TWENTY SIXTH MEETING OF THE COUNCIL

7 – 8 March 2018, Tromsø, Norway

DOCUMENT NPR-G-2016 National Progress Report – Greenland - 2016

Submitted by: Greenland

This document contains

The National Progress Report for activities in 2016 from Greenland.

Catches are were not received for 2016.

Action requested:

- For Information

GREENLAND

PROGRESS REPORT ON MARINE MAMMALS 2016

Greenland Institute of Natural Resources
Catch, by-catch and strandings statistics provided separately by the Ministry of Fisheries, Hunting and Agriculture

I. INTRODUCTION

This report summarizes the research on pinnipeds and cetaceans done in Greenland in 2016 by The Greenland Institute of Natural Resources (GINR), in collaboration with several organizations.

II RESEARCH 2016

A Species and stocks studied

Pinnipeds

- Walrus *Odobenus rosmarus* – Northern Baffin Bay
- Hooded seals *Cystophora cristata* –Western Atlantic
- Harbor seal *Phoca vitulina* – Central West and South Greenland
- Bearded seal *Erignathus barbatus* – Baffin Bay and South Greenland
- Ringed seal *Pusa hispida* - West and East Greenland
- Harp seal *Pagophilus groenlandicus* – West Greenland

Cetaceans

- Narwhal *Monodon monoceros* - West and East Greenland
- Beluga *Delphinapterus leucas* –East Greenland
- Harbour porpoise *Phocoena phocoena* – West Greenland
- Sperm whale *Pyseter macrocephalus* – West and East Greenland
- Bowhead whale *Balaena mysticetus* –West Greenland
- Humpback whale *Megaptera novaeangliae* - West and East Greenland
- Fin whale *Balaenoptera physalus* – West and East Greenland
- Minke whale *Balaenoptera acutorostrata* – West and East Greenland
- White beaked dolphins *Lagenorhynchus albirostris* – East Greenland
- Killer whale *Orcinus orca* – East Greenland

B Field work in 2016

Walrus

GINR did not carry out fieldwork with walruses in 2016. Work with this species consisted on analyses of telemetry data from the North Water Polynya and writing of a book on user's knowledge, from interviews carried out in 2010 (published in 2017).

Seals

The time-series of ringed seal tagging in Sermilik (Southeast Greenland) and in Kangia (Jacobshavn Icefjord, West Greenland) continued in 2016.

A search for seal colonies and bird colonies along the Southeast Greenland coast was finished in 2016. The first leg Cape Farewell-Tasiilaq was done in 2014 and the second leg Ittoqqortoormiit-Tasiilaq was done in 2016. Large parts of this coast are rarely visited by people, and it could therefore potentially host undiscovered harbor seal or grey seal colonies. The area is dominated by drift ice along the coast and glacier ice in some of the fjords. A complete coverage from boat was therefore not possible, but large areas were covered without finding new seal colonies, but numerous new bird-colonies were found.

A camera and a buoy that record seal-sounds was also put out in the southernmost harbor seal colony near Cape Farewell where grey seals were seen in 2009 and 2010 in the hope to detect whether grey seal still are in the area. No pictures with grey seals and no grey seal sounds were detected.

Cetaceans

In order to understand the stock delineation and to obtain complementary data for abundance estimates, GINR runs a series of satellite telemetry studies. Target species in 2016 were narwhals in East Greenland, as well as fin and minke whales in Maniitsoq, West Greenland.

Satellite telemetry of narwhals in East Greenland was complemented with the use of sensors to document feeding events, heart rate and received sound levels to develop techniques for assessing the impact of anthropogenic noise. In East Greenland, telemetry studies in Scoresbysund started in 2010. A pilot narwhal tagging project was carried out in Kangerlussuaq fjord, East Greenland in August 2016.

Also in August 2016, an aerial survey of narwhals was carried out in East Greenland

As in previous years, the long-term studies of bowhead whales in Disko Bay for 2016 focused on testing technology for combining satellite telemetry and recording sounds on the surface of whale bodies, in order to better understand the effect of sound from seismic air guns. In addition, oceanographic tags that record temperature, salinity, depth and position are under development.

Collection of identification pictures taken by the public of humpback whales flukes and dorsal fins from West Greenland continued throughout 2016. In Nuuk, fieldwork on humpback whales in 2016 included photo-identification, biopsy sampling and satellite telemetry.

Studies of large whales in Tasiilaq, Southeast Greenland continued in 2016, and include photo identification, biopsy darting, satellite telemetry, passive acoustic monitoring, oceanographic measurements and distribution of potential prey.

In cooperation with the Marine Reseach institute in Iceland, MMSO (marine mammal and seabird observrs) were placed in two research vessels doing transects for mackerel abundance.

As part of the requirements for obtaining a whaling licence, hunters provided GINR with tissue samples from minke whales, fin whales and humpback whales.

The Danish Centre for Energy and Environment (DCE), University of Aarhus, maintains a database with observations collected by dedicated marine mammal and sea bird observers on board vessels carrying out seismic surveys under licences provided by the Bureau of Minerals and Petroleum.

C Laboratory work in 2016

Laboratory work carried out in 2016 included the analysis of stomach samples from seals, fish and harbour porpoises in Nuuk, as well as genetic analyses of bowhead whales at the University of Oslo and genetic analyses of harbor porpoise.

Sound recordings from moorings in West and East Greenland are being analyzed for estimates of background noise and seasonal occurrence of cetaceans and bearded seals, as well as monitoring of seismic exploration.

D Other studies in 2016

A number of desktop studies were carried out during 2016, including analysis of catch statistics for a number of species and assessments of narwhal and beluga for scientific working groups under NAMMCO/JCNB and of large whales for the IWC.

E Research results in 2016

The majority of research results from the fieldwork of 2016 are not available yet.

III ONGOING RESEARCH IN 2017

The time-series of ringed seal tagging in Sermilik (Southeast Greenland) and in Kangia (Jacobshavn Icefjord, West Greenland) continued in 2017.

Several marine mammal studies started in 2017, with the aim of updating the strategic environmental impact assessment for hydrocarbon activities in Northeast Greenland. The studies are financed by the oil companies with exploration licenses in the area. The pinniped and cetacean studies include:

- Seasonal Occurrence of marine mammals and the effect of seismic activities, based on PAM,
- Visual aerial surveys of marine mammals and seabirds in the Greenland Sea
- Winter survey of marine mammals in the Northeast Water
- Migrations and concentration areas of bowhead whales in East Greenland
- Assessment of short-term effects of seismic exploration on narwhals
- Distribution and habitat use of harp seal pups off Northeast Greenland
- Distribution and habitat use of ringed seals off Northeast Greenland

In order to understand the stock delineation and to obtain complementary data for abundance estimates, GINR runs a series of satellite telemetry studies. Target species in 2017 were narwhals in East Greenland, as well as fin and minke whales in Maniitsoq, West Greenland.

Satellite telemetry of narwhals in East Greenland was complemented with the use of sensors to document feeding events, heart rate and received sound levels to develop techniques for assessing the impact of anthropogenic noise. In East Greenland, telemetry studies in Scoresbysund started in 2010. The 2017 season in Scoresbysund was the most ambitious so far, as it included controlled exposure experiments using a research vessel with a modified seismic air gun in an area with hydrophones moored into the sea floor and instrumented narwhals.

For the second time in a three year series, a narwhal tagging project was carried out in Kangerlussuaq fjord, East Greenland in August 2017.

Also in August 2017, an aerial survey of narwhals was carried out in East Greenland

As in previous years, the long-term studies of bowhead whales in Disko Bay for 2017 focused on testing technology for combining satellite telemetry and recording sounds on the surface of whale bodies, in order to better understand the effect of sound from seismic air guns. In addition, oceanographic tags that record temperature, salinity, depth and position are under development.

Collection of identification pictures taken by the public of humpback whales flukes and dorsal fins from West Greenland continued throughout 2017. In Nuuk, fieldwork on humpback whales in 2016 included photo-identification, biopsy sampling and satellite telemetry.

Studies of large whales in Tasiilaq, Southeast Greenland continued in 2017, and were include photo identification, biopsy darting, satellite telemetry, passive acoustic monitoring, on-whale tagging for videofilming feeding events, oceanographic measurements, distribution of potential prey and analysis of diverse samples from harvested animals. Necropsies in 2017 included minke whales, white beaked dolphins and killer whales.

IV ADVICE GIVEN AND MANAGEMENT MEASURES TAKEN

Advice and quotas for cetaceans and pinnipeds in the calendar year 2016 are summarized in table 1.

Table 1. Overview of management advice per stock and the quota or other management measures used in 2016

Species - stock	Advisor	Advice in 2016	Management measure 2016
Harbour seal	NAMMCO	Total protection	Protected since 2010
Grey seal	NAMMCO	Total protection	Protected since 2010
Harp seal	ICES/NAFO/NAMMCO	No concern	No catch limit
Hooded seal	ICES/NAFO/NAMMCO	No concern	No catch limit
Walrus - Baffin Bay	NAMMCO	85 landed animals	Quota of 86
Walrus - Davis Strait / Baffin Island	NAMMCO	100 or less removals	Quota of 69
Walrus - East Greenland	NAMMCO	20 or less removals	Quota of 18
Beluga - West Greenland	JCNB & NAMMCO	320 landed animals. Protection south of 65°N	Quota of 320, of which 20 are allocated south of 65°N
Beluga - Qaanaaq	JCNB & NAMMCO	Catch of 20 acceptable	Quota of 20
Narwhal - Etah	JCNB & NAMMCO	5 landed animals	Quota of 5
Narwhal - Inglefield Bredning	JCNB & NAMMCO	98 landed animals	Quota of 98
Narwhal - Melville Bay	JCNB & NAMMCO	70 landed animals	Quota of 70
Narwhal - Uummannaq	JCNB & NAMMCO	154 landed animals	Quota of 154
Narwhal - Disko Bay area	JCNB & NAMMCO	97 landed animals	Quota of 97[1]
Narwhals - Ittoqqortoormiit	JCNB & NAMMCO	50 landed animals	Quota of 66
Narwhal - Tasiilaq	JCNB & NAMMCO	16 landed animals	Quota of 16
Bowhead whale – West Greenland / Arctic Canada	IWC	5 removals acceptable	Quota of 2

1 The quota in the Disko Bay area is 91, and the remaining 6 are allocated to Southwest Greenland

Humpback whale – West Greenland	IWC	10 removals acceptable	Quota of 10
Fin whale – West Greenland	IWC	19 removals acceptable	Quota of 19
Minke whale – West Greenland	IWC	164 removals acceptable	Quota of 164
Minke whale – East Greenland	IWC	12 removals acceptable	Quota of 12

According to legislation, animals that are struck but lost should be reported. However, the scarcity of reports suggests that there is underreporting of struck bust lost animals for beluga, narwhal and walrus. For narwhal, beluga and walrus in Baffin Bay, the advice is given as landed animals and takes into account the potential numbers of animals caught in Canada and struck but lost in both Canada and Greenland. The assessment for walrus in West Greenland is older, and given as total removals, regardless if the walruses are caught in Greenland, in Canada or struck and lost. In consequence, walrus quotas for Davis Strait/Baffin Island are lower than the recommended removals to allow for struck but lost animals and for harvest in Canada.

Most of the quotas of cetaceans and pinnipeds in 2016 were in accordance with biological advice. One exception was the quota for walruses in Qaanaaq, Baffin Bay, which was one walrus higher that the advice (quota of 86, against an advice of 85). However, only 74 walrus were reported caught in Qaanaaq, so the catches were within the scope of the advice. The quota for narwhals in Ittoqqortoormiit was also higher than the advice (66 vs.50). Only 44 narwhals were reported caught in Ittoqqortoormiit, so the catches here were also lower than the advice.

Quotas for large whales are set by the IWC. On its meeting in 2014, the IWC agreed upon quotas for the remaining years of the block period 2015 – 2018. The IWC quotas were implemented.

A CITES Non Detriment Findings report (NDF) was issued as one document for all marine mammals in Greenland in April 2017. The NDF for 2017 compares catches and advice for 2014, 2015 and 2016. The species targeted are marine mammals in CITES appendix II (minke whale in West Greenland, narwhal, beluga, harbor porpoise, pilot whale, killer whale, white beaked dolphins and polar bear) and walrus, which is in appendix III, but has been deemed as species of interest by the EU and the Government of Greenland. The NDF concluded that, as a whole, in the period 2014-2016, catches have followed the advice from NAMMCO, JCNB or IWC for all stocks, except narwhals in Melville Bay, Ittoqqortormiit and Tasiilaq, where the totals for the three years were higher than recommended. For harbor porpoise, pilot whale, killer whale, dolphin and polar bear, it was not possible to conclude whether catches are as sustainable, as there is no biological advice for these species.

In 2013, NAMMCO recommended that Greenland should take a closer look at the accuracy of catch data for harbor porpoises and killer whales. This work has not been completed.

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