dices (which deal with names, geography and ships) may be appreciated by certain readers. Occasional typographical mistakes, referencing errors, and grammatical inaccuracies are only very minor distractions from a book that is, on the whole, very nicely presented.

This book is mandatory reading for anyone concerned about the future of the Canadian Arctic. It is particularly recommended to those in government responsible for reviewing policy and taking decisions about the Northwest Passage. The vagaries of the world economy have given us a window of opportunity to make rational choices about this unique area. Let us hope that the opportunity is not lost.

Constance D. Hunt
Executive Director, Canadian Institute of Resources Law
and Professor of Law
The University of Calgary
Calgary, Alberta, Canada
T2N 1N4

MARINE BIRDS: THEIR FEEDING ECOLOGY AND COMMERCIAL FISHERIES RELATIONSHIPS. Edited by DAVID N. NETTLESHIP, GERALD A. SANGER and PAUL F. SPRINGER. Proceedings of the Pacific Seabird Group Symposium, Seattle, Washington, 6-8 January 1982. Ottawa: Minister of Supply and Services Canada, 1984. A special publication compiled by the Canadian Wildlife Service for the Pacific Seabird Group. 220 p. Softbound. No price indicated.

Marine bird studies associated with the environmental assessment of the outer continental shelf were initially concerned with censuses of distribution and abundance. Such research was conducted at a time when it appeared that of all the activities associated with man's increased interest in offshore waters, direct contact with spilled oil was the greatest threat to marine bird populations. In the past decade environmental assessment has moved to a phase where ascertaining the linkage of a seabird species to the marine system that supports it is of paramount importance. It is now recognized that impacts on the prey species of seabirds can and will have a greater influence than direct oiling of seabirds. This volume (with the exception of three papers on seabird mortality in fish nets) is a collection of papers examining the trophic linkages of a number of seabird species to the marine systems that support them.

The volume consists of three parts: feeding ecology of marine waterfowl (6 papers), feeding ecology of pelagic marine birds (7 papers) and seabird–commercial fisheries interactions (10 papers). The majority of the feeding ecology papers arose from environmental assessment studies related to oil and mineral development. With the exception of one paper on olfaction by tubenoses, all provide detailed information on diet, usually of a single waterfowl or marine bird species at a single locality. All of the feeding ecology studies reported on are from the Pacific Basin. Five of the waterfowl papers are from Alaska, the remaining one being from British Columbia. The pelagic marine bird papers are all from western North America, with three from California waters. With a few exceptions the papers in these two sections should be of most interest to marine ornithologists or others with interests in the species and areas covered.

The two feeding ecology sections as a unit represent a major contribution if only by bringing together 13 related papers in a single volume. There is a lack, however, of any synthesis or review papers in these two sections. Although it is clear that much of the information on feeding ecology gathered in the last decade is just reaching publication, it would seem that enough has been published to allow the compilation and integration of work to begin. Certain species or species groups have received detailed study over a wide geographic range.

The section on commercial fisheries interactions contains 3 papers on mortality of seabirds in fishing nets, 6 papers dealing with the conflicts arising from commercial fisheries exploiting the same fish stocks utilized by seabirds, and one paper on Capelin (*Mallotus villosus*). The latter is included in the volume as a companion piece to a related paper on seabird-capelin interactions. Unlike the feeding ecology papers, there is a broad geographic spread, with the Pacific Basin being treated in only 3 of the papers. Six papers are concerned with Atlantic systems. A paper by Furness on modelling relationships among fisheries, seabirds and marine mammals serves to review the estimation of energy requirements of seabirds and marine mammals and how exploitation of fishery stocks may affect them.

The papers on commercial fisheries–seabird interactions should have a wider audience than the feeding ecology papers and will be of interest to anyone concerned with biological oceanography. All provide examples of the effects on birds of man exploiting fish populations. This group of papers is impressive for its broad geographic scope with six separate localities discussed (southern California, British Columbia, Peru, South Africa, northeast and northwest Atlantic). As a number of the papers show, the impact of seabirds on fish resources can be substantial. Furness estimates that in several ecosystems seabirds consume between 20 and 30 percent of the pelagic fish. While most of the effects described are negative, with real or potential declines in seabird populations, also presented is a paper that relates seabird increases to man's exploitation of a fish species that competes with seabirds for forage fish.

The papers on net mortality of seabirds should be of interest to conservationists as well as seabird and fishery biologists. Intensive inshore fishing in Newfoundland in 1971 resulted in the death of 30 000 breeding birds, or 20 percent of the local breeding population. It is unfortunate that a paper on bird mortality in the Pacific high seas drift net fishery could not be included to round out this section. The problem of seabird mortality in fish nets is a chronic one and can be expected to increase with fishing intensity. The public and resource managers need to know of the magnitude of impact on seabird populations.

The publication suffers from the lack of an index. This would have provided a way for potential users of the volume to approach the work as a unit rather than simply a series of papers. There is also no attempt by the editors to present any discussion that occurred at the symposium that might provide the reader with an indication of the type of interactions a symposium is meant to stimulate. One has to assume that if meaningful discussions were part of these interactions the results of such discussions were included in the completed papers.

Data on the food of seabirds are not obtained easily, and the dedication of the volume to three seabird biologists who died in separate incidents while conducting research is evidence of the dangers involved in the collection of such data. This dedication should allow the reader unfamiliar with seabird studies to appreciate the effort involved in the collection of the data presented.

The production of the publication is of the usual high quality of the Canadian Wildlife Service. The Pacific Seabird Group, the CWS and the editors should be complimented for collaborating in producing this volume.

George J. Divoky
Institute of Arctic Biology
University of Alaska
Fairbanks, Alaska, U.S.A.
99701

THE BERING SEA FUR SEAL DISPUTE, 1885–1911. A MONOGRAPH ON THE MARITIME HISTORY OF ALASKA. By GERALD O. WILLIAMS. Eugene, Oregon: Alaska Maritime Publications, 1984. 100 p., maps, illus., notes, index. Softbound. US$9.95.

Although the diplomatic history of the Bering Sea Fur Seal Dispute is well known to students of Canadian and American relations, there are other aspects to the lengthy affair that are of at least equal significance. The conflict originated because of the migratory habits of the fur seals that took them over specific routes from California to their breeding rookeries on the isolated Pribilof Islands. Once this in-