

R. S. SHULTS AND E. V. GVOZDYEV: THE FUNDAMENTS
OF GENERAL HELMINTHOLOGY
VOL. 1. MORPHOLOGY, SYSTEMATICS AND PHYLOGENY
OF HELMINTHS

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The first of the four volumes of "The fundaments of general helminthology", written by the well-known Soviet helminthologists R. S. Shults and E. V. Gvozdyev, both of Alma Ata, has just been published. As suggested by the subtitle, this volume deals with fundamental problems of helminthology.

The short Introduction explaining the origin, concept and structure of the work, is followed by a chapter "Introduction to parasitism" (pp. 8-30), in which the authors explain the most important features of parasitism and outline possible solutions of questions relating to the fundaments of parasitism and evolution of parasitism. The second, general chapter of this book called "An outline of the history of helminthology" (pp. 31-66) reviews the most important data and theories in chronological order (divided into 7 periods) from the oldest times until the present on a world-wide base. In conclusion, valuable data on the history of helminthology in Russia, the USSR and on the development of helminthology in other socialist countries, including a short outline of the history of development of helminthology in Czechoslovakia, are added. The next chapter (pp. 67-84) analyses various concepts of the systematic position of helminths within the zoological system, with a sufficiently detailed comparison of the principal classifications. The authors are more or less basing their concept on that of the system of Beklemishev (1944, 1964) considering the group *Neodidea* to be a supertype (with the types *Plathelminthes*, *Acanthocephales*, *Nemathelminthes* and *Nemertini*).

These chapters, which are of an introductory nature, are followed by chapters of a more specialized character, describing in detail anatomically morphological characteristics, phylogeny and systematics of the individual classes and orders. The classes *Turbellaria*, *Trematoda*, *Monogenea* and *Mesozoa* are discussed on pp. 86-108. More comprehensive data are given of the classes *Trematoda* (pp. 108-196), *Monogenea* (pp. 196-238) with numerous drawings of these groups. For classifying the class

Trematoda, the authors accepted the system suggested by Skrjabin and Gushanskaya (1962-1963), for *Monogenea* that of Bykhovskiy (1957), who considers *Gyrocotylida* as an independent class (pp. 234-238) ranging in the system between *Monogenea* and *Cestoda*. In a similar mode, the authors dealt with data relating to the type *Acanthocephales* (class *Acanthocephala* pp. 320-362) accepting the classification of Petrochenko (1956-1958).

Of the type *Nemathelminthes* most consideration has been given to the class *Nematoda* (pp. 362-458). The numerous drawings of the morphology of members of the individual orders and suborders have been arranged in tables and well commented in the text. In view of their importance, adequate space has been given to data of the classes *Rotatoria* (pp. 459-462) and *Gordiacea* (pp. 462-470). The last chapter of the book contains a brief review of data on the type *Nemertini* (pp. 471-473), represented by a single class and 4 orders. The index of terms and Latin names facilitates orientation in the text. Extensive use has been made of all literature available. References are consequently cited in the text and in the list following each chapter. The illustrations in the book are very good and show an attention to detail and proportion.

The book provides a perfect insight into the scientific achievements of Soviet and foreign writers. It stands out by virtue of the high quality of the presentations reflecting the profound scientific erudition of its authors, which are both highly estimated helminthologists. Its publication carries into effect the original intentions of its authors. The book provides a comprehensive source of information for helminthological studies, especially those concerned with more biological aspects and may be found very useful for lecturing medical and veterinary helminthology. This work is a successful continuation of an older monograph by Skrjabin and Shults (1940) and, hence, a further success of Soviet helminthology.

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