

**V. Storch, U. Welsch: Kurzes Lehrbuch der Zoologie. 7. Auflage. Gustav Fischer, Stuttgart, New York, 1994, 593 pp., 284 Figs. ISBN 3-437-20507-2 (paperback); ISBN 3-437-20508-0 (cover).**

This textbook presents a systemically conceived overview of contemporaneous zoology – from the animal cell to the classification of animals. It consists of three parts: History of the zoological knowledge, (A) General zoology (the cell, the tissues, sensoric cells and organs, the nervous system, behaviour, hormones and endocrinous system, nutrition and digestion, blood and lymphatic vascular systems, respiratory system, excretion and osmoregulation, reproduction, ontogenesis, heredity, evolution, ecology, zoogeography), (B) Systematic zoology (survey of animal phyla, architecture and biology of animals). Both parts, (A) and (B), are well equilibrated and they integrate one another.

The history of this book is more than twenty years old; it was edited for the first time in the year 1971 (the senior author was Professor Adolf Remane, who died in 1976) and with the time passed it has ranked with "evergreens" of European textbooks of zoology. The authors of this book have been taking part outstandingly in the constituting of the image of "German zoology" in the last decades. They have modernized the text of the 7th edition compared to the 6th edition (1989) and they have complemented it by thirty new or worked over figures. The modernization concerns especially information about molecular biology and biochemistry given in the first part of the textbook.

Textbook is written with an excellent, didactically clear view. Particular chapters deal with the matter in various spans and profundity, according to its importance and to the recent accents of research in zoology. The text of the book is intelligible and easy to read with precise definitions.

In part (A) there are some brilliant chapters usually not easily and well understood by students, i.e., chapters about the nervous system, sensors and about the hormonal regulation, and the chapter about immunity. Another positive quality of the book are the subchapters about bioindication, chrono-biology and parasitic strategies in the chapter "Ecology". From the informative point of view this part could be enriched by inserting more information about pheromones than is presented in the chapter "Special endocrinology" and by

complementing the chapter "Distribution" with the schema of zoogeographical zones. In part (B) an overview of animals based mostly on phyla-level is given. The viewpoint of a strictly taxonomic categorization is properly suppressed which is in agreement with the aim of the book. From the heterotrophic Protozoa the "groups" Zooflagellata, Rhizopoda, Sporozoa and Ciliata are mentioned; Bilateria are grouped in Prostomia and Deuterostomia; Chaetognatha and Pogonophora are listed as the phyla *incertae sedis*; Lophophorates are derived from Prostomia and listed as the phylum Tentaculata. Thus, the conception of part (B) corresponds with "great zoology" of authors (Storch V. and Welsch U. 1991: Systematische Zoologie, 4. Auflage, Gustav Fischer, Stuttgart, New York, 731 pp.) which is partly opposite to the conception of the classification found in some recent textbooks of American or English origin (cf. for example: Ruppert E. E. and Barnes R. D.: Invertebrate Zoology, 6th Ed., Saunders Coll. Publ., Fort Worth, etc., 1994, 1056 pp.).

When reading this book one would tend to compare it with Mehlhorn's compendium which is conceived in a rather different way (Mehlhorn H. [Ed.] 1989: Grundriss der Zoologie. Gustav Fischer, Stuttgart, New York, 759 pp., 407 Figs.). Kurzes Lehrbuch der Zoologie has a more textbook-like and more complex character and its content is more broad in the history of zoology, genetics, evolution and distribution of animals. Mehlhorn's book (Edition "UNI-Taschenbücher") presents a classification of Protozoa which reflects more precisely the reality of a taxonomic view and which presents a chapter about physiology with a rather bigger accent on biochemistry.

Kurzes Lehrbuch der Zoologie is one of the most successful modern textbooks. It is a textbook with the compromises in the right place. It should be recommended to beginners and advanced students as a compendium with a large amount of useful information within the whole spectrum of the branches, and a compendium which they will go back to during their studies. It can be used for interdisciplinary study including study with practical output.

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