



NIRB Application for Screening #125888 Hantzsch Island Thick-Billed Murre Surveys

Application Type: New
Project Type: Scientific Research
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Period of operation: from 0001-01-01 to 0001-01-01
Proposed Authorization: from 0001-01-01 to 0001-01-01
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DETAILS

Non-technical project proposal description

English: Project objectives and rationale: The Newfoundland and Labrador Thick-billed Murre (*Uria lomvia*) and Common Murre (*Uria aalge*) annual harvest is the only licensed harvest of seabirds in Canada. Though harvest of Thick-billed and Common Murres has declined since the 1960-70s, murre colony declines across the North Atlantic have prompted domestic and international concerns over the sustainability of the harvest in Canada. The impact of current harvest is difficult to assess since there is a lot of uncertainty in recent population estimates, particularly in the eastern Canadian Arctic where some Thick-billed Murre colonies have not been surveyed for 40 years. To inform harvest management, updated information on the Canadian population is required. Therefore, the first objective of this project is to conduct surveys at the nine largest murre colonies in the eastern Canadian Arctic, including the population of Thick-Billed Murres at Hantzsch Island. Additionally, subarctic and arctic waters around Canada support millions of breeding birds. Although tied closer to land during the breeding season when they raise their young, seabirds exist mostly in the marine environment. Since many spend much of their lives out of sight of land, knowledge of their at-sea distribution has been difficult to obtain. Since 2006, the Eastern Canada Seabirds at Sea (ECSAS) program has monitored seabirds at sea using ships-of-opportunity, including Canadian Coast Guard vessels, cruise ships, and more recently, ships in local communities. The information from these surveys is used to identify important marine areas for protection, and understand the potential consequences of climate change and other threats on Arctic marine bird populations. Although the surveys were designed to count birds, observers collect information on all wildlife sightings, including marine mammals and plastic pollution. All data are made publicly available through the Open Government Data Portal. Although several trained observers exist in the Atlantic provinces of Canada, we lack the expertise in Arctic Canada where survey effort is needed most. Thus, our second objective is to train northern community members, including Inuit staff within CWS, to enhance our capacity to monitor seabirds across Arctic Canada. Proposed date and duration of visit: The survey of the Thick-billed Murre colony on Hantzsch Island, Nunavut will take place in late July/early August in 2024 and 2025 over 1-3 days. The ECSAS surveys will take place in Frobisher Bay in 2024 and 2025 over 1-2 days. Project methods: For the Thick-Billed Murre survey, will boat to Hantzsch Island from Iqaluit for one to three days in late July/early August 2024 or 2025 to take photos using a camera and a drone. For the photograph survey, photos will be taken using a handheld DSLR camera with 200 mm lens mounted on a tripod from the boat. We will boat at a low speed alongside the cliff, remaining at minimum 200 metres from the cliffs. For the drone survey, the drone will be launched from the boat 50 metres away from the edge of the colony. Flight speed of drone will not exceed 10 km/h and the drone will be flown with a 30-metre horizontal buffer from the colony. For boat and drone surveys, multiple observers will monitor the colony for signs of disturbance/flushing, if flushing occurs, distance will be increased to minimize disturbance. For Eastern Canada Seabirds at Sea surveys, marine bird observers will conduct surveys from the bridge of the vessel while the vessel is in transit in Frobisher Bay, scanning ahead to a 90° angle. Observations are limited to 300 m from the beam of the ship, and all birds observed are counted and identified. Each survey lasts five minutes and as many consecutive surveys as possible are conducted during daylight hours. At the beginning of each 5-minute survey, we record the ship's position, speed and direction, time of day, and a number of environmental variables (e.g., ice conditions, visibility, wind speed). These methods are standardized with methods used elsewhere in the North Atlantic and will allow us to compare data across survey years and regions.

French: Objectifs et justification du projet : La chasse annuelle au Guillemot de Brünnich (*Uria lomvia*) et au Guillemot marmette (*Uria aalge*) à Terre-Neuve-et-Labrador est la seule chasse autorisée aux oiseaux de mer au Canada. Bien que les captures de Guillemots de Brünnich et de Guillemots marmettes aient diminué depuis les années 1960-70, le déclin des colonies de guillemots dans tout l'Atlantique Nord a suscité des inquiétudes nationales et internationales quant à la durabilité des captures au Canada. L'impact des captures actuelles est difficile à évaluer, car les estimations récentes des populations sont très incertaines, en particulier dans l'est de l'Arctique canadien où certaines colonies de Guillemots de Brünnich n'ont pas été étudiées depuis 40 ans. Des informations actualisées sur la population canadienne sont nécessaires pour éclairer la gestion de l'exploitation. C'est pourquoi le premier objectif de ce projet est de réaliser des études dans les neuf plus grandes colonies de guillemots de l'est de l'Arctique canadien, y compris la population de Guillemots de Brünnich de l'île Hantzsch. De plus, les eaux subarctiques et arctiques autour du Canada abritent des millions d'oiseaux nicheurs. Bien qu'ils soient plus proches de la terre pendant la saison de reproduction, lorsqu'ils élèvent leurs petits, les oiseaux

Activities

Location	Activity Type	Land Status	Site history	Site archaeological or paleontological value	Proximity to the nearest communities and any protected areas
Hantzsch Island	Researching	Marine	Seabird colony	N/A	270 km (170 mi) northwest of Iqaluit

Community Involvement & Regional Benefits

Community	Name	Organization	Date Contacted
Iqaluit	N/A	Amaruq HTO	2023-11-14

Authorizations

Indicate the areas in which the project is located:

Authorizations

Regulatory Authority	Authorization Description	Current Status	Date Issued / Applied	Expiry Date
Canadian Wildlife Service	Migratory Birds Scientific Permit	Applied, Decision Pending	2024-02-01	
Government of Nunavut, Department of Environment	Wildlife Research Permit	Applied, Decision Pending	2024-02-07	

Project transportation types

Transportation Type	Proposed Use	Length of Use
Water	We will use a boat to transport people to and from Hantzsch Island (departing from Iqaluit) and to conduct the surveys. The boat size will depend on the number of personnel and availability of outfitters (to be determined). Boat will hold 5-12 personnel.	

Project accommodation types

Other,

Material Use

Equipment to be used (including drills, pumps, aircraft, vehicles, etc)

Equipment Type	Quantity	Size - Dimensions	Proposed Use
Boat	1	Unknown	To transport people to and from Hantzsch Island (departing from Iqaluit). The boat size will depend on the number of personnel and availability of outfitters (to be determined). Boat will hold 5-12 personnel.
Drone (DJI Mavic 3 Pro)	1	98 mm	To take photos and videos of thick-billed murres and other breeding seabirds on the island.
Camera (Sony AR7IV)	1	98 mm	To take photos and videos of thick-billed murres and other breeding seabirds on the island.

Detail Fuel and Hazardous Material Use

Detail fuel material use:	Fuel Type	Number of containers	Container Capacity	Total Amount	Units	Proposed Use
Gasoline	fuel	1	200	200	Liters	Fuel for the boat

Water Consumption

Daily amount (m3)	Proposed water retrieval methods	Proposed water retrieval location
0		

Waste

Waste Management

Project Activity	Type of Waste	Projected Amount Generated	Method of Disposal	Additional treatment procedures
Researching	Combustible wastes	Small	Any waste created on the boat while conducting the surveys will be disposed of in Iqaluit.	NA

Environmental Impacts:

To mitigate potential disturbance to birds while conducting boat-based photographic surveys and drone surveys, we have minimum setback distances from the colony: 30 metres for drone surveys and 200 metres for boat-based photographic surveys. Additionally, during surveys multiple observers will monitor the colony for signs of disturbance, for example, birds flushing. If disturbance occurs, we will increase the buffer distance between the drone or boat and the colony. If disturbance still occurs, we will cease the survey. All waste (if any) will remain on the boat and be brought back to Iqaluit. We will not embark on the island. In the event of a fuel spill, wildlife or wildlife habitat could become contaminated/impacted. CWS and the 24- hour NT-NU spill report line (867-920-8130) will be notified of any spills, though the chance of a spill is low.

Additional Information

SECTION A1: Project Info

SECTION A2: Allweather Road

SECTION A3: Winter Road

SECTION B1: Project Info

SECTION B2: Exploration Activity

SECTION B3: Geosciences

SECTION B4: Drilling

SECTION B5: Stripping

SECTION B6: Underground Activity

SECTION B7: Waste Rock

SECTION B8: Stockpiles

SECTION B9: Mine Development

SECTION B10: Geology

SECTION B11: Mine

SECTION B12: Mill

SECTION C1: Pits

SECTION D1: Facility

SECTION D2: Facility Construction

SECTION D3: Facility Operation

SECTION D4: Vessel Use

SECTION E1: Offshore Survey

SECTION E2: Nearshore Survey

SECTION E3: Vessel Use

SECTION F1: Site Cleanup

SECTION G1: Well Authorization

SECTION G2: Onland Exploration

SECTION G3: Offshore Exploration

SECTION G4: Rig

SECTION H1: Vessel Use

A vessel will be used to travel to and from Hantzsch Island, and to conduct boat-based photographic survey and drone survey of the cliffs to count nesting marine birds. The vessel will also be used to conduct Eastern Canadian Seabirds At Sea (ECAS) surveys during transit.

SECTION H2: Disposal At Sea

SECTION I1: Municipal Development

Description of Existing Environment: Physical Environment

Hantzsch Island is a dome-shaped island with elevations reaching 150 m. Hantzsch Island is made up of Precambrian gneiss.

Description of Existing Environment: Biological Environment

Thick-billed Murres, Black-legged Kittiwakes, and Glaucous Gulls breed on Hantzsch Island.

Description of Existing Environment: Socio-economic Environment

Hantzsch Island is located approximately 270 northwest of Iqaluit.

Miscellaneous Project Information

Identification of Impacts and Proposed Mitigation Measures

Cumulative Effects

Impacts

Identification of Environmental Impacts

	PHYSICAL	Designated environmental areas	Ground stability	Permafrost	Hydrology / Limnology	Water quality	Climate conditions	Eskers and other unique or fragile landscapes	Surface and bedrock geology	Sediment and soil quality	Tidal processes and bathymetry	Air quality	Noise levels	BIOLOGICAL	Vegetation	Wildlife, including habitat and migration patterns	Birds, including habitat and migration patterns	Aquatic species, incl. habitat and migration/spawning	Wildlife protected areas	SOCIO-ECONOMIC	Archaeological and cultural historic sites	Employment	Community wellness	Community infrastructure	Human health
Construction	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Operation																									
Researching		-	-	-	-	-	-	-	-	-	-	-	-				M	-	-		-	P	-	-	
Decommissioning	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

(P = Positive, N = Negative and non-mitigatable, M = Negative and mitigatable, U = Unknown)

Project Location



List of Project Geometries

1	point	Hantzsch Island
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