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 (9 November 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

#### 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**