

# PROPOSAL REVIEW

**Project Number:** 3-14-07

**Applicant:** Kimberly Howland

**Title:** Climate related changes in marine invertebrate communities and Aquatic Invasive Species (AIS) risk in the north

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

**Rank:** 10 / 18

**Total Score** 73.00 / 100  
(no deductions)

**Scoring Breakdown:** NWMB Priority: 8.50 / 17.50  
Regional Priority: 7.50 / 7.50  
Quality: 28.00 / 35.00  
Consultation: 15.00 / 15  
Funding: 14.00 / 25

## Project Summary:

This project aims to predict the spread of aquatic invasive species related to future changes in climate by: 1) assessing the risks of invasive species spread in different areas across the Canadian Arctic using predicted environmental conditions (ice conditions, water temperature, etc.) and comparing these to areas of biological importance; and 2) predicting where specific invasive species will be able to survive given projected changes in environmental conditions.

## Project Contributions:

Requested from NWMB	\$20,000	27%
Other Contributions	<u>\$55,000</u>	<u>73%</u>
Total	\$75,000	100%

## NWMB Staff Evaluation:

NWMB Priority: #4 – Contributes to the provision of advice and recommendations concerning proposed decisions in Zones I and II that would affect the substance and value of Inuit harvesting rights and opportunities within the NSA's marine areas (S 15.3.1 to 15.4.1).

Regional Priority: #1 Baffin – Environmental protection from increased marine shipping and industrial development.

## Project design:

This project uses computer-based models to combine information on changes in environmental conditions due to climate change, commercial shipping, areas of biological importance, and areas important to subsistence harvesting and commercial fisheries, to identify areas at risk of invasion by invasive species. The analysis will also identify high risk invasive species. Additional models will be used to predict where these high risk invasive species are most likely to survive and establish, based on predicted environmental conditions, shipping activity, biological characteristics of species, and whether the species has already been observed in the area.

Application of results:

Results of this project will be documented in scientific publications and a Fisheries and Oceans Canada technical report. Results will assist in the development of other monitoring programs for invasive species in order to maintain coastal marine ecosystems which are critical to the production and survival of harvested fish and marine mammal stocks in Nunavut.

Community involvement / consultation:

Community consultations were undertaken with the Iqaluit, Igloolik and Pond Inlet Hunters and Trappers Organizations in 2011 and 2012, prior to and during the field sampling that will contribute information to the analysis proposed by this project. A final written report will be submitted to communities in combination with in-community consultations.

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 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.

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

**Consultations:** Peter Kydd, Wildlife Management Biologist, NWMB