

BOOK REVIEW

THE BUTTERFLIES OF NORTH AMERICA: A Natural History and Field Guide, by James A. Scott. 1986. Stanford University Press, Stanford. 583 pp., 64 color plates. \$49.50.

To generations of American collectors, Holland's *Butterfly Book* was the butterfly book. For eastern North America, it was superseded in 1951 by Klots' *Field Guide*. No equivalent work appeared in the West until 1986, when Tilden & Smith's *Field Guide* in the Peterson series finally came out. The uneven and flawed Howe *Butterflies of North America* (1975) was supposed to be an update of Holland, but never really "caught on." Meanwhile, there had been a proliferation of regional treatments, from Shapiro's *Butterflies of the Delaware Valley* (1966) and Pyle's *Watching Washington Butterflies* (1974) through Emmel & Emmel on southern California, Dornfeld on Oregon, Ferris and Brown on the Rockies, and most recently Opler & Krizek on the eastern fauna again. Scott's new book, ambitiously also titled *The Butterflies of North America*, is another attempt to encompass the whole fauna as Holland had done. The result is a visually striking book, and one that belongs in every lepidopterist's library. But it is not without its problems.

While regional treatments were proliferating, taxonomic problems were, too. A great deal of ink, and many hurt feelings, have been spent in wrangling over the "correct" names of North American butterflies. The controversy is too recent as history to require recapitulation here, but in a nutshell, most of the names familiar for two or three generations were altered by a combination of generic splitting and, later, a zealous attempt to make all specific epithets agree in gender with their current genera. The latter represented a strict interpretation of the Code. The former was voluntary, and represented an interpretation of the concept of the genus which was in tune with what prominent amateurs in Europe were doing but, in the opinion of many, was inadequately justified in biology. There are no external standards of right or wrong here; the concept of the genus is thoroughly nebulous and must forever be. Meanwhile, collectors need to put names on their beasties. Anyone who tries to use Scott and almost any other recent book *together*, and who is not already taxonomically sophisticated, may decide to give up butterflies altogether and take up Latin blank verse instead.

The reason for this is that Scott is diametrically opposed to the trend of the times. He is a "lumper." He lumps at both generic and specific levels; thus one finds most of the familiar generic names restored (which I applaud)—but sometimes it becomes rather difficult to figure out what *species* is meant. His judgment is very likely to be correct (as, for example, on putting *ferrisi* as a subspecies of *Lycaena rubidus*, and ignoring the mysterious Johnson *Mitouras* altogether) in a majority of cases, but the justification for it is often unstated. In other cases (putting *all* of the Cupressaceae-feeding *Mitoura* in North America except *hesseli* in one huge species, *gryneus*, for example) the lumping is so ambitious that it is very likely wrong—and certain to inspire much indignation.

As a specimen problem case, consider the *Hesperia* "comma complex." I am not convinced that the Nearctic taxa should be put as subspecies of the Palearctic *comma* at all (ditto the *Coenonympha* "tullia complex"), but be that as it may, there is a generally accepted set of subspecies in western North America, described, defined, and mapped in some detail in MacNeill's monograph, and not substantially altered in any taxonomic work appearing since except for being put under *comma*, instead of *harpalus* as a specific epithet. We happen to be working very hard on the genetics of the northern California members of this complex, so I turned to Scott's treatment—and was flabbergasted. Instead of the ten subspecies in Tilden and Smith, Scott recognizes eight, plus a new unnamed one. One of the eight is his own, and does not appear in Tilden and Smith (*oroplata*). The treatment of the California populations is revolutionary: Scott puts ssp. *manitoba* "south in the Cascades to northern California," while Tilden and Smith, following MacNeill, have it south only to northern Washington and Wyoming. Ssp. *oregonia* disappears into *manitoba* without a word. Ssp. *yosemite* is given by Scott as ranging over "west slope of the Sierra Nevada, southern California, and the Inner Coast Range"—

thus silently incorporating both *tildeni* and *leussleri*. The figured specimen shows a phenotype never remotely approached on the Sierran west slope, whence comes the type. That is not surprising; it is from the Bay Area (Santa Clara County)! And so on.

And one could go on, easily, for many pages. But the message can be defined succinctly: Scott may be right a lot of the time, but a popular book—a “field guide and natural history”—is not the appropriate place to shake up formal taxonomy like this. There is no one to enforce taxonomic decisions except journal editors, and they are not of any one mind. *What is the collector to do?*

All this said, I must admit that Scott's book is beautiful. The color plates are all photographic, and are by far the most useful ever produced in this country for identification purposes, even if one is completely confused about the names. This is particularly true of the skippers, most of which have never been reproduced as color photographs before. The specimens in the plates are identified by the number of the species in the text. This makes it easy to reference from plate to text. To go the other way is to hunt and peck, because the specimens are not arranged in numerical order.

The host plant information is copious, not referenced, and apparently subject to some winnowing (and occasional critical comment), but inadequately qualified as to local specialization vs. species-wide breadth. The range maps include much recent information, and they correct a few errors that appeared in the Opler & Krizek book. The text is full of biological information, mostly attributed, which is unfamiliar and much of which has certainly never been published before. There is a splendid and entirely novel section on larval morphology, complete with setal maps and a brand-new key to first-instars. There is a “hostplant catalogue” at the back which enables the reader unarmed with the two volumes of Tietz to go from the identity of a plant to possible identities of the larva found eating it (but of course, this presupposes that it is a *butterfly*, not a moth, larva).

In short, an amazing, impressive, infuriating book that will give us all much to argue about for decades. I am reminded of the lovers in a Noel Coward play who cannot live with *or* without each other. As I continue to mine this book for goodies and to fume over this or that piece of lumping or offhand undocumented zinger, I am thankful that I no longer maintain a private collection and that the responsibility for curating our institutional one is not mine.

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