, or neither. For example, in the difficult taxon *Arum italicum* Italian Lords-and-Ladies, only the introduced subspecies *italicum* freely sets seed and could spread readily; the native subspecies *neglectum*, which occurs right on the borders of Somerset, only spreads locally by division of the rootstock and so cannot be expected to get in without help. The Atlas makes clear that the flowers are often eaten by animals, preventing seed set, and so we might wonder whether a deal might be struck with conservation managers in neighbouring counties to establish grazing exclosures around

plants near their borders! Similarly the 1999 discovery of *Erica ciliaris* Dorset Heath on the Somerset border has got into the Atlas and is accompanied by a clear and useful statement that it does set seeds but that these establish on bare ground, not in closed vegetation. Reserve Managers take note.

Minor flaws in the species descriptions

We did find a few things to criticise in the descriptions, but very few were specific to our county. The description of *Populus nigra* Black poplar correctly draws attention to the many hybrids with North American *Populus* species and F1 crosses, but fails to make mention of the large quantity of 'numbered' hybrids that have been planted for forestry. This is important because Somerset is peculiarly well-suited to poplars, as shown by Taunton Deane having well over 200 trees of the Native Black taxon alone. More troubling is the complete absence of common names for the three subspecies of *Carex viridula* ('Yellow Sedges' to me). Elsewhere in the Atlas there is a description for each major taxon (equivalent in this case to *C. viridula*), providing a common name, and no common names then appear in the subspecies descriptions. With the *Carex viridula* group, however, there is no description for the major taxon, and so no common names appear at all. This is very tricky, since most of us haven't fixed these new-fangled subspecifics for the Yellow Sedges in our heads anyway, and it is significant to us because one of the subspecies (*viridula* – used to be more-or-less *Carex serotina*) has just a few doubtful stations in Somerset. Did the authors forget to put in a description and name for the major species? Can we get hold of the missing description? Most troubling of all is the description for *Crepis foetida* Stinking Hawk's-beard, which has a single solid red dot in Somerset, but is said in the text to occur only on Dungeness. In the key to each dot-map the 'most-recent' symbol is solid blue or solid red, for native and introduced respectively. This symbol is for 1987–1999 records. Does the text for this species imply that *C. foetida* was lost from its single station in our county recently? When?

Indicator species

Papers in *Ecology in Somerset* have shown how important to conservation the National Vegetation Classification and the ideas associated with Ancient Woodland species are in this county. In particular, new contributions to the national index of NVC types have been made here (Simon Leach's Agx), and SERC carried out a careful quantitative analysis of its records to establish an objective schedule of plants associated with old woodland. It is surprising that the Atlas avoids much mention of the prominence of individual species in NVC types or ancient woodland. Here and there we found some passing reference, e.g. to *Lamiasstrum galeobdolon* being 'often associated with ancient woods and wood-relic hedges (Rackham 1980)' but nothing systematic. The description for *Epipogium aphyllum* Ghost Orchid makes no mention of it being restricted to old woodland. Since Somerset is right on the divide between 'Ancient' and 'Planned' countryside (Rackham 1980, again) this could matter to us. Instead, the Atlas makes much mention of soil and the species of trees in the canopy. This is archaic, it's the sort of thing that we read in New Naturalist books published in the 1950s – good work done more recently by historical ecologists such as Peterken, even more than by historians such as Rackham, has shown that frequently the history of woodland is at least as important as its physical conditions as an indicator. Although I have serious doubts about the scientific rationality of both the NVC and the Ancient Woodland concept, they are widely used and I would have expected more systematic attention to be given to them, and to undrained wetland or old grassland.

The Atlas does use one related idea quite systematically – plant geography; each description includes a statement such as 'European Boreal-montane element' derived from a work on plant

geography by Preston and Hill (1997) and defined in Chapter 6 of the Atlas. It is made clear that the classification is a combination of 'Major biomes' (i.e. habitat types) and 'Eastern Limits'. The impression this (and the absence of a 10km grid) makes is that the market of the book is primarily plant geographers. I hope this was not the intention; for every plant geographer there must be many botanists concerned with more local issues and with conservation.

To buy or not to buy

I shall not be buying this book. It is clearly a thing to be examined, on some sort of lectern, in an office or library. Instead, I shall make it my business to befriend organizations that have it, or more likely find a way of accessing their electronic versions. I shall wait to see if soft-back volumes of parts appear, and perhaps buy in to such jointly with other users. However, many botanists will not have ready access to libraries and will consider, quite rightly, that the book costs less than their Road Tax for the year, and that they can get the information from no other source.

So, ironically perhaps, the take-up may be more by isolated amateur botanists than professional, despite the heavy professional emphasis in some parts of the book, particularly the plant geography. But, through ownership or otherwise, no botanist or vegetation manager *dare* be without *access* to this beautifully-produced volume or its electronic partner.

REFERENCES

- Preston, C.D., Hill, M.O., 1997. 'The geographical relationships of British and Irish vascular plants', *Botanical Journal of the Linnean Society*, 124, 1–20.
 Rackham, O., 1980. *Ancient woodland: its history, vegetation and uses in England*, London.

M. ANDERSON AND TEN OTHER POTENTIAL READERS OF THIS ATLAS

The Birds of Exmoor and the Quantocks, by David K. Ballance and Brian D. Gibbs, with illustrations by Tom Raven and Brian Slade, Isabelline Books, Falmouth, Cornwall, 2003. 193 pp, one colour illustration, 32 black-and-white illustrations, three maps. £14.95. ISBN 0-9542955-1-x hardback. ISBN 0-9542955-2-8 paperback.

Should one wish to refer quickly to the area covered in this work, one can look at the fold-out map at the back of the book; it will be seen to extend from Combe Martin in the west to Ulstock, Nether Stowey and Kingston St Mary in the east. Another map shows the main combs and hills of the Quantocks and there is a third one which illustrates Exmoor with its larger geographical features. Both authors are well qualified to write on Somerset birds. David Ballance has been studying the bird life of Exmoor since childhood (evidently early childhood too) and is the current President of the Somerset Ornithological Society; it should be added that he has an extensive knowledge of Somerset bird literature from its very beginnings. Living in Minehead, he roams Exmoor regularly; Porlock Marsh is one of his favourite bird-watching sites. Brian Gibbs lives in Taunton but apparently loves to escape to the Somerset coast to survey sea-birds, preferably those other than gulls, or so I imagine; in addition, he knows the Quantock Hills well and is at present the County Bird Recorder for Somerset. What more could one ask?

The book's first 16 pages comprise an introduction, indicating the geology and geography of the area covered. Parts described include the Quantock coast, the hills and the villages; further, there is also a section on the Brendon Hills, with its rivers, woods and reservoirs. Then we have the Minehead coast, the Avill Valley and Dunster, Hurlstone Point and Porlock Vale, before moving to the all-important Exmoor uplands. The Exmoor Plateau is divided into twelve sections, each with indications of the ornithological interest. Dunkery is treated in some detail; this is necessary as Ring Ousel, Curlew, Merlin and Dartford Warbler may be encountered there at the right season.

There is a short section on the history of bird observations, and observers, for the area. In the main, Victorian bird records were made by clergymen or landed gentry and were certainly somewhat scanty; however, 20th-century naturalists have been far more active and have produced some most useful surveys. Literature references are listed clearly and the reader may well be stimulated to look up some of the original papers which are cited. I wondered, for example, what the Revd W.H. Thornton (1897) included in his article on 'Reminiscences and Reflections of an Old West-Country Clergyman'? Or, what was the substance of 'Wayside notes during a West Country Drive', published in *The Zoologist* (1885) by Cecil Smith? Other helpful sections in the book are on 'Escapes and Exotics', 'Rejected Records' and also there is a Gazetteer, complete with map references.

As one might have anticipated, the main part of the work is a systematic list of bird species, where the status is given and the bird discussed. The order followed is the British List of the British Ornithological Union; nevertheless, this has not always been followed as 'Dunnock' is still listed for 'Hedge Sparrow' instead of the up-to-date 'Hedge Accentor'. In the course of the text, there are 32 illustrations of birds, mostly associated with a fragment of local landscape; the quality of the illustrations is variable but, without doubt, they do add to the book's appeal. Further, the front cover shows an attractive colour painting of a male Redstart, holding food for young or mate. Bird species are listed as being rare or common; moreover, each has an allocated status such as resident, passage-migrant, winter or summer visitor or even accidental. You will find no plumage descriptions or features so, for identification, you will still need your bird field-guide. Again, there is no attempt to indicate the type or site of a bird's nest, or the colour and patterning of eggs. Distribution trends and changes in breeding status are mentioned, however, together with a few unusual occurrences. As an example, I was surprised to read of a count of 500 Fulmars in Blue Anchor Bay in August 1986 and, as another example, it seems that there was once a large Shelduck colony in the sandhills of Minehead Warren, at least in 1904. Population declines are listed for several species but for the Goosander there has been a recent colonisation, with proved breeding by the River Barle – doubtless to the dismay of some local anglers. The book is not the place to record unusual bird behaviour but one incident which was mentioned must have been an appealing sight: that of a hobby being head-butted by a rabbit!

As far as I could tell, the index of bird species is full and accurate, which is a great help in this type of book. I found the treatment of some species much fuller than others; in general, the species accounts of common birds are briefer than the uncommon ones and, in some instances, too brief. I could not quite agree with some of the views expressed; thus, in the last few years I believe that the Mistle Thrush, sadly, has declined in numbers considerably and cannot now be called a common breeding bird over the Quantocks. Again, I think that Bullfinch numbers are much fewer now than just a few years back; I wonder if they would now merit the term 'fairly common'? Happily, both authors emphasise the value of observations in the field; I liked the experience of one of them who heard 72 singing Song Thrushes during nine hours of walking around Exford, Winsford and Dulverton in May 2001 – no doubt an enjoyable experience but one requiring at least some determination. In the book, which is well-written with many pleasing phrases, interesting but little-known bird facts can be found in most sections; I had not realised,

for instance, that Somerset's only Cream-coloured Courser was seen on Minehead golf course in 1941. Anyone with some interest in Somerset natural history, not necessarily in birds alone, should consider buying this book which, with its good, clear type, is easy to read, or to search for a particular topic. The book represents much meticulous field observation and literature searches, with most of it relating to Somerset. Yes, I know that the western part of Exmoor is in Devon which I do not suppose really concerns the birds; also, it ensured that the authors could not become too parochial!

PHILIP RADFORD