

## BOOK REVIEWS

THE LIFE HISTORIES OF BUTTERFLIES OF JAPAN. VOLUME I. PAPILIONIDAE, PIERIDAE, DANAIDAE, by Haruo Fukuda, Eiichi Hama, Takeshi Kuzuya, Akira Takahashi, Mayumi Takahashi, Ban Tanaka, Hiroshi Tanaka, Mario Wakabayashi and Yasuyuki Watanabe. xxii + 277 pp., 64 col. pls., 1982. Hoikusha Publishing Co., Ltd., 17-3, 1-chome, Uemachi, Higashi-Ku, Osaka, 540, Japan. (Price not stated in review copy.)

This book treats the up-to-date knowledge of the early stages, adult behavior and distribution of all resident and vagrant species of the families mentioned. The area covered ranges from Hokkaido southwest to Iriomote-Jima. Thus, the entire chain, ranging from Arctic-Alpine to Subtropical conditions, is included. The main text is in Japanese and appears to be authoritative as extensive references are cited and topics such as changes in distribution and mortality curves are included.

For the majority of our membership there are 12 pages of capsule species accounts with cross reference to the color plates and 16 pages and distribution maps.

As we have come to expect from Japanese books, the color plates are of high quality with the colors appearing sharp and true. For each species the adults as found in nature, egg, larva, and pupa are portrayed. Often the habitat or host plant is also included. The adults are often shown in natural behavioral activities such as mating, oviposition, taking moisture or nectaring. The pictures are excellent but occasionally not clear.

For those interested in the many parallels in the life history traits between our species and those of Japan, this book is a must.

PAUL A. OPLER, *Division of Biological Services, U.S. Fish and Wildlife Service, Washington, D.C. 20240.* (Current address: U.S. Fish and Wildlife Service, Colorado State University, Fort Collins, Colorado 80523.)

THE BUTTERFLIES OF THE YEMEN ARAB REPUBLIC, by Torben B. Larsen. Royal Danish Academy of Sciences and Letters, København. Biologiske Skrifter 23(3). 62 pp. 1982. 120 Danish kroner.

The Middle East is, sadly, best known around the world for its seemingly endless cycles of vengeance and violence. Between the wars, a few hardy souls have been able to do pioneering work on the lepidopteran faunistics of the region; foremost among them is Torben Larsen. Larsen's 1974 book *Butterflies of Lebanon* remains a model of how to do a regional fauna correctly. He continued his tradition of excellence with work in Oman, east Jordan, and Saudi Arabia, and now with this little monograph of the Yemeni fauna. Naive Americans who think the Persian Gulf region consists of bare dunes and date-palm oases—and little else—have a lot to learn from this work. Larsen provides fine discussions of climate, vegetation, butterfly distributions and seasonality. There are few North American faunistic papers that match this for the sophistication of the ecogeographic presentation.

The main body of the text—the species accounts—includes some geographical surprises. This is hardly surprising. Although there has been an unexpectedly long history of collecting in Yemen, the aggregate data are scanty. Larsen spent five weeks in the country in prime season and got 101 species. He missed only 5 species recorded by others for the country, and added 31 to the list. He was also able to find some new entities: the new taxa, for which excellent descriptions and figures are provided, are *Neptis serena*

*annah*, *Cacyreus niebuhri*, *Lepidochrysops forsskali*, and the genus *Tuxentius*, removed from *Castalius*. There is also a description of a unique, unnamed female of a new *Lepidochrysops*. All the new taxa and others of particular interest are shown on two color plates, which include three surprisingly lush habitat photos.

There is an appendix by A. H. B. Rydon: "Taxonomic notes on some members of the *Charaxes viola* group, with descriptions of three new species from the Yemen Arab Republic and Ethiopia," with one color and two black-and-white plates.

When Larsen has completed his series of monographs for the region, biogeographers and ecologists will be able to look for general organizational rules for butterfly faunas in desert and seasonal-arid climates; already some hints of order are beginning to emerge. Now, if only the people of the region could be persuaded to put down their guns and go butterfly-hunting instead!

ARTHUR M. SHAPIRO, *Department of Zoology, University of California, Davis, California 95616.*

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