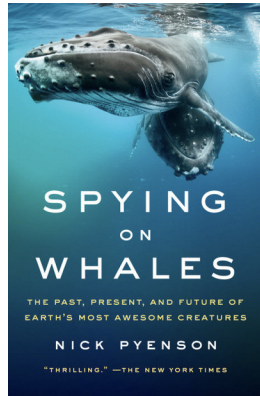


## Spying on Whales

By Nick Pyenson. 2018. Viking. 336 pages, 27.00 USD, Cloth, 17.50 USD, Audiobook, 13.99 USD, E-book.

*Spying on Whales* is a book full of interesting facts about the biology and ecology of whales. The author, Nick Pyenson, is the curator of fossil marine mammals at the Smithsonian Institution's National Museum of Natural History, and has been studying whales for many years. The book is structured in a unique but intriguing style: the author interweaves a narrative of the past, present, and future of whales with his own field excursions to study whales. As a paleontologist, the author often studies the fossilized bones of whales, but he also compares this to contemporary samples taken from whaling stations, and he presents the information in a compelling way by relating his discoveries to the form and function of whales. Throughout the book, he describes some of the basic biology of whales, such as how and why Blue Whales evolved their gigantic sizes, and how Fin Whales and other rorqual whales withstand the shear force of opening their mouth while lunge feeding. Within this narrative, the author describes the mysteries of whale evolution, teasing apart the history of how current behemoths of the ocean evolved from relatively small terrestrial mammals. He also discusses the future of whales, and how they might adapt to changes brought on by climate change and human activity.

As an ecologist who studies whales, I found this book to be quite compelling, but that may be due to my own biases. Any naturalist interested in marine mammals should find this book intriguing. It is written in clear language, and although the author does present some details of the science behind the narrative that he tells, he doesn't get too bogged down in the details, and most readers without an education in science should still find the book accessible and interesting. One warning for any squeamish readers: the author does spend some time discussing field trips to past and current whaling stations, and describes how whales are processed in gruesome detail. He fully justifies his own use of whales killed by whaling operations for his research—he reasons that it is completely ethical and is a good use of dead whales that were going to be killed regardless of his research. Even still, the whole enterprise of commercial whaling might be too much for some readers.



I found a somewhat troubling error in the book that bothered me about Bowhead Whales in the Bering-Chukchi-Beaufort (BCB) stock, a population near and dear to me because I study it. The author states that the explorer Sir John Franklin likely saw Bowhead Whales from this population while on board the *Erebus* near King William Island, which is in the central Canadian Arctic Archipelago. This is extremely unlikely, however, as the BCB stock summers in the eastern Beaufort Sea, Amundsen Gulf, and Viscount Melville Sound and, to the best of my knowledge, whales from this stock have never been documented near King William Island. Franklin would likely have seen plenty of Bowhead Whales from the eastern Canada-west Greenland (ECWG) stock when he and his crew travelled from England to Baffin Bay, and then deeper into the Canadian Arctic Archipelago from the east. The ECWG stock spends its time in the eastern Canadian Arctic around Baffin Island, and ranges much more closely to King William Island than the BCB population does. However, the current range of the ECWG stock doesn't even overlap with King William Island, so perhaps Franklin didn't observe any Bowhead Whales while he was near King William Island. Given that Franklin's expedition was more than 150 years ago and species distributions can change through time, it is possible that these Bowhead Whale populations lived in slightly different areas during that time. However, it is unlikely that the distributions of either population would have shifted toward King William Island because summer sea ice concentration should have been even higher in the 1800s than it is now, and patterns in sea ice dictate where Bowhead Whales spend their winters and summers, as well as the timing of their migrations. Both populations currently spend their winters quite far away from King William Island, and increased summer sea ice concentration would make it more difficult for whales from either population to migrate to King William Island.

Overall, *Spying on Whales* was a pleasure to read, and provided me with plenty of tidbits about whale biology and evolutionary history that I was not aware of before reading this book. I highly recommend this book to any naturalists interested in evolution, whales, or paleontology.

WILLIAM D. HALLIDAY

Wildlife Conservation Society Canada, Whitehorse, YT, and  
Department of Biology, University of Victoria, Victoria,  
BC, Canada