## ZOOLOGY

## Annelida

By Greg W. Rouse, Fredrik Pleijel, and Ekin Tilic. 2022. Oxford University Press. 432 pages, 155 colour line figures and illustrations, and 16 pages of colour gallery illustrations, 211.30 CAD, Hardcover. Also available as an E-book.

I'm going to bet that you have never heard the words "coffee-table book" and "worms" in the same sentence before, but here it goes: this new book on annelid worms has just as much of a place on the coffee table as it does on a zoologist's bookshelf. Now, maybe that coffee table is in the living room



of a naturalist or macrophotographer, but nonetheless the hundreds of images in *Annelida* draws the attention of readers and encourages them to read about the biology of segmented worms.

Annelida is a classic taxon book. That is, it has a couple of introductory chapters (e.g., Systematics, Anatomy) followed by 77 taxon summaries (mostly to the family level). Within the chapter on systematics is a large cladogram illustrating our current understanding of the relationships among these worms. A subsequent table repeats the information with the Linnaean hierarchies added, despite being told in the Preface that these were going to be avoided in this book. The table could have been omitted and nothing would have been lost. As a refresher, the annelids were historically broken down into three taxa: Oligochaeta (the earthworms being the poster children of this taxon), Hirudinea (everyone's favourite, the leeches), and Polychaeta (Clam Worms and allies). As is currently understood, among the 77 taxa covered in this book the earthworms and leeches reside together as the "Clitellata", which is simply one of many taxa all residing within (not sister to) the "Polychaeta".

There is something counter-intuitive, anti-conventional, and just plain confusing happening in my last sentence (for demonstration purposes) as well as the aforementioned table and cladogram, and the reader must go back to the Preface to find out the rationale.

Historically, the binomen (e.g., *Lumbricus terrestris*, our common, introduced Dew Worm or Common Nightcrawler) is written in italics with only the genus capitalized; no other names are italicized. This is high school (or first-year university) level knowledge. Family names of animals always end in -idae (-aceae for plants). There is less convention with ordinal names (as well as more encompassing hierarchies), but what we do know is that if a name is italicized or ends in one of those two suffixes, the name is not an order (or higher). From the Preface,

There are a few stylistic issues that readers may find a little disconcerting in that we attempt to treat all taxon names in the same way ... we ... present all formal taxon names in italics instead of just species binomens. (p. vii)

What this means is that when reading a new name (e.g., *Paralacydonia*) the reader now has no idea where in the hierarchy of taxonomy it belongs—is it a broad, very encompassing term akin to order in the Linnaean system, or is it a very restrictive one, such as a genus? Why throw out hundreds of years of organized and effective protocol only to replace it with confusion, all in the name of equality? These ranks are different, let's keep them that way.

Most of the book is a taxon-by-taxon look at the surprising diversity of annelid worms. Flip anywhere within it and you'll almost always be met with superb line drawings (often from the original papers) and beautiful photographs, some as highly detailed electron micrographs, others as amazing colour macrophotographs. In some cases, the reader will encounter full-page plates of stunning images, but I have a minor quibble here. If there are nine plates, they are labelled "a-i". So far so good. It's the captions that host the quibble: after the figure number would typically be the nine names of specimens "a-i". However, the authors of Annelida then offer another set of "a-i" with specimen information (e.g., whole specimen, ventral view, maxillae). If a reader is scanning for information on image "e" for example, there are two e's in the caption, and at least half the time one will anchor to the wrong imagea minor frustration.

The text of each taxon chapter is divided into three sections: Morphology and Physiology, Natural History, and Systematics. Occasionally, Natural History is omitted simply due to a lack of existing knowledge in the field. A cladogram would have been a nice addition to each Systematics section, but I suspect that for many taxa the relationships have yet to be satisfactorily worked out. The text flows well, but a background in anatomy and systematics will be helpful to the reader; the Natural History sections are more consumable, but technical terms still pop up there as well.

The book has a Glossary, suggesting that the targetted readership is not confined to professionals. The References section is nothing short of impressive; I didn't count them all, but my estimate is that over the 71 pages of references there are no less than 1600 works listed. Sixteen-hundred!

years to amalgamate and deserves a place on the

Overall, this is a massive book that surely took

bookshelf, nay, the coffee table, of any naturalist.

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