

PROPOSAL REVIEW

Project Number: 3-14-08

Applicant: Ross Tallman

Title: Fishery Independent Sampling of Cambridge Bay Arctic Char (*Salvelinus alpinus*) Stocks Including the Continued Weir Enumeration and Generation of a Mark-Recapture Estimate for the Halokvik River Population

Funding Requested: Single Year Funding - \$20,000 for 2014-2015

Rank: 9 / 18

Total Score 74.17 /100
(no deductions)

Scoring Breakdown: NWMB Priority: 17.50 / 17.50
Regional Priority: 0.00 / 7.50
Quality: 29.00 / 35.00
Consultation: 10.00 / 15
Funding: 17.67 / 25

Project Summary:

The primary objective of this project is to update stock assessment and biological information on commercially harvested Arctic char by: 1) continuing the collection of fishery-independent data for the Jayko and Halokvik rivers where a time-series has been established; and 2) conducting the second year weir enumeration on the Halokvik River that will also provide a mark-recapture estimate of abundance.

Project Contributions:

Requested from NWMB	\$20,000	22%
Other Contributions	<u>\$70,000</u>	<u>78%</u>
Total	\$90,000	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: Does not address a regional priority.

Project design:

The collection of biological data will involve the use of multi-mesh gill nets to capture Arctic char of all sizes and ages in the Jayko and Halokvik rivers. 200 Arctic char will be sampled. Age, sex, observations of parasites, health, fecundity of females, and stomach contents will be determined through various measurements and location data such as position of sampling, time of year, time of day, net depth, water temperature, and weather will be recorded. Tissue samples will also be collected to test for contaminants such as mercury and radium. To estimate abundance, a weir will be constructed at the Halokvik River where Arctic char will be counted on a daily basis and a sample of those char will be caught for biological sampling as described above. Additionally, another 1000-2000 Arctic char will be tagged and rewards will be offered for the return of any

tags from fish captured. Recapture information on char that were tagged will be used to produce a mark-recapture estimate of population size.

Application of results:

The results of the proposed project will be used to provide advice to Fisheries and Oceans Canada Fisheries Management and the Nunavut Wildlife Management Board on the sustainability of harvest levels for Cambridge Bay Arctic char. Results will contribute to the evaluation of fisheries management strategies and integrated fishery management plans. Additionally, abundance data gained from the weir assessment and the mark-recapture estimate at the Halokvik River will be important for validating current stock assessment models applied for the fishery.

Community involvement / consultation:

The project proposal indicates plans to meet with the Cambridge Bay Hunters and Trappers Organization in February 2014 to discuss the project and request approval. In-community consultations are also planned for summer 2014 (during the project) and February 2015 (upon completion of the project). A project report and poster will also be provided to the community. Two Cambridge Bay residents chosen by the Hunters and Trappers Organization will be hired and trained as field sampling technicians to carry out the field component of the work.

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, 2014; **OR** (2) provide a letter of support from a majority of the affected communities by June 30th, 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 30th, 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.

Prepared By: Danica Crystal, Wildlife Management Biologist, NWMB

Consultations: Peter Kydd, Wildlife Management Biologist, NWMB