

# PROPOSAL REVIEW

**Project Number:** 3-15-09

**Applicant:** Marianne Marcoux

**Title:** Northern Hudson Bay Narwhal Population Survey

**Funding Requested:** Single Year Funding - \$65,000 for 2015-2016

**Rank:** 8 / 17

**Total Score** 74.80 / 100  
(no deductions)

**Scoring Breakdown:** NWMB Priority: 17.50 / 17.50  
Regional Priority: 4.50 / 7.50  
Quality: 27.00 / 35.00  
Consultation: 12.00 / 15.00  
Funding: 13.80 / 25.00

## Project Summary:

This project aims to provide updated population estimates for Northern Hudson Bay narwhal and beluga by: 1) completing an aerial survey of the entire Northern Hudson Bay network; 2) analyzing visual survey results using mark-recapture; 3) analyzing photographs to count narwhal in high-density areas; 4) analyzing all results to estimate population abundance for Northern Hudson Bay belugas and narwhals; and 5) provide results to communities, scientific journals and the NWMB.

## Project Contributions:

Requested from NWMB	\$ 65,000	25%
Other Contributions	<u>\$197,000</u>	<u>75%</u>
Total	\$262,000	100%

## NWMB Staff Evaluation:

NWMB Priority: #1 – Contributes to the establishment, modification or removal of levels of Total Allowable Harvest (S. 5.6.16 to S. 5.6.18) for stocks or populations where there is believed to be a conservation concern or that are priority species for harvest by Inuit.

Regional Priority: #4 Kivalliq – Narwhal: increase in North Hudson Bay Total Allowable Harvest.

Project design: In August 2015, four observers will be employed on an aircraft to survey northwestern Hudson Bay, covering areas surveyed in previous years and areas reported to be used by narwhals in the summer based on traditional ecological knowledge and data from satellite tags. Observers will record all whale groups noting the species and number of individuals in the group, as well as the environmental conditions throughout the survey. In fiords where the densities of whales are too high to count, photographs will be taken by two camera systems and saved on a laptop. A mark-recapture analysis will be used to estimate abundance of whales from visual survey data and all whales will be counted in the photographs and corrected for the animals that were below the surface.

Application of results: The results of this project will help Fisheries and Oceans Canada provide scientific advice on stock size and distribution of Northern Hudson Bay narwhal

and beluga. Results will also help provide science advice on sustainable harvest levels for Northern Hudson Bay narwhal.

Community involvement / consultation: The project leader has sent a letter to affected Hunters and Trappers Organizations requesting support for this project, however no reply has been received yet. As per the NWRT Funding Guide, a letter of support from the affected Regional Wildlife Organization will be required for this project as it affects more than five communities. A presentation and report of the results will be provided to the communities. This project will employ and train two residents of Repulse Bay for a total of 20 person days.

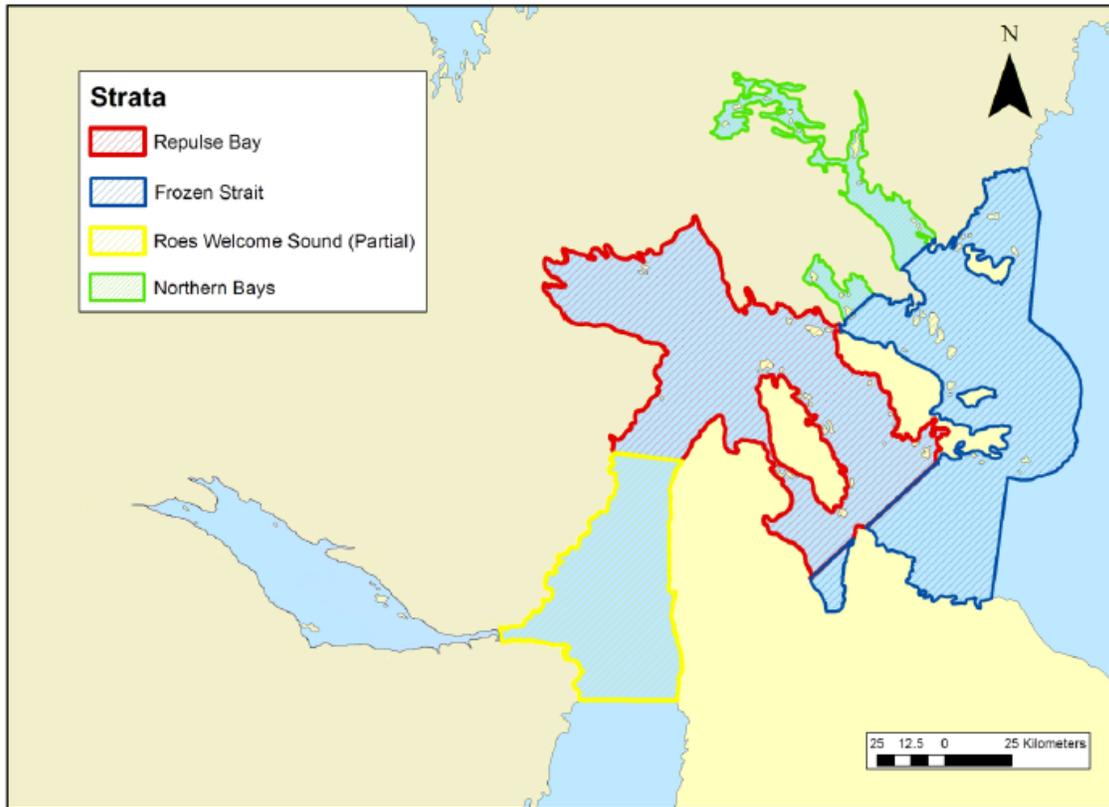
As per the NWRT policy, if the project is funded by the NWRT the researcher is required to: (1) provide a letter of support from all affected communities by June 30<sup>th</sup>, 2015; **OR** (2) provide a letter of support from a majority of the affected communities by June 30<sup>th</sup>, 2015 and provide evidence that the researcher has done a “conscientious” job of consulting; **OR** (3) provide the required information to demonstrate that “conscientious” consultation has been conducted by June 30<sup>th</sup>, 2015.

**Recommendations:** If this project is funded, the following conditions should apply:

1. Funding should be conditional on meeting the consultation requirements identified as per the NWRT policy.

**Prepared By:** Danica Crystal, Wildlife Management Biologist, NWMB

**Consultations:** Karla Letto, Wildlife Management Biologist, NWMB



**Figure 1.** Map of proposed Northern Hudson Bay narwhal survey.