



NIRB Uuktuutinga Ihivriuqhikhamut #126441

Marine Habitat Use of Black Guillemots at Pitsiulaaqsi and Eastern Canada Seabirds at Sea (ECSAS) Surveys

Uuktuutinga Qanurittuq: New

Havaap Qanurittunia: Scientific Research

Uuktuutinga Ublua: Wednesday, April 29, 2026

Period of operation: from 2026-07-01 to 2026-08-31

Havauhikhaq Ikayuqtinga: Julia Baak
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Canada
Hivayautit Nampanga:: 8672220875, Kayumiktukkut Nampanga::

QANURITTUT

Tukihiannaqtunik havaariyaumayumik uqauhiyun

Qablunaatitut: Attached as document. Pasted below: Plain Language Summary: Marine Habitat Use of Black Guillemots at Pitsiulaaqsi and Eastern Canada Seabirds at Sea (ECSAS) Surveys Project
Lead/Applicant: Dr. Julia Baak, Conservation Biologist, Canadian Wildlife Service Canadian Wildlife Service 301-933 Mivvik Street, Iqaluit, NU, X0A 3H0 Email: julia.baak@ec.gc.ca; Telephone: 867-222-5629 Project Collaborator: Dr. Kyle Elliott, Associate Professor, McGill University Dept of Natural Resource Sciences 21111 Rue Lakeshore, Ste Anne-de-Bellevue, QC, H3X 3V9 Email: kyle.elliott@mcgill.ca; Telephone: 514-398-7907
Number of personnel and/or visitors that will be covered under the permit: Maximum of 8
Project objectives and rationale: Black guillemots (*Cephus grylle*) are a widespread Arctic seabird, ranging from the Atlantic to the High Arctic in Canada. Importantly, Canada supports an estimated 440,000 individuals (approximately 58% of the global population), placing a high degree of responsibility on Canada to monitor and conserve this species. As pursuit-diving seabirds that forage in shallow, coastal waters or near ice edges and polynyas, these birds are particularly vulnerable to human activities such as shipping traffic, oil spills, and exposure to contaminants. Despite this, we know little about the movement ecology and threats of black guillemots in Canada, particularly in Nunavut, where there is no available tracking data for this species during the breeding and non-breeding season. As shipping and other human activities continue to increase in the Canadian Arctic, monitoring the movement ecology of black guillemots is important to better understand key habitats for these species, as well as potential threats that these species may be exposed to throughout the year. To address these critical knowledge gaps, we propose to deploy Global Positioning System (GPS) transmitters on 30 adult black guillemots to quantify fine-scale foraging movements during the breeding season. These data will provide the first detailed insights into the movement ecology of black guillemots in this region, which will support the identification of important marine areas and inform marine spatial planning. The resulting data will also establish a baseline for future monitoring and contribute to multi-regional seabird tracking efforts aimed at assessing cumulative impacts and conservation needs in a rapidly changing Arctic. 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. Project location: Pitsiulaaqsi (63.4624° N, 67.8421° W) and Frobisher Bay. Proposed date and duration of visit: We propose to take three daytrips to Pitsiulaaqsi (63.4624° N, 67.8421° W) by boat between July 1st to August 31st 2026. Eastern Canada Seabirds at Sea Surveys will be conducted on the boat ride to and from Pitsiulaaqsi. Project methods: Black Guillemot Tracking We will make two daytrips to Pitsiulaaqsi to capture, band, and deploy 30 GPS transmitters (Ecotone Alle, 6 g, < 2% of black guillemot body mass) on adult male and female black guillemots during the incubation and chick-rearing stages (between July 1st to August 31st, 2026). Birds will be caught by hand at their burrow, using a noose pole, and/or by using a noose carpet placed outside of their burrow. Upon capture, a small blood sample will be collected from the tarsus vein to obtain the sex of each individual. Birds will then be measured (mass, tarsus, wing length, head-bill, and culmen), and feather samples (breast and head) will be collected to estimate diet from stable isotope analysis. GPS transmitters will be affixed to the back or tail of black guillemots with Tesa tape. After deployment, we will return to Pitsiulaaqsi for another day trip (July 1st to August 31st, 2026) to remove the GPS transmitters. Upon recapture, we will collect a blood sample (1-2 mL) to measure contaminant levels in this species. Eastern Canada Seabirds at Sea Surveys For the 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.

Program Logistics
Transportation: Pitsiulaaqsi: Boat (3 landings)
Community consultation and involvement: We will consult with the Amaruq HTA of Iqaluit requesting support for the project. We plan to hire Polar Outfitters for the day trips to Pitsiulaaqsi and the ECSAS surveys, which will include Alex Flaherty and 1-2 aids/bear monitors from Iqaluit.

Uiviititut:

Attached as document. Pasted below:

Résumé en langage clair : utilisation des habitats marins par les guillemots à miroir à Pitsiulaaqsi et les relevés d'oiseaux marins pélagiques dans l'Est du Canada (Eastern Canada Seabirds at Sea; ECSAS)

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Collaborateur du projet : Dr Kyle Elliott, professeur agrégé, Université McGill
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Nombre de personnes et/ou de visiteurs concernés par le permis : 8 au maximum

Objectifs et justification du projet : Les guillemots à miroir (*Cepphus grylle*) sont un oiseau marin très commun dans l'Arctique, de l'Atlantique jusqu'à le Haut-Arctique canadien. Il est important de noter que le Canada abrite environ 440 000 individus (environ 58 % de la population mondiale), le Canada a donc une responsabilité majeure de surveiller et de conserver cette espèce. Les guillemots sont des oiseaux marins plongeurs qui chassent dans les eaux côtières peu profondes ou près des bords de glace et des polynies, alors ces oiseaux sont particulièrement vulnérables aux activités humaines telles que le trafic maritime, les déversements d'hydrocarbures et les contaminants. Malgré cela, nous en savons peu sur l'écologie des déplacements et les menaces des guillemots à miroir au Canada, en particulier au Nunavut, où aucune donnée de suivi n'est disponible pour cette espèce pendant la saison de reproduction. Alors que le trafic maritime et d'autres activités humaines continuent de s'intensifier dans l'Arctique canadien, il est important de surveiller l'écologie des déplacements des guillemots à miroir afin de mieux comprendre les habitats clé de ces espèces, ainsi que les menaces potentielles auxquelles elles peuvent être exposées tout au long de l'année. Pour combler ces lacunes critiques, nous proposons de poser des émetteurs GPS sur 30 guillemots à miroir pour quantifier leurs mouvements pendant la saison de reproduction. Ces données fourniront les premiers aperçus détaillés de l'écologie des déplacements des guillemots à miroir dans cette région, ce qui facilitera l'identification des zones marines importantes et éclairera la planification de l'espace marin. Les données ainsi obtenues serviront également de référence pour les futurs efforts de surveillance et contribueront aux initiatives multirégionales de suivi des oiseaux marins visant à évaluer les impacts cumulatifs et les besoins en matière de conservation dans un Arctique en pleine mutation. De plus, les eaux subarctiques et arctiques qui entourent le Canada abritent des millions d'oiseaux nicheurs. Bien qu'ils restent plus près des côtes pendant la saison de reproduction, lorsqu'ils élèvent leurs petits, les oiseaux marins vivent principalement en milieu marin. Comme beaucoup d'entre eux passent la majeure partie de leur vie loin de la terre ferme, il a été difficile d'obtenir des données sur leur répartition en mer. Depuis 2006, le programme « les relevés d'oiseaux marins pélagiques dans l'Est du Canada » (Eastern Canada Seabirds at Sea; ECSAS) surveille les oiseaux marins en mer à l'aide de navires de passage, notamment des navires de la Garde côtière canadienne, des bateaux de croisière et, plus récemment, des navires appartenant à des communautés locales. Ces relevés servent à identifier les zones marines importantes à protéger et à comprendre les conséquences potentielles du changement climatique et d'autres menaces sur les populations d'oiseaux marins de l'Arctique. Bien que les relevés aient été conçus pour compter les oiseaux, les observateurs recueillent des informations sur toutes les observations d'animaux sauvages, y compris les mammifères marins et la pollution plastique. Toutes les données sont mises à la disposition du public via le Catalogue de données d'Environnement et Changement climatique Canada. Bien qu'il existe plusieurs observateurs formés dans les provinces atlantiques du Canada, nous manquons d'expertise dans l'Arctique canadien, où les efforts de relevé sont les plus nécessaires. Notre deuxième objectif est de former des membres des communautés nordiques, y compris le personnel

Hulilukaarutit

Inigiya	Hulilukaarut Qanurittuq	Nunannga Qanurittaakhaanik	Initurlinga qanuritpa	Initurlinga utuqqarnitat unaluuniit Ingilraaqnitat Uyarannuqtut akhuurninnga	Qanitqiyauyuq qanitqiamut nunallaat kitulluuniit ahiruqtaiiyainnit nuna
Pitsiulaaqsi	Researching	Crown	Nesting site for black guillemots, Iceland Gulls and Glaucous gulls for many decades.	This site is not designated as a National Historical Site.	45 km

Nunaliin Ilauyun, Aviktuqhimayuniitunullu Ikayuuhiarunguyun

Nunauyuq	Atia	Timiuyuq	Upluani Uqaqatigiyaungmata
Iqaluit	Sally Mikijuk	Amaruq Hunters and Trappers Association	2026-02-05

Angiuttauvaktunik

Naunaiqlugu nunanga talvani havauhikhaq ittuq:

South Baffin

Angiuttauvaktunik

Munariniqmut Ayuittiaqtuq	Angirutinga Qanurittuq	Tadja Qanurittaakhaanik	Ublua Tuniyauyuq/Uuktuqtuq	Umikvikhaa Ublua
Kaanatami Huradjat Munariniq	Scientific Permit	Applied, Decision Pending		
Kaanatami Huradjat Munariniq	Banding Permit	Applied, Decision Pending		
Hunters and Trappers Associations/Organizations	Project approval	Active	2026-02-11	
Nunavut Kavamanga, Avatiliriyikkut	Wildlife Research Permit	Active	2026-04-10	2026-08-31

Project transportation types

Transportation Type	Qanuq Atuqtauniarmangaa	Length of Use
Water	Travelling by boat to and from Pitsiulaaqsi	
Land	Landing on Pitsiulaaqsi and walking by foot, day trips only	

Project accomodation types

Alaanut,

Ihuaqutivaluin Atuqtauyukhan

Hanalrutit atuqtaunahuat (ukuallu ikuutat, pampiutainnik, tingmitinik, akhaluutininik, hunaluuniit)

Hanalrutit Qanurittuq	Qaffiuyut	Aktikkulaanga – Qanurittullu	Qanuq Atuqtauniarmangaa
Boat	1	Unknown	To transport people to and from Pitsiulaaqsi (departing from Iqaluit). The boat size will depend on the number of personnel and availability of outfitters (to be determined). Boat will hold up to 8 personnel.

Qanurittuq Urhuqyuaq unalu Qayangnaqtut Hunavaluit Aturninnga

Qanurittuq urhuqyuaq hunavaluit aturninnga:	Urhuqyuaq Qanurittuq	Qaffiuyut qattaryut	Qattaryuk Aktikkulaanga	Atauttimut Qaffiuyut	Ilanga	Qanuq Atuqtauniarmangaa
Gasoline	fuel	1	200	200	Liters	Fuel for the boat

Imaqmik Aturninnga

Ubluq qanuraaluk (m3)	Aturumayain imavaluin utiqittagaani qanuq	Atulirumayain imavaluin utiqittagani humi
0		

Iqqakuq

Ikkakunik Munakgiyauyunik

Havauhikhaq Hulilukaarut	Qanurittuq Iqqakut	Ihumagiyauyuq Qanuraaluktut Atuqtait	Qanuq Iqqakuurniarmangaa	Halummaqtirarnirutikhan piyutin
Researching	Ikulalimanngittun iqqakuuvaluin	1 small garbage bag	We will only be landing on Pitsiulaaqsi for day trips, thus we do not anticipate any environmental impacts at that location. All waste accumulated from this project will be brought back to Iqaluit to appropriate processing.	All waste accumulated from this project will be brought back to Iqaluit to appropriate processing.

Avatiriniqmut Ayurhauingit:

We will only be landing on Pitsiulaaqsi for a few hours, thus we do not anticipate any environmental impacts at that location. All waste accumulated from this project will be brought back to Iqaluit to appropriate processing. In the event of a fuel spill, the Canadian Wildlife Service and the 24-hour Nunavut spill report line (867- 920-8130) will be notified of any spills.

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

SECTION H2: Disposal At Sea

SECTION I1: Municipal Development

Qanurittuq Ittunik Avatinga: Avatingalluanga

Qanurittuq Ittunik Avatinga: Inuuhimayunut Avatinga

Qanurittuq Ittunik Avatinga: Inungit-maniliurutingit Avatinga

Miscellaneous Project Information

Naunaiyainiq ukuninga Ayurhautingit unalu Piumayaat Ikikliyuumiutinahuarutit

Predicted environmental impacts of undertaking and proposed mitigation measure: We will only be landing on Pitsiulaaqsi for a few hours, thus we do not anticipate any environmental impacts at that location. All waste accumulated from this project will be brought back to Iqaluit to appropriate processing. In the event of a fuel spill, the Canadian Wildlife Service and the 24-hour Nunavut spill report line (867- 920-8130) will be notified of any spills.

Tamatkiumayunik Ihuikgutivaktunik

Impacts

Ilitariyauniq Avatiliriniqmut Ayurhauingit

	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
Havakvinga	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Aulapkaininnga		-	P	-	-	-	-	-	-	-	-	-	-	-	-	-	P	-	-	-	P	-	-	-	-
Piiqtauniq	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

(P = Nakuuyuq, N = Nakuungittut unalu mikhilimaittuq, M = Nakuungittut unalu mikhittaaqtuq, U = Naluyayuq)

Havaariyauyukhamut Nayugaa



List of Project Geometries

1	point	Pitsiulaaqsi
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