

H. EIDMANN, F. KÜHLHORN: LEHRBUCH DER ENTOMOLOGIE (TEXT-BOOK OF ENTOMOLOGY).

Publisher Paul Parey, Hamburg und Berlin, 1970, 633 pages, 377 illustrations, 1 map

This book represents the second revised edition of Eidmann's 1941 textbook of entomology complemented in accordance with the present state of entomological research. The book contains 9 chapters, a bibliography and index of authors. The opening chapter — "Systematic Position of Insects" — deals with the inclusion of insects in the natural evolutionary system of arthropods and goes briefly into the common and different characters of higher systematic groups of arthropods. Next two chapters — 2. "Basic Organization of the Body of Insects" and 3. "Habitus, Size and Number of Insects" — give a survey of essential data on the said general problems.

Next part of the book deals with the morphology and anatomy of insects. Chapter 4. "Morphology of the Body of Insects and Its Appendages" describes the external structure of individual parts of insects. Special attention has been paid to the parts of a systematic and evolutionary importance, such as oral organs of individual insect groups, and wings. The Internal anatomy of insects is dealt with in Chapter 5. "Organs of the Body of Insects and Their Activity", including, apart of a detailed anatomy and histology, also physiology of basic physical functions. Particularly discussed are the problems of ethology (instincts, orientation, etc.). Ontogeny of insects is analysed in the next two chapters — 6. "Reproduction", devoted to cytology and organology of reproduction, to the care of offspring and special reproduction forms; and 7. "Development", dealing with the embryonic and post-embryonic development of insects and with types of metamorphosis.

The ecology of insects is comprehensively discussed in Chapter 8. "Relationships of Insects to Their Environment", dealing with the influence of abiotic and biotic factors, problems of total effects of these factors and with applied entomology. Well-arranged are the questions of parasitism in insects, transmission of disease agents by insects and methods of control of parasitic insects.

The last Chapter 9. "System of Insects" represents the systematic part. The system is derived from the present knowledge of palaeontology and comparative morphology of insects and corresponds essentially with Obenberger's concept (1955). The system of individual insect orders is divided into families, with important groups (Culicidae, Oestridae) even into sub-families, in which typical species are given.

In general, the reviewed book is a well-done elaboration of an extensive material, important from many points of view. Its positive qualities consist in a clear arrangement, complete elaboration and high scientific level. The text is complemented by a large number of pictures and is graphically well-organized. An incorrect demarcation of sub-areas of the Ethiopian area in the zoogeographical map (p. 609) and the printing of the same picture on pages 541 and 545 are minor shortcomings. Mr. Eidmann's and Mr. Kühlhorn's volume is a valuable university textbook and a good help for specialists — entomologists, parasitologists and all workers in the field of applied entomology.

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