Biographical sketches of more than 100 entomologists, including leaders from many countries, also are recorded. These are some of the examples of the various facets of history covered by this valuable publication.

Dr. Essig's book concludes with an excellent index, which makes the enormous amount of data covered readily available to the reader. Entomologists are greatly indebted to the author for this volume, which includes hundreds of items likely to escape notice unless assembled and published. It is highly recommended for students in entomology and related fields and for the use of teachers of entomology in the preparation of lectures.

The publisher deserves commendation for reprinting this comprehensive history. The book is printed on an excellent grade of paper, the printing is clear, and the binding attractive. This volume is a valuable addition to all libraries containing publications relating to the biological sciences.

W. D. Reed
Washington, D. C.


The author is Assistant Chief of the Illinois Natural History Survey and Professor of Entomology at the University of Illinois. His considerable knowledge based on field and classroom experience enabled him to achieve his objective: a well-written introductory-entomology textbook.

The third edition, like the second, is organized into 10 chapters: (1) Growth of North American Entomology; (2) Arthropoda: Insects and Their Allies; (3) External Anatomy; (4) Internal Anatomy; (5) Physiology; (6) The Life Cycle; (7) The Orders of Insects; (8) Geologic History of Insects; (9) Ecological Considerations; (10) Control Considerations.

In chapters three, four, and five, the author uses the comparative technique and cites examples from different orders of insects. Chapter seven (p. 203-417) contains a description and discussion of each of the major orders, some families, and even genera and species. Keys to families for many of the orders are accompanied by clear, labeled line-drawings which will help the student to understand and more fully utilize the keys.

References at the end of each chapter as well as at the end of each chapter provide the interested reader with sources of additional information.

The chapter titles adequately describe the contents of the last three chapters.

Many of the excellent line-drawings, charts, tables, graphs, and photographs which appeared in the second edition have been included in the third, and some new ones have been added. The references have been updated and the contents expanded, particularly in the chapter on Control.

Despite a few errors such as the wrong picture for Oncopeltus fasciatus (p. 289) and the generic name Bacillus rather than Pasteurella for the bubble plague bacillus, this book can be heartily recommended to those charged with the responsibility of selecting an entomology textbook for an introductory course, or those who want to learn more about insects.

WALTER LENER
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This imposing array of insects found in Ghana between 1909 and 1959 has been compiled from numerous sources—records of the Ghana Ministry of Agriculture, the Coca Research Institute, many persons who have collected and reared insects, and the Review of Applied Entomology, Series A, to 1959. Insofar as possible, the names have been checked by specialists in the Commonwealth Institute of Entomology, London.

The records comprising the volume were entered on punch cards as a basis for preparation of the manuscript. These cards were coded for host plant, insect name and category, and for the type of injury caused. This method allowed the compiler to present the data easily in several different ways.

Part 1 lists the insects alphabetically by host plant in a section that indicates the scientific name of the plant and its family, the scientific name of the insect and its order and family, and the type of damage it causes. Part 2 lists the insects alphabetically by order, genus, species, with an indication of the sources of the record. The same information in the same order is given in succeeding sections for stored products, parasites and predators of plant-feeding insects, and insects associated with or attacked by fungi. A bibliography presents references by groups of plants and by insect orders, and the volume is concluded with separate indexes of insect genera, insect species, and common names of plants.

It is encouraging to find this comprehensive list now available for general use. All too often, one discovers that reviews of insects in areas obviously possessing rich floras and faunas simply do not exist, very often because facilities for compiling them are not available in those areas commonly classified as "undeveloped." Content and future expansion of interest in these areas puts a very high premium on information about the insects occurring and doing economic damage there.

The author, who formerly occupied the position of Agricultural Entomologist, Ministry of Agriculture, and Lecturer in Agricultural Entomology, University of Ghana, is to be congratulated for his determination to produce the book. It is obviously the work of a craftsman and will fill a very large gap in our knowledge of entomology.

RICHARD H. FOOTE
Washington, D. C.


Yearly the Acari (mites and ticks) are found to be more and more important in human affairs. This importance is not limited to economic and health-related problems, but it also involves understanding of general biological principles. This second volume of Advances in Acarology, while not so extensive as the first, is every bit as significant as the first volume.

The first paper by Bregetova on acarology in the U.S.S.R. provides an excellent overview of the significant acarological research that has been conducted in that country during the past quarter of a century. Some 376 significant papers are listed in the bibliography. While the majority of the work has been systematic in nature, studies on all phases of acarology are included.

Economically, phytophagous mites are causing increasing problems to agricultural advances in most countries that are supported by modern agriculture. The ravages of these pests have been intensified by the use of insecticides. The pesticide industry has developed many products for the control of mites. Despite the availability of these materials, chemical control of phytophagous mites remains a difficult problem. Jeppson's discussion of these problems should be read by all students of chemical control because the principles that apply to mites are of general interest.