THE COMMON NAMES OF NORTH AMERICAN BUTTERFLIES, edited by Jacqueline Y. Miller (Foreward by Paul A. Opler). 1992. Smithsonian Institution Press, Washington, D.C. ix + 177 pp. Soft cover, 15×23 cm, ISBN-1-56098-122-9, \$14.95.

History first, though I lift quite directly from R. M. Pyle (1984, J. Res. Lepid. 23:89– 93). When Robert Michael Pyle produced the *Audubon Society Field Guide to North American Butterflies*, the editors required him to furnish vernacular (common) names for every entry. Since some species had no common names, he had to invent some. Many included were nowhere in use and plenty of them carried little or no biological information. Disturbed by these problems and certain that other authors would also be required to make their own choices or inventions of common names, Pyle proposed the formation of a Common Names Committee, jointly between the Xerces Society and the Lepidopterists' Society. A committee of 20 members was formed by 1984. The committee was to collect published and proposed vernacular (English) names and recommend a list of standard names. As the work evolved, it was decided to make recommendations only in the less difficult cases, simply listing all published names. No attempt was made to invent more suitable names than those already published.

Upon the proposal of a committee, resistance arose, with some basis. Lifting freely from D. Murphy and P. Ehrlich (1983, J. Res. Lepid. 22:154-158), the main arguments against doing anything to promote the use of common names were these:

- 1. Common names lack universality, which the Latinized (scientific) names have.
- 2. Information content, biological and cladistic, on average is very low.
- 3. The vernacular languages of common names do not cross most national boundaries.
- 4. Vernacular names insult the intelligence of the great majority who can easily learn the Latinized names.
- 5. Common names, when gratuitously provided, act as obstacles to learning the Latinized names that allow entry into the scientific literature.
- 6. Researching common names and arguing about which name to recommend is a waste of the time of people with important functions related to biological conservation.

Pyle answered these objections effectively, bringing recantation from Murphy and Ehrlich.

1. As J. A. Scott (News of the Lepid. Soc. #6, 1985) pointed out (and ornithologists agree: Calvin Hom, pers. comm.), in the case of birds, the common names are in fact more universal than the scientific names. This has occurred because the common names have been standardized while the Latinized names have been repeatedly changed. So long as evolutionary biologists are taken seriously when they change generic names to better match their momentary concepts of the evolutionary relationships of taxa, standardized common names have high potential for exceeding the usefulness of Latinized names to scientist and layman alike.

2. The point that common names carry little information is true, but hardly differentiates them from Latinized names. Every patronym is an assault on the information content of a name, Smith's Blue as much as *smithi*. On this point I stand with Darwin. Common names can be chosen to be non-patronymic, even when the Latinized name is a patronym. *Euphydryas editha luestherae* can be called the Chaparral Checkerspot or the Lousewort Checkerspot, for instance.

3. Within nations, common names will be in local vernaculars, but so long as the language of international conservation remains English, an English common name may be demanded for every Uzbek, French, German, and Chinese species. Having our list in order sooner encourages the rest of the world to conform to our usage.

4, 5, & 6. The most telling point: the majority of us who could become interested in biology and conservation of insects tune out the Latinized names, at least at first. Since the media, our link to the public, demands common names we must supply the best ones we can, or lose the attention of the public. The common names act as a link to, rather than as an obstacle to, the Latinized names. Time spent improving and making common names available greatly increases public access to butterfly biology.

The twenty committee members who labored to generate this highly valuable reference work have my sincere gratitude. Authors seeking appropriate common names can now find them. Anyone with information or interest in a butterfly that he or she knows only by a common name can now look it up and see what the Latinized name might be. The public and responding government agencies often raise biological concerns during landuse permitting procedures by common name only. Today I was asked about the "checkered moth" (suggesting a need for more work). The book offers a list of common names collected from all major sources, with a recommended name in boldface for each species. Subspecies and their common names are also listed but none is designated as recommended. Publication of this work will have the instant effect of producing new sources of previously published common names and advice on which of several possibilities to adopt into the standard list. I would mention a real need for separate names for the species and for the nominate subspecies. A second edition should appear, in my opinion, in well under ten years.

RAYMOND R. WHITE, 788 Mayview Avenue, Palo Alto, California 94303.

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MOTHS OF AUSTRALIA, by Ian F. B. Common, with photographs by Ederic Slater. 1990. Melbourne University Press, Carlton, Victoria 3053, Australia. Distributed by E. J. Brill (USA), 24 Hudson Street, Kinderhook, New York 12106. 535 pp., 32 color plates, 44 black & white plates. Hard cover, 18×25 cm, ISBN-0-522-84326-3, \$150 Australian (about \$200 U.S.).

REVIEW BY J. A. POWELL

This book, the fruit of four decades of labour by an incredibly dedicated lepidopterist, is marvelous. In addition to its usefulness to students of the Australian fauna, this text is the best general reference to biology and taxonomy of world Lepidoptera. The information is comprehensive, with comparable coverage of all taxa from primitive moths to macros; the text is clearly written; and the illustrations, particularly the color plates, are superb.

Moths of Australia is presented in two sections: 1, Moths and Their Environment, and 2, The Australian Moth Fauna. There are appendices on collection and study of Lepidoptera and a larval foods list arranged taxonomically by plants with the moths names but not page references. The index lists moth taxa and general topics but not plant names, and there is a glossary as well as extensive bibliography.

In Part 1 there are discussions of morphology and life history, biology, population control, economic significance, evolution and geographical distribution, and a tabular family classification, that are worldwide in application—an 80-page must reference for every lepidopterist. As an example of the comprehensiveness of coverage, probably more has been published on the systematics, phylogeny, and biology of extinct and extant primitive Lepidoptera during the past 15 years than in all preceding time. Recently, for a review of evolution of larval foods, I compiled more than 80 references since 1978 on primitive taxa and higher classification; virtually all the important ones from all biogeographical regions are included by Common. The literature coverage is thorough to about 1988, with a few 1989 citations.

The classification was prepared in collaboration with E. S. Nielsen and is the system to be used in a forthcoming checklist of Australian Lepidoptera, edited by Nielsen and others. The higher taxa comprise a collapsed Linnaean hierarchical arrangement, with four suborders, and six infraorders within the Glossata, as contrasted with five infraorders treated by Minet (1986, Alexanor 14:291) and four by Nielsen (1989, *The Hierarchy of Life*, Elsevier Sci. Publ.). Thus Dacnonypha, Neopseustina, Exoporia, and Lophocoronina are recognized at the same taxonomic level as Heteroneura and Ditrysia. The Ditrysia is divided into 26 superfamilies (in addition to the skippers and butterflies), without inter-