

**1. NWRT Project Number:** 2-13-19

**2. Project Title:**

The knowledge of the Public, Inuit and Inuit Elders and Hunters of Baffin Bay Polar Bears and Wildlife Management

**3. Project Leader:**

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**4. Summary:** This project aims to document economic and social-cultural information about Baffin Bay polar bears and wildlife management in a format that is readily useful for decision making and invites Inuit participation early in decision making processes. Interviews are to be held with Inuit elders and hunters as well as wildlife researchers.

Two interview approaches are used for this research. The first approach is to conduct one-on-one interviews with Inuit elders and hunters about the Baffin Bay polar bear population. The second approach will be to generate fuzzy cognitive maps with Inuit and wildlife researcher participants on polar bear ecology and management so that their perspectives can be graphically represented and compared and contrasted.

**5. Project Objectives:** During discussions with Nunavut Tunngavik Inc. and Nunavut Wildlife Management Board staff, the objectives of the project have recently been changed. The primary objective of this research is no longer to randomly survey the public in the affected communities of Clyde River, Pond Inlet and Qikiqtarjuaq, allowing us to measure and document

- Public and Inuit interests overall and for wildlife management specifically
- Public and Inuit perspectives on the Baffin Bay polar bear population
- Public and Inuit confidence and perceptions of the wildlife management systems performance
- Public and Inuit perception of their participation in the wildlife management system.

A primary objective of this research is to speak with elders and hunters in affected communities, allowing us to document

- their interests overall and for wildlife management specifically
- their perspectives on the Baffin Bay polar bear population in terms of historical population trends and the possible future trends

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- their confidence in the wildlife management system and perceptions of its performance, particularly with the creation of Nunavut and areas for improvement
- their perception of their participation in the wildlife management system particularly with the creation of Nunavut and areas for improvement.

A secondary objective is now to conduct a pilot study on the use of fuzzy cognitive mapping to document Inuit and scientific expert knowledge of polar bears and polar bear management. Fuzzy cognitive maps are graphical representations of a particular issue or concept along with various factors that are connected to it. Fuzzy mapping will be used to create a quantitative description of the knowledge of Inuit and wildlife researcher perspectives and allow for the comparison and analysis of similarities and differences between the maps of the different groups.

### **6. Materials and Methods**

There have been some changes in the materials and methods from the approved project proposal.

Two interview approaches are being used for this research. The first approach is to conduct one-on-one interviews with Inuit elders and hunters in those communities about the Baffin Bay polar bear population.

For the elder/hunter interviews, the following steps will occur:

1. Hunters and Trappers Organizations will be consulted with to identify key informants.
2. The key informants will be asked to participate.
3. Interviews will be conducted to gain their knowledge on:
  - The natural history of Baffin Bay polar bears, and general environmental knowledge generally and over time.
  - their economic, social and cultural interests overall and for wildlife management specifically
  - their perspectives on the Baffin Bay polar bear population in terms of historical population trends and the possible future trends.
  - their confidence in the wildlife management system and perceptions of its performance, particularly with the creation of Nunavut and areas for improvement
  - their perception of their participation in the wildlife management system particularly with the creation of Nunavut and areas for improvement.

For the Fuzzy Cognitive Mapping approach, the following steps will occur:

1. Hunters and Trappers Organizations will be consulted with to identify key informants.
2. The key informants identified in the previous approach will be asked to participate in this fuzzy cognitive mapping pilot. Wildlife researchers involved in polar bear management will also be asked to be participants in this approach.
3. Workshops will be held in each community with the participants to explore determinants of polar bear population and abundance. Further, the concept of polar bear management will be explored using this approach. Similarly, wildlife researchers will be asked to provide input, likely through teleconferences.

4. The results of the workshops and discussions with wildlife researchers will then be entered into software to generate cognitive maps that graphically represent polar bear ecological determinants as well as polar bear management.
5. The resultant maps will be compared and contrasted between the Inuit and scientific participants.

## 7. Project schedule

A revised project schedule is displayed below. The start of the project was delayed and will result in delays in the analysis and reporting back to communities of the results.

Output or step	Revised start date (dd/mm/yyyy)	Revised end date (dd/mm/yyyy)	Person days
Research Work	13/11/2014	05/12/2014	19
Analysis and compiling	24/11/2014	28/02/2015	30
Reporting Back	15/03/2015	31/03/2015	17

## 8. Preliminary results/discussion:

The field research has been delayed, so results have not yet been gathered. However, it is expected that this research can assist the NWMB in fulfilling its mandate (5.1.3(b)(vi)) by informing it about

- Polar bear natural history, such as seasonal habitat use,
- Inuit economic, social and cultural interests and perspectives for Baffin Bay polar bears
- wildlife management system performance and Inuit confidence
- Inuit participation in the wildlife management system

This research is also a mechanism of inviting and increasing Inuit participation in wildlife management.

## 9. Reporting to communities/resource users:

Community / HTO	Before research	During research	Completion of research
Clyde River	Completed HTO Meeting October 23, 2012	in-community updates on progress. November 2014	March 2015 HTO Presentation
Pond Inlet	Completed HTO Meeting October 22, 2012	in-community updates on progress. November 2014	March 2015 HTO Presentation
Qikiqtarjuaq	Completed HTO Meeting November 5, 2012	in-community updates on progress. November 2014	March 2015 HTO Presentation