

tegrating the saturniid fauna of the entire North American continent. Also, a more complete introductory overview of worldwide Saturniidae and recognition of international saturniid researchers would have been welcome. Nevertheless, for areas north of the Mexican border this book represents an impressive reference work that belongs in the library of every serious lepidopterist.

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INDEX OF ECONOMICALLY IMPORTANT LEPIDOPTERA, compiled by Bin-Cheng Zhang, 1994. CAB (Centre for Agriculture and Biosciences) International, North American Office, 8454 North Park Avenue, Tucson, Arizona 85719. 599 pp. Hardcover, 17.5 × 25 cm, ISBN 0-85198-903-9. \$85 US. Also available on diskette (3.5" or 5.25"), MS-DOS only, with access software provided [CD-ROM version was not available to reviewer]; ISBN 0-0000-254-02. Price for book and diskette together: \$119 US.

This book is a reminder that Lepidoptera comprise not only adult forms of spectacular beauty and fascination, but larval ravagers of the land as well. It spotlights pests of agriculture, horticulture, forestry, and environmental management worldwide. In keeping with "economically important" in the title, beneficial species such as silk moths, scale and mealybug predators, and weed feeders are included also.

As traced in the introduction, the book is a result of mergings, branchings, and expansions of previous indexes and databases going back to 1913. (A systematist might be tempted to use an inverted tree to depict this history.) The introduction reflects the tendency for acronyms to proliferate around large databases: ANI for Arthropod Name Index, RAE for Review of Applied (now Agricultural) Entomology, CABI for Centre for Agriculture and Biosciences International, CAB ABSTRACTS for the Centre's bibliographic database, CABPESTCD for the Centre's pest abstracts on compact disk, and more. CABI maintains ANI in electronic form now as a source of preferred insect names for CAB ABSTRACTS, from which RAE and CABPESTCD are produced. The book is a printed version of the Lepidoptera subset of ANI enhanced with annotations.

The book has six sections. It gets to the point promptly; scarcely four pages among its 599 consist of prose, and these are in the opening two sections: Introduction (two pages), and How this Book is Arranged (two pages). The remainder are workhorse sections: List of Common Crop Names Used (three pages), List of Families and Genera (21 pages), Main Index (469 pages), and lastly, Index of Specific and Intraspecific Epithets (97 pages).

List of Common Crop Names Used provides a key so that short and familiar vernacular names can represent many binomial and trinomial host names in the main index. List of Families and Genera is an alphabetical guide to the supraspecific categories in the book with tallies of the number of species in each category covered in the main index. I counted no less than 81 families. The top three in number of species in the main index are, perhaps predictably, Noctuidae with 1034, Pyralidae with 748, and Tortricidae with 687. Butterfly families and their number of main index entries are Nymphalidae 152, Lycaenidae 95, Pieridae 61, Papilionidae 54, and Riodinidae (absent from the book) 0. It is hard to imagine a more authoritative source for ranking the economic importance of lepidopteran families.

Main Index presents the core information by preferred names of the 6000 or so lepidopterans treated in the book. The arrangement is alphabetical by both preferred and nonpreferred genus and species names; author names are included without parentheses. The nonpreferred genus and species names, which also number about 6000, are cross-referenced by "see" to the preferred names. Cross-referencing is a useful and necessary feature because different names have often been used for the same taxa during the history of ANI and RAE, and different names sometimes still prevail in different parts of the

world. Annotations for most species consist of "Common Names," "Host Records," "Geographical Records," and "RAE References." RAE references are to volume number only, thus fostering compactness in the book without greatly hindering retrieval of abstracts and original publications.

Index of Specific and Intraspecific Epithets serves as the book's general index. It is arranged alphabetically by species names, each followed by the preferred generic name in bold italics and any nonpreferred ones in plain italics.

Manufactured at the University Press, Cambridge, the book's print format is comfortably readable, its paper of high quality, and its binding sturdy.

Shortcomings are self-acknowledged. One is that choice of species for inclusion follows from prior inclusion in ANI and RAE. Actually, many included species are of scant economic importance. Some seem present only because important congeners are, or because of a commodity host plant. A few entries lack host records; very few host records mention the plant part affected. It is also stated that expediency prompted assembly of annotations almost entirely from RAE and CAB ABSTRACTS, and therefore the host lists and geographic ranges are not comprehensive. There may be overmodesty in this caveat because RAE covers more than 6200 serials, not to mention annual reports of research and other organizations (Smith, S. [ed.], 1988, *CAB International serial checklist*, 1988 ed., 511 pp.). The annotations for an arbitrary list of species I am familiar with seemed quite adequate. A few synonymies had not caught up with ANI in time to be included in the book. Refreshingly, the book invites readers to suggest improvements to CABI for future editions.

In addition to a source of snapshot information on economic Lepidoptera worldwide, this book improves accessibility to RAE. RAE, an admirable legacy of empire, is the oldest entomological abstract journal, indeed, the only one for more than half a century (Gilbert, P. & C. J. Hamilton, 1990, *Entomology: a guide to information sources*, 2nd edition, Mansell, New York, 259 pp.). It is useful anywhere—in developed countries because it abstracts many obscure publications from the less developed often in languages other than English, and in developing countries because it abstracts expensive publications from the more developed countries. Beginning in 1913 as the Review of Applied Entomology in two series, agricultural (A), and medical (B), RAE was more formally divided in 1990 when the letters began to stand for Review of Agricultural Entomology. Countless professional and student literature reviews have been and still are generated from RAE. ANI and RAE are not only being continued but expanded, references by the thousand being added annually.

The book also aptly identifies its audience, namely people involved in international, national, and local plant quarantine and crop pest management. Journal readers might browse in it for a different or broader spin on their favorite taxa. Anyone who opens it will find it easy to use and informative.

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A MONOGRAPH TO THE NEW WORLD HELIOTHENTINAE (LEPIDOPTERA: NOCTUIDAE), by David F. Hardwick. 1996. Published (apparently) by the author through the Centre for Land and Biological Resources Research, Agriculture Canada, Ottawa, Canada. 281 pages, 24 color plates. 17 × 25 cm, ISBN: None. Soft cover, \$50 US; hardcover, \$70 US, available from the author.

This attractive and potentially useful book is a compilation of Hardwick's extensive work on this widespread, popular subfamily of the Noctuidae. The subfamily Heliiothinae (see below) includes some well-known genera (such as *Heliothis* and *Schinia*) that are brightly colored and can be observed both at lights and on the flowers of the larval foodplants. The