



NATIONAL PROGRESS AND DATA REPORTING 2021

GREENLAND - PROGRESS REPORT ON MARINE MAMMALS 2021

I INTRODUCTION

Sections II, III and V of this report summarize the research done on pinnipeds and cetaceans in Greenland in 2021 by the Greenland Institute of Natural Resources (GINR), in collaboration with several organizations. Section IV and VI deals with management issues. The Department of Fisheries and Hunting provided the hunting data.

II RESEARCH BY SPECIES

A Species and stocks studied

Pinnipeds

- Walrus *Odobenus rosmarus* – Northern Baffin Bay and East Greenland
- Bearded seal *Erignathus barbatus* – East Greenland
- Ringed seal *Pusa hispida* - West and East Greenland
- Harp seal *Pagophilus groenlandicus* – West and East Greenland

Cetaceans

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

B Field work in 2021

Walrus

An automated camera was mounted on Edderfugleøerne, Northwest Greenland, to monitor a terrestrial haul-out of walrus discovered in 2018 in Wolstenholme Fjord / Ummannap Kangerlua.

Seals

The time-series of ringed seal tagging in Sermilik (Southeast Greenland) and in Kangia (Ilulissat Ice fjord, West Greenland), started in 2012, continued in 2021. A two-year tagging study of ringed seals in Inglefield Bredning was also started in 2021. The main aim of this work is to obtain oceanographic data for climate analysis. By-product of this study is data on habitat use, movements and ecology of seals in the area.

An interview study about local knowledge about the ecology in Ilulissat Ice fjord, with focus on ringed seals was published.

Cetaceans

An aerial survey for narwhals, planned for May 2020, was cancelled for the second year in a row due to travel restrictions posed by the covid-19 pandemic. A telemetry study of bowhead whales in Disko Bay was also cancelled because of the pandemic.

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In 2021, as in previous years, hunters from Qeqertarsuaq (West Greenland) collected biopsies of bowhead whales during spring in Disko Bay.

Collection of identification pictures taken by the public of humpback whale flukes continued throughout 2021.

Hunters from Qaanaaq (Northwest Greenland), Ittoqqortoormiit and Tasiilaq (East Greenland) were interviewed about their knowledge and experience regarding killer whales. Tissue samples were also secured from two killer whales in Ittoqqortoormiit (East Greenland) and one in Nuuk (West Greenland).

Tissue samples from belugas bycaught in Ittoqqortoormiit were acquired from hunters.

As every year, hunters sent samples from harvest of large cetaceans: humpback whales, fin whales, bowhead whales and minke whales.

C Laboratory work in 2021

Laboratory work carried in 2019 included the analysis of stomach samples from seals and fish from Ilulissat (GINR and university of Aarhus), as well as genetic analyses of bowhead whales from Disko Bay (University of Oslo), genetic analysis of belugas and narwhals (University of Copenhagen) and chemical analysis on narwhal tusks (multiple locations).

Sound recordings from moorings in West and East Greenland were analysed for estimates of background noise and seasonal occurrence of marine mammals, as well as monitoring of seismic exploration.

D Other studies in 2021

A number of desktop studies were carried out during 2021, including analysis of catch statistics for a number of species and assessments of narwhal for scientific working groups under NAMMCO and of large cetaceans for the IWC. A postdoc on the effects of climate change on the distribution and movements of cetaceans started in 2021.

E Research results in 2021

The majority of research results from the fieldwork of 2021 are not available yet.

III ONGOING (CURRENT) RESEARCH

The automated camera monitoring the newly established walrus terrestrial haul out in Wolstenholme Fjord will be updated with new batteries in summer 2022 and the memory card will be shifted.

The time-series of ringed seal tagging in Sermilik (Southeast Greenland), Kangia (Ilulissat Ice fjord, West Greenland) and Inglefield Bredning (Qaanaaq, West Greenland) will continue in 2022.

Marine mammal surveys planned for 2022 include aerial survey for narwhals during spring off Ittoqqortoormiit that was cancelled in 2020 and 2021, a winter survey focusing on beluga, walrus and bowhead whale in West Greenland, and a summer survey for narwhals covering all management areas of East Greenland.

To better understand the oceanographic changes that are taking place off East Greenland, and to collect data on stock delineation an attempt to tag narwhals in Kangerlussuaq, (East Greenland) will be conducted in 2022.

The long-term studies of bowhead whales in Disko Bay will also continue. Work in 2022 will focus on the collection of biopsy samples for mark – recapture abundance estimates, and on satellite telemetry.

Telemetry studies of narwhals in Scoresby Sound, (East Greenland) started in 2010 and ended in 2020. If possible, the field station will be closed in 2022.

Studies of large cetaceans in Tasiilaq, (Southeast Greenland) carried out by the Climate Research Centre (GCRC) at GINR will continue in 2022.

As in previous years, collection of identification pictures taken by the public of humpback whale flukes and dorsal fins from West and East Greenland will continue.

Data on physiology and acoustics of captive belugas in USA and Iceland will be collected.

Telemetry fieldwork on harbour porpoises in Maniitsoq area, West Greenland is planned for 2022.

IV ADVICE GIVEN AND MANAGEMENT MEASURES TAKEN

Advice and quotas for cetaceans and pinnipeds in the calendar year 2021 are summarized in table 1.

Large cetaceans:

Quotas for large cetaceans are set by the IWC. At the IWC 67 meeting in 2018, the IWC agreed upon quotas and revised carry-over provisions for the new quota block 2019 – 2026. The IWC quotas were implemented in 2021. Greenland have decided only to follow the carry-over provision for minke whales both in West and East Greenland. Carry-over provision for other large whales will be implemented if necessary.

Small cetaceans:

The Government of Greenland sets the quotas for narwhals, with basis on user's knowledge, cultural and meat needs and recommendations from NAMMCO and JCNB. Quotas for narwhals in 2021 in Etah (Smith Sound), Melville Bay, Uummannaq and the Disko Bay (West Greenland) have been set in accordance with the advice by JCNB and NAMMCO. The quota for Etah was five animals, Melville Bay 70 animals, Uummannaq 154 animals and 97 for Disko Bay (West Greenland).

For Qaanaaq (Inglefield Bredning) the original quota of 98 was raised by 20 in the fall of 2021, resulting in a total quota of 118. The reported catch from 2021 was 91 from Inglefield Bredning, of which only one animal was caught after the quota increase, meaning the actual takes were lower than the advice.

In East Greenland there is advice from NAMMCO of 0 catches due to declining narwhal populations. The quotas at the start of 2021 were 25 narwhals for Ittoqqortoormiit, 10 for Kangerlussuaq and 5 for Tasiilaq. In the fall of 2021, the quotas were increased with 5 for Ittoqqortoormiit and 15 for Tasiilaq. There were no catches after the quota increase, and reported catches for 2021 were 2 narwhals in Ittoqqortoormiit, 11 in Kangerlussuaq and 7 in Tasiilaq.

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The lack of narwhal catches in areas where the quotas was raised is believed to be due to the late timing of the decision, meaning that the quotas were raised after the animals had left the areas.

For belugas in West Greenland, the quotas for 2021 were in accordance with recommendations from 2020 by JCNB and NAMMCO. The only difference is the management measure taken in 2020 for Qaanaaq is still in effect, due to overharvest in 2019. The plan is to subtract 8 belugas per year until 2029.

Furthermore, Government of Greenland has decided not to follow the recommendations regarding no hunting south of 65° N and seasonal closures in other parts of West Greenland.

Regarding harbour porpoises, quota advice was received from NAMMCO in 2021, 1.869 landed harbour porpoises. This is yet to be followed. The decision from the Government of Greenland is to introduce set quotas starting from 2023, after further public hearings during 2022.

There are no quotas for pilot whale, harbour porpoise, white-sided and white-beaked dolphins and killer whales, as there is no advice from NAMMCO nor the Greenland Institute of Natural Resources on quotas. In 2013, NAMMCO recommended that Greenland should take a closer look at the accuracy of catch data for harbour porpoises and killer whales. This work has not been completed. In 2019, NAMMCO recommended caution when setting quotas for killer whales. An executive order covering the mentioned small cetaceans is underway.

Pinnipeds:

Walrus quotas are given by the Government of Greenland, and in 2020 and 2021, as in previous years, followed the advice from NAMMCO.

Harbour seals and grey seals are still protected, and there are no quotas for other seal species: ring seals, harp seals, hooded seals and bearded seals, as there is no advice on quotas from NAMMCO. However, all catches including struck and lost have to be reported annually through Piniarneq.

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Table 1: Overview of management advice per stock and the quota or other management measures used in 2021.

Species - stock	Advisor	Advice in 2021	Management measure 2021
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 85
Walrus - Davis Strait / Baffin Island	NAMMCO	100 removals	Quota of 69
Walrus - East Greenland	NAMMCO	17 landed animals	Quota of 17
Beluga - West Greenland	JCNB & NAMMCO	265 landed animals. Protection south of 65°N.	Quota of 265, hunting still allowed south 65°N.
Beluga - Qaanaaq	JCNB & NAMMCO	37 landed animals	29 allowed takes, due to overharvest in 2019.
Narwhal - Etah	JCNB & NAMMCO	5 removals	Quota of 5
Narwhal - Inglefield Bredning	JCNB & NAMMCO	98 removals	Quota of 118
Narwhal - Melville Bay	JCNB & NAMMCO	70 removals	Quota of 70
Narwhal - Ummannaq	JCNB & NAMMCO	154 removals	Quota of 154
Narwhal - Disko Bay (West Greenland)	JCNB & NAMMCO	97 removals	Quota of 97 ⁱ
Narwhal - Ittoqqortoormiit	NAMMCO	0 catches	Quota of 30
Narwhal - Kangerlussuaq	NAMMCO	0 catches	Quota of 10
Narwhal - Tasiilaq	NAMMCO	0 catches	Quota of 20
Bowhead whale – West Greenland / Arctic Canada	IWC	5 removals acceptable	Quota of 2
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	20 removals acceptable	Quota of 20

ⁱ The quota in the Disko Bay area was 85, and the remaining 12 were allocated to West and Southwest Greenland.

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VI APPENDIX 1 – DATA REPORTING TO NAMMCO COMMITTEES

a. Short narrative

Hunting data for narwhals, belugas, walrus and large cetaceans are collected through mandatory catch reporting. The catch reports include biological information on the catches such as species, sex, length, presence of foetus and stomach content. Area of catch, hunting methods and time of death are also collected.

In other small cetaceans such as pilot whale, harbour porpoise, white-sided and white-beaked dolphins and killer whales, yearly reporting of catch numbers are collected. There is currently no mandatory reporting scheme in this moment in time. The same for seals.

b. Fill in Excel spreadsheet

SC has agreed on new Management Areas, described in the excel sheet, to be used in the reporting of catches of seals and whales.