



## Tukihiannaqtunik havaariyaumayumik uqauhiyun

**Qablunaatitut:** The project will take place in two locations. Work in Foxe Basin, based out of the community of Igloolik, will take place over approximately two weeks between mid June and mid July, 2025. Work off the east Coast of Baffin Island will be based out of the community of Clyde River and will take place over approximately three weeks in August 2025. The work in Foxe Basin will be carried out entirely by four Nunavut Beneficiaries, hired through the Igloolik Hunters and Trappers Association (HTA). Work based out of Clyde River will be carried out by Fisheries and Oceans (DFO) staff working alongside up to 4 Beneficiaries hired through Nangmoutaq HTA. The main objectives of this study are to collect biopsy samples for use in updating abundance estimates of the Eastern Canada-West Greenland bowhead population and to use drones to collect photographs for use in photo-identification studies. ECWG bowhead whales are known to segregate based on age, with juvenile and subadult whales thought to use different summer habitat than older adults. By expanding our research to the east coast of Baffin Island we hope to learn more about the bowheads that use this area and to collect biopsy samples and photo-id data that would be more representative of the entire population. This data is essential for improving population abundance estimation and this research would represent an important step towards gaining a more complete understanding of ECWG bowhead population dynamics.

Uiviititut: The project does not take place near the city of Iqaluit, so a French translation has not been provided.

[illegible]

## Personnel

Personnel on site: 11

Days on site: 20

Total Person days: 220

Operations Phase: from 2025-06-08 to 2025-08-23

## Hulilukaarutit

Inigiya	Hulilukaarut Qanurittuq	Nunannga Qanurittaakhaanik	Initurlinga qanuritpa	Initurlinga utuqqarnitat unaluuniit Ingilraaqnitat Uyarannguqtut akhuurninnga	Qanitqiyauyuq qanitqiamut nunallaat kitulluuniit ahiruqtailiyainnit nuna
Study area near Clyde River, NU. Work includes travel by small boat, conducting day-trips from Clyde River, to research bowhead whales. Boat-based marine work only.	Researching	Marine	N/A	N/A	Clyde River - The field team will be based in Clyde River, making daytrips by boat to conduct research on bowhead whales.
Study area in Foxe Basin, NU. Based out of the community of Igloolik, research on bowhead whales will be conducted from the floe edge, as well as using small boats. Boat-based and ice based marine work only.	Researching	Marine	N/A	N/A	Nearest communities are Igloolik and Sanirajak. The field team will be based in Igloolik and will make day trips to conduct bowhead research either from boats or from the floe edge.

### Nunaliin Ilauyun, Aviktuqhimayuniitunullu Ikayuuhiarunguyun

Nunauyuq	Atia	Timiuyuq	Upluani Uqaqatigiyaungmata
Clyde River	Jaysie Tigullaraq	Nangmautaq Hunters and Trappers Association	2024-11-28
Igloolik	Billy Pauloosie	Igloolik Hunters and Trappers Association	2024-11-28
Sanirayaak	Paul Nagmauk	Sanirajak Hunters and Trappers Association	2024-11-28

# Angiuttauvaktunik

Naunaiqlugu nunanga talvani havauhikhaq ittuq:

Angiuttauvaktunik

Munariniqmut Ayuittiaqtuq	Angirutinga Qanurittuq	Tadja Qanurittaakhaanik	Ublua Tuniyauyuq/Uuktuqtuq	Umikvikhaa Ublua
Hunters and Trappers Associations/Organizations	Nangmautaq HTA (Clyde River) support for research.	Active	2025-01-15	
Hunters and Trappers Associations/Organizations	Igloolik HTA support for research.	Active	2025-01-22	
Hunters and Trappers Associations/Organizations	Sanirajak HTA support for research.	Active	2024-12-04	
Iqalukhiurniqmut Tariuqmilu Kaanata	License to Fish for Scientific Purposes (LFSP)	Applied, Decision Pending		
Iqalukhiurniqmut Tariuqmilu Kaanata	Animal Care Approval - Ontario, Prairie and Arctic Animal Care Committee	Applied, Decision Pending		
Iqalukhiurniqmut Tariuqmilu Kaanata	Application for Authorization to Disturb a Marine Mammal (for drone work)	Applied, Decision Pending		

## Project transportation types

Transportation Type	Qanuq Atuqtauniarmangaa	Length of Use
Water	Small boats (up to approx 8 m in length) would be used to search for and approach bowhead whales for sample collection. Two boats for use in Foxe Basin, based out of Igloolik and two boats based out of Clyde River	

## Project accomodation types

Nunauyuq

# Ihuaqutivaluin Atuqtauyukhan

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

Hanalrutit Qanurittuq	Qaffiuyut	Aktikkulaanga – Qanurittullu	Qanuq Atuqtauniarmangaa
Small Boat	4	8 m	Small boats (up to approx 8 m in length) would be used to search for and approach bowhead whales for sample collection. Two boats for use in Foxe Basin, based out of Igloodik and two boats based out of Clyde River.
Drone	2	283.0 x 107.7 x 347.5 mm	Small drones will be used to take photos and videos of bowhead whales.
crossbows	4	90 cm length	Crossbows, with special biopsy arrows and tips, will be used to collect small skin/blubber tissue samples from bowhead whales.

## Qanurittuq Urhuqyuaq unalu Qayangnaqtut Hunavaluit Aturninnga

Qanurittuq urhuqyuaq hunavaluit aturninnga:	Urhuqyuaq Qanurittuq	Qaffiuyut qattaryut	Qattaryuk Aktikkulaanga	Atauttimut Qaffiuyut	Ilanga	Qanuq Atuqtauniarmangaa
Gasoline	fuel	10	160	1600	Liters	Gasoline will be used to power small boats, used to search for bowhead whales.
Povidon Iodine (Betadine)	hazardous	2	1	2	Liters	Betadine will be used to clean stainless steel biopsy tips prior to sample collection.

## Imaqmik Aturninnga

Ubluq qanuraaluk (m3)	Aturumayain imavaluin utiqittagani qanuq	Atulirumayain imavaluin utiqittagani humi
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# Iqqakuq

## Ikkakunik Munakgiyauyunik

Havauhikhaq Hulilukaarut	Qanurittuq Iqqakut	Ihumagiyauyuq Qanuraaluktut Atuqtait	Qanuq Iqqakuurniarmangaa	Halummaqtirarnirutikhan piyutin
Researching	Other, Non-hazardous chemical (povidone-iodine)	Less than 1 litre	Used Povidone-iodine (Betadine, not considered hazardous waste) will be collected and transported back to the Freshwater Institute in Winnipeg and disposed of following the Freshwater Institute lab waste disposal procedures.	While not classified as hazardous waste, Betadine is an antiseptic and disinfectant agent, and its active ingredient, povidone-iodine, is a known irritant and will be handled with care.

### Avatiliriniqmut Ayurhautingit:

We anticipate very little environmental impact resulting from our project. We will be staying in communities, rather than establishing a camp. Therefore all human waste and regular garbage will be disposed of through the community waste handling systems. We will be conducting day trips using small motor boats, producing exhaust from the consumption of gasoline, but given the small scale of our project, the emissions created from this work will be small. Approaching bowhead whales in boats will result in some disturbance to their regular behavior, but the sample collection methods are considered minimally invasive, and whales typically return to regular activities soon after the sampling event.

# **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**

The project will take place in the marine environment of northern Foxe Basin near Igloolik, NU, and near Clyde River Nunavut. Work in Foxe Basin will take place in late June and early July when the ocean is still partially ice-covered, usually with a stable floe edge, and prior to ice break up in Fury and Hecla Strait. The work near Clyde River will take place in August, when the area is mostly free of sea ice, allowing travel by boat along the coast to search for bowhead whales.

### **Qanurittuq Ittunik Avatinga: Inuuhimayunut Avatinga**

In the spring, as sea ice begins to break up in Foxe Basin, many bowhead whales move from their wintering areas in and around Hudson Strait, up to Foxe Basin. Bowheads can be found in high numbers in Northern Foxe Basin at this time of year, as they await the ice break up in Fury and Hecla Strait, allowing access into the Gulf of Boothia. The east Coast of Baffin Island is known as both a migration corridor for bowheads of all age/sex classes, as well as an aggregation area for older adult bowheads. The area of Ninginganiq (Isabella Bay) is known as an important aggregation area for bowheads in late summer and fall. The presence of both shallow banks and deep water troughs make this an attractive area for social behavior, resting, and feeding. Although we won't be working in Ninginganiq, we hope to encounter larger adult whales that may be travelling to this important area.

### **Qanurittuq Ittunik Avatinga: Inungit-maniliurutingit Avatinga**

Bowhead whales are a culturally important species which experienced drastic declines in abundance during the commercial whaling era, which ended in 1915. Since the end of commercial whaling the ECWG bowhead population has slowly been recovering, but current abundance estimates are far below historical estimates from prior to commercial whaling. The current quota for hunting bowheads in Nunavut is up to 5 per year (also up to 2 in Nunavik and 2 in West Greenland). With increased reports of killer whales in the eastern Canadian Arctic, including several reports of killer whale predation on bowheads, there has been much interest and support in studying the ECWG bowhead population.

## **Miscellaneous Project Information**

### **Naunaiyainiq ukuninnga Ayurhautingit unalu Piumayaat Ikikliyuumiutinahuarutit**

We anticipate very little environmental impact resulting from our project. We will be staying in communities, rather than establishing a camp. Therefore all human waste and regular garbage will be disposed of through the community waste handling systems. We will be conducting day trips using small motor boats, producing exhaust from the consumption of gasoline, but given the small scale of our project,



the emissions created from this work will be small. Approaching bowhead whales in boats will result in some disturbance to their regular behavior, but the sample collection methods are considered minimally invasive, and whales typically return to regular activities soon after the sampling event.

### **Tamatkiumayunik Ihuikgutivaktunik**

This research project will contribute important samples and data to DFOs growing archive of ECWG bowhead genetic data, and more recently, to our Photo ID catalogue, to estimate population abundance using mark-recapture methods. The work is supported by the communities of Igloodik, Sanirajak, and Clyde River. Each of these communities will benefit from the project through revenue and employment opportunities, training opportunities, and involvement and collaboration in research that is meaningful to the communities.

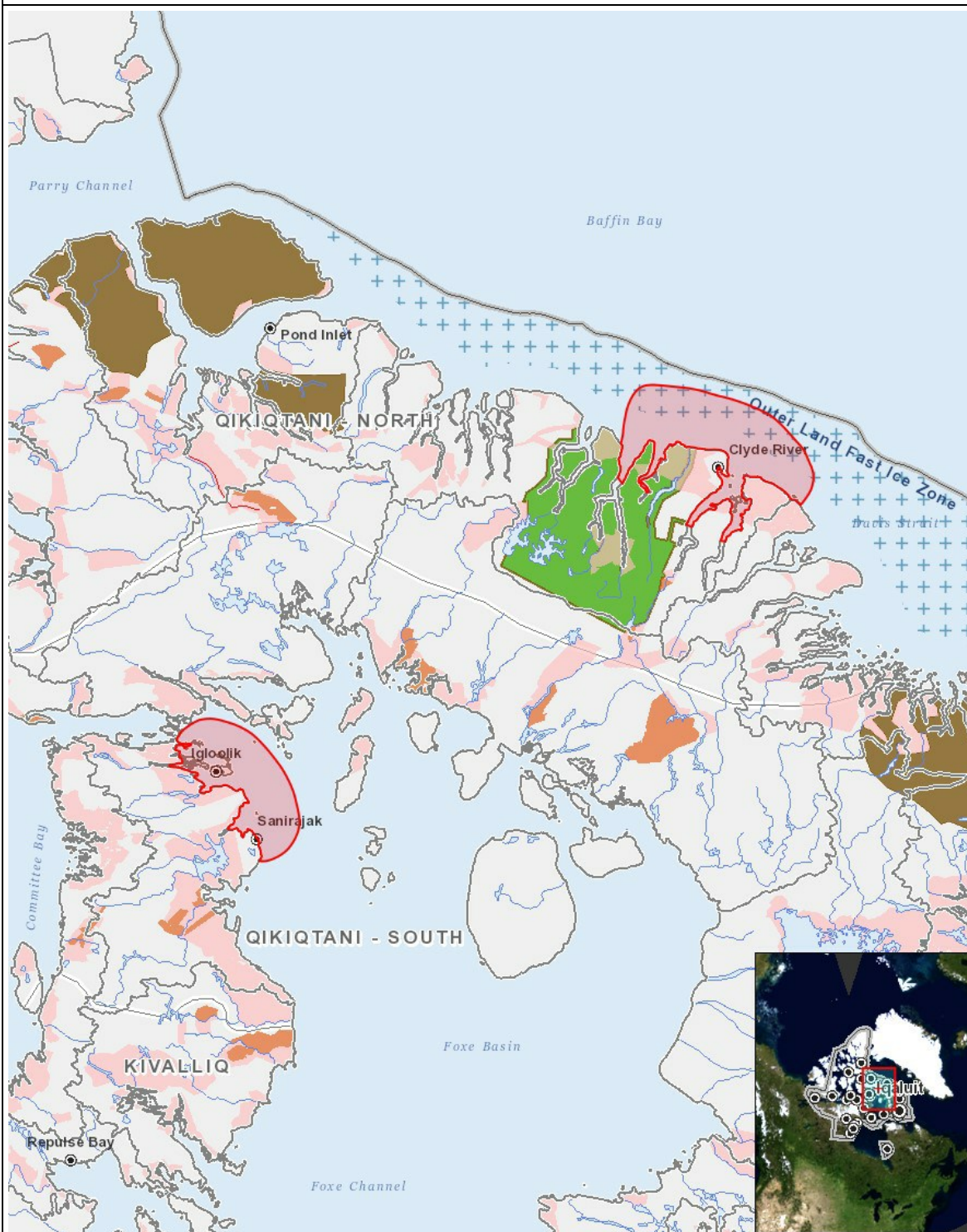
# Impacts

## Ilitariyauniq Avatiliriniqmut Ayurhautingit

		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																										
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Aulapkaininnga																										
Researching		-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	-	U	-		-	P	-	-	-
Piiqtauniq																										
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(P = Nakuuyuq, N = Nakuungittut unalu mikhilimaittuq, M = Nakuungittut unalu mikhittaaqtuq, U = Naluyauyuq)

## Havaariyauyukhamut Nayugaa



### List of Project Geometries

- 1 polygon Study area near Clyde River, NU. Work includes travel by small boat, conducting day-trips from Clyde River, to research bowhead whales. Boat-based marine work only.
- 2 polygon Study area in Foxe Basin, NU. Based out of the community of Igloolik, research on bowhead whales will be conducted from the floe edge, as well as using small boats. Boat-based and ice based marine work only.