


BOOK REVIEW


This book is part of the five-volume "Handbook of Genetics" edited by Robert C. King. It is composed of thirty-two chapters, and except for Chapter 1 which is a review of Mollusca, this volume is a collection of brief, concise discussions that describe the reproductive biology and genetics of insect species that are commonly favorable to geneticists.

One-half of the chapters deal with the genetics of Drosophila sp., which is expected in view of the vast body of information available from studies of Drosophila melanogaster and other Drosophila sp. The other fifteen chapters cover a variety of insects including a hemimetabolous insect (Blattella germanica), two Lepidopterans (Bombyx mori and Ephesia kuehniella), two Coleopterans (Tribolium castaneum and T. confusum), Hymenopterans (Apis mellifera, Helobrosca sp. and Mormonina sp.) and several Dipteran species. Of the Dipterans many (Rhynchobius, Sciarida, Chironomus, and Glyptotendipes) are of interest because of the excellent quality and quantity of work that has been accomplished with their polytene chromosomes. The remainder of the Dipteran species, which include mosquitoes, house flies, and sheep blow flies, are of medical and veterinary importance; indeed, most of the genetics work with these species has been oriented toward the solution of insect control problems.

Except for the chapters on Drosophila sp., each chapter begins with a description of the subject species, its taxonomic classification, reproductive biology, and cultivating procedures in the laboratory. This is very helpful to the reader by eliminating problems with terminology that so often are confusing to readers who work with diverse organisms.

The reviews are brief, but this does not detract from the usefulness of the contents. Longer and more elaborate discussions of the subject matter would add more bulk to the book but would not add substantially to the purpose of the review. In those areas where I am knowledgeable the references cited are nearly complete; therefore, for a reference work this book is an excellent source of information.

For those whose primary interest is mosquito research, there are three chapters (numbers 12–14) on this subject. These chapters are excellent in the presentation of genetic and cytogenetic information on anophelines, Aedes, and Culex mosquitoes.

For anyone involved in biological research or teaching, this book is recommended as a valuable reference work for published papers that appeared prior to 1975.—Jack A. Seawright, Agricultural Research Service, USDA, Insects Affecting Man Research Laboratory, P. O. Box 14565, Gainesville, Florida 32604