

## BOOK REVIEWS

INSECTS AND OTHER INVERTEBRATES OF THE WORLD ON STAMPS. 1979. Willard F. Stanley, Ph.D., Editor. Handbook No. 98. Biology Unit, American Topical Association, Inc., 3306 N. 50th St., Milwaukee, WI 53216, USA. 148 p. illustrated. \$10.00.

Many people, entomologists, zoologists, and nonprofessionals alike, are avid collectors of stamps portraying insects and other zoological subjects. To these people, this handbook will be invaluable.

It is arranged in 3 sections: (1) Butterflies and Moths by Alan J. Hanks, 39 pages; (2) Other Insects by Donald P. Wright, Jr., 18 pages; (3) Invertebrates Other Than Insects by Byron Brattie, George Bearse, and Willard F. Stanley, 60 pages. Each section contains species lists by taxonomic category and by country. Entries give country, date of issue, catalog number, face value, Latin name and author of species. Symbols are used to indicate the relative prominence of the species on the stamp and whether it is in natural colors. Popular English names are included in the taxonomic lists but not in lists by countries. Black and white illustrations are used effectively. A complete index to higher taxonomic groups and to common names is included for each section.

The handbook was produced by photo-offset process and a few pages are imperfectly reproduced but legible. A few typographical errors occur and there appears to be a line missing in the introduction on page 3. Very few items have been omitted. The most glaring omission is the buprestid beetles (Coleoptera: Buprestidae), although there are at least 14 stamps which portray species belonging to this family. The taxonomy employed is not uniform from group to group and will not please specialists of certain groups. However, it is adequate for the intended purpose. Most species are correctly assigned; only 2, in Orthoptera, p. 45, were incorrectly placed. (*Euconoccephalus*, Pitcairn Is. and *Pseudophyllanax*, New Caledonia, should be under Tettigoniidae, not Acrididae). The authors request readers to write them or ATA regarding errors or omissions.

The shortcomings are few; the usefulness is great. This handbook-catalog is a "must-own item" for any philatelist who cannot resist collecting stamps showing butterflies and moths, other insects, sea shells, and other invertebrate animals, which, collectively, are among the most attractive stamps of the world.—V. R. VICKERY, Curator, Lyman Entomological Museum and Research Laboratory, and Prof. of Entomology, Macdonald College, McGill University, Ste. Anne de Bellevue, Quebec; Visiting Prof., Dept. of Ent. and Nemat., University of Florida, Gainesville, FL 32611.

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HOW TO KNOW THE AQUATIC INSECTS. Dennis M. Lehmkuhl. 1979. The Pictured Key Nature Series, Wm. C. Brown Co., Dubuque, Iowa. xi + 168 p., 294 fig. \$5.95.

Dr. Lehmkuhl wrote this little manual to serve as a practical tool for the student as well as for those involved in evaluating aquatic habitats where identification of their insects to family level is adequate. The book is not meant to be comprehensive but the author has provided pertinent references

for those desiring fuller treatment or more information about particular insects.

Dr. Lehmkuhl has included a brief introduction to the subject of insects living in an aquatic environment and he has given an elementary review of insect morphology sufficient to permit the user to work his way through the keys. Other subjects, such as collecting and preserving, life histories, and use of aquatic insects as indicators of pollution, are also included.

The bulk of the text is devoted to keys, beginning with those at the ordinal level. All keys are annotated wherever the author feels comment is pertinent. Once the order is determined the user can proceed to special keys which identify the insect to family. Adults and immatures are keyed separately except for Collembola and Hemiptera. The couplets are well illustrated, mostly with simple diagrammatic sketches. Although the sketches are not detailed, they do illustrate the traits Dr. Lehmkuhl uses to differentiate the insects.

Two appendices include a list of insect orders and families which have aquatic stages during some part of their life cycles. The second appendix gives a list of journals that may include papers concerned with aquatic insects and also lists the names of a few dealers in entomological equipment.

Although I have not yet had an opportunity to try the manual with students, I believe it will prove to be a most useful tool for them. It will also provide an excellent starting point for fuller exploration of the insect inhabitants of the aquatic environment.—*Lewis Berner*, Department of Zoology, University of Florida, Gainesville 32611.

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### BOOK NOTICE

ANNUAL REVIEW OF ENTOMOLOGY. 1980. Volume 25. 551 p.

Contents: Summer diapause, S. MASAKI; Ultrastructure and function of insect chemosensilla, R. Y. ZACHARUK; Recent advances in sericulture, Y. HORIE and H. WATANABE; Insect tissue culture: an overview, 1971-1978, E. P. MARKS; Filter-feeding ecology of aquatic insects, J. B. WALLACE and R. W. MERRITT; Evolution of larval food preferences in Microlepidoptera, J. A. POWELL; Intracellular symbiotes of the Homoptera, E. J. HOUK and G. W. GRIFFITHS; Biology of Odonata, P. S. CORBET; Changing role of insecticides in crop protection, R. L. METCALF; Circulative and propagative virus transmission by aphids, E. S. SYLVESTER; Ecological theory and pest management, R. LEVINS and M. WILSON; Biology, ecology, and control of palm rhinoceros beetles, G. O. BEDFORD; The regulation of spermatogenesis in insects, J. B. DUMSER; Evolution of social behavior in the Vespidae, R. L. JEANNE; Host suitability for insect parasitoids, S. B. VINSON and G. F. IWANTSCH; Foraging and mating behavior in Apoidea, G. C. EICKWORT and H. S. GINSBERG; Sequestration of plant natural products by insects, S. S. DUFFEY; Forest pest management: concept and reality, W. E. WATERS and R. W. STARK; author, subject, cumulative indexes.