

BOOK REVIEW

THE AUDUBON SOCIETY FIELD GUIDE TO NORTH AMERICAN BUTTERFLIES, by Robert Michael Pyle. 1981. Alfred A. Knopf, Inc., New York. Format $3\frac{3}{4}'' \times 7\frac{1}{2}''$ (approximately). 917 pp., 759 color figures, pictorial keys, several halftone figures integrated into the text. Durable flexible binding. Price: \$11.95.

This book is one in a series of practical nature guides being published in standard format by the Audubon Society. They are designed for field use and appear to be rugged enough to withstand a fair amount of abuse. The size is convenient to fit into a day pack or large pocket. The flexible plastic cover should wear well.

In reviewing a book of this nature one must consider the potential audience. The Introduction states: "This book is designed for everyone who wants to know how to identify butterflies in backyards, parks and gardens, as well as in woods and fields." The book certainly meets this goal. It is not directed toward the serious taxonomist but should be of interest even to specialists.

The book begins with the usual discussion of butterfly anatomy and biology accompanied by appropriate illustrations. This section is followed by comments on survival, habitat, observing butterflies, methods of identification and nomenclature. A detailed section then describes how to use the guide. The Audubon Society has adopted a standard format for its nature guides that involves color, pattern, silhouette, and geography. Three illustrative examples are provided to aid the reader in learning how to use the guide to identify an observed butterfly. The illustrations group butterflies by color and silhouette, and not according to taxonomic placement. Each double page of illustrations has a thumbtab guide in the mid-left margin denoting color, pattern, or silhouette. This enables the reader to locate quickly the section containing an unknown species. This method is standard throughout the guide series.

The colored illustrations follow immediately the prefatory material and include some photographs of eggs, larvae, and pupae, as well as adults. Nearly all of the North American butterflies are shown in natural color; a few appear in the subsequent text in black-and-white.

Most of the photographs are of naturally posed butterflies in the field, representing the specimen as it would be observed at rest. A few have been rotated in position, apparently for artistic purposes. Some of the photographs represent obviously pinned material (one specimen lacks its antennae), and some appear to be of either stunned or chilled specimens that have been posed on various substrates. For the most part the quality of the color reproduction is excellent, having been done by the Swiss firm of Nievergelt Repro AG, Zurich. A few obvious exceptions regarding color fidelity are Figs. 97, 98, and 116 (all sulphurs), and Fig. 265 (the Florida duskywing), which exhibits an unnaturally intensified iridescence.

The focus in the illustrations is generally sharp and clear, with Figs. 117 and 635 (the sleepy orange and astarte fritillary respectively) notable exceptions. The hesperine skipper photographs are generally superb, although a few are poorly illuminated and would present identification problems for the casual observer. The hairstreak photographs are the best that I have ever seen, especially those of the *Callophrys-Mitoura-Incisalia* group. The color fidelity is very good. Despite the excellent photography, it would be difficult to make positive field identification of many species without actually catching them, simply because they are too wary for prolonged observation.

Common names are used in the color figure captions, and the reader is referred to the scientific text, which follows the plates, for further discussion. The technical section is arranged according to family in the order: Papilionidae, Pieridae, Lycaenidae, Riodinidae, Libytheidae, Nymphalidae, Satyridae, Danaidae, Hesperidae, Megathymidae. A glossary and index complete the book.

The scientific nomenclature follows that in "A Catalogue/Checklist of the Butterflies of America North of Mexico" (Memoir No. 2 of the Lepidopterists' Society). There are some radical changes in nomenclature from the 1964 dos Passos Checklist (Memoir

No. 1 of the Lepidopterists' Society). For Holarctic genera, names have been brought into agreement with European usage. Various subgeneric names have been elevated to full generic status.

Quite a few new common names have been validated in the book, which is unfortunate. In 1980 a joint committee composed of members from the Lepidopterists' Society and the Xerces Society was formed to develop an approved list of common names. The committee report and recommendations have yet to appear. Consequently, further common name confusion may occur. In most cases the new vernacular names are descriptive of either larval host plant preference or adult maculation.

In the technical section approximately one page is devoted to each species. The butterfly is first described and then compared with similar species, followed by information about life cycle, flight period, habitat and range. Notes on local habitats are included when pertinent, such as: "Huckleberry heaths in the higher parts of Yellowstone Park are good places to seek clear examples of this sulphur"; with reference to *Colias pelidne*. Discussion is restricted to the species level; there is no discussion of subspecies, although color and pattern variations are mentioned. No authority names or dates are placed following the scientific names. This appears to be the style adopted for the Audubon guides, and not an omission on the part of the author.

The book appears to be accurate and current. Even the recently described *Clossiana acrocneuma* (Gall & Sperling) is included. The extinct Xerces blue is also illustrated. One omission was noted in the description of *Epidemia dorcas*, page 523. The book states that the life cycle is undescribed, when in fact, W. W. Newcomb published the life history in 1911 in the Canadian Entomologist. The butterfly shown in Fig. 396 as the hickory hairstreak appears actually to be one of the forms of the banded hairstreak (Fig. 394). These two species are difficult to separate. I would question combining two taxa that have been formerly called *Agriades aquilo* and *A. glandon* in North America into the single taxon *A. franklinii* (Curtis). Since the North American counterparts of *aquilo* and *glandon* exhibit the same habitat and host plant preferences as their European congeners, it would appear appropriate to use *franklinii* for the coastal races and *rustica* W. H. Edwards for the montane species. This comment, however, actually relates to the Catalogue, since it dictated the nomenclature used by Pyle. *Lycaeus cupreus* is incorrectly listed as *Chalceria cupreus*. Considering the scope of this book, the points mentioned above are minor.

This new Audubon Society guide should prove an invaluable aid to nature lovers and beginning lepidopterists. Even the serious amateur and seasoned specialist should find it a handy reference for identifying species from unfamiliar regions of North America. In general the text is concise and the color photography excellent. It is unfortunate that not all species are shown in color. Within the format constraints placed by the guide series and the intended audience, Robert Pyle has done an admirable job. At the price of \$11.95 the book is a real bargain and a highly recommended addition to any lepidopterist's library.

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