

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.

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.