

BOOK REVIEWS

BUTTERFLIES AND DAY-FLYING MOTHS OF BRITAIN AND EUROPE, by Michael Chinery (Foreword by Sir David Attenborough). 1989. A New Generation Guide. University of Texas Press, Box 7819, Austin, Texas 78713-7819, USA. 319 pp. + endpaper notes, numerous color figures. Hard cover, 13 × 20 cm, ISBN-0-292-75539-2, \$22.95.

With the exception of British birds, perhaps no other subject in natural history has seen as many field guides devoted to it as British butterflies. In recent years alone, fine new handbooks have appeared from Robert Goodden, Jeremy Thomas and others, as well as the definitive monograph in the *Moths and Butterflies of Great Britain and Ireland* series (John Heath, general editor). How, you might ask, can a butterfly fauna about the size of Alaska's justify so many treatments—let alone this new one?

From the cover alone one can tell that the latest entry by Michael Chinery—first published in William Collins Sons' New Generation Guide series—is different from its predecessors. First, the area covered, while stressing Great Britain, includes all of Europe. Second, the cover illustration shows both a swallowtail and a noctuid (likewise, the frontispiece, a downland scene, shows emperor and burnet moths as well as copper, heaths, graylings, and blues). With the inclusion of an array of diurnal moths, the book makes a striking departure from most of its predecessors. A brief foreword by Sir David Attenborough, the doyen of British public naturalists and General Editor of the series, shows the regard with which these insects are held across the Atlantic. It was Sir David's idea, by the way, to include the day-flying moths.

In his preface, Michael Chinery says that the book is "aimed at the naturalist who wants to do more than just put names on things." In this, it succeeds. The front- and back-matter are far more extensive than in most field guides, and are extensively illustrated. The 1500-plus color drawings were provided by four artists: Brian Hargreaves did most of the butterfly species portraits, Denys Ovenden the moths, while Sophie Allington and John Wilkinson carried out the many striking text illustrations.

The book is organized into three main sections. "The Evolution of Butterflies and Moths" covers general characteristics of the order, evolutionary origins and development, anatomy, voltinism, metamorphosis, and classification. "The Directory of Species" constitutes the field guide proper. "From Egg to Adult" traces the biology of the Lepidoptera in each stage, including phenology, predation, and defenses; ecology of habitats and populations; senses in the adult; courtship, flight, resting, and feeding behavior; discussions of migration, hibernation, variation, monitoring, gardening, and conservation. Given the breadth of subjects covered, the treatment, though succinct, is admirably clear, full, and up-to-date. The book thus serves as a beginning text-book on the Lepidoptera as well as a field guide, in the same way that the 1951 Peterson *Field Guide to the Butterflies of North America, East of The Great Plains*, by A. B. Klots, had done. Chinery's use of current research literature (though not crediting individual sources) is impressive, and his style entirely readable.

The heart of the book, of course, is the "Directory of Species." The species accounts treat 360 species of butterflies from 9 recognized families, and 260 diurnal moths representing 20 families. With so many species covered, the accounts are necessarily brief. They typically include English name (other European vernaculars omitted, unfortunately), scientific name (author omitted), chief field marks, habitat, altitude, flight months, number of generations, hostplants, immature descriptions and phenology, overwintering stage, and variation (naming and describing some subspecies). Terse notes on recognition and natural history sometimes follow. The range is indicated first by a symbol denoting occurrence in Britain; second, by a status notation by country (endangered, vulnerable, rare, legally protected); and third, by a small, red-shaded map for each species. Nicely, the species accounts conclude with cross-references to further information on the species' biology in other sections of the book.

The illustrations are uniformly fine. Happily, they include good color representations of the eggs, larvae, and pupae of many species. Butterflies, in all cases, are drawn half dorsal, half ventral, and females and major subspecies are shown if warranted. Of course,

not every variant appears. Only two races each, for example, demonstrate the range of variation in *Parnassius apollo* and *P. phoebus*. For the moths, a different pattern is followed, showing the left side with the wings drawn down in a natural pose, the right side with the forewing raised to expose the hindwing. Moth coverage ranges from minute micropterigids to the largest saturniines, and includes many larvae but not eggs or pupae.

Drawings situated elsewhere in the text illustrate a wide and welcome array of lepidopteran biology, from a blue in a skink's maw to a purple emperor visiting a rotting rabbit, and many stations in between. The selection shows great imagination and a keen sense of suitability. I was impressed, and I know I will use the book to demonstrate principles to students.

I found few drawbacks with this book. Outright errors are rare to absent and the editing is good. Intraspecific names are used with variable consistency: the illustrations of the ochre ringlets, or the heaths (*Coenonympha*) include English vernacular names for species, scientific trinomials for subspecies, forms in italics rather than the correct use of roman with quotation marks, and something called "the Italian race" of the *C. rhodopenis*. This may prove confusing to less experienced users. There is a definite bias against collecting, without recognizing that the knowledge on which the book is based came about due to collectors' efforts over many decades. The concern about overcollecting might be more warranted in Europe than North America, although European conservation legislation has concentrated ineffectually on collecting instead of on meaningful habitat protection and management. In any case, the attempt to bring butterflies to the attention of watchers and other naturalists is welcome.

The worst part of the book is the jacket and promotional copy, which advances unmet claims ("a complete guide to the eggs, caterpillars, pupa [*sic*] and adults" it is not) and descends to ungrammatical nonsense on the back cover. This is not the author's fault. The most serious flaw is the omission of a list of published sources drawn upon or any bibliography for further reference by readers. Nor does the author indicate which taxonomical authority, system, or standard source he used for names. That the index includes only names, and no informational headings, is most unfortunate. These lacunae should be corrected in future editions.

Finally, one must ask why William Collins Sons saw fit to replace their standard *A Field Guide to the Butterflies of Britain and Europe* by Lionel Higgins and Norman Riley. A comparison shows that the older guide (1970, revised in 1980 and condensed in 1983 by Higgins alone) was the more authoritative, providing greater detail on variation and subspecies, and better maps. The Chinery book is more telegraphic, omitting significant details such as the enormous disjuncture in the range of *Pseudochazara hippolyte*. The illustrations of butterfly species, though newly drawn, are by the same artist (Brian Hargreaves) and of similar quality. So is the new book merely redundant, or perhaps inferior?

It is not. First, by integrating the drawings and maps with the text, and adding immatures, Chinery's book becomes instantly more useable than Higgins and Riley's field guide. Second, the addition of diurnal moths greatly expands the application of Chinery's book in the field. And wrapping the field guide portion between copious biological information means that one can use this book to become truly acquainted with the subject, not merely to identify specimens.

In this, the *New Generation Guide* series typifies a whole new trend in natural history handbooks. Naturalists today, most of them not collectors, want to see their plants and animals in three dimensions—not simply as dorsals and ventrals on the stalk of a pin. Serious collectors will still want Higgins and Riley in their library; but they would do well to buy Chinery too. For anyone else remotely interested in adding butterflies and moths to their outdoor repertory, on either side of the Atlantic, I highly recommend this innovative, appealing, and satisfying entry in the long and crowded derby of British butterfly books.

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