

BOOK REVIEWS

URBAN ENTOMOLOGY. By Walter Ebeling, January, 1975. Publication Office, University of California, Division of Agricultural Sciences, 1422 South 10th Street, Richmond, California 94804, \$27.50, viii+695 pp., plus 8 colored plates and 391 black and white illustrations. Make checks payable to Regents of the Univ. of California (add 6% for California state sales tax).

The author, professor of entomology at UCLA, has been able to culminate his many years of interest in the pests of man and his urban surroundings with this excellent book. Coverage of subjects is more complete than one would expect to find in a basic book; it provides details of the pests likely to be encountered in and around man's immediate environment, with the exception of the pests of ornamental plants. It even covers basics, such as governmental and professional organizations, application equipment, and non-insect pests which are part of the area of knowledge necessary for people who practice pest control. Besides insects, it includes other arthropods, fungi, slugs and snails, snakes, birds, rats, mice and predator and parasitic species which act as biological control agents.

The author approaches pest control from the focus of what has recently been termed integrated control, but which has been used by thinking control operators before the term was coined. Pesticide use gets reasonable treatment as does biological and physical methods. Specific chemical control methods are balanced to cover present uses, with an attempt to provide the information which will provide lasting usefulness.

The book is not the usual type; it provides excellent background information on the pests and their biology, keys are given where they are not readily available to differentiate the species, and it has lots of illustrations. Discussion of new control theories and practices are the mark of the author's closeness to the subject and shows that the book is up to date. I understand that this was a limited printing, and it seems like the best book value of its kind to appear in a long time.

The focus of coverage is primarily Western U.S., but this is not a serious problem. Eastern pests seem to get less emphasis, yet the coverage of what is treated seems to leave very few blanks.

Urban Entomology does for control of pests of man in 1975 what Mallis did much earlier in his *Handbook of Pest Control*. Criticisms are few and minor. There are places where the order of discussion between various pest groups seemed to skip around, but this is no drawback. The major problem I found with the book is the temptation to read it in detail, instead of reading it more rapidly as a reviewer is supposed

to do. The text is exceptionally well done, so even usually dry material is readable.

Dr. Ebeling has been able to draw on his experience to make the subject as real and interesting as any book I have seen in this subject area. It is a must for people in structural pest control, extension entomology, sanitarians and related health workers, and recommended for mosquito control workers, warehousemen, and for everyone else who wants a single complete source book about the pests of man and those on and in his stored food, structures and livestock. It omits agricultural and ornamental entomology because these subjects are already covered by many authoritative texts. Pests attacking man and animals are discussed as are diseases vectored by these pests, but not in as much detail as a text on these separate subjects. The final short chapter discussed delusory parasitosis, so this book includes even the imagined pests.

I recommend this book to the knowledgeable expert as well as the serious student. There is lots in it for everyone who works in this field. William Hazeltine, Butte County Mosquito Abatement District, Oroville, California 95965

MOSQUITO SAFARI: A NATURALIST IN SOUTHERN AFRICA. By C. Brooke Worth. Simon and Schuster, New York. 1971. 316 pp.

OF MOSQUITOES, MOTHS, AND MICE. By C. Brooke Worth. Simon and Schuster, New York. 1972. 258 pp.

Mosquito News is late in bringing to the attention of its readers the publication of two books by one of its members. No excuses are expressed. Dr. Worth has a third book, *A Naturalist in Trinidad*, published before 1971. The first book presents an account of the author's work as a member of a Rockefeller Foundation group whose mission was to isolate and identify arboviruses in southern Africa. In 2 years 81,702 specimens of *Aedes circumluteolus* were examined. This fact illustrates what was accomplished. Seven virus isolations were made, and two new viruses were characterized. Valuable additions to the knowledge of the behavior of viruses and their mosquito vectors were made. A new species of mosquito, *Aedes awovenatus*, was described. Mosquito larvae and other aquatic invertebrates were collected in an attempt to isolate viruses from them and solve the mystery of where viruses are when they are not in birds, mammals, or mosquito females. The results were negative.

Coincidentally with all these activities the author recorded numerous facts about the natural history of southern Africa. He is an avid bird fancier and is able to impart some of his own en-

thusiasm about birds to those who read his books. There are also many fascinating bits of information about insects. For example, chewing lice may use mosquitoes for hitch-hiking—to get from one antelope to another. Crabs are also involved in phoresy; *Aedes pambaensis* females attach their eggs to the claws of certain crabs. Living for an extended period of time in the Ndumu region of Natal gave the author opportunities for reporting on various aspects of human behavior. The natives have been known for centuries that the fever tree (of the acacia group) grows only near water, and they have associated it with mosquitoes which also thrive in the same environment. The fever is malaria, of course.

The second book has eight chapters, and only one is concerned with mosquitoes. The author tells of experiences on his farm in Cape May County, New Jersey. Here he recorded in great detail observations of mosquitoes, moths, ospreys, pigeons, turtles, mice, and other animals. He "lets himself go" in describing his bird-watching, and his numerous experiments which run the gamut from incubation of luna moth eggs to oviposition by turtles. What a marvelous source of ideas for science fair projects! One of his conclusions is that salt marsh hay production is largely responsible for the terrific mosquito annoyance at his farm. Friends from "civilized" parts visit him once and never return except in very cold weather.

The books would be improved by more and better photographs. Dr. Worth writes well, but he does not write as well as Edwin Way Teale or Joseph Wood Krutch.—William E. Bickley.

ECOLOGICAL AND CONTROL OF VECTORS IN PUBLIC HEALTH. Twenty-first Report of the WHO Expert Committee on Insecticides. *World Health Organization Technical Report Series*, 1975, No. 561. 35 pages. Price Sw. fr. 6.—

French, Russian, and Spanish editions in preparation. Available through Q Corporation, 49 Sheridan Avenue, Albany, N.Y. 12210.

This little booklet is an excellent means for anyone interested in medical entomology to bring himself up to date on the subject from the international point of view. This report was the outcome of a week-long deliberation in October 1974 by the 7 member Expert Committee chaired by Dr. T. Ramachandra Rao of Bangalore, India. The discussion is divided into six major categories as follows:

1. "Introduction."
2. "Problems impeding progress in vector control programmes."
3. "Present trends and prospects for vector control."
4. "Planning vector control programmes."
5. "Information exchange and training."
6. "Research needs and recommendations."

The greatest portion of the discussion is devoted to topics 2 and 3. These provide a detailed listing of barriers to progress and a review of current approaches to breach these barriers. The presentation is not a simple listing of problems and potential solutions; it includes critical comments, opinions, and concrete recommendations for action. It is apparent throughout that the authors held themselves to a broad view of the subject and balanced the need for research efforts aimed toward alternative insecticides as well as toward alternative control strategies. They also balanced research needs with operational, educational, planning, and economic considerations.

The evaluations and opinions expressed in the booklet are aimed toward implementation by WHO, but many can apply equally to national research or operational programs.—Wm. M. Rogoff, ARS, USDA.