

Memorandum 2/11/2018

AS4: Reducing the effects of commercial fishing on biodiversity

This memo provides a summary of reports submitted on the session AS4 organized at the Arctic Biodiversity Session in Rovaniemi, Finland, October 9-12 organized by the Norwegian Institute for Nature Research.

Attendance: 35

Arctic Biodiversity Assessment recommendation themes most prominently addressed in the session:

- Ecosystem-based Management
- Addressing stressors
- Improving knowledge and public awareness

Key points raised in the session that were important to note:

The session covered a wide spectrum of topics covering very different aspects of commercial fishing. Important key points raised included:

- The Arctic marine environment is a vulnerable ecosystem, which is under increased pressure.
- The changing ice conditions in the Arctic with retreating ice can open for new areas for fishery exploitation. It is therefore important to identify key areas of benthic biodiversity for improved management of the fisheries in the Arctic.
- The importance of considering effects of commercial fishery across the Arctic, not only as national or regional issues.
- The need for guidelines of best practice in data collection to be able to quantify the bycatch of seabirds in the fisheries most effectively.
- The importance of communicating scientific findings to a broader audience.
- Extensive pressure on the marine environment in the Arctic; from a variety of factors. Fisheries in the Arctic is one of the threats.
- 2013 Arctic Biodiversity Assessment makes important observations e.g. marine fish species native to the Arctic are vulnerable to large-scale industrial fishing.
- Bycatch in fisheries is one of the big threats to seabirds. 160 000 seabirds killed annually by fisheries. Results in population decline, albatross f instance.
- Significant knowledge gaps from small scale fisheries. The lumpsucker fishery is only one of many fisheries that poses a threat to seabirds as a result of bycatch. Recommended by CBird.
- Need to find out more on how big this problem is in the North Atlantic scale and the local scale. Trawling one of the major threats on the benthic biodiversity.
- Focus on how management are set to respond to the challenges that fisheries pose to Arctic biodiversity. To manage the balance between value of resource exploitation and managing the threats of commercial fisheries on the marine environment in the Arctic.
- Are there management set in to reduce the negative impacts of the fisheries; of the effects of trawling, spread of new species and bycatch? Balance between using King Crab as a resource and

preventing the spread to new areas. Need more knowledge of the costs to society by ecosystem value lost because of the effects of the spread of this new species, compared to the value of commercial fishery. Reconcile long-term fishery vs. minimum spread.

- It is important to acknowledge all pressures rising from the use of Arctic ecosystem services across national borders, e.g. identifying the impact of by-catch in Arctic fisheries
- Comparison of datasets from different national sources would benefit from common guidelines for data collection and harmonization
- Computer games provides an innovative new method for sharing management related information, especially to younger generations

Recommendations/actions identified for how to deal with the issues raised in the session:

- Not so many solutions presented with regard to management, but focus on new methods for raising awareness, by for instance making computer games for kids/youth.
- Fisheries must adapt to rapid changes in the availability of “new” species in Arctic waters in order not to weaken the management of these species in more southern marine areas.
- New information from spatial surveys of the seafloor e.g. by drop-video cameras makes it possible to change present management of fisheries, gears, and methods but also help to establish new marine protected areas i.e. apply the precautionary approach.
- We need to increase the understanding and acceptance of management decisions by new methods.

Take home message from the session:

- Better management of fisheries to reduce the negative effects of commercial fishing on the marine environment in the Arctic.
- We need to apply the precautionary approach to management of fisheries in "new" Arctic marine areas previously inaccessible to fisheries (due to permanent ice cover or short ice-free seasons) to avoid damaging the marine ecosystems in these areas.