

MIGRATION AND WINTER RANGES OF BIRDS IN GREENLAND. By PETER LYNGS. Copenhagen: Danish Ornithological Society/BirdLife Denmark, 2003. Dansk Ornitologisk Forenings Tidsskrift 97. 167 p., maps, b&w illus., bib., appendix. Softbound. Available from the Danish Ornithological Society, Vesterbrogade 138-140, DK-1620 Copenhagen V, Denmark, e-mail: dof@dof.dk. DKK100 incl. postage.

This most interesting publication summarizes the approximately 15 500 recoveries of birds ringed in Greenland, as well as 1950 recoveries in Greenland of birds ringed elsewhere, up to 2002. It is of particular interest, if not essential reading, for specialists whose studies involve Arctic bird migration, though there is also a great deal of material for the general reader who is interested in the globe-spanning movements of bird populations that occur in Greenland. The volume (a special issue of *Dansk Ornitologisk Forenings Tidsskrift*, the journal of the Danish Ornithological Society) includes an introduction summarizing the material, a very useful overview of the various migration systems shown by birds occurring in Greenland, accounts of the history of bird ringing in Greenland and of bird hunting regulations, and accounts of ringing results for 57 species of birds. In addition, there is an appendix with longevity records of birds ringed in Greenland. Peter Lyngs is to be congratulated on the massive amount of work that went into the volume, including the computerization of over 17 000 recovery records filed on paper cards, many handwritten and with incomplete details! Ringing in Greenland dates back to 1926, and since then over 283 000 birds have been marked, a majority in the “golden age” of ringing between about 1955 and 1975. Most recoveries involve seabirds and waterfowl, which are extensively hunted in Greenland. The volume was financed by the Greenland Home Rule and Commission for Scientific Research in Greenland, with printing costs provided by the Aage V. Jensen Charity Foundation, reflecting the relevance of the results for wildlife management.

Modern-day ringers will smile to learn that from 1946 to 1984, Greenlanders were paid a small amount of money (on a sliding scale, depending on the species) for each bird ringed, as well as a reward (which is still paid) for returning a ring attached to the leg of the bird. This system was designed by Finn Salomonsen, who also established the formal bird ringing scheme itself. Salomonsen’s classic books on the birds of Greenland (1950–51, 1967) incorporated previous banding records, and he appears in one of the many black-and-white photographs sprinkled throughout the present volume, replete with sports jacket and cigarette dangling from his mouth, working at a bird cliff. Lyng’s work provides the first full update and analysis since Salomonsen’s 1967 book.

The species accounts are divided into two main sections. The first presents information on recoveries of both Greenland and foreign bands. This section is in many ways the “guts” of the publication, with regional summaries of

ringing results, and will thus be of interest to specialists and others interested in the details, but it is likely to be hard going for the average reader, especially with the many geographical and other abbreviations that are used. If I have one criticism of the book, it is that the geographical abbreviations referring to the various districts in Greenland are very hard to use. The three-letter abbreviations are based on Greenlandic names, which may not be familiar to many readers. While the full names of the districts appear on the maps, the abbreviations do not, and I found myself having to make constant cross reference to the table listing the districts and their shortened forms. Placing the abbreviations on the map itself, and perhaps having a fold-out page for the map (and the location of the open-water area), would have made interpretation of the text much simpler for the reader. These issues do not, however, detract from the interest and readability of the second section, which provides an overview of the movements of the species as shown by the ringing results, and thus tends to be of much more widespread appeal. The movement accounts are often of great interest. The arctic tern (*Sterna paradisaea*), for example, migrates from the High Arctic to the Antarctic, which has led to its being described as the species that sees more daylight than any other living creature. Another interesting example is the peregrine falcon (*Falco peregrinus*), whose females winter mostly in Central America and the Caribbean, while males winter farther south in South America. Such accounts are well supported by references to literature that describes tracking work performed using satellite telemetry. Some parts of the text may provide fodder for “discussion.” For instance, do European-wintering knots (*Calidris canutus*) breeding in northwest Greenland and Canada migrate north via Iceland, whereas those migrating via northern Norway are destined for northeast Greenland (logical, but is it proven?)? Did the disproportionate number of knots recovered in Greenland during disastrous weather on the breeding grounds in 1972 (and 1974) result from withdrawal of birds from Canadian breeding grounds rather than from recovery of locally breeding birds? Do sanderling (*Calidris alba*) breeding in northwest Greenland migrate to the New World rather than to European wintering areas? These and other comments and speculations (e.g., Are ivory gulls (*Pagophila eburnea*) the only species to circumnavigate Greenland during their annual migration?) actually serve as a splendid stimulus for further research and investigation, and thus provide many focal points for future studies. The movements section also includes an extremely useful account of present knowledge of breeding distribution and population sizes and background information on the species. For Brünnich’s guillemot (or thick-billed murre, *Uria lomvia*), for instance, there is a chilling account of the massive declines (and in one case, the extermination of an entire colony) that have been caused mainly by overexploitation.

The book is nicely produced: it is softcover and compact (16 cm by 24 cm), in keeping with its being a special

journal issue. The many tables, figures, and maps provide useful summaries of the data and illustrations of recovery patterns, while the photographs provide added interest. While it is principally technical in nature, the book is a wonderful repository of information on migration systems of birds breeding in and migrating to and from Greenland. If you are interested in this subject area, you will want to obtain a copy of this publication.

REFERENCES

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THE GULF OF ALASKA: BIOLOGY AND OCEANOGRAPHY. Edited by PHILLIP R. MUNDY. Fairbanks: Alaska Sea Grant College Program, University of Alaska Fairbanks, 2005. ISBN 1-55612-090-X. vi + 214 p., maps, b&w illus., bib., acronyms, index. Hardbound. US\$25.00.

Seventeen years after the massive oil spill triggered by the grounding of the *Exxon Valdez* on Bligh Reef in Prince William Sound, the large scale of the damage to pristine marine ecosystems of Prince William Sound and the Gulf of Alaska remains clear, although the actual scope of the specific long-term environmental damage is harder to characterize. The legal system in the United States, and society in general, asked the scientific community to help assess the environmental damage by defining the specific observations (e.g., population declines) that could be specifically attributed to the oil spill, but from the outset, any conclusions were limited by the minimal previous understanding of the Gulf of Alaska ecosystem. While some individual organisms and biological communities have been slow to recover from the obvious negative effects of this major petrochemical spill, producing downstream effects on local human communities that formerly had strong, fishing-based economies, it is still not clear how to separate natural environmental fluctuations from the specific impacts of the oil spill.

The Gulf of Alaska: Biology and Oceanography, edited by Phillip Mundy, is an outgrowth of some of the key scientific studies that were undertaken in the wake of the *Exxon Valdez* oil spill, supported by legal settlements

arising from the oil spill and guided by the Exxon Valdez Oil Spill Trustee Council. A remarkable positive achievement that has arisen from the oil spill is the much better understanding we now have of the oceanography of the Gulf of Alaska. This book provides a concise statement of that knowledge in a reasonably priced volume that will be useful to policy makers, resource managers, educated laypersons, scientists, and advanced students with an interest in this north Pacific system.

Many of the studies cited in the volume remain undocumented beyond personal communications and gray literature reports, so this volume performs a valuable function in bringing a tremendous amount of information together in one location. The book is somewhat uneven, and even curious, in the depth and breadth of subject coverage, perhaps because even 17 years of study, the last 7 under the Gulf of Alaska Ecosystem Monitoring and Research Program (GEM), have been insufficient to document fully the environmental change processes in the Gulf. For example, I found it surprising that in a book whose title promises comprehensive coverage of biology and oceanography, a chapter was devoted to economic impacts on human communities. While well written and informative, this chapter and another on modeling efforts are not well integrated with the other subject matter of the volume. There are also instances where stronger editing efforts might have produced a more cohesive reference work. In the first paragraph of Chapters 3 and 4, one co-authored by the editor, that are otherwise excellent in thematic coverage, the Gulf of Alaska is defined geographically with latitude and longitude limits, including the specific percentage of the United States' continental shelf delimited by the Gulf of Alaska. Fortunately in both of these chapters authors Phillip Mundy and Tom Weingartner are consistent as to the specifics of the U.S. continental shelf occupied by the Gulf of Alaska (12.5%), and the latitude and longitude limits. However, it is not necessary within the space of a few pages to repeat the definition of the geographical scope of the study area. A more basic flaw in the book is that while the individual authors of each subject chapter are identified, and these authors are key experts for the subjects they cover, no institutional affiliations or contact addresses are provided. We have all begun to take for granted the power of Google and other search engines to identify institutional affiliations, addresses, and phone numbers for specific individuals in any field of study, but we are not far enough along to neglect this information for authors of an edited scientific book such as this. The book also lacks a summarizing chapter that integrates the findings of all investigators who contributed.

This volume is attractively packaged and published by the Alaska Sea Grant College Program, although it is a shame that several beautifully drafted diagrams in the introductory chapter, showing oceanographic features such as downwelling and seasonal changes in current flow, could not be published in color. Despite these and other relatively minor flaws, the information gathered here in