

BOOK REVIEW

ANDERSON D.T.: INVERTEBRATE ZOOLOGY. Oxford University Press, Melbourne. 1st edition: 1998, 467 pp. ISBN 0-19-553941-9 (paperback). 2nd edition: 2001, 512 pp. ISBN 0195513681 (paperback). Price AU\$ 80.00.

Fourteen expert authors, mainly professors and associate professors from Australian universities, wrote this textbook under the editorship of Donald T. Anderson, Emeritus Professor at the University of Sydney. Although designed for one-semester undergraduate courses, the amount of information and hence the volume of the book is naturally big. Even though some of the minor animal phyla were omitted, the diversity of animals is too great to fit easily into one medium-sized book. Similar textbooks, e.g. by Ruppert and Barnes, are even thicker. Thus, the authors had to focus on only selected aspects of animal life.

Traditional comparative anatomy make up a relatively small part of the description of individual phyla and subphyla. Physiology and reproduction are the most extensive and up-to-date aspects of the book. There is less information on ecology – what environments the animals occupy and how they interact. Fossil record is neglected. Systematic classification of phyla is brief or moderate depending on the diversity or species richness of individual phyla and the attitude of individual authors of chapters.

The authors' functional approach brings valuable details on respiration, circulation, feeding and digestion, excretion, nervous system, sensory organs, movement, reproduction, embryonic and postembryonic development.

The text is clear and readable, even for foreign students. It is extensively illustrated with both black and white photographs, and line drawings of diverse views and sections of bodies, individual organs, and developmental stages.

Small sections in individual chapters and the concluding chapter deal with the phylogeny of the animal kingdom – the historical relationships between phyla. This proved unfortunate in the first edition, because our knowledge of phylogeny was then undergoing great change. Thus, much incorrect and outdated information was included, e.g., the phylogenetic tree on the page 427 included the former phyla Pogonophora and Pentastomida. Although the group Ecdysozoa was mentioned in another tree on page 435, chapter Five of the first edition dealt with the "Aschelminths" including not only Nematoda and true relatives, but also unrelated Gastrotricha, Rotifera, and Acanthocephala.

Fortunately, Oxford University Press printed the second edition of Invertebrate Zoology with similar emphasis on physiology and reproduction, but with several major changes regarding phylogeny and systematics. However, future discoveries and changes in interpretation will again make the phylogenetic aspect of any recent zoology textbook outdated.

These books, both the first and second edition, are a valuable source of information for students and non-specialist zoologists interested more in the functional aspects of biology than in morphology, ecology or phylogeny.

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