□

ᓄᓇᕘᒥ ᐊᕙᑎᓕᕆᔨᒃᑯᑦ ᑲᑎᒪᔨᖏᑦᑎᒍᑦ ᑐᒃᓯᕋᖅᑑᑦ ᕿᒥᕐᕈᔭᒃᓴᖅ #125340

Back for the future: Long-term observations of vegetation and snowcover in the High Arctic

ᑐᒃᓯᕋᖅᑑᑕᐅᔪᖅ ᖃᓄᐃᑦᑑᓂᖓ: New

ᐱᓕᕆᐊᓂᔭᐅᔪᒪᔫᑉ ᖃᓄᐃᑦᑑᓂᖓ: Scientific Research

ᐅᓪᓗᖓ ᑐᒃᓯᕋᖅᑑᑎᓕᐊᕕᓂᐅᑉ: 4/30/2018 12:50:06 PM

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

ᑲᔪᓯᒃᑲᐃᕈᓂᐊᕋᓱᒋᔭᐅᔪᑦ: from 0001-01-01 to 0001-01-01

ᐱᓕᕆᐊᖃᕈᒪᔪᖅ: Jim Schaefer
Trent University
2140 East Bank Drive
PETERBOROUGH ON K9L 0G2
Canada
ᐅᖄᓚᐅᑏᑦ: 705-750-0812, ᓱᑲᔪᒃᑯᑦ: 705-748-1139

ᑐᓴᐅᒪᔭᒃᓴᑦ

ᖃᓄᐃᑦᑑᑎᓂᒃ ᐱᓕᕆᐊᖃᕐᓂᐊᓂᐊᕐᒪᓐᓂᒃ

ᖃᓪᓗᓈᑎᑐᑦ: 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.

ᐅᐃᕖᑎᑐᑦ: Not applicable

ᐃᓄᒃᑎᑐᑦ: Not applicable

Inuinnaqtun: Talvani okiomi, ovanga ehivgiokpagatka nigginiaktot okiomi umingmait onalo nuna hilami ekaloktumi ovaniikaluktutiap oataani. Elittogihimaliktonga 8-nik allatkiinik naovaktonik nunami tahamani. Ema ela, opeet, evgit, avalakiatlo takokhaoyot nattiknani talvanik nunainaot ataa hikokyoakaktomi. Aopayangattot ivgit, eghotitlo, kagioyatlo nunami naovaktot nunap tigvani. Apotitlo nunamiitotlo naovaktot aolavaktot. Nunami naovaktot ekitkangamik apot nutkakvikhainami apotainggakpaktok. Talvanitaok naohima yugiakangami nuna apotigiakpaktok apotlo apitaanikpakhon evyohivloni apot. Talvani apotikoktuvalaagangat, umingmait apotmik algakpalakpaktot nigginiaktot; ovalo algaktatik nigginiakvigiloakpagait, ovalo nigginiakvitik allanit umingmaknit annigiloallkpagait. Talvani okiomi, umingmait nigginiakvikakpaktot nunami naohimayugiaknikmi evvigiaktomi avalakiagiaktomi ovalo apotikokilgomi apotit naptuvalanggitoni. Niggivaktot okpiknik, evviknik avalakianiklo. Nikkitoangit malgoinak evgitloat: emakmiitot evgit (Carex aquatilis) okoninggalo kangguyanik (Eriophorum angustifollum). Opinggami mahaktiligangat, umingmait nigginiakvikakpaktot nuutotik nunamot apotailgomot. Talvani opingami, naovaktot naoligangata niggitialakivaktot umingmait, ova ehivgioktaovaktot nikkait annakkoitigot niggitiallikpakuniktot. Talvani oblumami, umingmait nigginiaktot oblotoak akopivakhotiklo. Okiok opingakhakaliagangat, akkopikatagoikpaliavaktot ovalo nigginiakloakpalikhotik. Umingmait oblak kftikkokkangat akkopillkpaktot. Okiomi apotainaoligangat

umingmait akkopeenallkpaktuniktot niggitiagoknaigaalotik apotlo evyuhigangat; taggioknafgangat nigginiakloallkp angnikhotik nikkit kahakhigganggata akkopilloagoknaikhotik oblok obloktohigangat opingami.

Personnel

Personnel on site: 2

Days on site: 21

Total Person days: 42

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

ᐱᓕᕆᐊᕆᔭᐅᓂᐊᖅᑐᑦ

ᐱᓕᕆᐊᕆᔭᐅᓂᐊᖅᑐᑦ

ᓇᒥ	ᖃᓄᐃᑦᑑᒥᑦ ᐱᓕᕆᐊᖃᕐᓂᐊᖅᐸ	ᑭᑯᑦ ᓄᓇᖁᑖᓂ	ᑐᓴᐅᒪᔭᒃᓴᑦ ᓄᓇᐅᑉ ᖃᓄᖅ ᐊᑐᖓᐅᓚᐅᖅᓯᒪᔪᓇᒐᓚᐅᓐᓂᒃ	ᐃᑦᓴᕐᓂᑕᖃᕐᕕᐅᕙᓚᐅᖅᐸ ᐃᓄᒃᓄᑦ ᓇᔪᖅᑕᐅᖃᑦᑕᕐᓂᑰᕙᓗ ᑕᐃᑦᓯᒪᓂᑐᖃᐅᓕᖅᑐᖅ	ᖃᓂᓐᓂᖅᐹᖅ ᓄᓇᓕᒥᔭᐅᔪᖅ ᐊᒻᒪᓗ ᓴᐳᒻᒥᒃᓰᕕᐅᕙᓗ ᓱᓇᓄᑦ
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

ᓄᓇᓕᐅᑉ ᐃᓚᐅᖃᑕᐅᓂᖓ ᓄᓇᓖᓪᓗ ᐊᕕᒃᑐᖅᓯᒪᐅᕐᓂᖓᓄᑦ ᐃᑲᔪᑕᐅᔪᓐᓇᖅᑐᑦ

ᓄᓇᓕᒥᔭᖅ	ᐊᑏᑦ	ᑲᑐᔾᔨᐊᖃᑎᒌᒥᔭᖅ	ᖃᖓᓗ ᑐᓴᖅᑎᑕᐅᓚᐅᕆᐊᖏᓐᓂᒃ
ᐃᖃᓗᒃᑑᑦᓯᐊᖅ	Aili Pedersen	Canadian High Arctic Research Station	2018-01-19

ᓚᐃᓴᓐᓰᑦ ᐱᒍᓇᐅᑏ ᐊᖏᖅᑕᐅᓯᒪᔪᑦ

ᓇᒦᒋᐊᖏᓐᓂᒃ ᐱᓕᕆᐊᕆᐊᖅᕕᐅᓂᐊᖅᑐᑦ ᑎᑎᕋᕐᓗᒋᑦ

ᓚᐃᓴᓐᓰᑦ ᐱᒍᓇᐅᑏ ᐊᖏᖅᑕᐅᓯᒪᔪᑦ

ᒐᕙᒪᒥᔭᐅᔫᑉ ᐊᕕᒃᑐᖅᓯᒪᐅᕐᓂᖓᓂ ᒪᓕᒐᕐᓈᖓᔪᓂᒃ ᐱᖁᔭᕐᓈᖓᔪᓂᒡᓗ ᑲᒪᔩᑦ ᐱᔪᓇᐅᑎᑖᕈᑎᓂᒃ ᓚᐃᓴᓐᓯᓄᑦᓗ ᑲᔪᓯᒃᑲᐃᔩᑦ	ᖃᓄᐃᑦᑐᓪᓚᓇᐅᕙ ᓚᐃᓴᓐᓯᑖᕈᑕᐅᔪᖅ ᐱᔪᖅᓇᐅᑎᑖᕈᑕᐅᔪᖅ ᐊᖏᖅᑕᐅᔪᕐᓘᓐᓃᑦ	ᒫᓐᓇ ᖃᓄᐃᓕᖓᕙ	ᐅᓪᓗᒥ ᑐᓂᔭᖅ/ ᑐᒃᓯᖅᑑᑕᐅᓚᐅᖅᓯᒪᔪᖅ	ᑭᒡᓕᖃᕐᕕᖓ
ᓄᓇᕗᑦ ᒐᕙᒪᖓ, ᐊᕙᑎᓕᕆᔨᒃᑯᑦ	Nunavut Wildlife Research Permit Application	Applied, Decision Pending		

Project transportation types

Transportation Type	ᖃᑦᓯᐅᕙᑦ	ᓱᓇᒧᑦ ᐊᑐᒐᐅᓂᐊᖅᐸ	Length of Use
Air	0	Twin Otter	
Water	0	Canoe	
Land	0	On foot	

Project accomodation types

Temporary Camp

ᐊᑐᒐᐅᓂᐊᖅᑐᖅ

ᐱᕐᑯᑦ ᐊᖏᔪᖅ ᐊᑐᖅᑕᐅᓂᐅᓴᔪᖅ ᐃᓚᖃᓯᐅᑎᓗᒋᑦ ᐃᑰᑕᐃᑦ, ᒥᓪᓗᐊᕈᑏᑦ, ᖃᖓᑕᓲᖅ, ᓘᓇᓯᐅᑦ ᐊᓯᖏᓪᓗ

ᐊᖏᔪᖅ ᐱᕐᑯᑦ ᐊᑐᒐᐅᓂᐊᖅᑐᖅ ᖃᓄᐃᑦᑑᓂᖓ	ᖃᑦᓯᐅᑫᑦ	ᐊᖏᓂᖏᑦ - ᐳᖅᑐᓂᖏᑦ	ᓱᓇᒧᑦ ᐊᑐᒐᐅᓂᐊᖅᐸ
Information is not available			

ᑎᑎᕋᐅᓯᖅᓗᒍ ᐅᖅᓱᒃᓴᐃᑦ ᐊᑦᑕᓇᖅᑐᖅᑕᓖᓪᓗ ᐊᑐᖅᑕᐅᓂᐊᕐᓂᖏᑦ

ᓱᓇᒧᑦ ᐅᖅᓱᒃᓴᒡᒥᐊᖅ ᐊᑐᒐᐅᓂᐊᖅᐸ	ᖃᓄᐃᑦᑐᓪᓚᖑᐅᕆ	ᖃᑦᓯᐅᑫᑦ ᐅᖅᓱᒃᓴᖃᐅᑏᑦ	ᐆᒃᓴᐅᒃ ᐃᒪᖃᖅᑎᒥᔪᓐᓀᓂᖓ	ᑲᑎᓪᓗᒍ	ᐆᒃᓴᐃᑦ ᐊᒥᓲᓂᖏᑦ	ᓱᓇᒧᑦ ᐊᑐᒐᐅᓂᐊᖅᐸ
Information is not available						

ᐃᒪᖅ ᐊᑐᖅᑕᐅᔭᖅᑐᖅ

ᐅᓪᓗ ᑕᒫᖅ ᐊᑐᖅᑕᐅᓂᐊᖅᑐᖅ	ᖃᓄᖅ ᐃᒥᖅᑕᖃᑦᑕᕐᓂᐊᖅᐸᑦ	ᓇᑭᑦ ᐃᒥᖅᑕᖃᑦᑕᕐᓂᐊᖅᐸᑦ
0	Buckets	Ekalluk River

ᐊᒃᑕᑰᑦ

ᐊᒃᑕᑰᓕᓇᓂᐊᕐᓂᖅ

ᐱᓕᓇᐊᓇᔭᐅᔭᒪᔭᒧᑦ ᐱᓕᓇᐊᓇᔭᐅᓂᐊᖅᑐᖅ	ᖃᓄᐃᑦᑐᖅ ᐊᒃᑕᑰᖅ	ᖃᓄᑎᒥ ᐊᒃᑕᑰᑦ ᓴᖅᑭᐊᓂᐊᖅᑐᓇᔭᐅᕗᑦ	ᖃᓄᖅ ᐊᒃᑕᖅᑕᐅᓂᐊᖅᐸ	ᓴᓗᒪᖅᓴᐅᑎᒃᓴᒃᑲᓐᓂᐅᓂᐊᖅᑐᑦ
Researching	ᐊᒃᑕᑰᑦ ᐃᑯᐊᓚᑕᐅᔪᓐᓇᖏᑦᑐᑦ	Less than 1 kg per day	Return to Cambridge Bay and deposit in regular municipal waste or recycling	.
Researching	ᑯᖅᑕᓕᓇᓂᖅ	Less than 1 kg per day	Small open pit	.

ᐊᕙᑎᒥᐅᑕᓃᑦᑐᑦ ᐊᒃᑐᖅᑕᐅᓯᒪᔪᑦ

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

ᐃᒡᓗ ᐊᕐᑎᐅᑦ ᖃᓄᐃᑦᑐᑦᓯᐅᓂᖅ: ᓄᓇᐅᑦ ᖃᓄᐃᑦᑐᓂᖅ

ᐃᒡᓗ ᐊᕐᑎᐅᑦ ᖃᓄᐃᑦᑐᑦᓯᐅᓂᖅ: ᐅᒪᔨᖅᑕᖃᖅᓂᖅ

ᐃᒡᓗ ᐊᕐᑎᐅᑦ ᖃᓄᐃᑦᑐᑦᓯᐅᓂᖅ: ᐃᓄᓕᓴᓂᕆᔭᖅᓴᑦ-ᐱᕐᓕᐊᔨᓴᓂᕆᔭᖅᓴᑦ

Miscellaneous Project Information

ᓄᓕᓇᐃᖅᑕᐅᓂᖏᑦ ᐊᖑᖅᑕᐅᔪᒪᔨᑦ ᖃᓄᐃᑦᑐᓂᖏᑦ ᕿᓯᐅᒥᔨᔪᖅᑕᐅᓂᐊᖅᓂᖏᑦᓗ

Cumulative Effects

Impacts

ᓇᓗᓇᐃᖅᑕᐅᓂᖅᑎᑦ ᐊᐢᑎᑎᒥᐅᑕᓂᑐᑦ ᐊᖏᑐᑕᐅᓯᒪᔪᑦ

ᓴᓇᓂᖅ																									
-		-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	-	-	-		-	-	-	-	-
ᐅᔨᕐᑲᖏᖅ																									
Scientific/International Polar Year Research		-	-	-	-	-	-	-	-	-	-	-	-	-		P	P	-	-	-		-	-	-	-	-
ᐃᑐᑦᑎᓇᓂᖅ																									
-		-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	-	-	-		-	-	-	-	-

(P = ᐊᖏᐅᓲᕈᑎᔪᓂᖅᑐᑦ, N = ᐊᖏᐅᖃᕐᓯᑲᐅᔪᓂᖅᑐᑦ ᕿᓚᐅᒥᔨᔪᓯᕐᖏᑐᑕᐅᔪᓂᖃᕐᑲᑦᓗ, M = ᐊᖏᐅᖃᕐᓯᑲᐅᔪᓂᖅᑐᑦ ᕿᓚᐅᒥᔨᔪᓯᕐᖏᑐᑕᐅᔪᓂᖅᑐᑦᓗ, U = ᖁᖏᐅᕆᒪᓂᖃᕐᑐᖅ)