

Book Review

SEA MAMMALS: THE PAST AND PRESENT LIVES OF OUR OCEANS' CORNERSTONE SPECIES. Annalisa Berta. Princeton University Press, Princeton, New Jersey, USA, 2023. ISBN 978-0-691-23664-3, 224 pp.

Annalisa Berta, in addition to her technical publications, has been impressively prolific in producing several books on marine mammalogy for broader audiences. Her book with the greatest impact is arguably *Marine Mammals: Evolutionary Biology*, now in its third edition (Berta et al., 2015). I have used this book as a textbook for courses in marine mammalogy and always appreciated its organization, content, and use of evolution as the unifying thread.

Similarly, as someone very interested in the evolution of marine mammals, I was quite impressed with Berta's two books that take a deeper dive into this topic: *Return to the Sea: The Life and Evolutionary Times of Marine Mammals* (Berta, 2012) and *The Rise of Marine Mammals: 50 Million Years of Evolution* (Berta, 2017; see Nawojchik, 2018, for my review). Both of these books are engagingly written and appeal to a wide range of readers. Given Berta's excellent track record with such publications, and my personal interest in the topics on which she focuses, I enthusiastically welcomed my acquisition of her latest book, *Sea Mammals: The Past and Present Lives of Our Oceans' Cornerstone Species*.

One of the first things that stood out to me when first perusing the book was the organization of the content. In contrast to her other books (and similar books by other authors) where taxonomy provides the organizational structure (at least in part), this latest book provides a series of what are seemingly stand-alone essays (species profiles), grouped into five thematic sections: Evolution, Discovery, Biology, Behavior, and Ecology and Conservation. Each profile, typically two to four pages in length, usually takes on one species of marine mammal. Within the discussion of each species is an overview of such topics as paleontology, systematics, anatomy, behavior, etc., as it relates to that species (the emphasis for each species varies, based on notable relevant information. For example, paleontology may be a focus for some extinct species, while behavior or conservation may command center stage for some living species). Because each species profile is stand-alone, the

information does not build from more general to more specific as one reads through the book. Rather, each section assumes a certain level of background knowledge and jumps right into the story for that particular species.

This is all fine and good, except early on in reading the book, the question popped into my head, "For whom is this book written?" Because there are no introductory chapters to introduce the basics, it is assumed that the reader is already familiar with a certain level of scientific terminology. However, the format of stand-alone essays gives me the impression that the book was written to appeal to a broader audience, and the decision to move away from a technical/textbook/hierarchical organization is an attempt to do that. Indeed, the book's primary title ("Sea Mammals" instead of the usual "Marine Mammals") also seems to have that intent. In contrast, the subtitle ("The Past and Present Lives of Our Oceans' Cornerstone Species") hints at a bit more rigorous examination of the material, which is what we get. Again, I do not have a problem with this format. For those readers already familiar with the basics of marine mammalogy, there is lots of new and interesting information, especially regarding various extinct taxa. However, because of the book's nontraditional, nontaxonomic organization, I would not recommend this book to someone just starting out in marine mammalogy as their first book on the subject as the semi-disjointed essays would not provide the proper foundation for building a conceptual framework about these animals. Yes, there is a great deal of general information that is appropriate for newcomers, but I think a neophyte would benefit from a more traditional organization of the material.

This next portion of my review is the most difficult to write as it may be a bit critical. The difficulty lies in my enthusiasm for Berta's other books, and I hate to be critical of an author I admire. In a nutshell, this book did not receive the level of editing and proofreading that is evident in her other books. As I read the book, I made little notations alongside "mistakes" that I found. Most of my tick marks indicated relatively minor/inconsequential problems, things that the average speed-reader would quickly gloss over: run-on sentences without commas to set off the parentheticals, awkward phrasing in some of the sentences, a singular use of a term when it should be pluralized, a comma that should have been a

semicolon, and other grammatical issues that had no effect on the content.

However, some sections are informationally unclear. Some examples:

- Page 6 – “Today, sea mammals include some 137 living species (five extinct) worldwide”: The fossil history of marine mammals is exceptionally diverse, with hundreds of extinct species. When Berta says “five extinct,” she is referring to the five species that have become extinct in recent/historical times, but that is not clear from the sentence as written.
- Page 7 – The box “Diversity of Sea Mammals” is inconsistent in the inclusion/exclusion of various extinct species.
- Page 8 – Sirenians did not evolve from elephants and hyraxes but, rather, share a common ancestor with them and are each other’s closest living relatives.
- Page 19 – The sentence “They [porpoises] can be distinguished from dolphins by their blunt snout . . .” is seemingly at odds with the illustration without further explanation.
- Page 64 – Despite the chapter being about sirenians in general, the map shows the distribution of only the West African manatee.
- Page 96 – Regarding bowhead whales: “Despite having 1,000 times more cells . . .” More cells than what?
- Page 149 – “Spinner dolphins . . . are most closely related to common dolphins, as well as to short-beaked and long-beaked dolphins.” The “short-beaked and long-beaked dolphins” are two forms of common dolphin.
- Page 184 – North Atlantic right whale: “They are disappearing from the North Atlantic with fewer than 400 individuals remaining. While the population is recovering . . .” These statements are contradictory.
- Page 38 – “onachinae” should be Monachinae.
- Page 87 – “mineral context” should be mineral content.
- Page 100 – Fourteen populations (distinct population segments) of humpback whales are currently recognized (not 13). Also, “All populations feed in polar or subpolar regions of Antarctica” is not accurate.
- Page 104 – Hooded seals are weaned in four days, not five to 12 (the five to 12 number is for harp seals).
- Page 106 – The caption confuses the nasal sac and the nasal hood of the hooded seal.
- Page 174 – There are four, not five, species of sirenians.
- Page 191 – Elephant seals feed on many species of squid, but giant squid are not their primary prey.
- Page 204 – Harp seals are Northern Hemisphere, not Antarctic.
- Both English units and metric units are used, which is useful. However, some of the conversions are unnecessarily precise.

Most information in the book is accurate; however, some outright mistakes did creep in. Some examples:

- Page 7 – The illustration is of the cranium and upper jaw, not the lower jaw.
- Page 30 – The text says Peru and Chile, but the dot on the map is on Argentina.

A perplexing aspect of the book was that most of the species profiles were wonderfully written, with beautiful flow, free of errors (grammatical and factual), and effortless to read without dealing with proofreading bumps in the road. However, with some of the species profiles, I got bogged down with my proofreading pencil. It was almost as if two different authors contributed to the book given the stylistic and editing differences between various species profiles.

In summary, I am glad I have added this book to my marine mammal library, and I appreciate all the new information it provided. I recommend this book to people who already have a bit of background with marine mammals as they will be able to sift through the nontraditional format. For newcomers to the subject, there are other options to provide the requisite foundational introduction to marine mammalogy.

Literature Cited

- Berta, A. (2012). *Return to the sea: The life and evolutionary times of marine mammals*. University of California Press, Berkeley. <https://doi.org/10.1525/california/9780520270572.001.0001>

- Berta, A. (2017). *The rise of marine mammals: 50 million years of evolution*. Johns Hopkins University Press.
- Berta, A., Sumich, J. L., & Kovacs, K. M. (2015). *Marine mammals: Evolutionary biology* (3rd ed.). Academic Press.
- Nawojchik, R. (2018). Book Review: *The rise of marine mammals: 50 million years of evolution*. *Aquatic Mammals*, 44(3), 337-338. <https://doi.org/10.1578/AM.44.3.2018.337>

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