

BOOK REVIEWS

Pondweeds of Great Britain and Ireland, by C.D. Preston. Botanical Society of the British Isles; Handbook No. 8, 1995, 352pp. ISBN 0-901158-24-0

A book on pondweeds is long overdue. Here is the answer to identifying those 'difficult' plants, and to find that you don't necessarily need the ripe fruits for the identification is a real bonus (particularly because many of the hybrids do not form fruits). This is an excellent book, in the familiar style of the previous BSBI books. The fine detailed drawings illustrate the species and hybrids and extra drawings are included which clearly show the particular parts of the plants necessary for identification.

There are comprehensive descriptions of the structure of the pondweeds, highlighting the variations which can be found within each species, such as *Potamogeton pectinatus* which, because it can be found growing in waters which are eutrophic, brackish or still, or in rivers, streams or gravel pits, is very variable in habit and leaf shape. The differences between the narrow-leaved pondweeds and also between the many hybrids are emphasised, and in the latter case, the specific characters are highlighted which distinguish the hybrids from the parent species.

An important section of the book covers the collection and preservation of material so that samples may be kept in a good enough state for later identification. It particularly indicates which parts of the plants to collect and how to dissect out the important characters necessary for determination of the species or hybrid.

The keys are divided so that the species, including *Ruppia* species and *Groenlandia densa* and the two commonest hybrids, can be identified initially using Key 1. Following on is the more comprehensive key for the whole range of pondweeds. They are so variable that, for example, plants that normally would have floating leaves are found without them or the shape of the submerged leaves changes on different parts of the stem. The keys cope admirably with this variation. The more detailed key makes identification easier by dividing the pondweeds into six major groups which are then keyed separately.

The distribution of each species or hybrid (except for those which are no longer found) is shown on a map of Great Britain and Ireland. The anomalies of the distribution of the pondweeds are highlighted such as that of *P. filiformis*, which is previously known to be widespread by examining the fossil record but is now apparently limited by climate.

The present conservation status of the pondweeds is discussed. Their distribution has been affected by climate change and successional processes but there is little evidence that the natural *Potamogeton* flora has declined in the highlands and islands of Scotland, the uplands of northern England and Wales and the western seaboard of Ireland. However, the ever increasing influence of man in the rest of these countries has modified the natural waters by drainage, canalisation and eutrophication. Even the artificial habitats, such as gravel pits, which have been colonised by pondweeds have sometimes now disappeared. The distribution maps indicate that many species have receded in the south and east and the hybrids in particular are very localised and vulnerable.

This book is not just a guide to the identification of the pondweeds, but includes their history from 50,000 years ago when they would have lived in the treeless landscape of the glacial period. There are descriptions of the habitats and associated species with which the pondweeds grow. There are chapters on their life history and ecology, covering the major constraints of life in water and the water chemistry as a determinant of pondweed distribution. The importance of the pondweeds for birds which feed on the shoots and seeds and for their dispersal is discussed and also their importance for the invertebrates and fungi which depend on them.

This book is an important and useful contribution to aquatic ecology and I hope it will enthuse many more naturalists to tackle the pondweeds.

KAREN POLLACK

Field Guide to the Dragonflies and Damselflies of Great Britain and Ireland, by Steve Brooks, illustrated by Richard Levington, British Wildlife Publishing, Hook, Hampshire, 1997. 160 pp, 220 colour illustrations, 50 colour photographs, line drawings. £18.95. ISBN 0 9531399 0 5

Whilst Steve Brooks of the Natural History Museum was the author of the keys and the introductory passages on behaviour and physiology, several other contributors were involved in writing the species descriptions and habitat sections. The result is an attractive, well printed, fully up-to-date and illustrated work, especially useful because of the emphasis on the relationship between behaviour and habitat. Although softback, the binding appears strong and the book should survive rough field treatment, its almost pocket size making it far more practical to use compared with larger formats such as, say, Hammond's *The Dragonflies of Great Britain and Ireland* (1983).

The skilful and well written introduction is evidence for the love the author holds for his subject, their beauty and manner of flight. Information on fossil dragonflies is included; apparently, these once reached enormous size, but anomalies exist, for example, why was there no notch at the front of the fossil wing?

Dragonfly vision and flight processes are described concisely and there is a good section on the aquatic larvae. The functions of the larval setae are discussed, as well as dangers of water pollution from varying causes. Essentially, the larvae are ferocious carnivores, impaling animal prey by the sudden hydrostatic thrust of the labium and, in some species, attacking the victim by means of the sharp spines on the end of the abdomen; yes, this makes exciting reading!

Emergence, changing into the flying insect and synchronised emergence are considered in some depth and there is a revealing series of colour photographs of an emerging dragonfly. Then, after the intriguing topics of finding, recognising and keeping mates have been discussed for the mature insect, comes the necessary description of the mating process including ideas on sperm competition and displacement. Further, it seems that dragonflies eat about 20% of their body weight daily, both hawkers and darters have been observed feeding on insects attracted to street lamps!

The various dragonfly sections each have a colour code by the page number, which makes for easy subject location. The regional dragonfly guide is especially useful and that for Somerset was written by Mike Parr. The significance of the Levels, West Sedgemoor, the Mendips and the Brue and Avon Rivers for Somerset's 28 dragonfly species is assessed, though rather briefly. The following section includes species keys and details of structure. The glossary of terms was disappointingly short, offset somewhat by the useful diagrams in the keys. Larvae are represented by just 16 underwater species photographs, of high quality, and one could have wished for more.

The largest section of the book is a systematic description of British and Irish species. All have scale artworks by Richard Levington, based on colour photographs and museum specimens. Male and female damselflies and dragonflies are displayed dorsally and sometimes there is a side view; immature examples are sometimes included – more would have been useful. The colour illustrations, in general, are of high standard and accurate, although a few of these seem unduly pallid. The species descriptions are concise and helpful in identification for the beginner; they contain information on field characteristics, behaviour, habitats, ecology, status and conservation. Jizz is also mentioned for all species. I like the term – apt in view of the idea of a dragonfly being the birdwatcher's insect! Each listed species has a distribution map and shows when the insect should be on the wing.

It is difficult to fault this field guide. The amateur dragonfly enthusiast, whether beginner or otherwise, will find much of value and can be guaranteed to find new and surprising facts. Dragonfly observation should be stimulated by this attractive and reasonably priced book. Dragonflies mean summer sunshine; for me, this impression was conveyed through the text.

PHILIP RADFORD

In Pursuit of the Peregrine, by R.B. Treleaven, Tiercel SB Publishing, Wheathamstead; 1998; 242 pp, 21 colour plates, numerous black-and-white illustrations; £29.50. ISBN 0 9532002 0 5

The forward states that this work is a eulogy for peregrines but, more exactly, the theme represents Cornish peregrines and their wild habitat. The author has studied peregrines in Cornwall for over 45 years and at one time was a falconer, although working with goshawks. He is a wildlife artist; paintings are a feature of this book, together with helpful line drawings which illustrate behaviour and postures. The love of the author for the untamed Cornish cliffs, as a background for these exciting raptors, is emphasised throughout the work; the attractive paintings illustrate the spirit in which the book was written.

These days, it is not uncommon to come across the remains of a peregrine pigeon-kill in Somerset, particularly when walking near the coast. Indeed, not long back, a lady telephoned me from Watchet, saying that as she was talking a bird of prey was plucking a pigeon on her lawn. From her description, the bird can only have been a peregrine. Although with a smaller population than Cornwall, the birds are being sighted increasingly in Somerset and many of the author's observations must be relevant to both counties.

The writer started peregrine watching after the Second World War, when eyries were destroyed because of the threat to carrier pigeons. Later, he followed population changes due, directly and indirectly, to chemical pesticides, then monitored the recovery which took place in the late 1960s. The work has an anecdotal style and, probably, the author would not claim to have written a truly scientific work. Nevertheless, there are records of annual productivity at 18 Cornish eyries as well as local population studies. Long-term studies of this type provide valuable ornithological data.

A useful glossary of terms used in falconry is included. I found it necessary to refer to this as I came across 'chupping', 'crabbing', 'deck-feathers' or 'do-gazza'. Do you know the meaning of 'go-able' or 'jagged-up'? Then, what about 'rangle'? Apparently, small pebbles get regurgitated and are covered in mucus when captive peregrines are in moult. This strange behaviour has not yet been observed in wild peregrines; it would be an achievement if it could be seen and written up in Somerset!

Peregrines in relation to law is fully discussed as well as the uncertainties about the falcon's speed in its stoop. There are interesting observations on egg-laying, incubation and techniques in pigeon hunting.

As a Cornishman, artist and raptor enthusiast, the author has produced an attractive and informative work. Somerset naturalists have increasing opportunities for peregrine watching; and for those with a love of the sea, sheer cliffs and agile flight, I can recommend this book. Dip into it when the weather limits outdoor activity, when waves are dashed against the cliffs and resident peregrines remain secure on their exposed cliff roosting ledges.

PHILIP RADFORD