

BOOK REVIEWS

The Mosquitoes of Canada, Diptera: Culicidae.

By D. M. Wood, P. T. Danz and R. A. Ellis.

The Insects and Arachnids of Canada Part 6. Research Branch, Agriculture Canada Publ. 1686:1-390, plus fold-out table. (1979). Available from Canadian Government Publishing Centre, Supply and Services, Hull, Quebec, Canada K1A 0S9. \$9.60 U.S.

This is a thorough treatise with information on biology, geographic distribution, phenology, anatomy, collecting methods and identification of adults and fully grown larvae. There is a glossary, an index, and a check list of selected characters of *Aedes* larvae.

There are 74 species known to occur in Canada; 11 *Aedes* spp. and *Mansonia* (sic) *perturbans* are considered to be serious pests.

Beginning with keys and ending with a list of species potentially occurring in or incorrectly recorded from Canada, there are 293 pages devoted to identification. Keys to larvae "are specifically designed for identifying whole specimens in fluid, either alive or preserved, with the aid of a dissecting microscope." This reviewer sampled the keys and found that they work. The keying process is less time-consuming after one becomes familiar with some of the less traditional terms such as katepisternum and gonostylus. The illustrations are excellent even though many are undesirably small. For each species the principal key characters are illustrated: head, thorax and terminal segments of the larva, the lateral and dorsal views of the adult thorax, male genitalia, tarsal claws, and other structures. Collection localities are mapped for each species.

Salient features of larvae, adult females and males, and the biology of each species are presented.

For the most part the authors have dealt with

nomenclatorial questions conservatively. Their arguments for using *Culiseta minnesotae* rather than *Cs. silvestris minnesotae* and *Cs. moristans* rather than *Cs. moristans dyari* are convincing. This reviewer agrees with them in the rejection of *Aedes hemiteus* for Nearctic specimens of the *Ae. cinereus* complex. But failure to accept *Coquillettidia* (vs. *Mansonia*) is a mistake.

The publication of this book is a milestone in the annals of American culicidology, and the authors have every reason to be proud of their accomplishment. The editors and artists deserve praise for a good technical job, and the Canadian Government should be recognized for its financial support.

—W. E. Bickley

The Sand Flies (*Culicoides*) of Florida. (Diptera: Ceratopogonidae) by Franklin S. Blanton and Willis W. Wirth. Arthropods of Florida and Neighboring Land Areas, Vol. 10:1-204. (1979). Florida Dept of Agriculture and Consumer Services, Box 1269, Gainesville, FL 32602.

This is primarily a systematic account of the 47 species of *Culicoides* known to occur in Florida. There are 122 species recorded from North America. Information is presented on biology, morphology, economic importance, and disease transmission potential. It is regrettable that *Culicoides* species do not have a satisfactory common name. It is desirable to call them biting midges and leave the name sand flies for *Phlebotomus* and *Lutzomyia*. This criticism is relatively inconsequential when one considers the thoroughness and quality of the Blanton-Wirth monograph.

—W. E. Bickley