NAMMCO SCIENTIFIC COMMITTEE

Ad Hoc Working Group on Narwhal in East Greenland

*24-27 September 2019, Greenland Representation Copenhagen, Denmark*

**DRAFT AGENDA**

*Tuesday 24 September 09:00-17:00*

1. **CHAIRMAN WELCOME AND OPENING REMARKS**
   1. Welcome & Logistics
   2. Appointment of Rapporteurs
   3. Review of Terms of Reference
   4. Review of Available Documents
   5. Adoption of Agenda
2. **DISTRIBUTION AND ABUNDANCE OF EG NARWHAL**
   1. Review of Movements and Dive Behaviour Data
      1. Satellite tracking studies
      2. Time-depth recorder studies
      3. Local knowledge observations
   2. Review of aerial surveys in East Greenland

Hansen et al.: Abundance of narwhals in Scoresby Sound and southeast Greenland

Hansen et al.: Abundance of narwhals in Dove Bay and adjacent areas

Heide-Jørgensen: Abundance of narwhals in Scoresby Sound in 1983-84 and 2019.

Heide-Jørgensen: Timing and direction of the spring migration of narwhals entering Scoresby Sound

Heide-Jørgensen: Statistics from the live capturing operations in Hjørnedal 2010-2019

1. **ANTHROPOGENTIC IMPACTS**
   1. Hunt Removals

Garde: Catch statistics for East Greenland narwhals

* 1. Other Removals
     1. Fisheries by-catch or entanglement data
     2. Vessel strikes
  2. Non-lethal Impacts

Tervo et al.: The short-term effects of seismic exploration on narwhals

For information papers on fisheries competition

*Wednesday 25 September 09:00-17:00*

1. **BIOLOGY**
   1. Life History

Garde: Life history of narwhals from East Greenland

Hansen: Calf production of narwhals

* 1. Genetics and Physiology

1. **HABITAT EAST GREENLAND NARWHALS**
   1. Habitat Changes

Heide-Jørgensen et al:. A regime shift in South-east Greenland

For Information papers on physical and biological changes

* 1. Narwhal Response to Changes

Heide-Jørgensen et al.: Temperature dependent habitat selection of narwhals

Chambault et al. The impact of rising sea temperatures on an Arctic top predator.

Hansen et al.: Trophic interactions between narwhals and their prey in Dove Bay

For Information papers on responses of other narwhal populations and other odontocetes

For Information papers on limits to adaptation to habitat change of narwhals and belugas

* 1. Synthesis of Population Response
     1. Changes in seasonal distribution
     2. Changes in life history parameters
     3. Changes in habitat carrying capacity

*Thursday 26 September 09:00-17:00*

1. **STOCK ASSESSMENTS AND MANAGEMENT ADVICE**
   1. Stock Structure
      1. Genetics
      2. Seasonal distribution
      3. Management based stock structure
   2. Stock Assessment Model
      1. Draft assessment model

Witting: Assessment runs for East Greenland narwhals

* + 1. Review of model structure: multiple stocks or seasons
    2. Review of population model: time or habitat dependent parameters
    3. Review of model priors
    4. Revise stock assessment model (if necessary)
  1. Develop Management Advice
     1. Advice on management of hunting
     2. Advice on management of interacting fisheries
     3. Advice on management of other anthropogenic impacts

1. **IMPLEMENTATION OF EARLIER ADVICE ON EAST GREENLAND NARWHALS**
2. **OTHER BUSINESS**

*Friday 27 September 09:00-13:00*

**PREPARE REPORT**

**ADJOURN**

**This Working Group is convened in response to a recommendation from the NAMMCO Scientific Committee (SC25) in 2018 to assess the status of narwhals in east Greenland and report results back to the committee at its 26th meeting (SC26). This recommendation was endorsed by the Joint Management Committee at the NAMMCO Council meeting held in 2019 (NAMMCO 26).**

**The Terms of Reference for the Meeting are:**

1. Review the latest information on surveys in East Greenland including options for updating the surveys from the 1980s.
2. Review information of satellite tracking of narwhals in East Greenland
3. Present the latest information on genetic discrimination of stocks in East Greenland
4. Assess the importance of climate change on the distribution of narwhals in East Greenland
5. Compile hunting statistics and information from hunters on availability of narwhals
6. Assess the future sustainability of catches