

## PROJECT SUMMARY:

### **Arctic Shorebird Monitoring Program - 2010**

We are concerned about the populations of shorebirds that breed in the Arctic. 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 hard 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.

In June, there will be four field crews traveling to King William Island and Victoria Island to survey for shorebirds. There will be two crews for each island: a rapid survey crew and an intensive survey crew. On King William Island, the rapid crew will set up camp at the Gladman Point North Warning Site. The Intensive crew will set up camp approximately 1.5 km north of Malerualik Lake. On Victoria Island, the rapid crew will set up camp approximately 12 km north of Ferguson Lake and the intensive crew will set up camp 7 km east of Cape Enterprise. The rapid survey crews will be there 11-22 June. The intensive survey crews will remain longer until 14 July. All camps will be temporary tent camps and everything will be removed when we leave.

Rapid survey crews will have a helicopter and will do aerial surveys and ground surveys on foot, of plots in many locations on King William Island, Victoria Island, and the islands in between. They may also do some surveys on the Adelaide Peninsula and the Boothia Peninsula. Surveyors will only be in the same area for 2-3 hours at a time and will not harass wildlife or leave garbage. Aerial surveys will be done while traveling between plots. Surveys will be flown at a speed of 80 - 90 kph at a height of about 30 m, and we will not harass wildlife. The intensive crew will not have a helicopter. They will do daily ground surveys of plots near their camps. To do a ground survey we walk around a 12 hectare area and record all the birds and nests we see and find while we are there. Our research has very little impact on the area as we only observe and record bird species present and will be present only for a short amount of time. We may also "float" eggs. When we come across a shorebird nest we will place each egg in a jar of water to determine how old the egg is. This tells us when the nest was

made and when the eggs will hatch. It only takes a few seconds. It does not hurt the egg or the chick inside the egg.

We will be sharing our camp at Gladman Point with a group of scientists from the Virginia Polytechnic Institute. They are doing a study on Red Knots, a type of shorebird that breeds on King William Island and Victoria Island. They have applied for their own permits separately from us.

One of our tent camps on Victoria Island may be located on Inuit Owned Lands and our rapid survey crews on both Victoria Island and King William Island may do ground surveys on Inuit Owned Lands, so we have applied for the necessary permits to access these areas in addition to our wildlife-related permits. We plan to hire one or two students from each community to assist with our surveys and will be purchasing our groceries and supplies the communities.



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