



## Book Review

**Fishes: A Guide to their Diversity**  
**By Philip A. Hastings, H.J. Walker Jr. and**  
**Grantly R. Galland**, University of California Press,  
Oakland, California, 2014, GBP 24.95, USD  
34.95. ISBN: 978-0-520-27872-1, 311, pp. 187,  
colour plates (approx. 500 photos), 14 line  
drawings.

Producing a book that describes the basic anatomy of all 82 orders of marine fish is no small feat. Hastings *et al.* do this succinctly and neatly with clear supporting photographs in just 311 pages. *Fishes: A Guide to Their Diversity* is a concise reference text aimed equally at students, fisheries scientists and marine biologists.

A 5-page introduction describes *What is a fish?* and *Why this book?* helping the reader understand the intentions of the authors. The anatomy of fishes is then described (12 pages) in enough detail to allow a new reader to understand terms and descriptions in the following sections but not to an extent that appears superfluous. External anatomy, body and fin shapes, sensory systems, skeletal anatomy, mouth and jaws as well as standard measurements used in fish biology are all described and set the reader up very well to dive into the following sections of the book in any order they please. The book then takes a standardized format throughout to describe each taxonomic group allowing easy comparison between them. A brief, general description of each Class is followed by a more detailed presentation of each Order using the following headings: Diversity, Representative Genera, Distribution, Habitat, Remarks, Characteristics (of the Order described) and a caption for the illustrated specimen. Each Order has a very clear photograph of at least one example specimen with labels relating to the previously described Characteristics and some benefit from excellent radiographs illustrating internal anatomy. Phylogenetic trees throughout the book help the reader understand the relationships

between the different taxonomic groups described in each section. A Glossary primarily based around anatomical descriptions helps the less familiar reader with new terms. A 48-page reference section acts as a useful platform for the more expert reader to explore particular taxonomic groups in depth. An Index of both Latin and Common names is a welcome inclusion, again catering for both the expert and novice reader.

The Authors describe the book as 'an ideal companion to primary ichthyology texts'. I would agree with this description as whilst managing to give a broad overview of the World's fishes, this relatively short book caters to a wide audience. That being said, the book is not suited to those looking for a narrative type text, something that is sacrificed for succinct, dry description and a very thorough coverage of the 150 most commonly encountered fish families. The consistency in structure and description allows easy comparison between sections and makes it easy for a reader to look up specimens of interest quickly. The use of photographs from preserved specimen collections throughout adds to the coverage but brings into question the utility of this book if used in a field context where regional guides to fishes would be more appropriate. Preserved specimens, of fishes particularly, often differ significantly from live or anaesthetized specimens which highlights that the book is designed more for a classroom setting than for a practical field course. Considering the utility of this book for a classroom, it seems a shame that there were not more radiograph photographs of specimens or additional online materials. A website link for the colour plates would be a welcome addition as would a hyperlinked, online reference list allowing the expert reader to dive deeper into their taxonomic leanings easily.

Overall, I believe that Hastings *et al.* have done an excellent job of tackling what can easily be a mind-boggling subject that can require tomes to cover in detail. The book is relatively short, spans

a wide taxonomic spectrum and considering the large number of high quality photographs, does all this at a very reasonable price. The book will prove a useful guide to any fish biologist, marine biology student or enthusiastic amateur but is certainly not a book to be picked up and read cover to cover. This is a great reference text that I would recommend be incorporated into marine taxonomy classes.

Note: I am unable to comment on the validity of all of the taxonomy within the book, but considering the collaborations involved during its production and the borrowings of specimens from

multiple sources, the information presented appears robust and each photograph corroborates the given anatomical descriptions well.

#### **Conflict of interests**

There are no conflict of interests.

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