

# PROPOSAL REVIEW

**Project Number:** 3-14-04

**Applicant:** Steve Ferguson

**Title:** Eastern Canadian Arctic Killer Whale Study.

**Funding Requested:** Single Year Funding - \$30,000 for 2014-2015

**Rank:** 12 / 18

**Total Score** 72.25 / 100  
(no deductions)

**Scoring Breakdown:** NWMB Priority: 17.50 / 17.50  
Regional Priority: 5.50 / 7.50  
Quality: 16.00 / 35.00  
Consultation: 9.00 / 15  
Funding: 24.25 / 25

**Project Summary:** This research project was initiated in the eastern Canadian Arctic in 2009. The ongoing objectives of this project are to: 1) determine distribution and movement patterns in the eastern Canadian Arctic and North Atlantic using satellite telemetry and photo identification; 2) study diet using analyses of biopsied skin and blubber samples, including assessment of foraging preferences; 3) estimate population size using photo identification; 4) assess group and population structure using genetic analysis of biopsied skin; 5) develop a network of research teams comprising Northerners in several communities across the eastern Canadian Arctic who are trained and equipped to independently satellite tag, biopsy, and photograph killer whales.

## Project Contributions:

Requested from NWMB	\$30,000	25%
Other Contributions	<u>\$90,000</u>	<u>75%</u>
Total	\$120,000	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: #3 Baffin – Killer Whales: Impacts on other marine mammals.

Project design: Expanding on field work conducted in 2013, two field teams will conduct research in Cumberland Sound, Arctic Bay/Admiralty Inlet, and Pond Inlet/Eclipse Sound in 2014. Research teams will conduct boat-based surveys for killer whales over one to several days. When killer whales are located, the research team will work from one or two boats to deploy satellite transmitter tags and collect biopsies, as well as photographs. Deployed tags will transmit data up to 300 times daily, as the whale surfaces, and have been known to remain on an individual for up to 120 days. Skin and blubber tissue samples will be collected by biopsy dart and analysed to determine prey composition and foraging regions, as well as genetic information such as sex, and group and population structures. Photographs will be used for individual identification, which can be used to determine movement patterns, and group and population abundance.

Application of results: The study will assist in the definition of relationships between seasonal habitat use and diet of Arctic killer whale populations, as well as further our understanding of killer whale influence on Arctic ecosystem structure and function. Understanding eastern Canadian Arctic killer whale distribution and diet is fundamental to developing appropriate management plans to address conservation challenges to both predator (killer whale) and prey (narwhal, beluga, and bowhead) posed by a changing Arctic ecosystem; results of this study may influence the development or alteration of these management plans.

Community involvement / consultation: The project plans to hire five local community members for a total of 150 days and will provide training on scientific field research methods. The project leader has contacted the Pond Inlet, Arctic Bay, Repulse Bay and Pangnirtung Hunters and Trappers Organizations to request support for the project and has provided evidence to demonstrate this, but there is no indication that the project leader has received a response. The project leader has plans to visit all communities to present the project to the Hunters and Trappers Organizations' Boards to seek support for the project, as well as communicate the findings in the final report.

As per the NWRT policy, if the project is funded by the NWRT the project leader is required to: (1) provide a letter of support from all affected communities by June 30<sup>th</sup>, 2014; **OR** (2) provide a letter of support from a majority of the affected communities by June 30<sup>th</sup>, 2014 and provide evidence that the research 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>, 2014.

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

1. Funding should be conditional on other funding, as identified in the proposal, being approved. This should be confirmed in writing; and
2. Funding should be conditional on meeting the consultation requirements identified as per the NWRT policy.

**Consultations:** Danica Crystal, Wildlife Management Biologist, NWMB

**Prepared By:** Peter Kydd, Wildlife Management Biologist, NWMB