

| For office use only | |
|---------------------|------------|
| Date Received | Permit No. |

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 a copy of either an NWT or Nunavut Wildlife Research Permit; or an Aurora Research Permit/Nunavut Research Permit. Include a copy of either permit with this application or forward a copy to CWS upon receipt of it, or your CWS permit will not be issued.

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:

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| <input type="checkbox"/> New application <input checked="" type="checkbox"/> Amendment/extension of existing permit Existing permit no. NU-SCI-11-01 |
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| Territory: <input type="checkbox"/> NWT <input checked="" type="checkbox"/> Nunavut |
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| Anticipated project start date: 1 Jan. 2014 Anticipated project end date: 25 Mar. 2017 |
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| Type of permit applied for: <input type="checkbox"/> Bird Sanctuary permit <input type="checkbox"/> National Wildlife Area entry permit <input checked="" type="checkbox"/> Scientific permit to take salvage or disturb migratory birds |
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| Period of permit requested: <input type="checkbox"/> 1 year <input type="checkbox"/> 2 year <input checked="" type="checkbox"/> 3 year |
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| Please indicate by checkbox if your project is receiving federal government funding: <input type="checkbox"/> No <input type="checkbox"/> Polar Continental Shelf Project <input checked="" type="checkbox"/> Yes/Other (please list) |
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| Please indicate by checkbox if your project requires approvals/permits by any of the following regulators: <input type="checkbox"/> DFO <input type="checkbox"/> INAC <input checked="" type="checkbox"/> NWT or Nunavut Water Board <input type="checkbox"/> NEB <input type="checkbox"/> NRCAN <input type="checkbox"/> Parks Canada |
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1. CONTACT INFORMATION

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|--|--|--------------------------------------|
| Applicant name and mailing address Amie Black and Grant Gilchrist NWRC, Carleton University 1125 Colonel By Dr. Ottawa, ON, K1A 0H3 | | Fax 613-998-0458 |
| | | Phone 613-998-7364 (Grant) |
| Field supervisor Grant Gilchrist | E-mail address amie.black@ec.gc.ca grant.gilchrist@ec.gc.ca | Phone 613-998-8523 (Amie) |

Total number of personnel covered by application:

6-9

2. SUMMARY PROJECT INFORMATION**Project title:**

Community – Based Monitoring of Sea Ice and Eider Duck Populations around the Belcher Islands, Nunavut

Project objective: (concise statement of purpose and goals)

Comprehensive coverage of the different oceanographic regimes will be important in understanding how changing sea ice conditions are influencing the large scale distribution and abundance of eider populations. We will integrate data from time lapse monitoring, local knowledge, and foraging behavior into a computer model to assess the influence of different environmental regimes and harvest rates on eider populations. This will also help determine, 1) when and where eider ducks are most vulnerable to starvation and over-harvest, and 2) when and where harvest will have the least impact on the Belcher Islands eider duck population. ****We are also interested in measuring the contaminant and parasite loads in eiders over-wintering in the Belcher Island Archipelago, and assessing how these levels influence eider health. ****

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

We will be using time lapse photography and oceanographic monitoring (salinity meters and tide current meters) at several sites to quantify wildlife abundance and behaviour in relation to the ice data.

Oceanographic monitoring will take place from January – March, and automatic time lapse photography stations will be set up from January – June to capture ice break-up. These project elements are a part of a long-term community-based monitoring project, and will be executed by local hunters in consultation with a biologist.

****We will employ local hunters to collect up to 60 eiders at polynyas around the archipelago. These eiders will be frozen and sent to the National Wildlife Research Centre in Ottawa for contaminant and parasite analysis.****

Teams of 3-6 people (1-2 biologists, 2-4 Inuit guides) will participate in each element of the study. Travel to the base camp, and from camp to polynyas and leads, will be by snowmobile. Teams will stay at the camp for approximately 1 week at a time, returning to Sanikiluaq periodically to resupply food and fuel. Oceanographic monitoring and eider collections will take place at Agiararaluit, Lucassie Island polynya, and Quipaluq polynya, as well at several floe edge habitats used by eiders.

See attached project description for more details****.

NOTE: A full project description should accompany this application.

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

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| <input checked="" type="checkbox"/> Scientific research | <input type="checkbox"/> Ground surveys | <input type="checkbox"/> Storage of fuel |
| <input type="checkbox"/> Tourism, non-commercial | <input 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 type="checkbox"/> Use of boats | <input type="checkbox"/> Commercial harvest | <input type="checkbox"/> Use of explosives |
| <input 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): use of snowmobile | | |

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.

****We will employ experienced hunters to collect up to 60 Common Eiders using 12 ga shotguns and bird shot. We will collect both males and females.

We have submitted an Animal Care Committee approval, but have not yet received approval. Contact: Nick Lunn, ACC chair, EC Prairie and Northern Region****



Do you plan to carry firearms?☒ Yes ☐ No

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

Bear protection - Remington Marine Magnum 12 gauge shotguns, 1 per person

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 |
|--------------------------|--------------------------|
| Environment Canada Cabin | 55° 49.361N, 79° 53.925W |
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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)

We will be conducting our research during the winter for a relatively short period of time (3 months). We will be using snowmobiles to travel to and from the camp and polynyas, white gas for cooking, and kerosene to heat the cabin. All of these fuels will be stored in appropriate containers to avoid leaks. MSDS and spill contingency plans will be provided to the field crew. Because the work will take place during the winter, fuel spills will be cleaned up before they permeate the snow and ice and impact the land or water.

Past QIA exemption #: Q09XN06
Nunavut Water Board licence: 3BC-GBI1114
NIRB File No.: 10YN058

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 |
|----------------------|---------------|---|
| Snowmobiles/gasoline | 4 | travel to/from hunting grounds/jerry cans |
| Cook stove/white gas | | cooking/metal canister |
| Heater/kerosene | | heat cabin/metal canister |
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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 |
|---------------|-------------------------|------------------------------------|
| Garbage | 20lbs | Return to Sanikiluaq by snowmobile |
| Greywater | 10L/day | sump >150 m from any water |
| Sewage | 2L/day | sump >150 m from any water |
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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 species status reports and other information on the Species at Risk Registry at www.sararegistry.gc.ca for information on specific species.

Identify Species at Risk found within your proposed project area.

Beluga whales, listed as endangered in the Eastern Hudson Bay by COSEWIC, but not listed under SARA, occur in the area during the winter.

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.

We do not anticipate any effects on Beluga Whales or their habitat, as our research will be carried out over a short period of time and have a very small impact on the land. There is the most chance of a small fuel spill near our cabin, which is located far from the marine habitat used by Belugas.

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

When possible, refueling of snowmobiles will be done away from sea ice and open water to avoid a fuel spill.

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

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.))

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|---|---|
| 1. Representative name: | Lucassie Arragutainaq |
| Name of group represented: | Sanikiluaq Hunters and Trappers Association |
| Address / phone / fax: | General Delivery, Sanililuaq, NU, X0A 0W0/ (867) 266-8709 |
| How contacted and date: | Contacted by email November 23, 2010 |
| Participating? | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| If yes, how? | |
| The community of Sanikiluaq has been involved with the project since its inception in 1998. All work is conducted in direct collaboration with experienced Inuit hunters and in close consultation with the local Hunters and Trappers Organization, whom have identified this research as an important priority for local co-management efforts. | |
| We will be accompanying Inuit guides to polynyas to set up equipment. We hope to hire them through the HTA. | |

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| 2. Representative name: | |
| Name of group represented: | Northern and Coop stores |
| Address / phone / fax: | |
| How contacted and date: | Phone, October 2013 |
| Participating? | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| If yes, how? | |
| We will be purchasing groceries and fuel from the stores in Sanikiluaq. We also hope to purchase a snowmobile from either the Co-op or Northern store. | |

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| 3. Representative name: | |
| Name of group represented: | |
| Address / phone / fax: | |
| How contacted and date: | |
| Participating? | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| If yes, how? | |

Applicant Grant Gilchrist

(Print Full Name)

Signature

Amie Black

Date ~~4 November 2013~~

Amie Black for G. Gilchrist.

21 January 2014



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