

BOOK REVIEWS

A revision of the adult and larval mosquitoes of Japan (including the Ryukyu Archipelago and the Ogasawara Islands) and Korea (Diptera: Culicidae). By Kazuo Tanaka, Kiyoyuki Mizusawa and Edward S. Saugstad. Contributions of the American Entomological Institute, Vol. 16, 1979, 987 pages, hard bound. Copies can be obtained from the American Entomological Institute, 5950 Warren Road, Ann Arbor, Michigan 48105. Price \$45.00

This book is a revision of the 1950 publication "The Mosquito Fauna of Japan and Korea," by W. J. LaCasse and S. Yamaguti. The original paper-bound publication was prepared by the authors and staff of the 207th Malaria Survey Detachment and was a publication from the Office of the Surgeon, Hq. 8th Army. It contained 95 original plates with descriptions and biological notes for 51 species representing 9 genera.

The new book has been expanded to include the Ryukyu Archipelago (the islands of Amami, Okinawa, Miyako and Yaeyama) and the Ogasawara (Bonin) Islands.

The contents include an Introduction which contains background and methods information, and sections on morphology and terminology, zoogeography and a brief history of mosquito taxonomy in Japan and Korea. The Introduction is followed by the major Taxonomic Section which contains keys and discussions relating to 113 species representing 14 genera. Each species account includes a synonymy, a detailed description of the female, male, and fourth instar larva, a list of specimens examined, distribution, a taxonomic and bionomic discussion, and importance as a disease vector when known. Included in this section are descriptions of 4 new species and 8 new subspecies.

There are 262 figures of very high quality. For each species figured there are detailed drawings of the fourth instar larva (with a complete chaetotaxy), the male terminalia, and the adult female (which includes a lateral view of the head, thorax and abdomen), a pro, meso and metathoracic leg (detached), tarsal claws of male and female and a dorsal view of the female head and palps and scutum and the male proboscis and palp. A dorsal view of the female abdomen is frequently included.

The Literature Cited section is very comprehensive, listing almost 550 references.

Three appendices are included. Appendix A

includes a list of abbreviations relating to generic and subgeneric names and a list of the specimen depositories. Appendix B includes tables giving the chaetotaxy of the head, thorax and abdomen of the fourth instar larva of 104 species. Appendix C is a list of collection records which includes collection number, locality, habitat, date of collection and collector. This section would have been more useful had the collection records been listed by species. One can only use this appendix by referring to it from the collection numbers given in the Specimens Examined section of each species account.

A species index is included at the end of the book.

This book is the culmination of a project begun in 1969 by the Department of Entomology of the U. S. Army Medical Laboratory, stationed in Sagami-hara, Japan. Approximately 90% of the species studied were collected by personnel of this lab during the course of this study. Final editing and review of the manuscript was completed under the auspices of the Smithsonian Institution under the direction of Dr. Ronald A. Ward.

Nothing but praise can be said for this impressive work. It is completely up to date in terminology and uses virtually all currently available characters. Even diagnostic mouthpart characters of the larvae are presented. It is certainly one of the most comprehensive treatments ever presented for mosquitoes of a particular zoogeographical area.

It is an indispensable publication for anyone interested in Asian mosquitoes or for that matter any serious mosquito systematist.—Lewis T. Nielsen, Department of Biology, University of Utah, Salt Lake City, Utah.

Mosquitoes of New York. Part 1. The Genus *Aedes* Meigen With Identification Keys to Genera of Culicidae. Bulletin No. 430a.R.G. Means 1979. University of the State of New York. The State Education Dept. State Science Service, N.Y. State Museum Albany N.Y. 12234. 221pp

This book is one that has been sorely needed for many years to aid mosquito workers involved with the northeastern U.S. mosquito fauna. As the title indicates, Part 1 encompasses the *Aedes* spp. with keys to other genera present in New York. The author has included

keys to all larval instars, pupae and adults with ample drawings to illustrate most of the salient characters. It is encouraging to see this trend in taxonomic mosquito literature which allows the worker to identify most life stages of mosquitoes with accuracy.

Bionomics, diagnosis of the female, male terminalia and 4th instar larvae, distribution and importance as a pest or disease vector are discussed in detail under each species. The literature has been well searched with almost 400 references used to document much of the text. Photographs of larval habitat and collecting techniques are included. Unfortunately the reproduction of these is of poor quality in some cases.

A few minor suggestions which might add to the usefulness of the illustrations is the inclusion of numbers for setae in figures 32 and 33 (i.e. pentad hairs and all head hairs) and an arrow on fig. 33 indicating palmate hairs. In addition, on p. 24, couplet 6, second part, fig. 218 should read 217 and couplet 7, first part, fig. 217 should read 218. Recent investigations by Wood (1977) have revealed that *Aedes trichurus* is a synonym of *A. provocans* and that the latter name has priority.

This book is a must for mosquito workers in the northeastern U.S. and will be a valuable reference for years to come. I am anxiously awaiting Part II.

Wood, D. M. 1977. Notes on the identities of some common Nearctic *Aedes* mosquitoes. *Mosquito News* (37)71-81.

—Robert W. Lake

Entomology in Human and Animal Health. Seventh Edition, 1979. Robert F. Harwood and Maurice T. James. 548 pages. Mcmillan Publishing Company. This text book is an outgrowth of "Medical and Veterinary Entomology" by W. B. Herms, Professor of Entomology at the University of California at Berkeley, and first published in 1915. Harwood and James, Professor and Professor Emeritus, respectively, at Washington State University at Pullman, have made a complete change of title in this edition, but the material contained in it is a proper and obvious evolution from the earlier texts.

Extensively rewritten from the previous editions, this authoritative volume offers up-to-date information on those arthropods having clinical significance. The information on animal health problems has been increased and additional emphasis has been placed on outdoor recreational concerns and general environmental matters. Recognizing that arthropod-associated health problems are readily introduced from one region to another, the authors have endeavored to be world-wide in their perspective. A separate chapter is devoted to epidemiology, and a new chapter on control of arthropods affecting man and animals is included.

This text is necessarily limited in its detail of material on most subjects, but there are 54 pages of references, many of which are very current and which provide such information.

Entomology in Human and Animal Health, Seventh Edition, is unquestionably the most modern and comprehensive text on the subject available today for students of veterinary medicine, entomology, parasitology, animal science, public health, tropical medicine, zoology and bacteriology. It should be an essential reference for public health administrators, research and operational workers.

—W. D. Murray

Annual Review of Entomology, Vol. 25, 1979.

T. E. Mittler, F. J. Radovsky, and V. C. Resh, Editors. Annual Reviews, Inc. Palo Alto, CA 94306. \$17.00.

This volume begins with an overview by A. W. A. Brown of the *Annual Review of Entomology* during its first 25 years. About half of the 25 articles devoted to medical entomology deal with mosquitoes. Another review entitled "Filter-feeding Ecology of Aquatic Insects" includes 1.5 pages on mosquito larvae. The resistance of some mosquitoes to more than a dozen different insecticides is mentioned in a review of the "Changing Role of Insecticides in Crop Production." The 19 reviews in this book are the result of much scholarly work. Like Volume 24 the articles in Volume 25 relate only indirectly to culicidology.

— W. E. Bickley