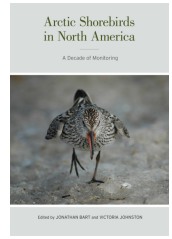
Arctic Shorebirds in North America: A Decade of Monitoring. Studies in Avian Biology No. 44.



Jonathan Bard and Victoria Johnston

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Shorebirds (or waders as they are usually called in British English) are surely among the most charismatic birds of the world. Like other long-distance migrants, they are at risk because many of them have been depending on multiply habitats and thus facing an increasing pressure from growing human populations, with threats including habitat destruction and degradation, pollution, or illegal hunting. Therefore they have always been recognized as good monitors of environmental change and are widely accepted to be sensitive indicators to report on not only general trends within their populations, but also in the wider environment.

Scientists from around the Americas have documented serious population declines in shorebirds. For example, National Bird Biodiversity Indicators from Canada show a strongly declining trend for all shorebirds compared to other bird types since 1974 (North American Bird Conservation Initiative Canada, 2012). To sustain healthy populations of North American shorebirds, we must protect their breeding grounds, wintering grounds as well as sites at which they stop over to feed and replenish fat supplies to continue their migration. Conservation of birds depends on our current knowledge including unbiased population size estimates. Analysis of status and population trends in shorebirds, by far the most numerous and species rich taxa among all Arctic waterbirds, is necessary to improve management practices and conservation strategies.

The monograph "Arctic Shorebirds in North America: A Decade of Monitoring" edited by Jonathan Bart and Victoria Johnston presents results from the first ten years of the Program for Regional and International Shorebird Monitoring (PRISM) surveys. The book is divided into four parts containing 15 chapters altogether. Twenty one contributors focus on estimating the populations of 26 species of shorebirds breeding in the North American Arctic. Besides species accounts on shorebirds, for some areas, the book also provides information on the abundance and distribution of other birds, namely waterfowl, ptarmigans, loons, grebes, birds of prey, cranes, gulls, terns, jaegers, owls, as well as passerines. The areas surveyed include four National Wildlife Refuges in western Alaska (Alaska Maritime, Alaska Peninsula, Yukon Delta, and Selawik), the North Slope of Alaska, which is the most diverse region in the Canadian Arctic surveyed to date, the Yukon North Slope and Mackenzie Delta, as well as Canadian Southampton and Coats Islands, Prince Charles Island, Air Force Island, and western Baffin Island.

The introductory chapters in Part One are well written and provide readable introduction to goals and objectives of the PRISM program (including the three "tiers" of the Arctic PRISM program) and methods used based on double sampling that produces unbiased estimates of population size. Avian conservationists will likely be most interested in chapters of the major part of the monograph, Part Two, dealing with regional reports – shorebird surveys conducted in both Alaskan and Canadian parts of the Arctic. Besides the species-by-species accounts, there are many tables containing

numbers of shorebirds recorded on surveys, estimated densities (assigned to wetland, moist, and upland habitat types), population size, detection rates, location of regions, habitat classifications, weather data, etc. Figures included show regions used in the study, cells used to display results from ground and aerial surveys, sightings of birds and densities (birds per km^2) of each species. I would prefer if the editors could include scientific names along with common names of birds and other species not only in this part of the book, but throughout. Unfortunately, they are included only in Appendix C at the end of the monograph. Chapters in Part Three are devoted to methodology. They highlight the value that aerial surveys might add to the PRISM program, how aerial surveys can overcome the difficulties with overestimation of the Whimbrel (*Numenius phaeopus*), or priority activities including demographic studies. Another two chapters emphasize checklist data showing some utility to detect long-term population trends in both Arctic shorebirds and landbirds and deal with design of future studies. Part Four summarizes results in previous chapters and highlights obtaining sufficient information for 17 species of shorebirds that have resulted in their revised population estimates, as well as the priorities for future PRISM surveys. The remainder of the book (Appendices A through C) discusses other methods for estimating trends of Arctic birds and also includes tabulated results presenting regional density estimates for Canada and Alaska, as well as common, scientific and abbreviated names for species included in the volume.

"Arctic Shorebirds in North America: A Decade of Monitoring" is a very important contribution to our understanding of the natural world in North America. A team of American and Canadian scientists address multiple questions concerning Arctic populations of migratory shorebirds. Via these North American birds, major migration routes, the Pacific Americas flyway, Central Pacific flyway and Asian-Australasian flyway, link such different regions of the world as Alaska with Australasia or South America. Regrettably, the future of these fascinating creatures is uncertain. This monograph is a must-read for anyone engaged in bird conservation and monitoring. It is a big step toward conservation of shorebirds in the Western Hemisphere. I hope that the birds like the legendary female Bar-tailed Godwit (*Limosa lapponica*), named simply E7, known for her longest continuous flight in avian history, will make their annual oceanic crossing migrations.

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