

PROJECT SUMMARY:

Arctic Shorebird Monitoring Program / Arctic Program for Regional and International Shorebird Monitoring (Arctic PRISM)

We are concerned about the populations of shorebirds that breed in the Arctic. Recently, studies that count these birds on their migration routes have found that numbers of most species are declining. No one is sure why this is happening, though some possible causes are: loss of habitat in countries where the birds spend the winter, human developments at their migration stopping points, climate change, and toxic substances on their wintering grounds.

Our knowledge of the size of shorebird populations is not very good, and some of the species that breed in the Arctic are difficult to monitor on their migration routes. We want to monitor the birds on their breeding grounds because we will get better estimates of their true population sizes. Canadian and American biologists have developed a method to monitor the population size of shorebird species that breed in the Arctic. We want to use this method to keep track of shorebird populations over the years, so we will know if they are increasing or decreasing. We can use this information to detect problems with the shorebird populations and then try to figure out what is causing the problem.

The Arctic Shorebird Monitoring Program, which is also called the Arctic Program for Regional and International Shorebird Monitoring (Arctic PRISM), is made up of two types of surveys: Tier 1 surveys (short term over a large area) and Tier 2 surveys (long term at a few specific sites). The coverage area for the program is all of arctic Canada, and our U.S. partners cover the parts of the arctic located in Alaska (Figure 1).

Tier 1 Surveys

Tier 1 surveys take place in June and are in a different location each year, so over time we survey many locations, but only once. There may be more than one Tier 1 crew each summer, but each 4 person crew would be stationed at a different location. The crews stay in a temporary tent camp and at the end of the season everything is removed so there is no trace of the camp having been there. The goal is to find out which species are there, if they are breeding or not, how many there are, what habitats they are using, and if there are species at risk, what subspecies they are.

Surveyors will only be in the same area for 2-3 hours at a time and will not harass wildlife or leave garbage. To do ground surveys, 2 people walk 25 m apart back and forth over a 12 hectare area. They record the type and number of all birds seen. Aerial surveys for shorebirds will be done while flying from one plot

to the next. Surveys will be flown at a speed of 80 - 90 kph at a height of about 30 m. If large mammals are spotted, we will fly higher to avoid disturbing them.

Tier 2 Surveys

Tier 2 surveys take place for 5-8 weeks in June and July and are long-term surveys. They are at a few locations within Bird Conservation Region #3 (Arctic), and we go back to the same sites each year and look at the same birds and the same locations. These crews of 3-5 people at each Tier 2 site monitor the health of the birds, if they are having a successful breeding season, how many predators are in the area, what the weather is like, what food sources there are for the birds and look for changes over time. Again, we ensure that there is no trace of our presence after we leave each year, but we return to the same site.

The Tier 2 surveys walk over a large area each day looking for birds and nests. Camp set up and take down is supported by twin otter and helicopter, but once the camp is set up, they have no aircraft support and do all their travelling on foot and by small boat.

Currently, there are Tier 2 camps near Kendall Island MBS and East Bay MBS and we are planning on new sites on Coats Island, NU and in the central arctic (Kitikmeot Region).

Other Permitting and Community Involvement

Some of our survey plots may be on Inuit Owned Lands and we ensure that we have requested appropriate permissions from the Regional Inuit Association(s) prior to access. We ensure that we have all other required permits for our work such as water board, environmental screening committees, and land use plan conformity.

The work conducted in the MBSs and NWAs may include work covered under a Canadian Banding Permit, Canadian Wildlife Service Scientific Permit and/or Environment Canada Animal Care Committee Approval.

We plan on hiring local people through Canadian Wildlife Service's Inuit Field Research Assistant and Inuit Student Mentorship Programs to assist with our surveys. We purchase our groceries and supplies from local communities.

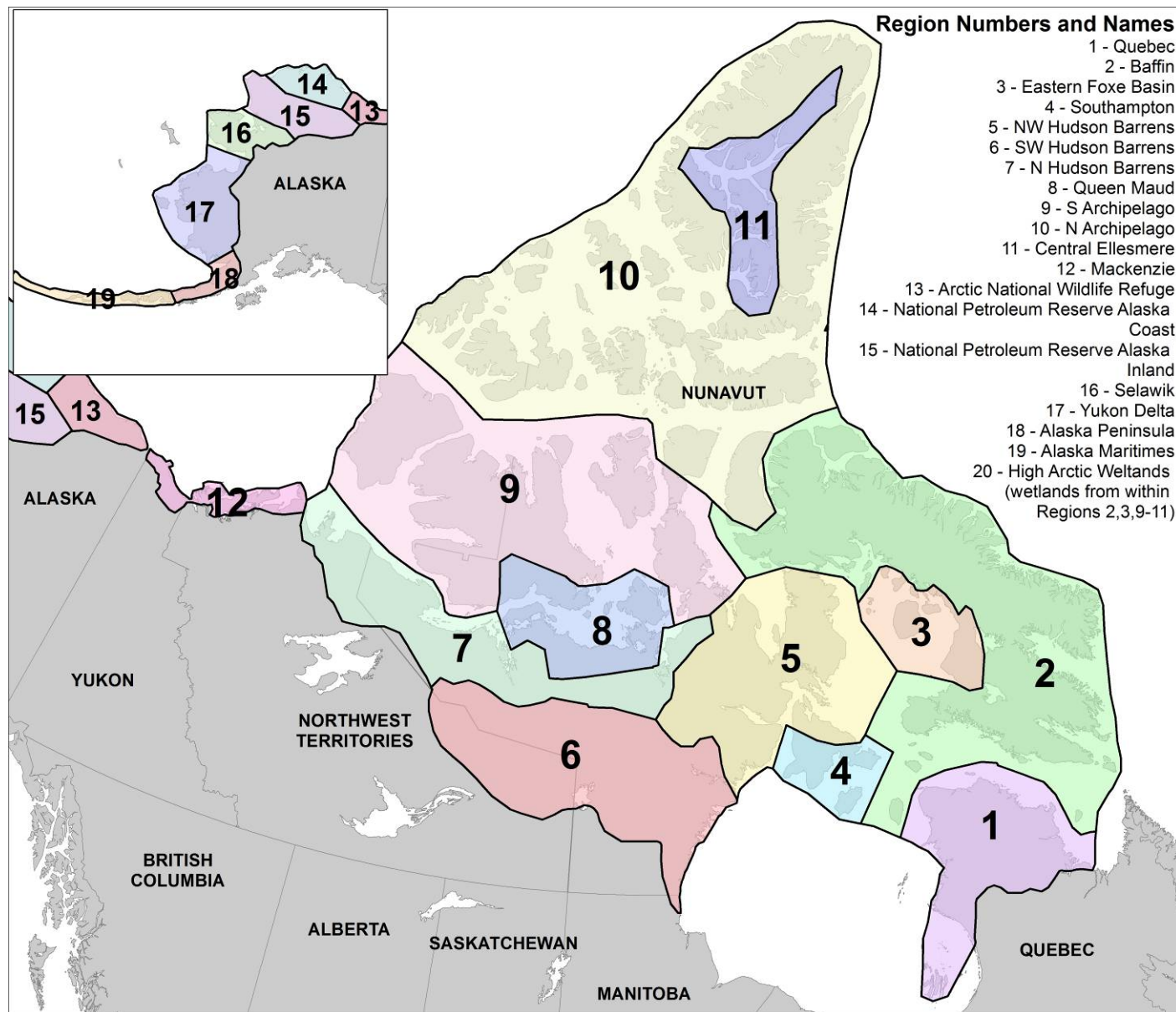


Figure 1. Survey regions and coverage area for the Arctic Shorebird Monitoring Program (Arctic Program for Regional and International Shorebird Monitoring), a U.S.- Canadian partnership project.



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