

BOOK REVIEWS

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BUTTERFLIES OF WEST TEXAS PARKS AND PRESERVES, by Roland H. Wauer, 2002. Published by Texas Tech University Press, Box 41037, Lubbock, Texas 79409-1037 USA. xviii + 78 pp., 56 color photographs. Cloth, ISBN: 0-89672-471-9, \$29.95; paper, ISBN: 0-89672-472-7, \$17.95, available from the publisher.

I first met Ro Wauer more than forty years ago at Ash Meadows in southwestern Nevada to assist him with a Christmas bird count. At the time, he was the park naturalist at the nearby Death Valley National Monument (now National Park). We watched birds together over the years, even after he transferred to Zion National Park. Sometime later, he again transferred and we lost touch. We now meet again through his work on butterflies.

Butterflies of West Texas Parks and Preserves is an attractive small book that fills a niche for the casual naturalist and beginning butterfly watcher. A short introduction superficially covers general life history and tips for watching these "creatures" (this word is apparently a favorite Wauerism). Fifty of the common butterflies in the region extending from the Guadalupe Mountains National Park on the New Mexican state line southward to the Big Bend region on the Mexican border are included. These are each illustrated with a generally good to excellent color photograph by the author. The butterflies are briefly described and compared with similar species. A short summary is given on their ecology, phenology, hostplants, nectar sources, and behavior. These accounts are readable and generally useful, although the beginner may have a difficult time distinguishing some of the skippers, especially similar species that are not illustrated. In addition, a brief description is given for eleven species that are considered west Texan specialties of which six are illustrated with photographs. Most of these latter suffer in quality. The book concludes with a checklist of all the butterflies of western Texas, a larval hostplant index, and an index to the butterflies.

One error in identification was encountered. The butterfly illustrated above the account for the orange sulphur (*Colias eurytheme*) is an undoubted southern dogface (*Colias cesonina*). In addition, the Red Satyr (*Megisto rubricata*) is said to have one large eyespot on the ventral hindwing although two clearly are shown in its photograph.

This book serves its purpose of introducing about a quarter of the fascinating butterflies of western Texas. Unfortunately its cost is a little steep, but perhaps

enough will be sold to interest a few in these "flying gems" of our natural world. Thanks Ro.

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PHOTOGRAPHIC GUIDE TO THE BUTTERFLIES OF BRITAIN AND EUROPE, by Tom W. Tolman. 2001. Publisher: Oxford University Press. Price: \$29.95. ISBN 0-198506066-6. 305 pp.

Anyone who wishes to identify a butterfly in Europe faces a huge dilemma. What book? The long history of intense interest in butterflies on that continent has led to a succession of guides and other less portable books, each with its own unique presentation. Even the present author has two contemporary field guides competing for space in the pocket or knapsack. While Tolman's previous book (2001) includes unsurpassed paintings of European butterflies, this guide contains largely magnificent photographs of living butterflies encompassing the vast majority of species inhabiting the same area (Europe and some adjacent islands, but excluding the eastern European countries of Bularus, Moldova, and Ukraine).

The book begins with a brief introduction to set the stage for its use and little else except for a conservation plea. The species accounts are divided by family, each introduced by a very brief synopsis. The accounts, headed with both scientific and common names, are efficiently formatted and include concise sections on distribution, description, flight-period, habitat, behavior in some instances as aids in identification, and conservation for threatened taxa. Also included are distribution maps, shaded to depict the known range of the species, and, for most species, at least one photograph. For migratory species, the maps distinguish between permanent and non-permanent distributions. Photographs may include upper and lower surfaces, males and females of obviously dimorphic species, and occasionally geographic variation. These are nearly universally excellent and are representative of how these creatures appear in the field while they remain unworn. One of the ongoing conundrums of field identification is determination of older individuals that have lost wing parts and scales. These, the ones that may give butterfly watchers the most problems, have yet to be adequately addressed. Some species are duly ac-

knowledge as virtually impossible to identify in the field. Similar species are also briefly noted, but are not always cross-referenced.

While I am not fully current on taxonomic matters relating to European butterflies, the taxonomy used demonstrates a rather hard lean towards splitting at all levels from families through species. The retention of Libytheidae as a family or its recognition as a subfamily of Nymphalidae is equivocal, yet there is nearly universal agreement that Tolman's Satyridae and Danaidae are of subfamilial rank (de Jong et al. 1996, Ackery et al. 1999). At the generic-level, the recognition of *Aglais* as separate from *Nymphalis* and *Cynthia* from *Vanessa* are acceptable (Nylin et al. 2001), but *Roddia "caualbum"* is retained in *Nymphalis* although it appears closer to *Polygonia* as suggested by Niculescu (1985) and Layberry et al. (1998; see also Nylin et al. 2001). Higgin's (1978) generic names for *Euphydryas* are not needed, even at the subgeneric level (Britten et al. 1993, Wahlberg & Zimmermann 2000, Zimmermann et al. 2000). *Mellicta*, treated separately, is probably congeneric with *Melitaea* (Wahlberg & Zimmermann 2000). I am unaware of any definitive decision on the status of the *Pieris/Artogeia* complex of species, except that all "*Pieris*" are not *Pieris* and the remainder are not all *Artogeia* (Geiger & Scholl 1985, Geiger 1990). *Proclossiana* is probably unnecessary (Grey 1989, Layberry et al. 1998, Guppy & Sheppard 2001), although the need for *Clossiana* remains contentious (Grey 1989, Troubridge and Wood 1990, Bird et al. 1995, Layberry et al. 1998). Aubert et al. (1996) found that *Clossiana* was distinctive, but that *Proclossiana* had close affinities with *Boloria*. The blues retain many of the generic divisions used by Higgins (1975), but a more recent analysis (Bálint and Johnson 1997) was ignored or not consulted. I am less conversant on Palearctic butterflies at the species-level, yet again the trend in this book seems to be more rather than less. For example, *Pontia daplidice* and *P. edusa* are treated as separate species (e.g., Geiger 1990, contra the suggestion of Porter et al. 1997), but "*Artogeia*" *bryoniae* is considered as a species-level taxon (contra Geiger & Scholl 1985, Geiger 1990; see also Porter & Geiger 1995, Porter 1997). Among *Hipparchia*, taxonomic recommendations by Cesaroni et al. (1994) were not followed.

There are, however, occasional swaggers in the other direction. Thus, several hairstreaks are included in *Satyrium* (e.g., Clench 1978) although, based on their genitalia alone, they appear to belong to purely Palearctic genera. Similarly, coppers are all included in *Lycena* despite well-marked differences in the gen-

talia of various species groups regarded as genera by others (e.g., Higgins 1975).

These comments are minor, perhaps need not apply to a field guide, and demonstrate individual author's interpretations, prejudices, and preferences. It is a good book and I found little else to critique.

At the beginning of this review, I asked what book to choose. That may be more difficult than separating species of *Erebia*. The purchase of the Photographic Guide to the Butterflies of Britain and Europe, however, would not be an incorrect decision.

LITERATURE CITED

- ACKERY, P. R., R. DE JONG & R. I. VANE-WRIGHT. 1999. The butterflies: Hedyloidea, Hesperioidea and Papilionoidea, pp. 263–300. In Kristensen, N. P. (ed.), *Lepidoptera, moths and butterflies*. 1. Evolution, systematics and biogeography. Handbook of Zoology. Vol. 4(35), Lepidoptera. Gruyter, Berlin.
- AUBERT, J., B. BARASCUD, H. DESCIMON & F. MICHEL. 1996. Systématique moléculaire des Argynnes (Lepidoptera: Nymphalidae). *Compte Rend. Acad. Sci. Paris/Sciences de la Vie* 319:647–651.
- BÁLINT, Z. & K. JOHNSON. 1997. Reformation of the *Polyommatus* section with a taxonomic and biogeographic overview (Lepidoptera, Lycaenidae, Polyommataini). *Neue Ent. Nach.* 40:3–68.
- BIRD, C. D., G. J. HILCHIE, N. G. KONDLA, E. M. PIKE & F. A. H. SPERLING. 1995. Alberta butterflies. Provincial Museum of Alberta, Edmonton.
- BRITTEN, H. B., P. F. BRUSSARD & D. D. MURPHY. 1993. Isozyme data and the taxonomy of checkerspot butterflies (*Euphydryas*). *J. Res. Lepid.* 32:124–134.
- CESARONI, D., M. LUCARELLI, P. ALLORI, F. RUSSO & V. SBORDONI. 1994. Patterns of evolution and multidimensional systematics in graylings (Lepidoptera: *Hipparchia*). *Biol. J. Linn. Soc.* 52:101–119.
- CLENCH, H. K. 1978. The names of certain Holarctic hairstreak genera (Lycaenidae). *J. Lepid. Soc.* 32:277–281.
- DE JONG, R., R. I. VANE-WRIGHT & P. R. ACKERY. 1996. The higher classification of butterflies (Lepidoptera): problems and prospects. *Ent. Scand.* 27:1–37.
- GEIGER, H. 1990. Enzyme electrophoretic methods in studies of systematics and evolutionary biology of butterflies, pp. 397–436. In Kudrna, O. (ed.), *Butterflies of Europe*. Vol. 2. AULA-Verlag, Wiesbaden, Germany.
- GEIGER, H. & A. SCHOLL. 1985. Systematics and evolution of Holarctic Pierinae (Lepidoptera). An enzyme electrophoretic approach. *Experientia* 41:24–29.
- GREY, L. P. 1989. Sundry argynine concepts revisited (Nymphalidae). *J. Lepid. Soc.* 43:1–10.
- GUPPY, C. S. & J. H. SHEPPARD. 2001. *Butterflies of British Columbia, including western Alberta, southern Yukon, the Alaska Panhandle, Washington, northern Oregon, northern Idaho, northwestern Montana*. UCB Press, Vancouver.
- HIGGINS, L. G. 1975. *The classification of European butterflies*. Collins, London.
- . 1978. A revision of the genus *Euphydryas* Scudder (Lepidoptera: Nymphalidae). *Ent. Gaz.* 29:109–115.
- LAYBERRY, R. A., P. W. HALL & J. D. LAFONTAINE. 1998. *The butterflies of Canada*. University of Toronto Press, Toronto.
- NICULESCU, E. V. 1985. Problèmes de systématique dans la famille des Nymphalidae. *Deuts. Ent. Zeit.*, NF 32:335–347.
- NYLIN, S., K. NYBLÖM, F. RONQUIST, N. JANZ, J. BELICEK & M. KÄLLERSJÖ. 2001. Phylogeny of *Polygonia*, *Nymphalis* and related butterflies (Lepidoptera: Nymphalidae): a total-evidence analysis. *Zool. J. Linn. Soc.* 132:441–468.

- PORTER, A. H. 1997. The *Pieris napi/bryoniae* hybrid zone at Pont de Nant, Switzerland: broad overlap in the range of suitable host plants. *Ecol. Ent.* 22:189–196.
- PORTER, A. H. & H. GEIGER. 1995. Limitations to the inference of gene flow at regional geographical scales—an example from the *Pieris napi* group (Lepidoptera: Pieridae) in Europe. *Biol. J. Linn. Soc.* 54:329–348.
- PORTER, A. H., R. WENGER, H. GEIGER, A. SCHOLL & A. M. SHAPIRO. 1997. The *Pontia dalpidge-edusa* hybrid zone in northwestern Italy. *Evol.* 51:1561–1573.
- TOLMAN, T. 2001. *Butterflies of Europe*. Princeton Univ. Press, Princeton, NJ.
- TROUBRIDGE, J. T. & D. M. WOOD. 1990. Biology and taxonomic status of *Boloria natazhati* (Gibson) (Nymphalidae). *J. Lepid. Soc.* 44:180–187.
- WAHLBERG, N. & M. ZIMMERMANN. 2000. Pattern of phylogenetic relationships among members of the Tribe Melitaeini (Lepidoptera: Nymphalidae) inferred from mitochondrial DNA sequences. *Cladistics* 16:347–363.
- ZIMMERMANN, M., N. WAHLBERG & H. DESCIMON. 2000. Phylogeny of *Euphydryas* checkerspot butterflies (Lepidoptera: Nymphalidae) based on mitochondrial DNA sequence data. *Ann. Ent. Soc. Amer.* 93:347–355.

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THE CONCISE ATLAS OF BUTTERFLIES OF THE WORLD, by Bernard d'Abrera. 2001. Hill House Publishers, Melbourne and London. 353 pp. ISBN 0-947-352-37-6. Price: US \$99.50 plus shipping.

Bernard d'Abrera has produced nearly 20 renowned books on butterflies. He is likely one of the best-known Lepidopterists in the world, and therefore, an eminence of all things butterfly. Like many butterfly biologists, most of d'Abrera's other works are in my reference library and I was naturally chuffed to see the publication of *The Concise Atlas of Butterflies of the World*. In North America the book is distributed exclusively by the entomological supply firm BioQuip (Gardena, California).

The layout, design and high photographic quality of *The Concise Atlas of Butterflies of the World* is in line with d'Abrera's previous works, with one difference. This book is comprised of two parts. Part one comprises 95 pages of largely philosophical essay; a three-part introduction interspersed with photographic images and many footnotes. Part two comprises 103 pages of captions (pp. 97–200) that support the subsequent 150 color plates depicting exemplar butterflies from the five geographical regions treated in d'Abrera's previous series on butterflies. There is also an index.

From a practical standpoint the 150 color plates would form the *raison d'être* for acquiring this book. The plates are amalgamated from d'Abrera's previous volumes, and they crisply render the butterflies against a white background. They are very good. The plates will be useful for identifying specimens to genus in the selected geographical regions, and there should be little ambiguity matching the illustration, the name provided, to a specimen in hand or one in a photograph.

The captions provide taxonomic and distributional information taken from the previous volumes. In some cases the captions also offer taxonomic corrections to the previous volumes (e.g., *Waigeum*, *Alanea lambourni*, *Phasis*, *Memphis elina*, *Olynthus*), or suggestions for genera in need of revision (e.g., *Spindasis*, *Euptychia*), and in other cases, rather strong critical opinions (e.g., Libytheidae, *Mallika*, *Karanasa*, *Ginzia*, *Asterope*). Finally, in an effort to solve the problem of "Thecla" the captions also include descriptions of eight new Neotropical lycaenid genera. There are also many new taxonomic combinations.

Apart from a few minor spelling errors here and there, I noted that the captions for plate 146 are out of sync. To interpret them correctly the numerical quantity of one needs to be subtracted from all figures starting with *Emesis fatima* (labeled #4). The problem is that *Emesis lucinda* is given numbers 1–3, but should read 1–2 to correspond accurately to the plates. This minor error affects the correspondence of all subsequent numerical entries to the figures in plate 146. Presumably this could easily be corrected in subsequent printings.

Some aspects of the index make it difficult to use, especially for the novice. All users are required to know the generic names before the index will send one to the plates; no species names are included in the index. This problem is most evident with the Neotropical lycaenids since the new generic names appear for the first time in the *Atlas*. I think the utility of the book could be improved by having a more thorough index that includes species names. Once again, perhaps this is something for future printings.

The *Concise Atlas* provides a valuable summary of one man's lifetime of work with butterflies and his personal perspective on their place in nature. Whether selected for their beauty, endemism or ubiquity, the species illustrated in this book can be used to further our understanding of butterflies.

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