

CANADIAN WILDLIFE SERVICE PERMIT APPLICATION

NOTE TO RESEARCHERS

Without exception, all research within the NWT and Nunavut must be licensed. This includes work in indigenous knowledge as well as in physical, social, and biological sciences. For information on licensing for your project within the NWT, please refer to the Aurora Research Institute's Web site at <http://www.nwtresearch.com>. For Nunavut, visit the Nunavut Research Institute Web site at <http://www.nri.nu.ca>.

For Scientific Permits: Prior to issuing a Scientific Permit to Take, Salvage or Disturb Migratory Birds, CWS requires:

- 1) Copy of either an NWT or Nunavut Wildlife Research Permit; or an Aurora Research Licence/Nunavut Research Licence. Include a copy of either the permit or the licence with this application or forward a copy to CWS upon receipt of it. Otherwise, your permit will not be issued.
- 2) Appendix 1 of this permit application must be completed by two ornithologists who have reviewed the application and are willing to attest to the ability and professionalism of the applicant.

Nunavut: In Nunavut your project will have to undergo screening by the Nunavut Impact Review Board. One of their requirements is that you obtain a conformity report from the Nunavut Planning Commission. Please ensure that you have done so.

To be completed by all applicants:

<input checked="" type="checkbox"/> New application
<input type="checkbox"/> Amendment/extension of existing permit
Previous NUN-NWA-11-03, permit NWT-MBS-09-03 no.

Territory:
<input checked="" type="checkbox"/> NWT
<input checked="" type="checkbox"/> Nunavut

Anticipated project start date: 15 MAY
Anticipated project end date: 31 AUGUST

Type of permit applied for:
<input checked="" type="checkbox"/> Bird Sanctuary permit
<input checked="" type="checkbox"/> National Wildlife Area entry permit
<input type="checkbox"/> Scientific permit to take, salvage, disturb or display migratory birds

Period of permit requested:
<input type="checkbox"/> 1 year
<input type="checkbox"/> 2 year
<input checked="" type="checkbox"/> 3 year

Please indicate by checkbox if your project is receiving federal government funding:
<input type="checkbox"/> No
<input checked="" type="checkbox"/> Polar Continental Shelf Program
<input checked="" type="checkbox"/> Yes/Other (please list) EC

Please indicate by checkbox if your project requires approvals/permits by any of the following regulators:	
<input type="checkbox"/> DFO	<input type="checkbox"/> NRCAN
<input type="checkbox"/> INAC	<input type="checkbox"/> Parks Canada
<input type="checkbox"/> NWT or Nunavut Water Board	
<input type="checkbox"/> NEB	

1. CONTACT INFORMATION

Applicant name and mailing address JENNIE RAUSCH P.O. BOX 2310, 5019 - 52 ND STREET YELLOWKNIFE, NT X1A 2P7		Fax 867-873-6776
		Phone 867-669-4709
Field supervisor Jennie Rausch	E-mail address jennie.rausch@ec.gc.ca	Phone 867-669-4709

Total number of personnel covered by application:

16

2. SUMMARY PROJECT INFORMATION

Project title:

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

Project objective: (concise statement of purpose and goals)

The arctic shorebird monitoring program was initiated in response to widespread shorebird population declines noted on migration routes through southern Canada and the United States. Accurately estimating shorebird numbers during migration is difficult. The objective of the program is to produce population estimates for arctic-breeding shorebirds and then to monitor trends in their populations over time. We are in the process of surveying 13 Canadian Arctic PRISM (Program for Regional and International Shorebird Monitoring) regions to date. We started surveys in 2001 and plan on continuing until 2020 in various locations in Bird Conservation Region #3 (Arctic) across the NWT and Nunavut. There are two levels of surveys as part of Arctic PRISM – Tier 1, 2-3 weeks surveys in one location, different locations each year, and Tier 2, 4-8 week surveys in targeted locations, same locations repeated each year.

Project description: (non-technical summary; 300 words or less; describe purpose, nature and occasion of all activities; include the anticipated intensity of vehicle use)

See attached project description.

NOTE: A full project description should accompany this application.

Activities related to project proposal: (check as many as apply)

<input checked="" type="checkbox"/> Scientific research	<input checked="" type="checkbox"/> Ground surveys	<input type="checkbox"/> Storage of fuel
<input type="checkbox"/> Tourism, non-commercial	<input checked="" type="checkbox"/> Aerial surveys	<input type="checkbox"/> Camp construction
<input type="checkbox"/> Tourism, commercial	<input type="checkbox"/> Winter road	<input checked="" type="checkbox"/> Use of firearms
<input checked="" type="checkbox"/> Use of boats	<input type="checkbox"/> Commercial harvest	<input type="checkbox"/> Use of explosives
<input checked="" type="checkbox"/> Use of aircraft	<input type="checkbox"/> Cruise ship	<input type="checkbox"/> Seismic exploration
<input type="checkbox"/> Use of off-road vehicles	<input type="checkbox"/> Drilling activities	<input type="checkbox"/> Mining activities
<input checked="" type="checkbox"/> Other (please specify):	temporary tent camp(s)	

Are you applying to kill, salvage or otherwise interfere with migratory birds (e.g. take blood, transmitter implant, etc.)?

Yes No

If yes, provide details, including specie(s) of bird, number and method. Indicate whether the approval of an animal care committee has been received and include the name of the committee.

Covered on a separate permit application.

Do you plan to carry firearms?

Yes No

If yes, please describe number, type and purpose of firearms.

One per person. Remington Marine Magnum 270 pump-action shotguns. The purpose is for bear deterrent and protection.

3. PROJECT LOCATION

Geographic place names and coordinates: (be as specific as possible; enter multiple coordinates for activities occurring over large area(s))

Location	Geographic Coordinates
Akpait NWA, NU	66.91921N, 61.77413W
Anderson River MBS, NT	69.59877N, 128.82852W
Banks Island No.1 MBS, NT	72.63521N, 123.53631W
Banks Island No.2 MBS, NT	74.05545N, 119.74915W
Bylot Island MBS, NU	73.24577N, 78.66525W
Cape Perry MBS, NT	70.19574N, 124.55166W
Dewey Soper MBS, NU	66.09303N, 73.40762W
East Bay MBS, NU	64.01597N, 82.07558W
Harry Gibbons MBS, NU	63.80532N, 85.84762W
Kendall Island MBS, NT	69.35399N, 135.14972W
McConnell River MBS, NU	60.814N, 94.44265W
Ninginganiq NWA, NU	69.61337N, 68.02434W
Nirjutiqavvik NWA, NU	75.95843N, 79.23108W
Polar Bear Pass NWA, NU	75.67065N, 99.00483W
Prince Leopold Island MBS, NU	74.03341N, 90.06269W
Qaulluit NWA, NU	67.22171N, 62.49752W
Queen Maud Gulf MBS, NU	67.16538N, 101.67464W
Seymour Island MBS, NU	76.81006N, 101.26834W

NOTE: A map document delineating activity centres and travel corridors, etc. is required and should accompany this application. Please submit shapefiles if available.

Status of land upon which project will occur:

- Federal crown
- Inuit-owned or other private
- Territorial (commissioner's land)

4. OPERATIONAL AND ENVIRONMENTAL CONSIDERATIONS

Provide a summary of potential environmental impacts and proposed restoration plans and activities: (describe the effects of the proposed activities on land, water, flora, fauna; attach separate pages as necessary)

Tent camps are rarely erected within MBS or NWA boundaries, but in the event that one was, our tent camps are temporary and we will remove all garbage and human waste within the tent camp at the end of the field season and ensure the site is left in the same condition as when we arrived. We will not be erecting any permanent structures or using ATV's or other ground transportation that would leave an impact requiring reclamation or restoration.

The only impact will be temporary disturbance of birds and mammals from the helicopters passing by and from human presence. Most plots will only be visited for 2 hours on the ground. At the intensive sites, plots will be visited daily. Each plot will only have 1-3 observers who will be silently observing the birds and recording their movements. Care will be taken to avoid repeatedly disturbing nests as much as possible. We do not fly low over mammals and we do not harass wildlife with the helicopter.

Each year we report back to our permitting organizations with the locations surveyed.

List of equipment and fuel to be used: (include aircraft, vehicles, boats, generators, large tent structures, various types of fuel, etc; indicate proposed containment strategies for all fuels; attach separate pages as necessary)

Equipment / Fuel	Size / Amount	Proposed use / Containment
Per crew, application covers 4 crews:		
Helicopter	206L (1)	slinging gear to/from camp(s), travel to/from plots
Airplane	Twin Otter (2)	camp deployment/collection
Tent camp	12'x14' cook tents (6-8); individual sleeping tents (18)	camping
propane	20 lb tanks (25)	cooking

NOTE: Please submit a copy of a spill contingency plan, if available, with this application.

Waste disposal: (describe any wastes that may be produced, e.g. garbage, grey water, sewage, hazardous waste, and proposed disposal methods; attach separate pages as necessary)

Type of waste	Approx. amount produced	Proposed disposal method
kitchen garbage	40 bags	flown out with camps
grey water	Up to 16 persons worth	disposed in sump pit, environmentally friendly lime substitute added regularly

sewage	Up to 16 persons worth	Waste bagged and flown out, cat holes will be dug and waste buried when away from camp
hazardous waste	250 AA batteries	flown out with camp

5. POTENTIAL ADVERSE EFFECTS TO SPECIES AT RISK

PLEASE NOTE:

- You should consider species at risk legally listed on the Species at Risk Act (i.e. on Schedule 1) and those under consideration for legal listing, such as those designated by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC).
- Refer to the booklet "Species at risk in the NWT" at <http://www.nwtwildlife.com/> for information on particular species.

Identify Species at Risk found within your proposed project area.

Shorebirds: Red Knot, Buff-breasted Sandpiper

Nonshorebirds: Wolverine, Polar Bear, Grizzly Bear, Dolphin-Union Caribou, Peary Caribou, Peregrine Falcon anatum subspecies

List any potential adverse effects that your project may have on the species, its habitat and/or its residence. All direct, indirect and cumulative effects should be considered.

The potential adverse effect for non-shorebirds will be very temporary (short-term) disturbance.

If potential adverse effects are identified, list mitigation to avoid or lessen those effects.

When surveying plots, we don't stay in any one location for more than 2 hours and will avoid repeatedly disturbing nests of the bird species. If there are large mammals in the areas we will not land at that plot or we will depart from the area.

List monitoring measures to determine the effectiveness of mitigation and/or identify where further mitigation is required.

We will record the location and endeavour to leave the area as soon as possible when a SAR or COSEWIC listed species is encountered (with the exception of shorebirds, which will be disturb as infrequently and for as short a time as possible).

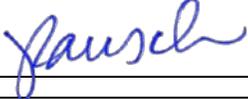
6. CONSULTATION

List local community representatives who have been contacted about your proposed activities: (include community groups, local businesses, schools, etc.; state how they are participating in your activity, if at all (e.g. providing advice, supplying goods, hired to assist you, etc.))

1. Representative name:

Name of group represented: HTC/HTA/HTO in nearby communities
Address / phone / fax:
How contacted and date:
Participating? Yes No
If yes, how?
By recommending the project for issuance of a GN or GNWT Wildlife Research Permit;
recommendations for local hires.

2. Representative name: Martha Padluq
Name of group represented: CWS, Inuit Field Research Assistant Program
Address / phone / fax:
How contacted and date:
Participating? Yes No
If yes, how?
Advertising field assistant opportunities available from this project, and recommending applicants
for hire.

Applicant Jennie Rausch
(Print Full Name)
Signature  **Date** 06 Febraury 2013

PROJECT SUMMARY:

Arctic Shorebird Monitoring Program

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.

Surveys may take place in any of the NT or NU MBSs or NWAs that are located within Bird Conservation Region #3 (Arctic) (Figure 2).

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.

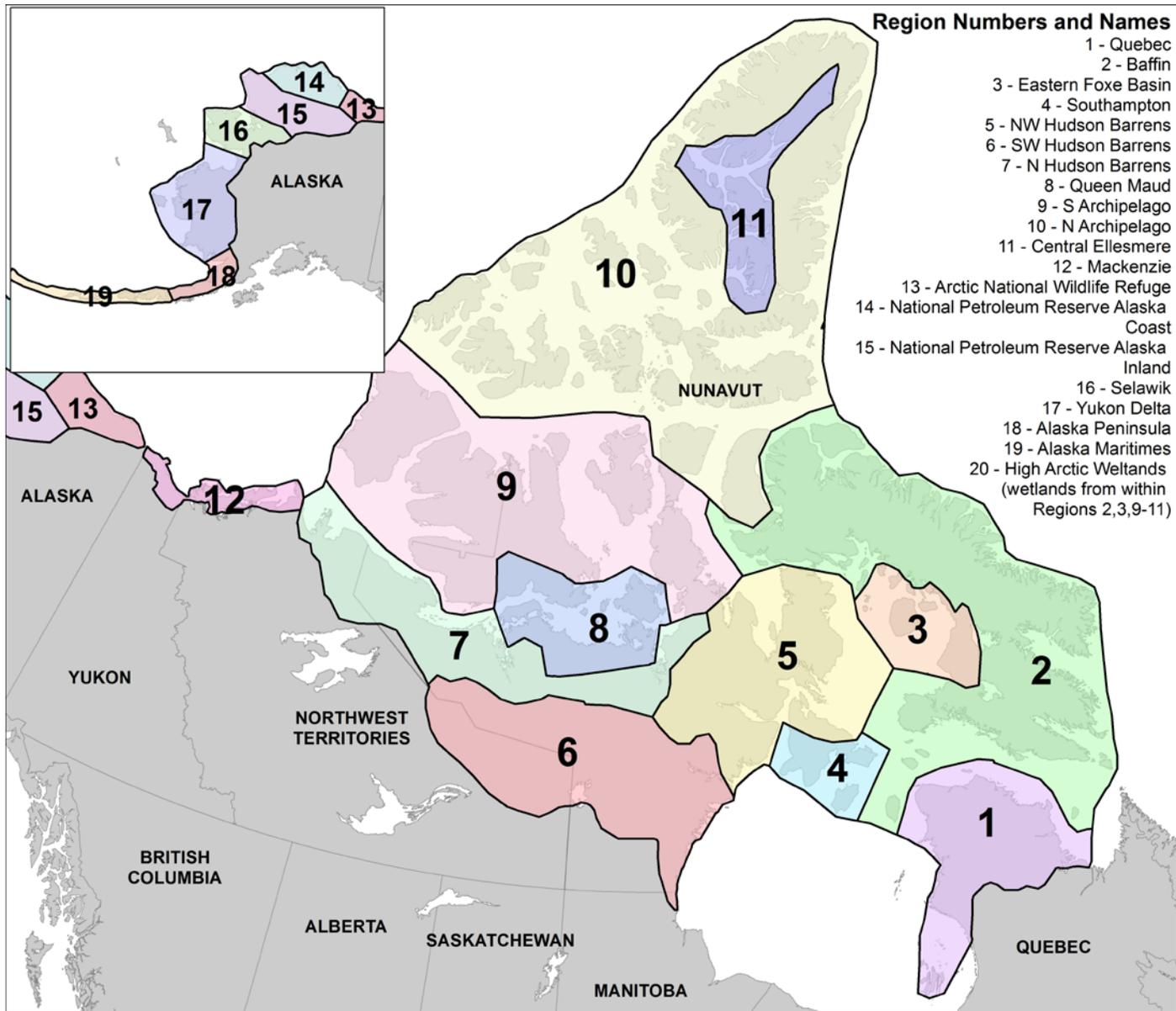


Figure 1. Survey regions and coverage area for the Arctic Shorebird Monitoring Program (Arctic Program for Regional and International Shorebird Monitoring), a U.S.- Canadian partnership project.

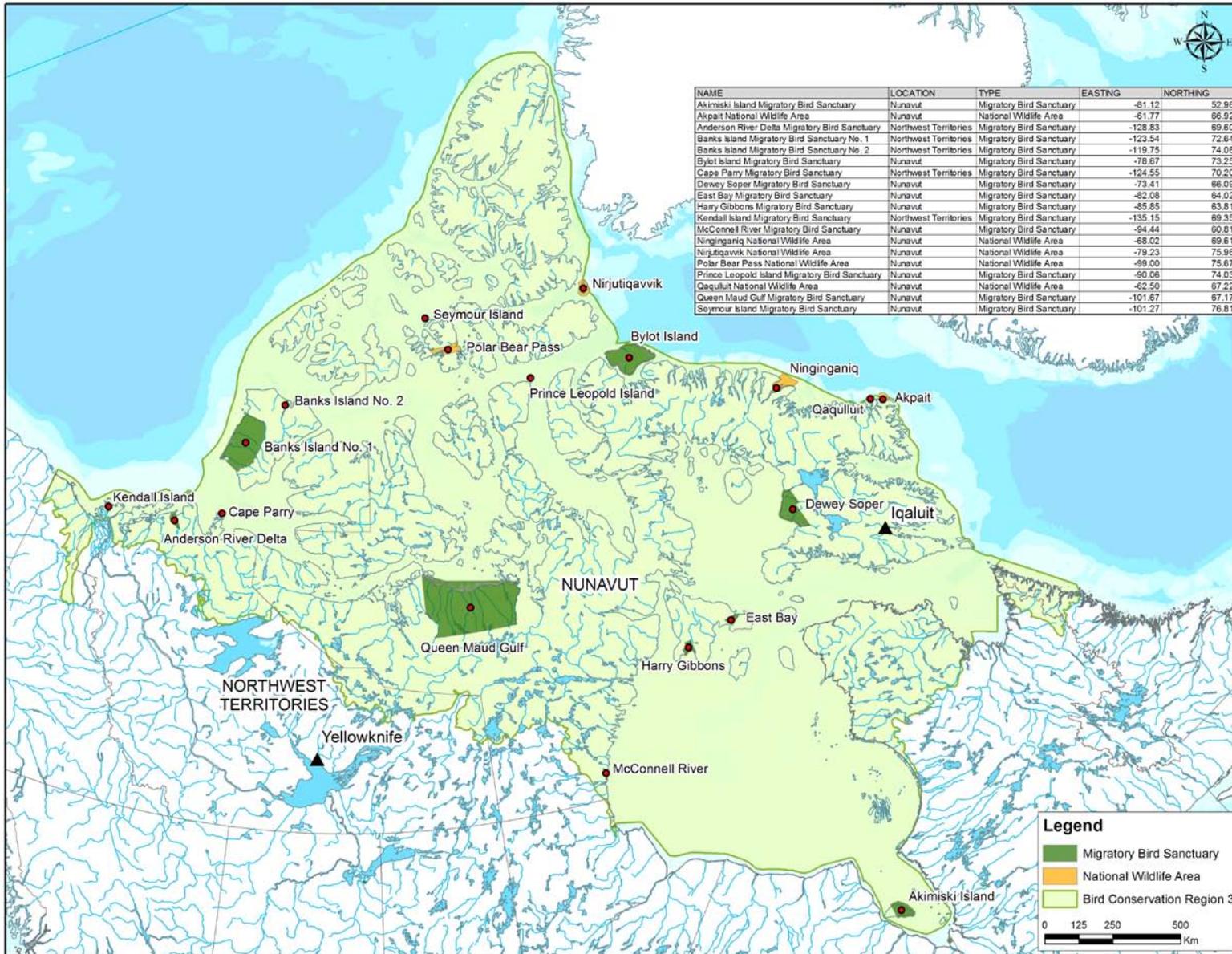


Figure 2. Migratory Bird Sanctuaries and National Wildlife Areas within Bird Conservation Region #3 (Arctic) that may be accessed during the Arctic PRISM surveys over the next several years.