Entomologia Médica e Veterinária

Authors: J. E. Maruniak, and A. Garcia-Maruniak
Source: Florida Entomologist, 95(1) : 241
Published By: Florida Entomological Society
URL: https://doi.org/10.1653/024.095.0144

This book fills an important need for a textbook in veterinary and medical entomology in South America where many diseases are transmitted by arthropods. This second edition emphasizes the relationships of arthropods, zoonotic diseases with potential as emerging pathogens, and medically relevant diseases. In fact, most chapters have a section summarizing the medical and veterinary importance of each arthropod family. While this textbook can be used for an undergraduate course, it is also a foundation for graduate level students who would supplement the course with journal articles. As with the previous edition, this book will be useful for scientists with research in South America and medical doctors who have patients or travelers with diseases acquired by arthropod transmission.

The second edition of Entomologia Médica e Veterinária (Medical and Veterinary Entomology) has been published 10 years after Dr. Marcondes’ first edition (2001) with several new chapters and current information. The book, written in Portuguese, is divided in 23 chapters and a glossary with contributions by 14 authors mostly associated with research institutions all over Brazil. However, throughout this book Dr. Marcondes’ extensive knowledge of the area is evident by his personal involvement in authoring 11 chapters.

The subjects described in this book are: 1. Morphology and physiology of the most important medical and veterinary groups; 2. Epidemiology of vector associated diseases; 3. Hematophagy and the relationship between parasites and vectors; 4. Vector competence: modeling importance in the transmission of dengue; 5. Phlebotomine flies; 6. Simuliiidae (black flies); 7. Ceratopogonidae; 8. Culicidae (mosquitoes); 9. Tabanidae; 10. Flies; 11. Larval therapy; 12. Forensic entomology; 13. Ants that cause health diseases; 14. Fleas; 15. Lice (sucking and chewing); 16. Triatominea; 17. Cimicids and other Heteroptera Hemiptera; 18. Synanthropic cockroaches; 19. Mites (ticks and others); 20. Collection, preservation and mounting arthropods of medical and veterinary importance; 21. Arthropod control: general principles; 22. Species, speciation and modern morphometrics and 23. Screening of insect pests by remote sensors. Each chapter starts with a brief introduction followed by the specimens’ morphology/physiology, biology, a summary of the main species for each group, their medical and veterinary importance, control methods, collections and rearing methodologies, future studies, a list of recommended references, and bibliography. Some chapters have, however, additional information. The use of drawings, schematic representations of life cycles, figures showing important morphological characters and photographs some of which are in color and scanning electron micrographs is extensive throughout the book. In addition to many tables summarizing essential information, there are several dichotomous keys for specimen identification.

In this second edition, emphasis was given to the vectors of important and current diseases that may not have been considered major medical and veterinary problems 10 years ago. The need to understand the basic biology of the arthropods vectoring diseases is emphasized in this book by covering areas to better recognize, collect, and control such vectors. The chapters covering mosquitoes, lice and mites are extensive due to their medical importance in the regions. It is important to mention the concern by the authors to identify the arthropods’ common names from different areas of Brazil and Latin America. Just this detail widens the target population that can benefit from this book and, although it is written in Portuguese, Spanish speaking students or teachers should be able to understand its content.

Dr. Carlos Brisola Marcondes recently (2009) published the book, Doenças Transmitidas e Causadas por Artrópodes (Diseases Transmitted and Caused by Arthropods), and in 2006 Terapia Larval de Lesões de Pele Causadas por Diabetes e Outras Doenças (Larval Therapy of Lesions Caused by Diabetes and Other Diseases). He is a Parasitology and Medical Entomology Professor of the Federal University of Santa Catarina, Brazil.

J. E. Maruniak and A. Garcia-Maruniak
Entomology & Nematology Dept.,
University of Florida
Gainesville, FL 32611-0620
E-mails: marun@ufl.edu and alemar@ufl.edu