the interactions of other seabird predators, such as large gulls. Young's book raises as many questions as it answers, and it will be of interest to seabird biologists from all climatic zones as well as to biologists specialising in the Antarctic. (R.W. Furness, Applied Ornithology Unit, Zoology Department, University of Glasgow, Glasgow G12 8QQ.)

ARCTIC EXPLORATION AND DEVELOPMENT C. 500 B.C. TO 1915: AN ENCYCLOPEDIA. Clive Holland. 1994. New York and London: Garland Publishing. xvi + 704 pp, maps, hard cover. ISBN 0-8240-7648-6. US\$125.00.

In 1653 the Danish Northern Company sent out an expedition to explore the Arctic waters north and east of Norway. The expedition apparently reached the Kola Peninsula, the Pechora region, Novaya Zemlya, and Spitsbergen. The only first-hand account written about the voyage was by the Frenchman Pierre Martin Bruzen de la Martinière, the surgeon on one of the three ships. His book was enormously popular, and was issued in at least six languages and 16 editions. However, it owed as much to his vivid imagination as to any semblance of reality, as he not only included a remarkably inaccurate map, but fantastic descriptions of strange fauna and native peoples never seen before or since.

More than two centuries later, the Confederate Navy ship Shenandoah, under the command of James Waddell, sailed through the Pacific and the Sea of Okhotsk to the Bering Sea, where Waddell and his men encountered the US whaling fleet. Within a week, they had captured and burned at least 19 whalers, despite having been told by several captains that the American Civil War had ended more than two months previously (9 April 1865). Working his way back south after being stopped by ice in the Arctic Ocean, Waddell finally received confirmation from a British ship that the Confederate States of America had indeed collapsed and hostilities had ceased. In order to avoid the US Navy, Waddell thereupon sailed around Cape Horn and on to England, having destroyed a total of 29 US whalers.

In 1901 the Russian icebreaker Yermak, having been restrengthened in Newcastle-upon-Tyne, headed toward Novaya Zemlya on a test-run. Stopped by heavy ice, however, Stepan Makarov, the expedition commander, turned to Zemlya Frantsa-Iosifa, and anchored at Mys Flora, his command thereby becoming the first Russian party to reach that archipelago. After conducting some oceanographic work, the expedition again headed for Novaya Zemlya, but was again halted by the ice. These failures to reach Novaya Zemlya were viewed very unfavorably by the Russian government, which removed Makarov from the icebreaker experiments and shelved plans for icebreakers for almost two decades.

These three adventures are only examples of the approximately 1900 expeditions that can be found in *Arctic exploration and development*, Clive Holland's new sourcebook for the history and exploration of the north.

With this work, Holland, who was the principal architect of the masterful chronology The exploration of northern Canada (Cooke and Holland 1978), has made another major scholarly contribution to northern history. Like its predecessor, this book is a comprehensive chronological record of northern expeditions, voyages, and historical events; however, the current work covers the entire Arctic. In so doing, it details a vast amount of information about which little has been known. Most notable in this vein are the accounts of expeditions in the Russian Arctic, many of which have previously been totally unfamiliar to western researchers. Of course, the book has lengthy summaries of all of the major expeditions and events as well, so that the general reader can benefit from it as much as the specialist. Hudson, Ross, Nordenskiøld, Nansen, Pearv, and Stefansson are here, along with the less well-known, but equally significant, Otto Torell, Elling Carlsen, Joseph Wiggins, A.G. Nathorst, and Vladimir Rusanov. Also included are synopses of whaling, hunting, and trading expeditions, including annual accounts of whaling activity since 1624.

Arctic exploration and development is an extremely useful tool for the northern researcher. The entries are, first, chronological and, then, by geographical locations. Each entry has at least one reference, and the book has an extensive bibliography. There is an appendix of significant members of expeditions, with a complete listing of the expeditions upon which they served. The book also includes a geographical glossary, as well as approximately 30 maps. And there are two indexes, one of place-names, companies, and other entries, and one of ships that sailed into the Arctic.

Regrettably, the book does have several editorial flaws. After the proof stage, for example, a number of changes were made that resulted in a lack of consistency in the usage of fjord/fiord, which appears in a variety of forms, some correct, others not. In addition, the maps are in a random order, and one is a draft, rather than a final, copy. Fortunately, these rather minor problems are being corrected for the second printing.

Holland spent many years researching and compiling this work. It is surely destined to repay his efforts by being recognized as a classic in its field, and scholars surely will anxiously await its sequel. (Beau Riffenburgh, Scott Polar Research Institute, University of Cambridge, Lensfield Road, Cambridge CB2 1ER.)

## Reference

Cooke, A., and C. Holland. 1978. *The exploration of north*ern Canada, 500–1920: a chronology. Toronto: Arctic History Press.

THE ARCTIC: A HISTORY. Richard Vaughan. 1994. Stroud, Gloucestershire: Alan Sutton. ix + 340 pp, illustrated, hard cover. ISBN 0-7509-0177-2. £20.00.

To attempt to discuss the history of the entire circumpolar Arctic from a mammoth hunt on the Berelekh River in the Indigirka basin around 12,000 BP to the negotiation of the Nunavut settlement in 1993 within the constraints of 340