

SERVICE, M. W. 1996. Medical entomology for students. Chapman & Hall; London. xi + 278 p. First edition. ISBN 0-412-71230-X. Paperback. **and** 2000. Cambridge Univ. Press; New York. Second edition. xi + 283 p. ISBN 0-521-66659-7. Paperback. \$37.95.

The two editions differ little except that the second is of slightly smaller format with thicker paper, has a glossary, and has updated sections on control and references.

This book is designed as a textbook on the central subjects of medical entomology: flies (mosquitoes, simuliids, ceratopogonids, tabanids, glossinids, muscids, calliphorids and sarcophagids), fleas, lice, bugs (cimicids and triatomine reduviids), and acarines (argasids, ixodids, sarcoptids and trombiculids) that bite people (many of them transmit diseases to people), or whose immature stages develop in people. It has brief descriptions of the diseases, medical methods of controlling the diseases within the human body, and methods of reducing populations of the arthropod vectors. It also has a chapter on cockroaches. It is illustrated entirely by black and white drawings, which are well executed and entirely adequate. Lack of photographs, either black and white or color, is not a disadvantage, and undoubtedly reduces production costs (if not the sale price). The author has written clearly and has avoided unnecessary technical expressions from medicine and entomology. The book is authoritatively worldwide in scope, although its major emphasis is necessarily on the tropics, where most of the problems occur.

The book does not deal with the insects and arachnids (bees, wasps, ants, spiders, scorpions, and others) that sting and may cause anaphylaxis, or (bugs [except cimicids and triatomine reduviids] and thrips) that bite, or (flies [such as *Hippelates* gnats] and beetles) that get into human eyes and transmit disease or release toxins, or (moth and beetle larvae) that urticate and may cause pulmonary problems, or (beetles) that act as intermediate hosts of helminths, or (beetles) that blister the human skin, or (beetles and some flies not mentioned in the book) that cause canthariasis and myiasis, or delusory parasitosis, or the use of fly maggots or drugs derived from insects and used for healing chronic lesions. Perhaps these other organisms, afflictions, and uses deserve their own book (“paramedical entomology”?) because at least in America north of Mexico—where mosquito-transmitted disease has been relatively uncommon for decades—they are frequent subjects of public concern.

With one person worldwide dying of malaria every 12 seconds, there is, however, no question that the major emphasis of the book is correct. That’s just one of the major diseases transmitted by mosquitoes, and only by certain species of the genus *Anopheles* at that. The author writes with great authority on the subject of mosquitoes, and has done a competent job in portraying the other insects and diseases, and their control, that the book encompasses. This book is therefore written mainly for people (medical entomologists, public health specialists, nurses and physicians in training) who will work in tropical countries where these diseases are prevalent, and for them this information is of the utmost importance; it cuts to the essentials. It is highly appropriate as the entomological component of a course in tropical medicine. For those people training in America north of Mexico and who have no intention of working in tropical countries, some supplement is needed about the various lesser afflictions caused by arthropods.

For those readers who are unfamiliar with the language of medical entomology, there are some unusual conventions to remember as exemplified in this book. Although throughout botany and zoology, generic names at second and subsequent mention are abbreviated to a single letter (such that *Homo sapiens* is abbreviated to *H. sapiens*), card-carrying mosquito specialists insist on a 2-letter generic code (such that *Culex pipiens* is abbreviated to *Cx. pipiens*). Although zoologists agree that only adult animals (with a few rare exceptions [paedogenesis]) can breed, medical entomologists, mosquito control specialists, and public health workers normally write about “larval breeding places”, by which they mean larval habitats. Medical entomologists (together with ecologists, by which I mean population ecologists) use the original (A.D. 1603) definition of the word **endemic** to mean a population which is constantly present [regardless of its origin] and more or less stable as antonym of **epidemic**; this

contrasts with much later uses of the word **endemic** by zoogeographers to mean things entirely different.

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