

objectivity. We learn about the surprise announcements by both Frederik Cook and Robert Peary, each claiming to have reached the North Pole, thus casting Amundsen's own polar ambitions into disarray. The author makes a strong claim in support of Amundsen's decision to plot a surprise attack on the South Pole masked as a brief diversion from his proclaimed North Pole plans. Supported by an impressive group of men, hard-working dog teams, and his own meticulous planning, Amundsen, Oscar Wisting, Sverre Hassel, Helmer Hansen, and Olav Bjaaland planted the Norwegian flag at the South Pole on December 14, 1911.

In Part Three, chapters 10 to 12, Bown describes the exultant return of the polar heroes (perhaps with the exception of Amundsen's presence in England, where the public still awaited news of Scott). Yet hanging over Amundsen's head was what must have seemed a dreary prospect, the resumption of his "interrupted" North Pole plans. *Fram* was no longer in useable condition, the pole had been claimed (however questionably), and funding was, as usual, hard to come by. One suspects that enthusiasm was also in short supply. However, there was light on the horizon; the age of flight was rapidly evolving, and hydrogen-filled dirigibles floated through the air over long distances with apparent ease. Undaunted by the changing times, Amundsen learned to fly. There remained, however, the business of the polar drift. A new vessel was required, and *Maud* was built to replace *Fram*. A plan to bring *Maud* to the polar pack through the Panama Canal had to be cancelled and replaced by another route through the Northeast Passage before the drift could begin. Amundsen's private life had become a bewildering maze of difficult affairs of the heart, messy economic episodes, and humiliating battles with friends and family. Even his long-time relation with his brother Leon eventually soured. The author presents a well-documented account of these turbulent years leading to Amundsen's essential abandonment of *Maud* before the end of its drift, reminiscent of Nansen's abandonment of *Fram*.

In Part Four, chapters 13 to 16, the author describes Amundsen's conversion from using dogs and ships to airborne transportation in the North. It had been Amundsen's great luck to find wealthy supporters in the nick of time. In chapter 14, we meet one of these last-minute economic saviours: Lincoln Ellsworth, son and soon-to-be heir of a wealthy American businessman. Airplanes were purchased, and Amundsen's spirit soared as the airborne expedition headed for the North Pole in two planes. Although the attempt was a disaster that could easily have cost all lives, neither Ellsworth nor Amundsen was discouraged. They now cast their eyes to Italy and the purchase of Colonel Nobile's airship *N-1*, renaming it *Norge*. Unfortunately the fascist leader, Benito Mussolini, insisted that the expedition should be a joint Norwegian-Italian venture, with Nobile sharing the limelight. As described in chapter 16, *Norge* lifted off in May of 1926 from King's Bay, a place crowded with competitors vying to be the first to reach the North Pole. *Norge* not only became the first aircraft to pass over the pole, but proceeded to fly across the polar basin all

the way to Alaska. Once again there were festive crowds greeting Amundsen and his co-explorer Ellsworth. Nobile was less than delighted with the outcome and soon planned his own polar flight in *Italia*.

In Part Five, chapter 17, the author takes the reader on Amundsen's final journey, a hastily arranged and poorly planned attempt to locate and rescue Nobile and his crew, who had crashed in *Italia*, somewhere on their return to King's Bay. On June 18, 1928, the French Latham biplane with Amundsen and crew was observed by a Norwegian fisherman as the plane disappeared into a fog bank, never to be seen again.

As Stephen Bown points out in the epilogue, Amundsen packed an immense amount of adventure into his 56 years of life. He was one of the greatest explorers of his time. The author correctly notes that Amundsen's reputation and the often critical commentary made about him in the British and even the Norwegian press were very different from the enthusiastic reception he always enjoyed in the United States. The British love of heroic failure and Norwegian wariness of its new sovereign status in the world undoubtedly caused Amundsen to seek a warmer berth in America whenever he could. I highly recommend the book.

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ARCTIC SHOREBIRDS IN NORTH AMERICA: A DECADE OF MONITORING. Edited by JONATHAN BART and VICTORIA JOHNSTON. Berkeley: University of California Press, 2012. ISBN 978-0-520-27310-8. Studies in Avian Biology 44. xiii + 302 p., 21 contributors, maps, appendices, references, index. Hardbound. US\$80.00.

For shorebird enthusiasts in North America, the 1990s were a stimulating time, culminating in the publication of the Canadian Shorebird Conservation Plan (Donaldson et al., 2000) and the U.S. Shorebird Conservation Plan (Brown et al., 2001). An offshoot of these collaborative efforts was the formation of the "Program for Regional and International Shorebird Monitoring" (PRISM), whose goal was to estimate population sizes and trends of North American breeding shorebirds. As an early participant, I remember the initial discussions about the difficulties in monitoring shorebird populations whose annual life cycle can span continents. One scientist dismissed the idea that it was possible to adequately monitor North American shorebird populations, but one person, Jon Bart of the U.S. Geological Survey, stood out in his enthusiasm for tackling the issue of designing a rigorous and statistically valid shorebird monitoring program.

Jon, with a dedicated cadre of other biologists, was especially intrigued by the possibility of a monitoring program

for breeding shorebirds set in the Arctic. More than a decade later, this book, edited by Jon Bart and Vicky Johnston of Environment Canada, presents the initial results of Arctic PRISM in 15 chapters (plus three appendices) by 21 shorebird biologists from the United States and Canada.

The foreword briefly introduces reasons to monitor shorebirds, challenges to the efforts, and benefits of Arctic monitoring of continental shorebird populations. Part I of the book contains two chapters: one on the goals and objectives of the Arctic PRISM and a second that lays out the double sampling survey methods used to achieve one of the major goals of Arctic PRISM, "...to estimate change in shorebird population size occurring during 20 years with power of 80% to detect a 50% decline occurring in no more than 20 years, using a significance level of 0.15 and a two-tailed test, and acknowledging effects of potential bias..." (p. 9). These surveys were generally based on randomly placed, habitat-stratified, widespread efforts, using a double sampling method consisting of rapid and intensive surveys (Bart et al., 1998).

Part II consists of six chapters that report on regional Arctic shorebird monitoring efforts by different Arctic PRISM teams. Chapters include results from monitoring efforts from Alaska's Yukon-Kuskokwim Delta (but only a sliver of it) and the North Slope, and Canada's Yukon North Slope, Mackenzie Delta, Southampton and Coats Islands, Prince Charles, Air Force, and Baffin Islands, followed by a chapter on reconnaissance surveys from seven locations in Arctic Canada. These are data-rich chapters that present methods; report densities, habitat associations, and population estimates of species encountered; and discuss factors affecting the count results.

Part III consists of chapters 9–15, which explore and discuss some of the methods tested out in this initial phase of Arctic PRISM. Included is a chapter on aerial surveys to monitor shorebirds, as well as one that discusses using aerial surveys just to survey for Whimbrel. It is envisioned that Arctic PRISM, when fully implemented will consist of three tiers of survey efforts: Tier 1 – double sampling surveys as described above; Tier 2 – long-term demographic studies at permanent research stations; and Tier 3 – a checklist program. A chapter on Tier 2 surveys briefly describes work at two permanent stations in Canada, one in the Northwest Territories and one in Nunavut. This is followed by a brief chapter on a program (Tier 3) using bird checklists to explore long-term bird trends in Nunavut, Canada. Chapter 14, a key chapter since it summarizes Arctic PRISM results by region and by species, includes a useful section comparing population estimates of Arctic breeding shorebirds from Arctic PRISM with previously published estimates (e.g., Morrison et al., 2006). The final chapter (15) is an informative evaluation of methods used for Arctic PRISM and steps for future work.

Three appendices follow Chapter 15. The first is really a bonus chapter, in which Bart et al. discuss other methods that have been proposed for estimating trends of Arctic birds, based on a review of Arctic PRISM methodology

(Arctic PRISM Peer Review Committee, 2010). They evaluate demographic methods for trend estimation and use of migration counts to estimate shorebird trends. Appendices B and C are extensive tables. Appendix B provides densities of shorebirds by region, species, and habitat, generated by Arctic PRISM. Appendix C lists species mentioned in this book.

Overall, the book is a data beast. There are large numbers of tables, some going on for pages, full of fascinating information on densities of shorebirds in different regions and habitat types of Arctic North America. They are not always easy to follow (see, for example, Table 4.4). In some sections (like the Foreword), more references would have been appreciated to back up information. Key references are generally cited, although there is a heavy reliance throughout the volume on the *Birds of North America* accounts vs. other primary and original data sources. For instance, I was surprised to see no mention of Johnson and Herter's (1989) substantial and well-researched treatise on the birds of the Beaufort Sea that covers parts of Alaska and Canada. Maps are used generously, but are small and rudimentary. An overall map with detailed site information would have been welcome, as well as a brief discussion about the Arctic breeding shorebirds that were not covered by this volume, such as Bristle-thighed Curlew.

Should you order this book today? For those of us interested in densities, distributions, and populations of Arctic breeders, this volume is a gold mine of information. Likewise, if you are interested in survey methods for Arctic birds, especially shorebirds and waterfowl, this book will give you much to consider and discuss. An added bonus is the smattering of other information revealed upon reading this volume, such as the habitat preferences of loons (Chapter 7) and the farthest north record for grizzly bear (Chapter 9). Ultimately, the success of this book is that it lays out the field-tested framework and initial data for a long-term monitoring program of many North American Arctic breeding birds. My thanks to the participants in Arctic PRISM for that.

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