

## BOOK REVIEWS

**British Plant Communities Volume 2, Mires and Heaths**, edited by J.S. Rodwell. Cambridge University Press, 1991. 628 pp. £95 ISBN 0 521 39165 2

The first volume of *British Plant Communities* was reviewed in the previous number of this journal. We now come to the second volume which covers the communities of mires and heaths.

Volume 2 is in this reviewer's opinion an outstanding account of our mires and heaths. The introductory chapters, together with the excellent diagrams of the spatial patterns of different communities, greatly help an understanding of their inter-relationships. A draft form of this work had been in use for some years before publication of the hardback version, but inclusion of clear diagrams, robustness and relative compactness make the present volume very much easier to use. It is only to be regretted that what must be regarded as a standard work should be so expensive; surely Cambridge University Press would have made more money with a publication affordable to all.

A fairly simple diagnostic key helps to allocate samples to community type; however, as the book recommends, it is usually essential to refer also to the tables. Using the key can prove particularly frustrating if your sample happens to be intermediate between two or more communities. In difficult cases it is usually best to use one of the two National Vegetation Classification (NVC) diagnostic computer packages, Tablefit or Match, to help explain where a particular community fits in along a continuum of change between community types.

Mires and heaths have a simpler vertical structure than woodlands and therefore the species tables for each of the communities are much easier to understand than in Volume 1. The tables are divided into horizontal blocks to distinguish between species that are 'constants', 'preferentials/differentials' for a particular sub-community or 'companions/associates'. It is hard, however, to understand why no clue is provided to explain where each block in the table is. The author of this review teaches use of the NVC to trainee botanists who consistently accuse the books of being deliberately confusing in order to be elitist!

The community maps only indicate where samples of that community came from and not a complete picture of the range of each type. In Somerset, the match between these maps and known distribution is particularly poor. No fewer than twenty-nine mire communities or sub-communities recorded on the Somerset Sites of Special Scientific Interest (SSSIs) fail to appear on these maps; a mere nine do! It would be useful if these maps attempted to show known distribution of a community – perhaps a different symbol could be used to distinguish between samples used and the wider distribution.

To prevent floundering in the 'slough of despond' (M29?), it is advisable to have read the introduction and have an idea of which out of the vast array of thirty-eight mire communities and twenty-two different heath communities might be expected in relation to soil types and climate. 'Difficult' groups such as bryophytes, sedges and rushes are crucial to accurate identification of some mire and heath types; therefore I would

strongly recommend revising the identification of key diagnostic species of expected communities before undertaking field work. The effort will pay dividends.

In summary, this is an important book for the recording of British vegetation and is of high quality; but it has some flaws, the greatest of which is its prohibitive price, putting it beyond the reach of most surveyors and firmly on the bookshelf rather than in the pocket of those who do acquire it.

LIZ BIRON

**The Badger Man**, by Ernest Neal. Providence Press, 1994. 274 pp.; black and white illustrations. £13.95. ISBN 0 903803 28 3

This is an absorbing autobiography of an eminent schoolmaster and naturalist. His father was keen on butterflies and this enthusiasm started the author on his natural history career. An early excitement was to see a large immigration of Painted Ladies whilst on family holiday in Deal. In the early forties he was involved in the discovery of several colonies of Large Blue and was able to observe females laying eggs in the terminal inflorescence of thyme. Another red-letter day was a single Large Tortoiseshell at Otterhead – the last known record for the species in Somerset.

His main vocation was teaching, first at Rendcomb College, Cirencester, between 1936 and 1945 and then at Taunton School from 1946 until he retired in 1971 as senior master. Several chapters are concerned with his teaching career and show how much he was concerned with the development of biology as an investigative science. He was particularly involved with ecology and encouraged his students to do field work and numerous expeditions and projects in many different parts of Great Britain are described.

During his early years at Rendcomb, a chance encounter with badgers started his investigations into all aspects of the life-style of this engaging mammal. He wrote many books, particularly *The Badger* which proved very popular and ran to five editions. He tells of his involvement with the Mammal Society and the Somerset Trust for Nature Conservation (now the Somerset Wildlife Trust), helping with the foundation of both these organisations. The establishment of the Trust headquarters at Fyne Court owes much to his efforts. It is interesting to note that Thurlbear Wood, where he did much of his ecological research, is now managed by the Somerset Wildlife Trust.

The book also describes many other activities such as photography, work with the media, lecturing and much else. Above all it shows a man with considerable communicative skills and an enduring enthusiasm for the natural world and its inter-relationships.

JOHN KEYLOCK

**Ring Ouzels of the Yorkshire Dales**, by Ian Appleyard. W S Maney and Son Ltd, Leeds, 1994. 60pp.; 80 colour photographs; 3 sonograms. £14.99.

It may well be asked why I am reviewing a Yorkshire book on Ring Ouzels for a Somerset publication. My answer is that I consider that the Ring Ouzel is an important and attractive bird in Somerset, even though it only now breeds on Exmoor and then in very small numbers. Not a lot has been written on the Somerset Ring Ouzels and, in my view, what the author has included on the Yorkshire bird applies equally to Somerset. It must be remembered that, apart from breeding, Ring Ouzels may migrate through Somerset and small parties are sometimes recorded along the coast or inland in early spring or in Autumn. Of course, in historical times, Ring Ouzels have nested on the Mendip Hills and on the Quantocks, in addition to Exmoor. Ian Appleyard decided to

start on long-term observations of Ring Ouzels in a study area of the Yorkshire Dales in 1970; the book is the summary of the work. With his wife, Philippa, the author observed 353 pairs of birds over 15 years, including details of 164 nests.

Whether on the Yorkshire hills or over Exmoor's Dunkery region, breeding Ring Ouzels must surely rank amongst the most thrilling and evocative of birds. There is much plumage variation in the species. The male, Blackbird-like with a white crescent or gorget across the upper breast, shows a characteristic pale wing-patch; females, arriving slightly later on their breeding grounds, are browner with white edging to the feathers, having a scaly appearance. In the female, the breast crescent is often ill-defined and juveniles in autumn look spotted and brown, lacking a white crescent.

The sounds made by Ring Ouzels are certainly attractive and thrilling, especially when the male's song carries over bleak moorland; simple fluting whistles are given as song phrases and can be heard at surprising distances on still days. Then a shrill whistle is uttered as a call, while hard, rattling cries indicate alarm or, with a different emphasis, preparation for roosting. The author is a wildlife sound recordist and one of his sonograms – a graphic representation of sound frequency related to time – illustrates normal Ring Ouzel song. Two other sonograms show evidence of harmonics which suggest interesting local dialects for the Ring Ouzel concerned.

One aspect of Ring Ouzel behaviour which has interested me is the feeding of young. The parents seem to carry amazingly large beak-loads of invertebrates, especially as the chicks mature and become ready to fly. At times, the adult female will accumulate a heap of food on the valley floor, often near a stream, and then carry the whole spectacular, writhing mass to the ever-hungry young. Much depends on whether the local geography permits observations from food-gathering points to the nesting site; often hollows and depressions make such attempts very frustrating.

I found the standard of photography in this book to be high and, in this connection, the problems of distance over the moorland terrain, linked with the shyness of the birds, are discussed. I thought one of the author's photographs, which showed parent Ouzels shielding nestlings from bright sunlight, quite outstanding. The author, rightly I feel, evidently regards the eggs – blue-green shells blotched and flecked with rich chestnut – as beautiful objects and very appropriate for a substantial moorland nest, whether sited on the ground amongst heather or hidden on a slope under a rocky projection. Useful inclusions are the topics on moorland bird photography in general and exposure difficulty.

Ian Appleyard refers to plumage details, courtship, copulation, predation, species density and the feeding of young, as well as the analysis of vocalisations. Even so, I think that the text is rather too short and would have benefited from an index. In essence, it is a very personal volume and at the end there is a tribute to the author's elder brother who was killed during the Second World War. It is clear that the book is written both for the general, interested reader and the ornithologist.

For any naturalist with access to Ring Ouzel country, I recommend this book. The writing is sensitive, suggesting the spirit of open, high, craggy moors and peaks. If read in the winter, the reader can but wait for that March or April day, preferably at dawn, when a cock Ring Ouzel again whistles its musical notes from wind-blown, heather-clad hills and moorland expanses.

PHILIP RADFORD

**New Flora of the British Isles**, by Clive Stace. Cambridge University Press, 1991. 1226 pp.; black and white illustrations; £24.95. ISBN 521 42793 2 **List of the Vascular Plants of the British Isles**, by D.H.Kent. BSBI, London, 1992. 384 pp.; £12.00. ISBN 0 90115 821 6

In attempting to produce exactly the kind of Flora that he himself has wanted for twenty to thirty years Dr Stace has given us a heavy (0.77 kg), large-pocket-sized, all-weather-covered key to all species and virtually all hybrids of them found growing under natural conditions in the British Isles. We must ask if this book is as complete, up-to-date, user-friendly, selectively illustrated and reasonably priced as it ought to be. Also, can the user identify his or her plants with confidence using this text?

The book is very well written in a friendly style that does not demand prior expertise in complicated terms. The author uses remarkably few terms, clearly explained and well illustrated. The Flora classifies the full range of vascular plants, pteridophytes, gymnosperms and angiosperms, into classes, subclasses, families, genera, species and subspecies, with extra details on angiosperm superorders and orders. He also includes subfamilies or tribes, subgenera or sections where appropriate for extra clarity.

Many people will find some shocks here. They will find familiar families under different names – Apiaceae for Umbelliferae and Asteraceae for Compositae for example – and they will find the sequence differs from more familiar texts, so that Cruciferae, sorry, Brassicaceae at No. 63 is a long way beyond Caryophyllaceae at No.47. Happily Rosaceae at No. 76 is still virtually adjacent to Leguminosae, sorry, Fabaceae, No. 78. The 'new' names appear 'only where the evidence is unequivocal or overwhelming'. The sequence of families, genera and species used follows the rule that 'in general the less specialised taxa precede the more specialised ones.' English names are used throughout since they help peoples' interest in wild plants and the scientific names are those of the latest authoritative revisions. This does not mean that names have been changed wholesale but that there are names unfamiliar to some of us. The descriptions of species contain what are considered to be the most important characters and are set out in a consistent and comparable fashion and, although using a very wide range of literature, all the measurements have been checked on fresh specimens to avoid repeating the errors of the past.

In this book all the keys are new and are mostly of the dichotomous type, though in a few instances, for example *Epilobium*, *Cotoneaster*, multi-access keys are provided. I like the use of simple, accurate words and the certainty of knowing that all the species and hybrids are being considered. This does not make the system unwieldy because the mass is broken up into short keys to families, genera, subgenera and species.

At first glance there may not seem to be many illustrations, though this is a criticism which can be levelled at some very useful texts but, in fact 'some sort of illustration is provided for over half the taxa treated.' In order to be comprehensive Stace has provided 'drawings of those species for which ready sources are not available in the literature' and 'to illustrate diagnostic parts of more critical groups of taxa on a comparative basis.' There are whole pages of comparative illustrations. Furthermore, line drawings, photographs and scanning electron micrographs have been prepared with a lot of care. Many photographs are of fruits and associated structures but many are not of fresh material and come from herbaria. The field botanist must take care! He may find his plump little utricle virtually incomparable with the shrivelled illustration. In the text the species which have an illustration have a number adjacent in the margin. At a stroke Stace has eliminated the need to search for the Plate. The author also includes a summary of the rarity scale of species and remarks on conservation.

In my particular case I like to use a book with which I am familiar and because I have confidence in it. So, I use a sedges book, a grasses book and an umbellifer book as appropriate. What do I do with a new book? It has got to make itself useful. It has to show that its weight is more economical than my present field library. This book scores on its comprehensiveness and on its being more up-to-date than virtually any other field guide. There are two points on the negative side. It does not give flowering season and it needs some way of letting you know on which page you can find genus 89, 8, 30, 42, 57, etc., when you are wading through the key. I do it by going back and writing the page number in the margin of the key. On the whole, this is a welcome book to be recommended to all serious botanists.

The list of Vascular Plants is the long-awaited replacement for Dandy's of 35 years ago and it is claimed that Clive Stace has followed its nomenclature and sequence in his new flora. Unhappily, users will find that the numbers used for family identification are out of step progressively as they go through both texts due to Stace including three more taxa than Kent. The book is very well produced with bold species names and ordinary italic synonyms, and will not lose its pages in a storm! But I would only use it at home as a useful reference. Both books together weigh too much.

TONY SMITH