

In general, the material on parasitology tends to be more up-to-date than the portions concerning entomology. As an example, on p. 112 it is stated that the genus *Anopheles* is divided into four subgenera; this is contrary to the six currently recognized. Fortunately, the classification of John Reid is adopted with the modifications of B. A. Harrison and J. E. Scanlon; so for the most part, the nomenclature of vectors is current. Since changes were not made in the morphological terminology used in the keys and descriptions, another generation of students will be exposed to an outmoded system for naming structures. The outline figures for the identification of anopheline larvae are of such poor quality that they cannot be used to identify the species. It is hoped that the publisher will replace these in a subsequent printing or include reprinted pages with future copies. The portions on insecticides and repellents do not appear to show any change from the last edition.

The book is attractively bound with a hard paper cover and printed on a good quality of paper. As the color plates of the malarial parasites and black and white plates of adult mosquitoes were reproduced from the first edition, the rendition is not quite as crisp as might be desired. Despite what has been said, this will still be a very useful reference for students and workers in Malaysia and adjacent areas.—R. A. Ward, Department of Entomology, Walter Reed Army Institute of Research, Washington, D.C. 20307.

**BUGS, FOLKS, AND FUN**, by Samuel Breeland. 1984. Published by the author, 7842 PLYA Del Rey Ct., Jacksonville, FL 32216. 93 pp. \$5.00.

Entomologists say to each other, "We'll never be millionaires, but we have a lot of fun." Breeland's little book, subtitled "The fun and humor of a career in entomology," reinforces this philosophy. He has assembled a large number of humorous stories during his 35-year career which began, after his graduation from the University of Georgia, at the Emory University Field Station or Newton Field Station where malaria investigations were supported by the U. S. Public Health Service. Subsequently, his professional work took place at the University of Tennessee, in the Panama Canal Zone, in Alabama with the TVA, in El Salvador, in Atlanta at CDC headquarters, and in Florida where he was formerly an administrator with the Florida Health Services. Most of the time the author was engaged in mosquito and malaria control and research. For the layman he explains briefly some of his entomological activities such as water management procedures on TVA reservoirs, studies of installment hatching of *Aedes* eggs, ULV treatments, and the use of the sterile male technique; but for the most part, there is little entomology. Many readers will enjoy Breeland's reminiscences and will recognize some of the characters who are not named or who are identified only by a first name. A few participants in various adventures are fully identified.

Readers who lack a sense of humor will find this book boring. This reviewer appreciated all the anecdotes and sometimes doubled up with laughter. Here is an example of the type of tale the author tells: "... a young girl has applied for a clerical job with the

TVA, and on the employment application regarding her sex, she wrote, 'Once, in Moulton.' Moulton is a little town in north Alabama..."

There are a few minor errors, and in the spirit of nit-picking, the reviewer reminds the author that that famous train, *The Tennesseean*, pulled into New York's Pennsylvania Station, not the Grand Central. The author has refreshingly related many human interest stories without derision. It is to be hoped that other entomologists will follow Sam Breeland's example in recording interesting experiences.—W. E. Bickley, 6516 40th Avenue, University Park, MD 20782.

**THE MOSQUITOES OF BRITISH COLUMBIA**. Peter Belton. British Columbia Provincial Museum Handbook 41. 189 pp. 1983. Available from Publications, British Columbia Provincial Museum, Victoria, British Columbia V8V 1X4, Canada. \$5.00 (Canadian).

This is the type of mosquito booklet that we seldom see today. It is written, not for the professional entomologist, but for those who are interested in the biology and wish to be able to identify the British Columbia mosquito fauna. It is not a highly technical work, but with careful study, anyone will be able to identify most of the larvae and female mosquitoes of the area. A good discussion of the life zones found in British Columbia explains why this province has a rich mosquito fauna.

There is an excellent introduction which covers biology, management, collecting and preserving and how to use the keys. In British Columbia there are only five genera of mosquitoes: *Anopheles*, *Aedes*, *Coquillettidia*, *Culex* and *Culiseta*. Easily workable keys to adult females and fourth instar larvae plus descriptions of species are given. In addition there are good line drawings to aid in the identification of the larvae. There is a good glossary and an excellent list of references.

The book is limited to British Columbia which has a rich mosquito fauna. However, it should be carefully studied by anyone who is considering writing a work on the mosquitoes of a specific area. Peter Belton has produced a work that should be in the library of anyone who is interested in northern mosquitoes.—William F. Rapp, 430 Ivy Avenue, Crete, NE 68333.

**SCANNING ELECTRON MICROSCOPY OF MEDICALLY IMPORTANT ARTHROPODS**, by Viqar Zaman. 1983. Maruzen Asia Pte. Ltd., Singapore. 175 pp. \$60.00.

This aesthetically pleasing book, a collection of scanning electron micrographs and associated legends, is designed to give both students and professionals a three-dimensional visualization of the external anatomy of some medically important arthropods. The book is divided into 14 chapters containing micrographs of the adults and immature stages of selected species belonging to various families of Diptera, Siphonaptera, Anoplura, Hemiptera and Acarina. Each chapter begins with a short synopsis of the group (two paragraphs in most cases) which in-

cludes brief remarks on distribution, medical importance, general appearance and behavior. The 170 stunning scanning electron micrographs, most of excellent quality, are arranged two per page on odd-numbered pages. Concise legends are printed at lower right on the facing pages.

This book should be useful to students, teachers and researchers as a companion to conventional light microscope studies and as an enlightening adjunct to standard textbooks on medical entomology and arthropod morphology. The detailed micrographs will aid in understanding spacial and structural relationships and the three-dimensionality of structures.

The book's usefulness could have been improved in several ways. The inclusion of labels for structures would have enhanced the anatomical information contained in the volume. Lists of abbreviations could have been included on the nearly empty pages facing the micrographs. More micrographs showing entire animals and/or general body divisions, such as the adult flea shown on page 107 or the head of the *Triatoma* species on page 133, would have provided additional information on general appearance and

body construction. Micrographs taken at lower magnifications also would have enabled the user to easily determine the position and posture of structures shown at higher magnifications. A short bibliography of standard textbooks and significant papers would have been useful to "readers who do not have a basic knowledge of medical entomology." It would have been beneficial to include the specific names of all the arthropods shown in the micrographs.

The book contains some misspellings and grammatical errors, e.g., "sensilium" (p. 112) and "Each of these have" (p. 102). It also contains a number of interpretational inaccuracies, e.g., the pulvilli of the *Culex* species (p. 20) are covered with cuticular projections rather than "sensilla," and the aspects of the tarsal claws of the *Glossina* species (p. 88) are the opposite of those indicated. There are no obvious inconsistencies in format, although numbers appear both as numerals and words. I was surprised to learn that lice "infect" man (p. 118).—Ralph E. Harbach, Walter Reed Biosystematics Unit, NHB-165, National Museum of Natural History, Washington, DC 20560.