

The Anatomy of Fishes. Parts I and II.

By Wilhelm Harder. 1975. E. Schweizerbart'sche Verlagsbuchhandlung, Stuttgart. Part I, 612 pp. Part II, 132 pp., 337 figures, 13 plates. \$96.40 (U.S.).

Since Harmer's (1904) *The Cambridge natural history* and Goodrich's (1909) *Cyclostomes and fishes*, there has not been an in-depth treatment of the anatomy of fishes in the English language. There is a need, because fishes are an ancient group, rich in taxa which are more highly diversified in anatomical structure than other more recent vertebrate classes. Harder's *Anatomy of fishes*, a translation and revision of an earlier German text, admirably fills the lacuna.

My first impression, one never dislodged, was that here was a source book, solidly packed with information. Closer inspection suggested that even the machete of today's journal editor would go rusty whilst seeking verbiage to slash.

A fair amount of text is devoted to basic zoology (definition of positional terms such as caudad, discussion of protoplasm and cells) or science (resolving power of light microscopes). This means that the text could be used without difficulty by beginning university students. But the text then proceeds to deeper levels, and more detail at the cellular and tissue level is given than in the usual ichthyology text. Anatomical terms are in italics, making it easy to skim through paragraphs for terminology. The scientific names of fishes are in ordinary type face. A stream of functional thought runs through the chapters; it is not just a descriptive anatomy. The references are grouped, to the reviewer's mind inconveniently, by chapter at the end of the book. This means that first the chapter group must be sought before finding the references.

The reviewer finds the level of scientific accuracy high and the breadth coverage very good, although the author modestly admits the impossibility of complete coverage. A few lapsi may be indicated. It is stated that the radii branchiostegi develop phylogenetically out of the lateral gularia (it is, rather, the reverse), also, that in general there is only one dorsal

fin-bearing element per muscle-segment (usually, in fact, there is more than one, the prime exception being the blennioids). D. Rosen's work on cephalic muscles in fishes was not cited. According to V. M. Makushok, contrary to Harder, trunk lateral lines are present in almost all fishes reported to be lacking them, including clupeids; it is only the canal and pores that are missing.

Two works worthy of mention published too late for Harder to include are these: R. Winterbottom (1974), *A descriptive synonymy of the striated muscles of the Teleostei* (Proceedings of the Academy of Natural Sciences Philadelphia 125(12): 225-317); and J. S. Nelson (1976), *Fishes of the world* (John Wiley and Sons, New York, London, Sydney, Toronto. 416 pp.). The latter would have provided an excellent basis for classification.

The translator has generally done a good job grammatically. He has done less well with the terminology (fin-sails instead of fin lobes, underwater-floor instead of bottom, bristle-teeth instead of cardiform teeth, keel bone in preference to parasphenoid, but such lapsi are not common). For the most part these will be passed over without problem by the reader. The editing has not been of high quality. Pages 4 to 6, for example, contained seven misspellings, grammatical infelicities or taxonomic errors. Throughout the volume one finds similar errors (Vladikov for Vladykov, Colette for Collette, diverticle instead of diverticulum). The greatest carelessness is found in regard to the bibliography. In looking up references in five pages of text, seven are found to be missing, two had disagreements in dates between the text citations and the bibliography. Such carelessness is not acceptable.

Despite its editorial shortcomings Harder's *Anatomy of fishes* is an excellent reference book.

DON E. MCALLISTER

Curator of Fishes, National Museum of Natural Sciences, Ottawa, Ontario K1A 0M8

Wolf... Kill! The Wilderness Called Shunka

By Marika Lumi. 1976. Van Nostrand Reinhold, Toronto. 195 pp., illus. \$9.95.

The title *Wolf... Kill!* was presumably chosen to ensure this book sells well. It is somewhat ambiguous, however, because the hero, tundra wolf Shunka, is anything but a killer. No doubt the title is meant to refer to many people's attitude toward the wolf: it should be shot on sight. The whole point of the book is

that wolves can be brought up to live amicably with people, in this case often sharing their house, their food, and their leisure time. Marika Lumi and her husband wanted to prejudice people in favor of wolves, which they have been able to do with their films, this book, and by means of Shunka himself.

Neither is the subtitle about wilderness entirely suitable, for although Shunka is supposed to typify



McAllister, Don E. 1977. "The anatomy of fishes. Parts I and II, by Wilhelm Harder [Review]." *The Canadian field-naturalist* 91(3), 331–331.
<https://doi.org/10.5962/p.345432>.

View This Item Online: <https://www.biodiversitylibrary.org/item/89182>

DOI: <https://doi.org/10.5962/p.345432>

Permalink: <https://www.biodiversitylibrary.org/partpdf/345432>

Holding Institution

Harvard University, Museum of Comparative Zoology, Ernst Mayr Library

Sponsored by

Harvard University, Museum of Comparative Zoology, Ernst Mayr Library

Copyright & Reuse

Copyright Status: In copyright. Digitized with the permission of the rights holder.

Rights Holder: Ottawa Field-Naturalists' Club

License: <http://creativecommons.org/licenses/by-nc-sa/3.0/>

Rights: <https://biodiversitylibrary.org/permissions>

This document was created from content at the **Biodiversity Heritage Library**, the world's largest open access digital library for biodiversity literature and archives. Visit BHL at <https://www.biodiversitylibrary.org>.