



Brief on: Important areas for Beluga whale (*Delphinapterus leucas*), concerning operations related to mineral activities.

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Important areas for Beluga whale

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Background

Rules for field work and reporting regarding mineral resources ('Field Rules'), Government of Greenland, Bureau of Minerals and Petroleum, November 2000 (Anon., 2000), provides special provisions applied to field work within areas and periods of particular significance to wildlife based on the existing biological knowledge.

The Government of Greenland has requested that area types described in Field Rules chapter 2 and 3 should be available and be displayed geographically in the NatureMap online mapping portal for environment and nature of Greenland, accessible at www.eamra.gl, and the information from there distributed directly and automatically to the national planning and mapping portal NunaGIS, accessible at www.nunagis.gl, and LicenceMap, the mineral mapping portal at www.govmin.gl. Accordingly, information from NatureMap can be viewed also in NunaGIS and LicenceMap as direct data link service.

Considering the latest existing biological knowledge, Greenland Institute of Natural Resources recommend the following additions regarding environmental regulation on field work activities related to mineral resources, including changes to the geographical outline of areas.

This brief is an addition to the text of chapter 2 *Areas and periods of particular significance to wildlife* as a provision to section 2.03.13 based on the existing biological knowledge on the stock of beluga whale (*Delphinapterus leucas*).

Ad. 1: Sensitivity and general description

On the national Red List, the Greenland population of beluga whale (*Delphinapterus leucas*) is assessed as ‘Vulnerable’ (VU) (Boertmann & Bay, 2018). In the IUCN red list, the beluga species is currently assessed as ‘Least Concern’ (LC) (Lowry, et al., 2017). However, IUCN is in the process of assessing beluga subpopulations.

National legislation covers beluga in the Government of Greenland’s *Act on protection and catch of beluga and narwhals* (Selvstyrets bekendtgørelse om beskyttelse og fangst af hvid- og narhvaler), and beluga is protected except for hunting (Anon. 2017).

The *Act on the nature reserve in Melville Bay* (Hjemmestyrets bekendtgørelse om naturreservatet i Melville Bugt) covers an area where all wildlife is protected, and all hunting, catch, fishery, traffic at sea or on land, and overflight below 500 m is prohibited (Anon. 1989).

Conservation management is conducted under the transnational Joint Commission for the Conservation and Management of Narwhal and Beluga (JCNB), in collaboration with the North Atlantic Marine Mammal Commission, NAMMCO.

Belugas are like other whale species covered by the international bodies of the *Convention on Environmental Impact Assessment in a Transboundary Context* (Espoo Convention), the *Convention on International Trade in Endangered Species of Wild Fauna and Flora* (CITES), and the *OSPAR Commission*.

Belugas mainly live in Arctic waters. Genetic studies have provided material to delineate well-defined stocks subdivided into summer aggregations/stocks due to geography and patterns of activity and migration (Skovrind et al. 2021).

Belugas are rare in East Greenland and whales here are most likely straying individuals (genetic studies indicate that individuals hunted in East Greenland originate from both Canadian and Svalbard/Russian stocks) with no stable presence (NAMMCO, 2023).

The *Eastern High Arctic – West Greenland* population is considered depleted. Beluga whales from this population are present in Greenland waters in the North Water Polynya (all year) and off West Greenland from Disko Bay to Maniitsoq (during fall, winter, and spring). In spring (June), they migrate offshore and parallel to the coast between Disko Bay, passing the Upernavik region, to the North Water Polynya and to the summer aggregation areas in Canadian High Arctic Archipelago. In autumn (October), they return via the same routes to the wintering areas (Hobbs et al, 2020, NAMMCO-JCNB 2021).

The population wintering in West Greenland has strongly declined since 1954 to c. 10,000 individuals and is now stabilized due to hunting quotas. Before 1930, beluga was present further South in the Nuup Kangerlua fjord, but this part of the population is regarded as extirpated and full protection is recommended by the JCNB Joint Working Group (NAMMCO-JCNB 2021).

Belugas are sensitive to anthropogenic disturbance of underwater noise from active acoustic sources and vessel traffic (NAMMCO 2022). Moreover, reduction or changes in sea ice cover and properties might affect the distribution and migration patterns of beluga. Assessment of activities in important migration corridors should incorporate information of the current sea ice situation in the delineation of the corridors. Belugas are susceptible to occasional entrapments in sea ice (*sassat*), and anthropogenic disturbance might lead to an increase in such incidents.

Ad. 2: Periods of importance

In the Field Rules (November 2000), there are no dates and areas stated for beluga.

We recommend the following periods of importance for belugas in North-West and West Greenland are added:

1. North Water Polynya (Pikialasorsuaq):
 - a. During the period: All year.
2. West Greenland:
 - a. During the period: October 15 to May 31.
3. Migration routes in West and Northwest Greenland:
 - a. During the period June 1 to June 30.
 - b. During the period September 15 to October 31,

The periods of importance are supported by studies proving presence of beluga in many of the wintering and spring areas and migration routes during these periods. The recommended periods are assigned to accommodate variances in migration of beluga due to changes in sea ice cover. Start and end of the periods in the particular year depend on variation in sea ice cover.

Ad. 3: Areas of importance

In Greenland waters, the areas of importance are:

1. North Water Polynya (Pikialasorsuaq).
2. West Greenland winter and spring area between Maniitsoq and Qeqertarsuaq (Disko Island).
3. Migration routes between the coast and up to 50 nautical miles offshore in:
 - a. Smith Sound, including Ummannap Kangerlua (Wolstenholme Fjord) and Ikersuaq (Inglefield Bredning),
 - b. Avannaata Imaa (Baffin Bay) and Qimusseriarsuaq (Melville Bay),
 - c. Sullorsuaq (Vaigat) strait and Qeqertarsuup Tunua (Disko Bay).

The areas, particularly the migration routes, are not well defined geographically but change due to sea ice cover of annual and seasonal variation (Heide-Jørgensen et al., 2013 and 2016).

Ad. 4: Recommended regulation

It is advised to add a new section to the field rules with the following:

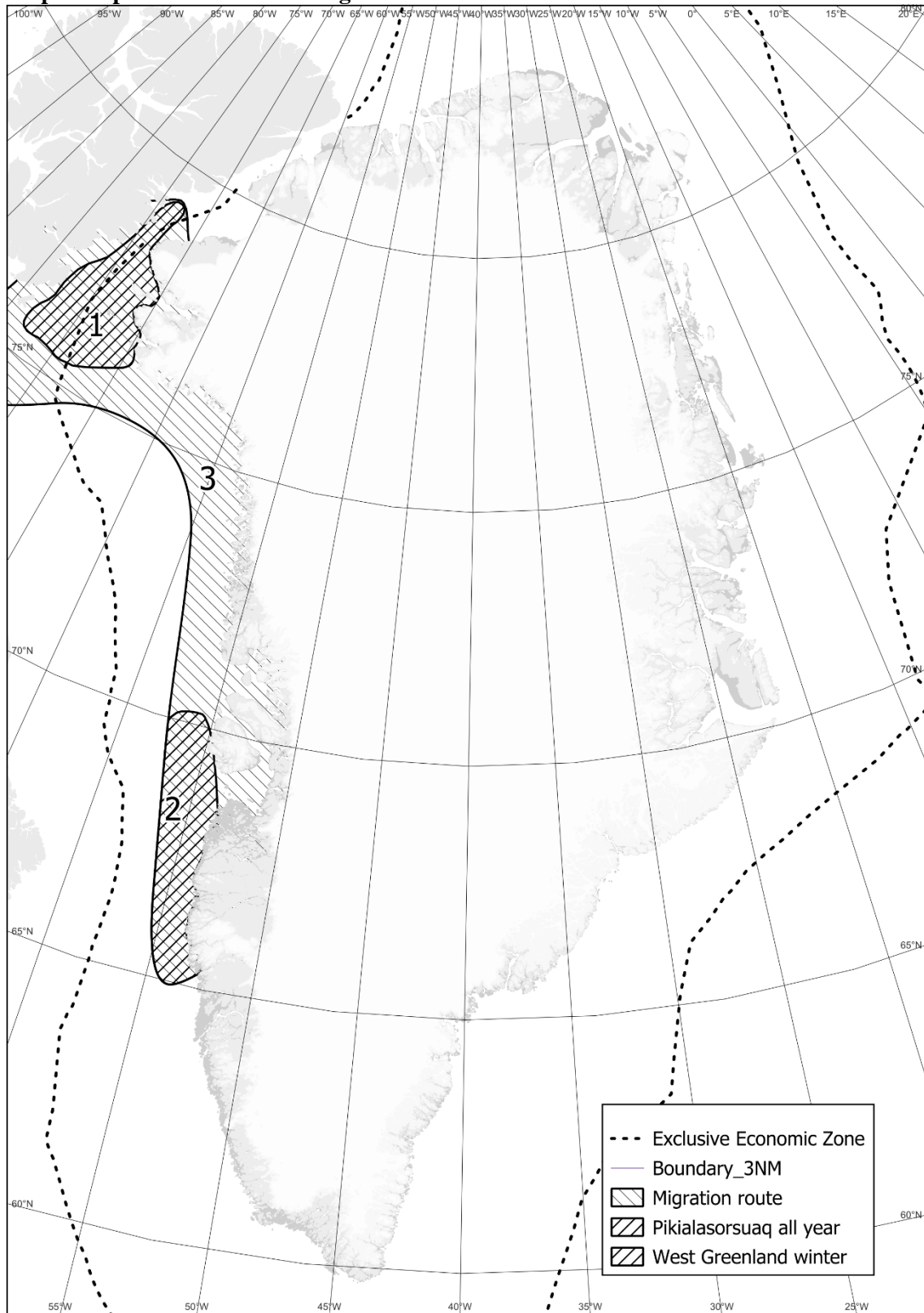
2.03.13 Beluga areas. During the period October 15 to May 31 in the West Greenland wintering area, and all year in the Pikialasorsuaq (North Water Polynya), the following regulations apply in beluga areas, when beluga is observed, unless approved by the Environmental Agency for Mineral Resources and Activities:

- a. It is not allowed to cause disturbance, including:*
- b. traveling by boat at speeds above 8 knots.*
- c. fly by in fixed-wing plane or helicopter within a vertical distance of 500 meters.*
- d. fly drones within a vertical or horizontal distance of 100 meters.*
- e. traveling by boat in a proximity of 3 km to the coast or the edge of the sea ice.*

It is advised to employ Marine Mammal and Seabird Observers (MMSOs) when conducting extensive activities or when conducting surveys with active acoustic instruments in the areas Pikialasorsuaq (North Water Polynya) (1), and West Greenland wintering area (2) during the sensitive periods. Considering the traditions of hunting by local communities in or close to the areas, it is advised to consult the communities through the appropriate channels well before activities.

It is advised to conduct an intensive lookout for beluga from vessels in infrequent transits through the areas.

Map of important areas for Beluga



Previous map of important areas for Beluga

No previous map exists of important areas for beluga whales in the Field Rules.

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