# SUBMISSION TO THE NUNAVUT WILDLIFE MANAGEMENT BOARD

## **FOR**

Information: Decision: X

**Issue:** Support for the annual Northern Shrimp Research Foundation (NSRF)-Fisheries and Oceans Canada (DFO) research survey.

## Background:

2014 is year nine of the annual NSRF-DFO shrimp research survey conducted in the Shrimp Fishing Area 2EX (SFA2EX) and Resolution Island (RISA) study areas adjacent to Nunavut. The survey provides fishery independent scientific data required to assess the status of the shrimp stocks commercially fished within these study areas. The assessment allows DFO scientists to provide advice to the fishery co-managers, which is vital to maintaining a sustainable fishery. The survey is planned to go on indefinitely on an annual basis.

The survey is a standard stratified random stock assessment survey with the same number of sets (samples) allocated to each study area each year. In SFA2EX there are 121 sets allocated and in RISA 60 sets. Each study area is divided into smaller areas based on depth. The number of sets within a stratum is proportional to the area of that stratum within the study area. The sample locations within a stratum will change from year to year but not the total number of samples. This is the basis of a standard scientific survey and must be maintained to produce an index of biomass and abundance. This basic survey design will not change over the time period of the survey.

The samples are taken in 15 minute tows using a Campelen 1800 shrimp trawl. The survey collects both environmental information such as water temperature and salinity with a net mounted SeaBird CTD and biological information on biomass and abundance of all species captured in the trawl.

#### **Current Situation:**

This survey is conducted under the authority of a DFO Science Licence issued through the DFO Office in Iqaluit. Annual reviews of the licence application by both DFO Science and the NWMB are conducted. The NWMB reviewed and provided multi-year approval of the survey (reference June 2011 BN). This note also seeks multi-year approval from the NWMB.

New: The staff of the NWMB is aware of efforts to reorganize the Multi-species surveys conducted by the Central and Arctic Region of DFO. The Western Assessment Zone (WAZ) survey is planned to be conducted annually in conjunction with the NSRF-DFO survey beginning in 2014. The survey consists of 70 sets with the same design as previously used. Conducting the survey this way will increase the data available for assessments and improve the advice by removing the issues identified with surveying a population with two surveys. The NWMB has supported the DFO survey of the WAZ biennially from 2007 to 2013.

#### **Recommendations:**

DFO recommends that the Board support the NSRF-DFO survey with the addition of the WAZ survey area for the life of the survey with one of the following options:

- a) a letter of support for an indefinite term;
- b) a letter of support for a five year period (2014-2018); or,
- c) a letter of support for the current year (2014).

A letter of support for more than one year would be beneficial to the NWMB by not having to review the application annually, streamlining the consultative process with DFO and reducing the workload for both. Alterations to the design or scope of the survey would require a review by both DFO and the NWMB.

The Board may wish to make this decision subject to any or all of the following four conditions:

- 1) That the basic survey design, as described above and as used in the first eight years of the survey does not change.
- That the licence for the survey work explicitly states that there is no historic attachment for any vessel or fisher participating in the research survey.
- 3) That a representative from the DFO Office in Iqaluit continues to be appointed as a member of NSRF.
- 4) That a Nunavut representative (industry or government) continues to be appointed as a member(s) of the NSRF.

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