

PROGRESS REPORT FOR 2012-2013 NWRT FUNDED PROJECTS

Government of Nunavut-Department of Environment (GN-DoE)

Project #	Multi-Year	Title	2012-2013 Funding	Funds Expected to be Returned	Tab #
2-12-01	N	Baffin Bay Polar Bear Genetic Mark Recapture	\$75,000	\$0	33
2-12-02	N	Kane Basin Polar Bear Genetic Mark-Recapture	\$62,000	\$0	34
2-12-05	N	Distribution and abundance of caribou on Baffin Island	\$75,000	unknown (reporting extension granted by staff)	35
2-12-06	N	Multi-scale Investigation of Raptors in Nunavut	\$38,000	\$0	36
2-12-10	N	Re-evaluation of Muskoxen (<i>Ovibos moschatus</i>) Populations in Kivalliq Region, Nunavut	\$44,350	\$0	37
2-12-14	N	Nunavut Coastal Resources Inventory	\$75,000	\$0	38

Department of Fisheries and Oceans (DFO)

Project #	Multi-Year	Title	2012-2013 Funding	Funds Expected to be Returned	Tab #
3-10-10	3 / 3	Stock Assessment of OA, OB, SFA-3	\$75,000	unknown	39
3-12-02	N	Bowhead Whale Movements and Ecology	\$50,000	\$0	40
3-12-07	N	Foxe Basin Walrus Survey	\$60,000	None expected	41
3-12-14	N	Surveillance for aquatic invasive species in the Canadian Arctic	\$75,000	unknown	42

Environment Canada (EC) / Canadian Wildlife Service (CWS)

Project #	Multi-Year	Title	2012-2013 Funding	Funds Expected to be Returned	Tab #
4-10-03	3/3	Avian Cholera	\$55,000	\$0	43
4-12-14	N	Viscount Melville Polar Bear Subpopulation Estimate	\$75,000	\$0	44

PROJECT PROGRESS REPORT

PROJECT NUMBER: 2-12-01

RESEARCHER: Stephen Atkinson

TITLE: Baffin Bay Polar Bear Genetic Mark-Recapture

ORIGINALLY FUNDED:

2012-2013	\$75,000
2011-2012	\$75,000
2010-2011	\$75,000

NWMB FUNDING: \$75,000

PROJECT SUMMARY: The project's main objectives are to: 1) estimate the current size and composition of polar bears in Baffin Bay; 2) compare a new estimate of abundance with those derived from past studies in-order to gain insight into population trend and status; 3) estimate survival and reproductive parameters; 4) evaluate polar bear distribution during the period of minimum sea-ice; and 5) demonstrate the use of genetic mark-recapture as a less invasive method to physical capture for the purpose of population monitoring.

FINANCIAL REPORT:

Amount from NWMB:	\$ 75,000
Amount from Others:	\$ 664,500
TOTAL	\$ 739,500
Expenses:	\$ 729,326
Difference	+\$ 10,174 (\$0 to be returned ¹)

COMMENTS: The interim progress report indicates that data collection for year 2 of the study took place in August and September, 2012 along the coastline of Baffin Island. In total 675 polar bears were successfully darted in year 2 of the study. Biopsy samples were also collected in Greenland in 2012. The biopsy equipment performed reliably. Darting was quick and left no visible mark. Biopsy samples from 2011 were of high quality. They were able to determine identity and sex from 389 of the 392 samples from 2011. Three hundred and sixty eight (368) unique individuals were identified. Preparations are currently being made for a third biopsy session in the fall 2013. The project remains on schedule as originally proposed. A preliminary population estimate is anticipated in 2013 with final results reported in 2014.

RECOMMENDATIONS:

1. NWMB Wildlife staff does not have any recommendations for this reporting period. The project leader has met all of the reporting requirements to date. A final financial report will be required by June 30th as per the NWRT policy.

CONSULTATIONS: Peter Kydd, Wildlife Management Biologist, NWMB

PREPARED BY: Sarah Spencer, Wildlife Management Biologist, NWMB

¹ Analysis of data and tissue samples is on-going.

PROJECT PROGRESS REPORT

PROJECT NUMBER: 2-12-02

RESEARCHER: Stephen Atkinson

TITLE: Kane Basin Polar Bear Genetic Mark-Recapture

ORIGINALLY FUNDED: 2012-2013 \$62,000

NWMB FUNDING: \$62,000

PROJECT SUMMARY: The project's main objectives are to: 1) estimate the current size and composition of polar bears in Kane Basin; 2) compare a new estimate of abundance with those derived from past studies in-order to gain insight into population trend and status; 3) estimate survival and reproductive parameters; 4) to delineate the boundaries of the KB sub-population and reassess the validity of this area as a demographic unit; and 5) evaluate polar bear distribution and habitat use with respect to environmental variables, particularly ice conditions, topography and food availability.

FINANCIAL REPORT:

Amount from NWMB:	\$ 62,000
Amount from Others:	\$ 298,000
TOTAL	\$ 360,000
Expenses:	\$ 411,283
Difference	-\$ 51,283 (\$0 to be returned)

COMMENTS: The interim financial report indicates that the original budget was increased to accommodate higher than expected fuel caching costs. The government of Nunavut increased their contribution from \$62,000 to \$191,000. Environment Canada decreased their contribution from \$62,000 to \$0 but increased their contribution to project 12-02-01. The interim progress report indicates that data collection took place in April and May 2012. Forty-two (42) bears of various age classes and both sexes were biopsy darted or captured. The number of bears sampled was approximately 25% of the 1998 mark-recapture population estimate. Six (6) bear were fitted with satellite collars and 10 bear were fitted with ear tag transmitters to collect data on movements and habitat use. Mark-recapture sampling and telemetry studies will continue in 2013.

RECOMMENDATIONS:

1. NWMB Wildlife staff does not have any recommendations for this reporting period. The project leader has met all of the reporting requirements to date. A final financial report will be required by June 30th as per the NWRT policy.

CONSULTATIONS: Peter Kydd, Wildlife Management Biologist, NWMB

PREPARED BY: Sarah Spencer, Wildlife Management Biologist, NWMB

PROJECT PROGRESS REPORT

PROJECT NUMBER: 2-12-05

RESEARCHER: Debbie Jenkins

TITLE: Distribution and abundance of caribou on Baffin Island

ORIGINALLY FUNDED: 2012-2013 \$75,000

NWMB FUNDING: \$75,000

PROJECT SUMMARY: The project's main objectives are to: 1) investigate and record the number and location of caribou across Baffin Island; 2) estimate population density and abundance; and 3) collect and analyze fecal samples to evaluate genetic diversity.

FINANCIAL REPORT:

Amount from NWMB:	\$ 75,000
Amount from Others:	\$ N/A
TOTAL	\$ N/A
Expenses:	\$ N/A
Difference	\$ N/A

COMMENTS: This researcher was granted an extension by NWMB staff and therefore was not required to submit interim reports prior to the deadline for this meeting.

RECOMMENDATIONS:

1. NWMB Wildlife staff will follow-up with the researcher as the extension deadline approaches. If the reports are not submitted prior to the extension deadline, the researcher will be penalized accordingly on any 2014-2015 applications.

CONSULTATIONS: Peter Kydd, Wildlife Management Biologist, NWMB

PREPARED BY: Sarah Spencer, Wildlife Management Biologist, NWMB

PROJECT PROGRESS REPORT

PROJECT NUMBER: 2-12-06

RESEARCHER: Nicolas Lecompte

TITLE: Multi-scale Investigation of Raptors in Nunavut

ORIGINALLY FUNDED:	2012-2013	\$38,000
	2011-2012	\$30,000
	2010-2011	\$30,000
	2009-2010	\$36,000

NWMB FUNDING: \$38,000

PROJECT SUMMARY: The project's main objectives are to: 1) estimate causes of mortality in adults and young; 2) to estimate reproductive rates and success in adults and; 3) make total allowable harvest recommendations in 2013.

FINANCIAL REPORT:

Amount from NWMB:	\$ 38,000
Amount from Others:	\$ 38,000
TOTAL	\$ 76,000
Expenses:	\$ 76,059.49
Difference	+\$ 59.49 (\$0 to be returned)

COMMENTS: Long term data collection in Rankin Inlet shows that the number of sites occupied by raptors remains stable as does the number of eggs laid each year. However, the number of eggs that hatch and the number of young banded has decreased significantly. In 2012 the peregrine population on Coxe Islands showed poor productivity. This could have been caused by high rainfall amounts or low number of lemmings, which are their main source of food.

RECOMMENDATIONS:

1. NWMB Wildlife staff does not have any recommendations for this reporting period. The project leader has met all of the reporting requirements to date. A final financial report will be required by June 30th as per the NWRT policy.

CONSULTATIONS: Peter Kydd, Wildlife Management Biologist, NWMB

PREPARED BY: Sarah Spencer, Wildlife Management Biologist, NWMB

PROJECT PROGRESS REPORT

PROJECT NUMBER: 2-12-10

RESEARCHER: Mitch Campbell

TITLE: Re-evaluation of Muskoxen (*Ovibos moschatus*) Populations in the Kivalliq Region, Nunavut

ORIGINALLY FUNDED: 2012-2013 \$44,350
2010-2011 \$55,000

NWMB FUNDING: \$44,350

PROJECT SUMMARY: The project's main objectives are to: 1) to determine the number of muskoxen within MX/17 and 18 as part of the requirement outlined in the Central Kivalliq Muskox Management Plan; 2) to determine if the historic range of muskox has expanded and; 3) to make non quota limitation and total allowable harvest recommendations in 2013.

FINANCIAL REPORT:

Amount from NWMB:	\$ 44,350
Amount from Others:	\$ 78,165.68
TOTAL	\$ 122,515.68
Expenses:	\$ 122,515.68
Difference	\$ 0 (\$0 to be returned ¹)

COMMENTS: The interim financial report indicates that actual project costs exceeded the proposed survey costs as additional IQ was collected prior to the start of the survey. Results of the 2012 northern Kivalliq muskox survey are still in the analysis stage but indicate an increase from 1999 numbers. Initial results show an increase from 1,522 to 2,341 muskox. As with the central Kivalliq population (surveyed in 2010) it appears the population has expanded eastward.

RECOMMENDATIONS:

1. NWMB Wildlife staff does not have any recommendations for this reporting period. The project leader has met all of the reporting requirements to date. A final financial report will be required by June 30th as per the NWRT policy.

CONSULTATIONS: Peter Kydd, Wildlife Management Biologist, NWMB

PREPARED BY: Sarah Spencer, Wildlife Management Biologist, NWMB

¹ Analysis of data and is on-going.

PROJECT PROGRESS REPORT

PROJECT NUMBER: 2-12-14

RESEARCHER: Wayne Lynch

TITLE: Nunavut Coastal Resources Inventory

ORIGINALLY FUNDED: 2012-2013 \$75,000

NWMB FUNDING: \$75,000

PROJECT SUMMARY: The project's main objectives are to: 1) identify and obtain existing information about Nunavut's coastal resources; 2) identify and record IQ through discussion and mapping with local residents; 3) produce a useable database of coastal resources; 4) identify information gaps and determine future research opportunities; and 5) produce a report which includes both IQ and scientific knowledge.

FINANCIAL REPORT:

Amount from NWMB:	\$ 75,000
Amount from Others:	\$ 151,200
TOTAL	\$ 226,200
Expenses:	\$ 226,200
Difference	\$ 0 (\$0 to be returned)

COMMENTS: Research was conducted in Grise Fiord in 2012. Nine (9) interviews were conducted and interviewees were found to be very knowledgeable. Data entry, verification, sorting and mapping is ongoing. Data collection will begin in Pangnirtung in February 2013.

RECOMMENDATIONS:

1. NWMB Wildlife staff does not have any recommendations for this reporting period. The project leader has met all of the reporting requirements to date. A final financial report will be required by June 30th as per the NWRT policy.

CONSULTATIONS: Peter Kydd, Wildlife Management Biologist, NWMB

PREPARED BY: Sarah Spencer, Wildlife Management Biologist, NWMB

PROJECT PROGRESS REPORT

PROJECT NUMBER: 3-10- 10

RESEARCHER: Margaret Treble

TITLE: Multi-species Stock Assessment Survey of NAFO 0A and SFA 1

ORIGINALLY FUNDED: 2010-2013 \$75,000 (per year for 3 years)
2006-2009 \$75,000 (per year for 3 years)

NWMB FUNDING: \$75,000

PROJECT SUMMARY: The project's main objectives are to: 1) collect data required to establish age structure, estimate population abundance, biomass, and recruitment of Greenland Halibut, and Northern and striped shrimp; 2) record numbers caught and collect length and weight data on all other commercial and non-commercial species caught and; 3) collect data on physical and biological characteristics of the ocean at each fishing station.

FINANCIAL REPORT:

Amount from NWMB:	\$ 75,000
Amount from Others:	\$ 675,000
TOTAL	\$ 750,000
Expenses:	\$ 649,112.48
Difference	+\$ 100,887.52 (\$0 to be returned)

COMMENTS: The interim financial report indicates that the budget was revised based on a reduction in the contribution from the Department of Fisheries and Oceans. There is currently a budget surplus; however, not all labor costs have been paid out yet. Sampling began on September 29th, 2012. Due to set backs from storms, the sampling protocol was adjusted and 81 of 91 stations were successfully completed in Northern NAFO 0A and 13 of 22 were completed in southern NAFO 0A. The Greenland Halibut caught were of good average size. All corals, snails, sponges and skates were collected for identification purposes as well as fin clips of Greenland halibut and arctic cod for genetic analysis. Analysis is currently ongoing with some results expected in June 2013. Whale sightings were recorded. A pod of killer whales was observed off the southeast coast of Devon Island.

RECOMMENDATIONS:

1. NWMB Wildlife staff does not have any recommendations for this reporting period. The project leader has met all of the reporting requirements to date. A final financial report will be required by June 30th as per the NWRT policy.

CONSULTATIONS: Peter Kydd, Wildlife Management Biologist, NWMB

PREPARED BY: Sarah Spencer, Wildlife Management Biologist, NWMB

PROJECT PROGRESS REPORT

PROJECT NUMBER: 3-12-02

RESEARCHER: Steve Ferguson

TITLE: Bowhead Whale Movements and Ecology

ORIGINALLY FUNDED: 2012-2013 \$50,000

NWMB FUNDING: \$50,000

PROJECT SUMMARY: The project's main objectives are to: 1) deploy satellite-linked position and dive recording tags on bowhead whales in Foxe Basin and Cumberland Sound; 2) collect bowhead biopsy samples during the course of tagging work; 3) collect location data from tags for mapping; 4) collect dive data to analyse surface time, depth, duration, and frequency; and 5) collect relevant information from local residents regarding sightings.

FINANCIAL REPORT:

Amount from NWMB:	\$ 50,000
Amount from Others:	\$ 124,000
TOTAL	\$ 174,000
Expenses:	\$ 93,400
Difference	+\$ 80,600 (\$0 to be returned)

COMMENTS: The interim financial report indicates that there is currently a budget surplus of \$80,600 however there are still fees to be paid for genetic analyses and to ARGOS for processing the data collected from the satellite tags. Thirteen (13) of the 20 transmitters deployed in 2012 are still providing data. The 7 tags that stopped transmitting data provided locations for up to 164 days. Dive data is currently being analyzed. All but one of the bowhead whales tagged in Cumberland Sound spent the summer in the Sound and started their fall migration the third week of November.

RECOMMENDATIONS:

1. NWMB Wildlife staff does not have any recommendations for this reporting period. The project leader has met all of the reporting requirements to date. A final financial report will be required by June 30th as per the NWRT policy.

CONSULTATIONS: Peter Kydd, Wildlife Management Biologist, NWMB

PREPARED BY: Sarah Spencer, Wildlife Management Biologist, NWMB

PROJECT PROGRESS REPORT

PROJECT NUMBER: 3-12-07

RESEARCHER: Jason Hamilton

TITLE: Foxe Basin Walrus Survey

ORIGINALLY FUNDED:

2012-2013	\$60,000
2011/2012	\$60,000
2010/2011	\$60,000

NWMB FUNDING: \$60,000

PROJECT SUMMARY: The project's main objectives are to: 1) create a survey design that will be endorsed by Igloodik and Hall Beach HTOs; 2) conduct aerial survey flights over known walrus habitat in Foxe Basin; and; 3) generate a population estimate for Foxe Basin walrus.

FINANCIAL REPORT:

Amount from NWMB:	\$ 60,000
Amount from Others:	\$ 106,370
TOTAL	\$ 166,370
Expenses:	\$ 25,000
Difference	+\$ 141,370 (\$0 to be returned)

COMMENTS: The interim financial report indicates that the variance in the budget can be explained because the researchers have not received all the invoices from various contractors. Reconnaissance flights were conducted between August 27th and September 6th, 2012 to search for walrus. Walrus were successfully photographed on September 4th and 5th, 2012. Approximately 500 animals were observed. It is expected that a population estimate will be presented to the HTOs in early 2013.

RECOMMENDATIONS:

1. NWMB Wildlife staff does not have any recommendations for this reporting period. The project leader has met all of the reporting requirements to date. A final financial report will be required by June 30th as per the NWRT policy.

CONSULTATIONS: Peter Kydd, Wildlife Management Biologist, NWMB

PREPARED BY: Sarah Spencer, Wildlife Management Biologist, NWMB

PROJECT PROGRESS REPORT

PROJECT NUMBER: 3-12-14

RESEARCHER: Kimberly Howland

TITLE: Surveillance for aquatic invasive species in the Canadian Arctic

ORIGINALLY FUNDED: 2012-2013 \$75,000

NWMB FUNDING: \$75,000

PROJECT SUMMARY: The project's main objectives are to: 1) establish a baseline for further monitoring and early detection of aquatic invasive species; and 2) provide environmental data and information on species composition to model future risks associated with climate change and shipping activity.

FINANCIAL REPORT:

Amount from NWMB:	\$ 75,000
Amount from Others:	\$ 283,000
TOTAL	\$ 358,000
Expenses:	\$ 386,000
Difference	-\$ 28,000 (\$0 to be returned)

COMMENTS: The interim financial report indicates the variance in the budget can be explained because the researchers have only received \$56,000 in funding from the Polar Continental Shelf Project. They are expecting a total of \$84,000. Open water surveys for zooplankton and benthic invertebrates were conducted in Churchill, Manitoba; Iqaluit, and Steensby Inlet, Nunavut; and Deception Bay, Quebec during July and August 2011 and 2012. Due to poor visibility at some sites video and photography were not able to be used consistently. Under ice sampling took place in May at all sites except for Steensby Inlet (due to unsafe ice conditions). All samples collected are being identified analyzed and will be stored in a database. One potential high risk invader, the common periwinkle, has been identified in Churchill.

RECOMMENDATIONS:

1. NWMB Wildlife staff does not have any recommendations for this reporting period. The project leader has met all of the reporting requirements to date. A final financial report will be required by June 30th as per the NWRT policy.

CONSULTATIONS: Peter Kydd, Wildlife Management Biologist, NWMB

PREPARED BY: Sarah Spencer, Wildlife Management Biologist, NWMB

PROJECT PROGRESS REPORT

PROJECT NUMBER: 4-10-03

RESEARCHER: Grant Gilchrist

TITLE: Avian Cholera: Examining the Geographic Spread and Population Impact of the Disease among Northern Common Eider Ducks Nesting in Nunavut

ORIGINALLY FUNDED: 2010-2013 \$55,000 (per year for 3 years)

NWMB FUNDING: \$55,000

PROJECT SUMMARY: The project's main objectives are to: 1) use traditional knowledge to understand the current and historical prevalence of avian cholera in Nunavut's bird populations; 2) evaluate the impact of avian cholera on common eiders nesting at Mitivik Island; 3) conduct community based research to sample common eiders for parasites and disease; 4) provide communities and wildlife management organizations with information to make management decisions; and 5) evaluate nest predation by polar bears using long term data from Mitivik Island

FINANCIAL REPORT:

Amount from NWMB:	\$ 55,000
Amount from Others:	\$ 259,000
TOTAL	\$ 314,000
Expenses:	\$ 314,033
Difference	+\$ 33.00 (\$0 to be returned)

COMMENTS: In 2012 only 12 mortalities were documented, this number has been declining significantly since 2006 when over 3,700 females were reported to have died. However, the colony size has remained largely unchanged. In 2012, the number of breeding pairs in Cape Dorset was comparable to 2011 numbers (approximately 3600). The numbers were down near Iqaluit; however, ice conditions in Frobisher Bay in July 2012 limited survey efforts. Surveys in Iqaluit and Cape Dorset did not indicate that avian cholera outbreaks are affecting common eiders in these areas. Data on polar bear predation of eider nests from 1997 to 2011 was summarized. Overall predation of nests has increased. On colonies where polar bear sign was present, 18% of nests remained active, compared to 65% of nests on colonies without polar bear sign. Results also show that bear prevalence on Mitivik Island increased during years with poor ice conditions. Results will be presented to communities in March 2013.

RECOMMENDATIONS:

1. NWMB Wildlife staff does not have any recommendations for this reporting period. The project leader has met all of the reporting requirements to date. A final financial report will be required by June 30th as per the NWRT policy.

CONSULTATIONS: Peter Kydd, Wildlife Management Biologist, NWMB

PREPARED BY: Sarah Spencer, Wildlife Management Biologist, NWMB

PROJECT PROGRESS REPORT

PROJECT NUMBER: 4-12-01

RESEARCHER: Evan Richardson

TITLE: Viscount Melville Polar Bear Subpopulation Estimate

ORIGINALLY FUNDED: 2012-2013 \$75,000

NWMB FUNDING: \$75,000

PROJECT SUMMARY: The project's main objectives are to: 1) conduct mark-recapture and DNA hair snag research to estimate the current population size and demographics of the Viscount Melville subpopulation; 2) define the current boundaries of the Viscount Melville polar bear subpopulation; and 3) assess polar bear habitat use of changing sea ice habitat.

FINANCIAL REPORT:

Amount from NWMB:	\$ 75,000
Amount from Others:	\$ 537,900
TOTAL	\$ 612,900
Expenses:	\$ 613,595
Difference	-\$ 695.00 (\$0 to be returned)

COMMENTS: 2012 was the first year of a three year mark – recapture program. Research started on April 21st and ended on May 31st. A total of 40 bears were marked. Fourteen (14) collars were deployed on adult females. Three (3) grizzly bear were sighted and 2 hybrids.

RECOMMENDATIONS:

1. NWMB Wildlife staff does not have any recommendations for this reporting period. The project leader has met all of the reporting requirements to date. A final financial report will be required by June 30th as per the NWRT policy.

CONSULTATIONS: Peter Kydd, Wildlife Management Biologist, NWMB

PREPARED BY: Sarah Spencer, Wildlife Management Biologist, NWMB