

## BOOK REVIEWS

EMPEROR MOTHS OF SOUTH AND CENTRAL AFRICA, by Eliot Pinhey. 1972. C. Struik, Cape Town. xi + 150 p., illus. + 43 plates (15 in color). Price \$12.95 (U.S.).

Emperor moths, Saturniidae, are well-represented in Africa south of the Sahara, and almost everywhere a rich variety of species can be expected. This book is essentially a guide to the identification of species found in southern Africa, north as far as Zambia, Malawi and Mozambique. Emperors are large and conspicuous and thus attract the attention of collectors. As a result the life histories of many species are well-known, which is certainly not true for the bulk of African moths. The caterpillars and their foodplants are described and documented, and there are introductory sections on structure and classification. The caterpillars of a quite remarkably large number of species appear to have become adapted to introduced plants. A few are pests, and some are utilized as human food.

The book is intended primarily for the collector. There is little emphasis on ecology, behavior and conservation. The text is rather long-winded and anecdotal, but includes an amusing list of derivations of scientific names. The plates, together with numerous drawings of male genitalia, should facilitate the identification of species in southern Africa, and will certainly help in placing specimens from the more tropical parts of the continent.

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WATCHING WASHINGTON BUTTERFLIES, by Robert Michael Pyle. 1974. Seattle Audubon Society, Joshua Green Bldg., Seattle, Washington 98101. 109 p., 64 color and 2 black-and-white photographs, 1 line drawing, 1 map; foreword by Roger Tory Peterson. Price: \$3.95 (U.S.) plus \$.30 shipping charge for first copy, \$.20 for each additional copy.

This charming book, put out as a companion to *Washington Wildflowers* in the same series, represents the first full-scale treatment of the butterfly fauna of any northwest state, and is the author's thesis for his Master of Science degree in Nature Interpretation. In obtaining accurate data he has enlisted the help of a goodly number of prominent lepidopterists both in and out of the State of Washington. The book is unusual in that it places the emphasis on watching rather than collecting butterflies, and the color photographs taken by the author of the living insects reflect this attitude. It is aimed primarily at the amateur nature walker, but the serious student will find in the detailed descriptions very professional information on field identification, habitat, egg, larval and pupal characters; and the habits and natural history of each species. It is one of the few books I know which combines the simplicity attractive to the novice, with scientific documentation making it a necessary addition to the professional's library. Descriptive information on the life histories is relatively complete and includes all appropriate botanical and clinal references. Sections are included on perceiving butterflies, photography, breeding, creating butterfly gardens, a list of helpful books and collections, and a check list. A detailed chapter on the butterfly ecology of the State of Washington includes divisions on zoogeography, physiogeography, and the life zones and vegetational units of the state, with a map of the geographic provinces described. In the latter section the author takes the reader on a vicarious tour of the State of Washington, through each of these major areas, in a most delightful manner with many suggestions

as to the best way of reaching the areas described. In the course of the tour, clear reasoning shows why certain butterflies are to be found or not to be found in the area described. Notable is the fact that the writing is extremely literate and reveals the author's sensitivity to nature. The book is charming and delightful to read, and will be found equally useful in the adjacent states and British Columbia. In its broader aspects, the perception of butterflies, the creation of butterfly gardens, photography, and the clinal aspects of distribution, this book will be of value to collectors and butterfly watchers in all parts of the country.

Details of taxonomy are deliberately excluded since the emphasis is on field identification; and the author does not go into the subspecies problem. He does, however, mention the lower taxon on occasions where he feels it necessary in order to avoid confusion. In this reviewer's opinion his handling of the subspecific problem is done well and is an added asset. A further comment is that he fails to mark parentheses around the author of such species as have had their specific names changed from their original genera. This, however, is a small point which will affect only those who plan to use the book as a taxonomic treatise, which is not its intention. Adequate references are given in the section on books and collections.

The author is currently undertaking doctoral studies at Yale University's School of Environmental Studies, and is the founder and director of the Xerces Society, the first international organization for the conservation of butterflies.

Without reservation I recommend this as an excellent and thoroughly readable book, packed with carefully researched information on every species of butterfly presently known in the State of Washington.

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This is an aggravating little book. Because it embodies an outstanding idea—promoting butterfly-watching (alongside collecting) as a pleasurable and conservation-minded outdoor activity—one wants to praise it. Unfortunately, *Watching Washington Butterflies* is also the first faunistic book for the Pacific Northwest. As such it will probably remain the standard reference for some time—and in that role it leaves much to be desired.

First, the good points. *Watching Washington Butterflies* has unusually complete descriptive material on ecological regions and butterfly habitats, and attempts to put butterflies in a broader ecological perspective than any butterfly book since Klots. Pyle is the founder of the Xerces Society and is the most articulate and dedicated exponent of butterfly conservation in America, and this theme runs all through the book; there is more information about gardening to attract butterflies than about collecting, mounting, etc.! The field marks, based on the Peterson system, are simply presented and easy to grasp. And the photographs are all in color, beautifully reproduced, and all from life. This is the first American butterfly book since Aretas Saunders' *Butterflies of the Allegany State Park* (1932) illustrated exclusively with photographs of living specimens in the wild. It's about time!

Now the bad points: first, and most annoyingly, six of the 64 color figures are incorrectly identified. Specifically, fig. 7, supposedly *Pieris sisymbrii*, is *Euchloe hyantis*; figs. 30–31, labeled *Everes comyntas*, are *E. amyntula* (*E. comyntas*, as far as I know, has never been found in Washington at all); figs. 40–41 are *Polygonia faunus*, not *P. zephyrus*; and fig. 64 is certainly not *Erynnis icelus*—it might be *persius*, but is most likely *propertius*.

Second, and almost as annoyingly, the larval host plants are given for many species but there is no indication in most instances where the records come from. Are they actual field data from Washington, or the usual extracts from the literature (where things are "validated" by repetition)? For example, *Lycaena helloides* is listed as feeding on "*Polygonum*, cinquefoil, dock." Since one cinquefoil-feeding