

BOOK REVIEW

THE INSECTS AND ARACHNIDS OF CANADA, PART 6, THE MOSQUITOES OF CANADA (Diptera: Culicidae), 1970, by D. M. Wood, P. T. Dang, and R. A. Ellis. Biosystematics Research Institute, Ottawa, Ontario, Publication 1686, 390 Pages. For Sale by Canadian Government Publishing Centre, Supply and Services Canada, Hull, Quebec, Canada, K1A0S9. Canada, \$8.00, Other Countries, \$9.60.

In the introduction to this book, the authors point out that it has been prepared for the identification of adults and fully grown larvae of the mosquitoes now known to occur in Canada. They state that, although the eggs, early instar larvae and pupae of most species in this region are known, they are usually less easily identified and it is probably easier to rear the eggs and pupae to larvae and adults than to identify them in these early stages. Thus, a single paragraph is devoted to each the pupa and egg stages in the section on anatomy of mosquitoes. In the introduction, the authors stress the need for correct identification of species so that control efforts can be directed against offending species, thus preventing waste of money and effort in mosquito control.

A section of 12 pages of the book is devoted to general biology to acquaint the reader with how mosquitoes develop, how they overwinter, how they feed, how they reproduce, and their importance as pests and vectors of diseases. This is followed by a section on geographic distribution with a table showing the occurrence of each species in Canada, and in Alaska and Eurasia. Seventeen pages of the publication are devoted to general morphological descriptions of adults and mature larvae. The structures shown in the accompanying figures are labeled to facilitate study of the genera and species that follow in the text. The book contains a section describing methods of collection, transporting, rearing, mounting, and preserving specimens for study.

The major portion of the book provides information for the identification of the 74 species which have been found in Canada, representing 10 genera. Keys and diagnostic figures are provided for separating the male, female, and larva of the genera, subgenera, and species. Under each species synonyms are listed, and the male, female, and fourth instar larva are described. A full plate is included for each species with drawings of the larval head, terminal segments, hypostomial plate, pecten teeth, and comb scales; and the adults showing the lateral view of the thorax, the scutum, and the male terminalia. Paragraphs on biology, and general distribution, and an accompanying map showing collection localities in Canada are included for each species. Following the treatment of the species, a list of species potentially occurring in or incorrectly recorded from Canada is given.

The book contains a glossary of 11 pages defining the terms used in the descriptions, keys, and discussions of the genera and species. Five hundred

references are included in the bibliography. An index is provided for easy reference to the scientific names used in the book. At the end of the publication there is a four-page folded table of selected characters of the larvae of the *Aedes* found in Canada. The value of the book is greatly enhanced by the inclusion of the three tables, the 75 maps showing the collection localities of the species in Canada, the 75 plates showing adult and larval structures, and the 238 figures illustrating diagnostic characters used in the keys. The illustrations are all placed in the book so as to facilitate easy reference. A book of this kind is often subjected to hard use and a hard cover would have been much more desirable than the paper cover.

Since the beginning of World War II, continuous and valuable work has been done on mosquitoes in this region and the authors of this book have done a good job utilizing this information along with their own knowledge of mosquitoes to prepare this excellent book. The book will be a valuable aid for entomologists and public health workers, and it should provide a stimulus for much more work on mosquitoes in this interesting and important region of the World.

Stanley J. Carpenter