

## **Nunavut Wildlife Research Trust Final Report**

**NWRT Project Number:** 02-21-14

**Project Title:** Estimating abundance of Lancaster Sound polar bear subpopulation via genetic mark-recapture sampling

**Project Contact:** Amélie Roberto-Charron (High Arctic Biologist), (867) 982-7455, [aroberto-charron@gov.nu.ca](mailto:aroberto-charron@gov.nu.ca), PO. Box 377, Kugluktuk, NU, X0B 0E0

**Former Project Leads:** Dr. Jasmine Ware and Mr. Markus Dyck (Polar Bear Biologists)

### **Project Overview:**

Polar bears across Nunavut play an important factor in Nunavummiut lives: they provide food, income through arts/crafts and sport hunts in various communities. Management and decision-making bodies require up-dated information to make management and harvest decisions which will ensure wildlife resources are vital and can provide for the demand of the local populous. Through ongoing research, the Government of Nunavut Department of Environment is able to inform affected Hunter and Trapper Organizations, and other co-management partners (locally/nationally/internationally) about the status of polar bear subpopulations and derive a management objective.

The Lancaster Sound (LS) polar bear subpopulation is one of Nunavut's largest polar bear subpopulations – it spans a geographical area of about 470 000 km<sup>2</sup> (with about approximately 250 000 km<sup>2</sup> of sea-ice) and is home to an estimated 2541± 391(mean ± 1 SE) polar bears. Given the lack of recent data for LS, and the population estimate derived from data collected in the late 1990's has a high degree of uncertainty, in part due to environmental changes and a prolonged male-biased harvest that has been part of the polar bear management system. To fulfill mandated wildlife monitoring objectives and provide management advice to the Nunavut Wildlife Management Board, the Government of Nunavut proposed to undertake a 3-year study (2021-2023) involving genetic biopsy mark-recapture techniques to reassess the size and status of the LS polar bear subpopulation.

Unfortunately, in April 2021, during the first year of the project, a tragic helicopter accident claimed the lives of the project lead (Markus Dyck) as well as the helicopter pilot and engineer. In response to the tragedy, the project was cancelled, and the work postponed to the following fiscal year. The Department of Environment is proposing to conduct a hybrid approach in Lancaster Sound March 2023, by running an aerial abundance survey while involving a genetic biopsy mark-recapture component. This will allow for the derivation of a population estimate, as well as the collection of important demographic and genetic information to support future analyses and provide vital information for the management of the subpopulation.

**Original Project Budget (2021):**

Item	Funds
Fuel purchase@128/dr x 350	\$45,000
Camp moving 20hrs@2300.00	\$69,000
Fuel Caching 80 hrs @ 2300/hr, 5K Twin Crew	\$191,000
Fuel drum moving/loading	\$3,000
Field Equipment	\$8,000
Survey Helicopters (up to 340hours) @2200.00	\$748,000
Travel crew to field sites	\$15,000
Food & Accommodation	\$34,000
Genetic Analyses of Samples (@\$45/sample) and harvest samples since 1990	\$1,000
Shipping	\$3,000
HTO field assistants 60d x 250/d	\$10,000
Contracted services (field crew, data analyses)	\$70,000
<b>TOTAL</b>	<b>\$1,196,000</b>

**Original Proposed Contributions (2021):**

Organization	Financial Support 2021/2022	In-Kind Contributions
GN, Department of Environment	\$841,000	Personnel time for logistical support, field research, and analyses during 2021 – 2022 FY: Approx. 0.8 PY's
NWMB	\$100,000	
NTI	\$125,000	
ECCC		0.4 PYs
PCSP(in-kind)		\$30
WWF Canada	\$20,000	
Parks Canada	\$80,000	
<b>TOTAL</b>	<b>\$1,196,000</b>	<b>1.2 PY, 30k</b>

**Changes to original contributions thus far:**

GN, ECCC, and PCSP contributions changed due to cancellation of project following fatal helicopter accident in April 2021.

**Financial Report:**

Budget Item	Budgeted	Disbursed	Variance
Fuel purchase@128/dr x 350	45000	54828	(9828)
Camp moving 20hrs@2300.00	69000	53121	15879
Fuel Caching 80 hrs @ 2300/hr, 5K Twin Crew	191000	48486	142514
Fuel drum moving/loading	3000	2723	277
Field Equipment	8000	7090	910
Survey Helicopters (up to 340hours) @2200.00	748000	177279	570721
Travel crew to field sites	15000	2441	12559
Food & Accommodation	34000	21312	12688
Genetic Analyses of Samples (@\$45/sample) and harvest samples since 1990	0	0	0
Shipping	3000	0	3000.00
HTO field assistants 60d x 250/d	10000	16,800	(6,800)
Contracted services (field crew, data analyses)	70000	25675	43145
TOTAL (\$)	1,196,000	409755	786245

All NWMB contribution was used for caching, helicopter activities, and field equipment.

**Explanation of Variances:**

- (1) All variances are due to cancellation of project following helicopter accident on April 25, 2021.
- (2) HTO representatives: costs increased to \$350/day starting in spring 2021.
- (3) Variance in flying and crew travel costs between interim and final report due to including helicopter flight time and costs to Resolute.

I certify that this is an accurate statement of the Trust project funds received and disbursed in accordance with the joint contribution agreement.

*A. Roberto-Charron*

Project leader

*Ymange* Sept-29/22

Finance department signature



## **Demavivas, Nenette**

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**From:** Roberto-Charron, Amelie  
**Sent:** September 29, 2022 12:56 PM  
**To:** Demavivas, Nenette; Cooper, Elaina  
**Cc:** Campbell, Mitch; Gissing, Drikus  
**Subject:** RE: Polar Bear NWRT 2021 Financial Report  
**Attachments:** 02-21-14\_NWMB\_LS\_FinalReport\_Sept2022.pdf

Hi Nenette,

Please see attached a final report for NWRT project 2-21-14. If this could be signed by Nikki, and sent back to me, I can then submit it to NWMB.

Thanks again for all your help,  
Am

**From:** Roberto-Charron, Amelie  
**Sent:** September 29, 2022 10:11 AM  
**To:** Demavivas, Nenette <NLDemavivas@GOV.NU.CA>; Cooper, Elaina <ECooper@GOV.NU.CA>  
**Cc:** Campbell, Mitch <MCampbell1@gov.nu.ca>; Gissing, Drikus <DGissing@GOV.NU.CA>  
**Subject:** RE: Polar Bear NWRT 2021 Financial Report

Thanks Nenette!

I'll put together a final financial report to be signed off by Nikki. I'll get that to you as soon as possible.

Thanks again for all your help,  
Am

**From:** Demavivas, Nenette <[NLDemavivas@GOV.NU.CA](mailto:NLDemavivas@GOV.NU.CA)>  
**Sent:** September 29, 2022 10:09 AM  
**To:** Roberto-Charron, Amelie <[ARoberto-Charron@gov.nu.ca](mailto:ARoberto-Charron@gov.nu.ca)>; Cooper, Elaina <[ECooper@GOV.NU.CA](mailto:ECooper@GOV.NU.CA)>  
**Cc:** Campbell, Mitch <[MCampbell1@gov.nu.ca](mailto:MCampbell1@gov.nu.ca)>; Gissing, Drikus <[DGissing@GOV.NU.CA](mailto:DGissing@GOV.NU.CA)>  
**Subject:** RE: Polar Bear NWRT 2021 Financial Report

IT was all spent to PCSP see screen shot below.

Thank you,

Nenette





FreeBalance

File Edit Action Search Tables Utilities GoTo

Expense Vouchers

Clear Add Save Edit Delete Find << >> Zoom Print Exit



Government of Nunavut (fbprodN)

Expense Vouchers

View

Loc 1 FY 2021/22 Prd 8 Source MANUAL Voucher # 13HQ210436 Date 2021-11-18

Posting Status Posted Temp # Not Posted Reason Batch #

Description PCSP LANCASTER Paid Yes Approvals Routing

Vendor RECEGE135 Invoice # 83108971 Date 2021-10-18 Receipt Date 2021-10-19  
Receiver General Nat Resources

Recur Next Period

PO/Contract # PCSP 307-21 Payment Mode TAXP Location 13 Bank HQ/IQ

Prepaid Acct'ing Off. 01 GL Offset 3001 Payment Term NA Hold IS

Calculate Tax	Tax 1	Tax 2	Foreign Currency	Goods & Serv.	
					292,120.10
				Tax 1	0.00
				Tax 2	0.00
Price incl.tax				Total	292,120.10

Items

#	Obl	Coding Block	Frgr Amt	AmountTax	Taxes	DescDetail	Dist
1		99999/01/9/999/9999999/99/9117		13,910.48			
2		13700/01/1/111/1374140/04/3508		20,000.00			
3		13700/01/1/111/1374280/04/3508		100,000.00			

Goods & Serv.	Tax 1	Tax 2	Total
292,120.10	0.00	0.00	292,120.10

Payment Details

#	Invoice Amount	Interest Amount	Discount Amount	Payment Amount
1	292,120.10	0.00	0.00	292,120.10

Due Date Dscnt Date Check Series Check # Date Payment ID





**From:** Roberto-Charron, Amelie <[ARoberto-Charron@gov.nu.ca](mailto:ARoberto-Charron@gov.nu.ca)>  
**Sent:** September 29, 2022 12:01 PM  
**To:** Demavivas, Nenette <[NLDemavivas@GOV.NU.CA](mailto:NLDemavivas@GOV.NU.CA)>; Cooper, Elaina <[ECoooper@GOV.NU.CA](mailto:ECoooper@GOV.NU.CA)>  
**Cc:** Campbell, Mitch <[MCampbell1@gov.nu.ca](mailto:MCampbell1@gov.nu.ca)>; Gissing, Drikus <[DGissing@GOV.NU.CA](mailto:DGissing@GOV.NU.CA)>  
**Subject:** RE: Polar Bear NWRT 2021 Financial Report

Hi Nenette,

Thanks for letting me know. Can you confirm that the \$100,000 for project 2-21-14 was charged to helicopter time?

Thanks again for the help,  
Am

**From:** Demavivas, Nenette <[NLDemavivas@GOV.NU.CA](mailto:NLDemavivas@GOV.NU.CA)>  
**Sent:** September 29, 2022 9:56 AM  
**To:** Roberto-Charron, Amelie <[ARoberto-Charron@gov.nu.ca](mailto:ARoberto-Charron@gov.nu.ca)>; Cooper, Elaina <[ECoooper@GOV.NU.CA](mailto:ECoooper@GOV.NU.CA)>  
**Cc:** Campbell, Mitch <[MCampbell1@gov.nu.ca](mailto:MCampbell1@gov.nu.ca)>; Gissing, Drikus <[DGissing@GOV.NU.CA](mailto:DGissing@GOV.NU.CA)>  
**Subject:** RE: Polar Bear NWRT 2021 Financial Report

Hi Lisa,

The project for 2-21-15 was cancelled therefore no expense. NWMB don't issue payment for this project.

Thanks,

Nenette

**From:** Roberto-Charron, Amelie <[ARoberto-Charron@gov.nu.ca](mailto:ARoberto-Charron@gov.nu.ca)>  
**Sent:** September 29, 2022 11:27 AM  
**To:** Demavivas, Nenette <[NLDemavivas@GOV.NU.CA](mailto:NLDemavivas@GOV.NU.CA)>; Cooper, Elaina <[ECoooper@GOV.NU.CA](mailto:ECoooper@GOV.NU.CA)>  
**Cc:** Campbell, Mitch <[MCampbell1@gov.nu.ca](mailto:MCampbell1@gov.nu.ca)>; Gissing, Drikus <[DGissing@GOV.NU.CA](mailto:DGissing@GOV.NU.CA)>  
**Subject:** Polar Bear NWRT 2021 Financial Report

Hello everyone,

I've been made aware that we have two outstanding reporting for the 2021 polar bear NWRT funding (2-21-14 and 2-21-15).

It's important that we submit financial reporting on time to remain in good standing with funding agencies. Unfortunately, the tragic loss of Markus occurred during this work, as such, I have very few files that correspond to this project. The deadline for 2021 NWRT final reporting is tomorrow (which is a holiday).

I've contacted NWRT to ask for an extension on these reports, however, I will need urgent support in trying to sort out the financial component of this work. I have one document that breaks down the vote 4 expenses for 2-21-14 but have no files for 2-21-15.

I will need help confirming the financial information that I have for project 2-21-14, which I can then put together in a final financial report to be signed off by finance. I will also need help determining where the funding from 2-21-15 went, as I have no records of this.



Any help with this will be greatly appreciated.

Thanks so much,  
Am

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**Amélie Roberto-Charron**

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**Wildlife Biologist II,  
High Arctic**  
Department of  
Environment  
Government of  
Nunavut

**Umajuliqijunik Ihivriuqti II-  
Tununnganiluaqtumi Ukiuqtaqtumi**  
Avatiliqiyikkut  
Nunavut Kavamangat

**Biologiste de la faune II pour  
l'Extrême-Arctique**  
Ministère de l'Environnement  
Gouvernement du Nunavut



P.O. Box 377, Kugluktuk, Nunavut, X0B 0E0  
867-982-7455  
[ARoberto-Charron@gov.nu.ca](mailto:ARoberto-Charron@gov.nu.ca)

