

**Joint Workshop of the**

**NAMMCO SCIENTIFIC COMMITTEE WORKING GROUP ON THE  
POPULATION STATUS OF NARWHAL AND BELUGA IN THE NORTH  
ATLANTIC**

and the

**CANADA/GREENLAND JOINT COMMISSION ON CONSERVATION AND  
MANAGEMENT OF NARWHAL AND BELUGA SCIENTIFIC WORKING  
GROUP**

*12-16 December, 2022 Greenland Representation Copenhagen, Denmark*

**DRAFT AGENDA** (7 December 2022)

*Monday (9:00-17:00 CET)*

**1. CHAIRS WELCOME AND OPENING REMARKS**

- 1.1. Welcome & Logistics
- 1.2. Appointment of Rapporteurs
- 1.3. Review of Terms of Reference
- 1.4. Review of Available Documents
- 1.5. Adoption of Agenda

**2. LESSONS FROM A CONTROLLED DOSE EXPOSURE STUDY OF NARWHALS IN EAST  
GREENLAND**

- 2.1 Introduction with overall design of study (Garde)
- 2.2 Behavioral response study on seismic airgun and vessel exposures in narwhals (Heide-Jørgensen)
- 2.3 Received levels of sounds from airgun pulses (Blackwell)
- 2.4 Narwhals reaction to ship noise and airgun pulses embedded in background noise (Tervo)
- 2.5 Physiological responses of narwhals to anthropogenic noise: A case study with seismic airguns and vessel traffic (Williams)
- 2.6. Statistical treatment of behavioral change data (Ditlevsen)
- 2.7 Locomotion costs during exposure of narwhals (Tervo)
- 2.8 The costs of disturbance for narwhals (Heide-Jørgensen)
- 2.9 Other studies (calling rate Blackwell ?)

**3. STUDIES OF DISTURBANCE IN OTHER AREAS**

- 3.1. Harbour porpoises in Europe (Nabe Nielsen)
- 3.2. Bowhead whales in Alaska (Blackwell)
- 3.3. Regulations of ship traffic in the Arctic (Tougaard)
- 3.4. Accounting for cumulative stressors in population models (Hobbs, Witting?)
- 3.5. Mitigation buffer zones for Atlantic walrus (Mathews)

*Tuesday (9:00-17:00 CET):*

#### **4. MARY RIVER ACTIVITIES IN COASTAL AREAS OF CANADA**

- 4.1. History (Marcoux)
- 4.2. Current activities and future plans (Marcoux)
  - 4.2.1 Shipping and ice breaking
  - 4.2.2 Marine mammal monitoring and mitigation of impacts
- 4.4. Narwhal trends in distribution and abundance in Eclipse Sound and Admiralty Inlet
  - 4.3.1. Review of aerial surveys from Eclipse Sound and Admiralty Inlet (Marcoux)
  - 4.4.1. Review new abundance estimates from Eclipse Sound and Admiralty Inlet (Marcoux)
  - 4.4.2. Changes in abundance of narwhals, local knowledge (Oceans North, Westdal)
- 4.5. Noise levels and narwhal response in Eclipse Sound and Admiralty Inlet
  - 4.5.1. Baffinland study of narwhal response to ship noise (Marcoux)
  - 4.5.2. Noise levels and narwhal response (Oceans North, Westdal)
- 4.6. Population effects on narwhals (Witting)
  - 4.6.1. Changes in reproduction and survival rates
  - 4.6.2. Decline in abundance due to movement outside of summering grounds
  - 4.6.3. Shift in abundance from one stock area to another
  - 4.6.4. Shift temporary or permanent?
  - 4.6.5. Changes to Availability matrix
  - 4.6.6. Changes to population model
  - 4.6.7. Potential change in advice
- 4.7. Other marine mammals potentially affected
  - Cetaceans
  - Pinnipeds
  - Polar bears,
- 4.8. Other considerations

*Wednesday (9:00-17:00 CET):*

#### **5. SHIPPING ACTIVITIES IN BAFFIN BAY**

- 5.1. Shipping routes and season for shipping (Tervo ?)
- 5.2. Overview of importance of eastern Baffin Bay (Mosbech)
- 5.3. Marine mammal populations in west Greenland potentially affected (Hansen)
- 5.4. Effects of disturbance on narwhals (Tervo and Heide-Jørgensen)

- locomotion costs
- lost feeding opportunities
- displacement
- ice entrapments
- loss of migration patterns
- 5.4.1. Cumulative impacts on populations
- 5.4.2. Changes to Availability matrix
- 5.4.3. Changes to population model

- 5.5. Effects of disturbance of bowhead whales (Tervo)
- 5.6. Effects of disturbance of walrus (Heide-Jørgensen)
- 5.7. Other marine mammals potentially affected
- 5.8. Other considerations

*Thursday (9:00-17:00 CET):*

## **6. DUNDAS MINING ACTIVITIES IN GREENLAND**

- 6.1. History (Mosbech)
- 6.2. Current activities and future plans (Mosbech)
- 6.3. Biology and migrations walrus in Smith Sound (Garde and Heide-Jørgensen)
- 6.4. Proposal for walrus monitoring (Heide-Jørgensen)
- 6.5. Potential population effects on walrus (Heide-Jørgensen)
- 6.6. Other marine mammals potentially affected (Orbicon report + Heide-Jørgensen)
- 6.7. Other considerations (Mathews)

*Friday (9:00-17:00 CST):*

## **7. RECOMMENDATIONS**

- 7.1. Monitoring and future studies
- 7.2. Changes in advice on exploitation of walrus and narwhals
- 7.3. Suggestions for mitigations

## **8. OTHER BUSINESS**

## **9. REPORT PREPARATION**

## **10. ADJOURN**