

PROPOSAL REVIEW

Project Number: 212-14-01

Applicant: Noah Mosese

Title: Bowhead whale (*Balaena mysticetus*) genetic mark-recapture in Cumberland Sound, Baffin Region

Funding Requested: \$21,000

Rank: 2 / 3

Total Score 68.50 /100

(0 points deducted)

Scoring Breakdown: NWMB Priority: 7.50 / 7.50
Regional Priority: 17.50 / 17.50
Quality: 29.00 / 35.00
Consultation: 5.50 / 15
Funding: 9.00 / 25

Project Summary: The primary objective of this project is to generate knowledge of population size, growth rates, and life history parameters of eastern Arctic bowhead whales. In order to obtain this information, a long-term genetic mark-recapture program is proposed to estimate population size and to investigate the reproductive interval of these whales.

Project Contributions:

Requested from NWMB	\$21,000	100%
Other Contributions	\$0	0%
Total	\$21,000	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 – Environmental protection from increased marine shipping and industrial development

Project design: Most of the sampling will take place in and around Kingnait Fjord, where most bowhead are observed in the summer, but the study area could also extend to Clearwater Fjord. Biopsy samples are taken using a crossbow that fires bolts with biopsy tips. Once the whale is hit, these bolts bounce back into the water, with a small sample of skin and sometimes blubber, where it floats until it is retrieved. DNA will be extracted from these samples and will be analyzed to determine sex and the genetic profile of the whale. Whales that were sampled in successive years will be considered as recaptures while new whales are considered “marked”. In addition to abundance estimates, genetic samples will also contribute to research into population structure and movement of bowhead whales.

Application of results: This project provides information relevant to the sustainability of harvest limits and of migration of the eastern Arctic bowhead whale. The results of this project will allow the NWMB and Fisheries and Oceans Canada to refine local population estimates and to understand the movements of the species beyond territorial and national boundaries.

Community involvement / consultation: This application was submitted by the Pagnirtung Hunters and Trappers Organization; however no evidence of community consultation has been provided. The application indicated that the project will produce a Canadian Science Advisory Secretariat report as well as a community report that will be supplied to the community.

Recommendations:

NWMB staff have no recommendations.

Prepared By: Danica Crystal, Wildlife Management Biologist, NWMB

Consultations: Peter Kydd, Wildlife Management Biologist, NWMB