

This book is divided into three parts following the prefatory matter. The Forward, by Gale Monson, is followed by an authors' Preface. Part 1 provides information on observing butterflies in southeastern Arizona, the topography of the region, and the systematics/nomenclature used in the book. The nomenclature used generally follows that recommended in *Memoirs* 2 and 3 of the Lepidopterists' Society (one deviation is the use of *Limenitis* in place of *Basilarchia*). A list of abbreviations used in the book concludes Part 1. Part 2 contains the species accounts, in the order of the 1981 Miller and Brown check list (*Memoir No. 2*), starting with the Hesperidae and ending with the Nymphalidae, which is broadly interpreted to include the satyrids, danaids, and heliconiids. Each species is represented by life-size black-and-white photographs; in most cases, both the dorsal and ventral surfaces are shown. In some instances, both sexes are illustrated when sexual dimorphism occurs. Generally speaking, the black-and-white photographs are good. The exception is in the Pieridae section, in which the species with indistinct wing borders (many of the Coliadinae in particular) are poorly reproduced. The wing borders tend to blend into the background. In my copy of the book, certain photographs (in the skippers especially) appear to be slightly out of focus, but it is not clear if this is a problem with the original photographs or an artifact of printing. On the plus side, it is nice to have a book that clearly illustrates some of the problem *Amblyscirtes* (such as *elissa*, *prenda*, *eos*, and *nereus*) and the enigmatic *Cogia myste* (also figured in color). Generally, specimens in good condition are illustrated, with damaged examples portraying only casual species and rare strays. The species descriptions are limited to general comments but include information on larval foodplants, flight period, and distribution. Part 3 consists of a series of appendices, which include the four color plates (illustrating 90 specimens), explanation of the black-and-white photographs (listed in order by Miller and Brown check list number), the collecting policy of the Lepidopterists' Society, resource organizations, references, an index to larval foodplants, and an index to butterflies. The four color plates are quite good and depict 90 species at less than life size.

This book is an invaluable field guide for any collector who has visited or plans to visit southeastern Arizona and contiguous regions. Although the geographic area covered by the book is restricted, many of the species discussed and illustrated are found in neighboring northern Mexico, southern New Mexico, and west Texas. Consequently, this book can be used effectively as a field guide over a much wider geographic area than the title implies.

Butterflies of Southeastern Arizona is attractively produced on acid free coated white paper with sewn signatures. The cover (with a superb color photograph of *Thessalia theona thekla* in the field) is plastic coated heavy paper, and should prove reasonably durable. This book should be on the shelf of any lepidopterist who has a serious interest in the butterflies of the southwestern United States. I recommend it highly.

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BUTTERFLIES OF SOUTHEASTERN ARIZONA, by Richard A. Bailowitz and James P. Brock; photographs by Charles A. Hedgcock (Foreword by Gale Monson). 1991. Sonoran Arthropod Studies, Inc., P.O. Box 5624, Tucson, Arizona 85703. ix + 342 pp., with 4 color plates, 3 figures (including two regional maps), and 624 black-and-white photographs covering all species. Soft cover, 15.2 × 22.9 cm, ISBN 0-9626629-0-9. \$29.95 (+\$3.00 shipping).

ADDITIONAL COMMENTS BY RAY E. STANFORD

I feel qualified to comment on this important publication because I have known and corresponded with the authors for many years, have been in the field with them on several

occasions, and knew a few of their predecessors including F. X. Williams, J. A. Comstock, L. M. Martin, D. L. Bauer, K. C. Hughes, and others acknowledged in this work. I have made observations myself in all 15 counties, even before there were 15 counties!

The book's Preface gives some historical perspective and lays the groundwork for the remainder. The Introduction is outstanding, giving documented background for the region, comments on the mountain ranges, nomenclatural issues, and statistics for each county and mountain range. The nomenclature used is conservative, which most readers will appreciate. The species accounts are very well written, concise but precise when needed. The photographs are good, many showing species seldom before illustrated well (especially skippers). Biological and distribution information is presented very well in a somewhat telegraphic format.

I have only a few constructive comments. The illustration of *Apodemia mormo mormo* on page 204 is not that subspecies, but probably *cythera* or *mejicana*. The discussion of *Poladryas minuta* on page 220 is terribly wrong! The typical insect may be extinct at the type locality in Kendall Co., Texas, but is very much alive and well northward in Texas and in eastern New Mexico; S. Cary, P. Opler, R. Holland, and I have taken good *minuta* in the following counties in the last decade: Colfax, Union, Mora, Harding, San Miguel, Guadalupe, Quay, Curry counties, New Mexico; Randall, Briscoe, Floyd, Lubbock, Crosby, Dickens, Baylor, Garza, Kent, Borden, Howard, Culberson, Jeff Davis, Presidio, and Brewster counties, Texas. It is NOT extinct!

My final point concerns *Phyciodes campestris (camillus)*, which was excluded despite vigorous correspondence between me and the authors over the last 20 years. The book treats several "dubious" species in some detail, but omits this one with 4 believable records over the last 120 years. The first was by Professor Francis Henry Snow, M.D., Ph.D., Sc.D., Professor and Chancellor of the University of Kansas, who collected in the 1880's and published in 1907 (Trans. Kans. Acad. Sci. 22:141-164). His material is surely extant at the KU collection in Lawrence, Kansas, and the authors should have examined it. There is a second specimen, in the National Museum of Natural History in Washington, D.C., determined by Paul Opler in 1989. Keith C. Hughes collected one near Portal, 8 October 1963, which could be a misdetermination, and the specimen was discarded. I caught one myself at Turkey Creek Road, just W of Onion Saddle, Chiricahua Mountains, 30 August 1967, but KCH apparently threw it away. No proof, it would seem, and academic degrees probably do not count heavily in butterfly records, but the above four records include two M.D.'s, three Ph.D.'s, one Sc.D., and one J.D. Play the Academic Festival Overture, please, and go on to the next paragraph.

The book ends with four beautiful color plates, references, and index. It belongs on the shelf of every western lepidopterist, especially those with interest in Arizona, New Mexico, and Mexico. I look forward to an expanded book covering the entire state of Arizona.

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THE MOTHS OF AMERICA NORTH OF MEXICO, FASCICLE 15.3, PYRALOIDEA, PYRALIDAE (PART), PHYCITINAE (PART), by H. H. Neunzig. 1990. The Wedge Entomological Research Foundation, Washington, D.C. 165 pp., 70 text figures, 5 color plates, 2 black and white plates. Soft cover, 8.5 × 11 in. (21.6 × 27.9 cm), ISBN-0-933003-06-6, \$55.

About a half dozen years ago I purchased a secondhand copy of C. Heinrich's 1956 *American Moths of the Subfamily Phycitinae* (Bull. U.S. Nat. Mus. 207, 581 pp.), in which 640 species of phycitines in 194 genera are categorized into four groups on the basis of wing venation. It was probably not a "used" copy, because as an introduction to the Phycitinae the book is confoundingly difficult to use. After several futile attempts to