

## **Terms of Reference**

### **Annual Meeting of the National Marine Mammal Peer Review Committee (NMMPRC)**

May 29-June 1<sup>st</sup>, 2006  
Lord Elgin Hotel  
Ottawa, Ontario

Chairperson: Patrice Simon

#### **Introduction**

NMMPRC usually holds a meeting once a year to conduct scientific peer reviews related to various marine mammal issues. This approach gives the opportunity to regroup most of the experts on marine mammals from DFO (also with specific contributions from non-DFO experts) to ensure a good quality control of the scientific results and to provide sound scientific basis for the management and conservation of marine mammals in Canada. The agenda of the meeting encompasses topics that have been identified as issues to peer review in order to provide the best scientific information possible for decision-making process. When time allows, this annual meeting is also an opportunity to look at ongoing research projects to provide some feedback or guidance to the scientists involved.

Scientific information/advice for the Bowhead Whale Recovery Assessment Report was required before the 2006 NMMPRC meeting and therefore, this issue was already the subject of two peer review meetings under this Committee's umbrella (via videoconferences) in March and April 2006. Other species for which we need to conduct peer review of scientific results have not yet been addressed. Those species will be the subject of the agenda of the 2006 meeting.

#### **Hooded seals**

##### Context

The last hooded seal population estimates was computed from an aerial survey done in 1990. A new aerial survey was conducted in 2005 under the Atlantic Seal Research Program (ASRP) to estimate pup production and derive a population estimate for the Northwest Atlantic hooded seal population. The new pup production estimates for 2005, and recent information on reproduction rates and catch at age will be presented. This information will be used to compute a new population abundance estimate for Northwest Atlantic hooded seal.

##### Working papers

Four working papers on hooded seals will be the subject of a peer review:

1. Review of Pup Production Estimates (G. Stenson)
2. Review of new Estimates of Abundance of Northwest Atlantic Hooded Seal Population (M. Hammill)
3. Review of the draft Science Advisory Report for the Northwest Atlantic Hooded Seal Population (G. Stenson)
4. Advice for Potential Biological Removal (M. Hammill)

Six more specific questions from Fisheries and Aquaculture Management (FAM) will also be addressed at this meeting.

1. Are hooded seals still considered “data poor” after the recent population survey?
2. If so, is Potential Biological Removal (PBR) the appropriate level of annual removals? If not, can we recommend appropriate Objective-Based Fisheries Management (OBFM) reference points similar to harp seals?
3. What would the PBR level be if we assume that:
  - a) only the young of the year (bluebacks) are taken on the Front; or
  - b) no bluebacks are taken?
4. Is there a scientific basis for changing the present prohibition against hunting hooded seals in the Gulf?
5. If a seasonal closure is used on the Front to ensure the majority of hooded seals are weaned, how could it be determined when the season should be closed and opened?
6. How quickly do hooded seals:
  - a) disperse from the whelping patches; and
  - b) leave Canadian waters?

#### Output of the meeting

This peer reviewed information will serve to provide scientific advice to FAM in the context of the management of hooded seals harvest.

A Science Advisory Report will be generated.

### **St. Lawrence Beluga**

#### Context

The St. Lawrence beluga population is a population listed under SARA. As such, estimates of abundance are required periodically, and a standard photographic survey method has been used since 1988. The last survey following this photographic method conducted in 2003, along with 5 visual surveys will be reviewed.

In 2005, the NMMPRC reviewed the 2004 visual line transect abundance estimates of belugas in eastern Hudson Bay that indicated higher abundance than anticipated from previous surveys (1993 and 2001). As the 2004 was conducted at lower altitude (305 m) than previous surveys (457 m), questions were raised about the potential effects of this change in altitude in abundance estimation. To resolve this question, visual surveys of the St Lawrence beluga population were repeated 7 times at both altitudes of 305 m and 457 m in summer of 2005.

These surveys will provide new abundance estimates for population review and the 2005 survey will also provide an assessment of the potential effect of a change of altitude (305 m vs 457 m) on estimates from visual line transect surveys.

#### Working papers

Three working papers will be the subject of a peer review:

1. Review of aerial survey results (2003 survey) in the Gulf of St. Lawrence (J.-F. Gosselin)

2. Review of Population Estimates from 2005 survey (M. Hammill)
3. Review of the draft Science Advisory Report of the St. Lawrence Beluga (J.-F. Gosselin)

#### Output of the meeting

A Science Advisory Report on the status of St. Lawrence beluga population and the conclusion regarding the question of the 2005 peer review group as to whether or not altitude of the survey has any implications on abundance estimates.

### **Baffin Bay Narwhal**

#### Context

Baffin Bay Narwhals are subject to a hunt by the Northern Communities. Although this species has not been designated by COSEWIC, scientific information/ advice must be provided for the development of a management plan. The last aerial survey to estimate population size was conducted in 1979. A new aerial survey was conducted in 2004 and new estimates have been computed.

The survey was reviewed by the Joint Commission on Conservation and Management of Narwhal and Beluga (JCNB) and the North Atlantic Marine Mammal Commission (NAMMCO) - JCNB-NAMMCO - Joint Scientific Working Group in October 2005. Comments and recommendation were provided by this group to complete the survey data analysis. The author will report on the way these recommendations were addressed.

#### Working papers

One working paper will be the subject of a peer review:

1. Update on sub-stocks / population assessment from recent aerial survey (P. Richard)

#### Output of the meeting

A Science Advisory Report on Baffin Bay Narwhal will be generated at a later date.

### **Pacific Harbour Seal**

#### Context

In recent years, there has been much interest in the status of harbour seal populations in the Northeast Pacific. In the southern part of their range (California to southeast Alaska), harbour seal populations appear to be increasing and there is concern over their interaction with fishing activities and impact on fishery resources such as salmon. In the northern part of their range, harbour seal populations (Gulf of Alaska and Bering Sea) appear to be declining and the main focus has been on assessing the extent and ascertaining the causes of this decline. The last population assessment for British Columbia was published in 1999 based on aerial surveys carried out up to 1998. This assessment will be updated based on surveys conducted since 1999 including the first baseline surveys for the central-north mainland coast.

#### Working papers

Two working papers related to the assessment of Pacific Harbour seals will be reviewed. The preliminary titles of these papers are:

1. Abundance estimates from recent aerial survey (P. Olesiuk)
2. Science Advisory Report for Pacific Harbour Seals (P. Olesiuk)

### Output of the meeting

A Research Document and Science Advisory Report will be generated.

## **Resident Killer whales**

### Context

Resident killer whale populations in British Columbia are presently considered to be at risk because of their small population size, low reproductive rate, and the existence of a variety of anthropogenic threats that have the potential to prevent recovery or to cause further declines. Principal among these anthropogenic threats are environmental contamination, reductions in the availability or quality of prey, and both physical and acoustic disturbance.

As required under *Species at Risk Act* (SARA), a Resident Killer Whale Recovery Team was formed in 2004 in order to develop a strategy to promote the recovery of these populations. A draft Recovery Strategy was completed in March 2005. Among the various research priorities identified in the draft Recovery Strategy are an updated assessment of the population dynamics of resident killer whales, an evaluation of their seasonal prey preferences and requirements, and an assessment of food limitation as a potential factor responsible for recent population declines which were all addressed at last year's meeting. Critical habitat was also identified as a component of the Recovery Strategy and will be the subject of this year's review.

### Working papers

One working paper related to the implementation of the Recovery Strategy for resident killer whale will be reviewed:

1. Critical Habitat for Resident Killer Whales (J. Ford)

### Output of the meeting

The scientific information and advice resulting from this meeting will be of use to the Resident Killer Whale Recovery Team in developing an Action Plan to implement recovery activities identified in the draft Recovery Strategy.

## **Publications**

The scientific information/advice issued from this meeting will be documented via standard publication series of the Canadian Science Advisory Secretariat (CSAS). The final version of the minutes of the meeting will be part of a CSAS Proceeding report. Most of the working papers submitted for peer review will be documented via CSAS Research Documents. The key conclusions regarding the new population abundance estimate for NW Atlantic hooded seals will be documented in point form from the meeting and serve as the basis for the relevant sections of a CSAS Science Advisory Report that will be produced after the meeting.