

NIRB Uuktuutinga Ihivriuhikhamut #125340**Back for the future: Long-term observations of vegetation and snowcover in the High Arctic**

Uuktuutinga Qanurittuq: New

Havaap Qanurittunia: Scientific Research

Uuktuutinga Ublua: 4/30/2018 12:50:06 PM

Period of operation: from 0001-01-01 to 0001-01-01

Piumayaat Angirutinga: from 0001-01-01 to 0001-01-01

Havauhikhaq Ikayuqtinga: Jim Schaefer
Trent University
2140 East Bank Drive
PETERBOROUGH ON K9L 0G2
Canada
Hivayautit Nampanga:: 705-750-0812, Kayumiktukkut Nampanga:: 705-748-1139

QANURITTUT**Tukihiannaqtunik havaariyauyumayumik uqauhiuyun**

Qablunaatitut: Long-term scientific observations are important to understanding environmental changes. Because of climate change, woody shrubs are expected to increase on the tundra; snow conditions will change, too. The goal of my study is to evaluate these long-term changes. During 1991-1993, I spent 15 months on the land at Ekalluktok, on Wellington Bay, west of Cambridge Bay. I established 80 vegetation and snow observation points during my research on muskoxen. I recorded the quantity and types of plants; I measured the hardness and thickness of snow. These observations are important for assessing changes over the past 25 years. They are also a baseline for the future. I intend to repeat this study. In 2018, I will return to these observation points. In 1991, I marked each point with a small metal stake. I left those stakes on the land; I expect to find them again. In August 2018, I will estimate the abundance and composition of plants again. In April 2019, I will return to measure snow conditions. I will compare my new observations to the observations from the 1990s. Finally, I will share my information. I will photograph each plot; I will demonstrate the techniques to local residents and/or the staff at the Canadian High Arctic Research Station; and I will store the photographs and data so that people can use them in future.

Uiviitut: Not applicable

Inuktitut: Not applicable

Inuinnaqtun: Hivituyumik qauyiharnikkut tautukhimayangit aturnaqhuni kangiqhittiariami nunap avatingit aallanguqtiqhimayut. Hamna hilaup aallanguqpallianinga, qiyulingnit iviit naahuriyauyut amigainniaqhutik manirarmi; aputit qanurilinganingit aallanguqpallianingit, ilaa. Hamna hivunigiyaara naunaiyainikhanut qimilruqtakhaat hivituyumik aallanguqpallianingit. Uvani 1991-1993, manirarmiitkaluaqtunga 15 nit tatqihutitugut uvani lqaluktuuq, uataaniittuq lqaluktuuttiarmi. Aulapkaivlunga 80 nit nauhimayunit apunmullu ihivriuhugit qauyihahunga umingmainnit. Titirahungalu amihuuningit aallatqiinguyullu nauttiat; uuktuqhungalu naptunninga hilingningalu apunmut. Hapkuat ihivriuhimayatka aturnaqhutik ihivriuhigiami aallanguqpallianingit qangaraalungmit 25 nit ukiunganit. Kigluuvlutik hivunikhmut. Huli havaffaarumayatka naunaiqhiinianut. Uvani 2018 mi, utirniarmiyunga ihivriuffaariami. Uvani 1991 mi, nalunaiyqhimagatka nuvuani naittumik havigalingnit naunaitkutarmik. Manirarmiittut naunaitkutait; naahurihimayara naniniaqtatka. Uvani Niqiliqivingmi 2018 mi, naunaiqhiiniaqtunga amihuuningit havaangillu nauttianut havaarilugillu. Uvani Qitiqqautiyuq 2019 mi, utiffaarniarmiyunga ihivriurlugit aputit qanurilinganingit. Ihivriurniarmiyatka nutaam ihivriurningit uumanngat naunaiyaimayaraluatka hamanngat 1990 ngugluaqtumi. Kinguani, ilittupkainiaqtatka avvautihimalugillu naunaiyainingit. Piksaliurniaqtatka tamait maniraq havaarihimayatka ilittuqhiiniaqtatka qauyiharnianut nunaqatigiingnut unalu/havaktunut uvani Kanatamiunut Qulvahiktumut Ukiuqtaqtumi Qauyiharvik; piksallu naunaiyainingillu tutquumaniagtut inuit aturumagumiuk hivunngani.

Personnel

Personnel on site: 2

Days on site: 21

Total Person days: 42

Operations Phase: from 2018-08-06 to 2018-08-27

Hulilukaarutit

Hulilukaarutit

Inigiya	Hulilukaarut Qanurittuq	Nunannga Qanurittaakhaanik	Initurlinga qanuritpa	Initurlinga utuqqarnitat unaluuniit Ingilraaqnitat Uyarannuqtut akhuurninnga	Qanitqiyauyuq qanitqiamut nunallaat kitulluuniit ahiruqtaliyainnit nuna
Wellington Bay, in vicinity of Ekalluk River	Scientific/International Polar Year Research	Crown	Unknown	Unknown	Roughly 60 km west of the community of Cambridge Bay

Nunaliin Ilauyun, Aviktuqhimayuniitunullu Ikayuuhiarunguyun

Nunauyuq	Atia	Timiuyuq	Upluani Uqaqatigiyaungmata
Ikaluktuttiaq	Aili Pedersen	Canadian High Arctic Research Station	2018-01-19

Angiuttauvaktunik

Naunaiqlugu nunanga talvani havauhikhaq ittuq

Angiuttauvaktunik

Munariniqmut Ayuittiaqtuq	Angirutinga Qanurittuq	Tadja Qanurittaakhaanik	Ublua Tuniyauyuq/Uuktuqtuq	Umikvikhaa Ublua
Nunavut Kavamanga, Avatiliriyikkut	Nunavut Wildlife Research Permit Application	Applied, Decision Pending		

Project transportation types

Transportation Type	Qaffiuyut	Qanuq Atuqtauniarmangaa	Length of Use
Air	0	Twin Otter	
Water	0	Canoe	
Land	0	On foot	

Project accomodation types

Temporary Camp

Ihuaqutivaluin Atuqtauyukhan

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

Hanalrutit Qanurittuq	Qaffiuyut	Aktikkulaanga – Qanurittullu	Qanuq Atuqtauniarmangaa
Tent	3	2 m x 3 m	Accommodation
Canoe	1	5 m	Cross Ekalluk River to access sampling sites

Qanurittuq Urhuqyuaq unalu Qayangnaqtut Hunavaluit Aturninnga

Qanurittuq urhuqyuaq hunavaluit aturninnga:	Urhuqyuaq Qanurittuq	Qaffiuyut qattaryut	Qattaryuk Aktikkulaanga	Atauttimut Qaffiuyut	Ilanga	Qanuq Atuqtauniarmangaa
	fuel	2	1	2	Gallons	Naptha for cooking

Imaqmik Aturninnga

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

Iqqakuq

Ikkakunik Munakgiyauyunik

Havauhikhaq Hulilukaarut	Qanurittuq Iqqakut	Ihumagiyauyuq Qanuraaluktut Atuqtait	Qanuq Iqqakuurniarmangaa	Halummaqtirarnirutikhan piyutin
Researching	Ikulalimanngittun iqqakuuvaluin	Less than 1 kg per day	Return to Cambridge Bay and deposit in regular municipal waste or recycling	.
Researching	Anaagun (inuin anaaguin)	Less than 1 kg per day	Small open pit	.

Avatiliriniqmut Ayurhautingit:

Minimal. Our camp will be temporary; it will consist of just two people. No motorized vehicles will be used. No refuse (other than a small amount of sewage waste) will left on-site. On the other hand, the project will lead to better scientific understanding of long-term changes to tundra vegetation.

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 ukuninnga Ayurhautingit unalu Piumayaat Ikikliyuumiutinahuarutit

Tamatkiumayunik Ihuikgutivaktunik

Impacts

Ilitariyauniq Avatiliriniqmut Ayurhautingit

Havakvinga																									
-		-	-	-	-	-	-	-	-	-	-	-	-		-	-	-	-	-		-	-	-	-	-
Aulapkaininnga																									
Scientific/International Polar Year Research		-	-	-	-	-	-	-	-	-	-	-	-		P	P	-	-	-		-	-	-	-	-
Piiqtauniq																									
-		-	-	-	-	-	-	-	-	-	-	-	-		-	-	-	-	-		-	-	-	-	-

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