

PROPOSAL REVIEW

Project Number: 3-15-02

Applicant: Steve Ferguson

Title: Bowhead whales movements and ecology

Funding Requested: Single Year Funding - \$35,000 for 2015-2016

Rank: 4 / 17

Total Score 81.90 /100
(2 point deduction)

Scoring Breakdown: NWMB Priority: 17.50 / 17.50
Regional Priority: 7.50 / 7.50
Quality: 32.00 / 35.00
Consultation: 9.00 / 15.00
Funding: 17.90 / 25.00

Project Summary:

The proposed project will continue bowhead whale tagging efforts begun in the early 2000s to investigate stock range, stock identity, migration routes, and seasonal distribution and habitat use of bowhead whales. Using satellite tags and biopsy sampling, this project aims to: 1) collect relevant information from Pangirtung residents on past and present sightings and behaviour of bowhead whales; 2) collect location and dive data to map and analyze movements, seasonal distribution and dives of tagged whales; 3) perform genetic and stable isotope analysis of skin samples to provide foraging ecology information and contribute to an updated population estimate.

Project Contributions:

Requested from NWMB	\$ 35,000	33%
Other Contributions	<u>\$70,000</u>	<u>67%</u>
Total	\$105,000	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: #1 Baffin – Tourism (tour boats/cruise ships) and wildlife disturbance: examine the effects of tourism on wildlife distribution and migration routes, especially near hunting grounds.

Project design:

In August 2015, a field team consisting of scientific staff and local people will travel to Kingnait Fjord to attach satellite tags to bowhead whales using a harpoon. As tags are attached, a biopsy tip attached to the end of the harpoon will also collect a skin sample. Other biopsy samples will be taken using a crossbow firing bolts with biopsy tips. Each time a whale is tagged, fieldworkers will record observations including whale behaviour and group composition. Information on whale locations is collected daily and the data are processed and analyzed to map movements and identify areas of sustained use. Location

data is used to examine questions of stock delineation, population estimates, habitat use and potential impacts of industrial development and climate change. Dive data is also used to correct population estimates generated through aerial surveys. Biopsy samples will be analyzed to determine the sex and genetic profiles of the whales, which will be used in a mark-recapture analysis to produce an updated population estimate.

Application of results:

Information on bowhead whale movements will help in defining the boundaries of the population and will allow Fisheries and Oceans Canada to identify migration routes and important areas for bowhead aggregation and feeding. Dive data and genetic profiles of bowhead whales will help update and refine population estimates.

Community involvement / consultation:

The Project Leader has requested support from the Pangnirtung Hunters and Trappers Organization through e-mail but has not yet confirmed approval. In-person presentation and discussion with the Hunters and Trappers Organization is planned prior to the research. Upon completion of the project, a final report will be provided to the Hunters and Trappers Organization in addition to regular updates on whale movements by email. The project will employ and train 4 residents of Pangnirtung for a total of 68 person days.

As per the NWRT policy, if the project is funded by the NWRT the project is required to: (1) provide a letter of support from all affected communities by June 30th, 2015; **OR** (2) provide a letter of support from a majority of the affected communities by June 30th, 2015 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 30th, 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: Planned Bowhead Whale Movements and Ecology study area, Cumberland Sound, August 2015.

