



Brief on: Important areas for Harbour seal (*Phoca vitulina*) concerning operations related to mineral activities

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Important areas for Harbour seal

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Background

The document *Rules for field work and reporting regarding mineral resources* ('Field Rules') (Anon., 2000) provides special provisions for field work related to mineral activities. The provisions are applied to activities within areas and periods of particular significance to wildlife.

The areas and provisions in the Field Rules are defined based on the existing biological knowledge of the time. Government of Greenland has requested a revision of Field Rules' chapter 2 and 3 including report and digital map to be available in NatureMap at www.eamra.gl (naturemap.eamra.gl). NatureMap is an online mapping portal for environment and nature of Greenland. Information from NatureMap can be viewed in NunaGIS and GovMin (Licence-Map) as direct data link service.

This brief is an update to the text of chapter 2 *Areas and periods of particular significance to wildlife* for the existing biological knowledge of the stock of harbour seal. The regulations recommended can be considered as an addition of subsection named 2.03.11 *Areas with harbour seal*.

Ad. 1: General description and sensitivity

The Greenland population of harbour seal is on the national Red List assessed as ‘Critically Endangered’ (CR) (Boertmann & Bay, 2018) and has been protected from hunting since 2010 (Anon., 2010).

The population has been hunted to near extinction in West Greenland. The three populations for which we know the breeding and moulting sites, essential for population estimates, include probably not more than 100 individuals. In addition to these populations, a few harbour seals are regularly observed in areas where we currently do not know the location of breeding and moulting sites. Further surveys are recommended to identify additional sites and delineate known sites. The population is currently under threat from illegal hunting, bycatch from net fishery, and disturbances on land (Boertmann & Bay, 2018).

Ad. 2: Periods of importance

It is advised to not disturb harbour seals by any activities within 500 m and within the areas of importance in the periods of:

1. Breeding period: May 15 - August 1
2. Moulting period: August 1 - September 15

Harbour seals are most vulnerable to disturbances during the breeding and moulting seasons. The actual timing depends on the specific area. The breeding period starts between mid-May and early-July and lasts for 3-4 weeks. The moulting period starts during August and lasts for 3-4 weeks.

Ad. 3: Areas of importance

A moulting site is often a small and restricted area (eg., a single island, or an extensive river delta with sand bars), where seals gather during the moult. At breeding sites, the mothers give birth and nurse their pups (Christensen et al., 2016; Rosing-Asvid, 2010; Rosing-Asvid et al., 2020). A breeding site will generally be like a moulting site and is often the same site. A breeding site can also consist of small sites dispersed over a region.

The known breeding and moulting sites are:

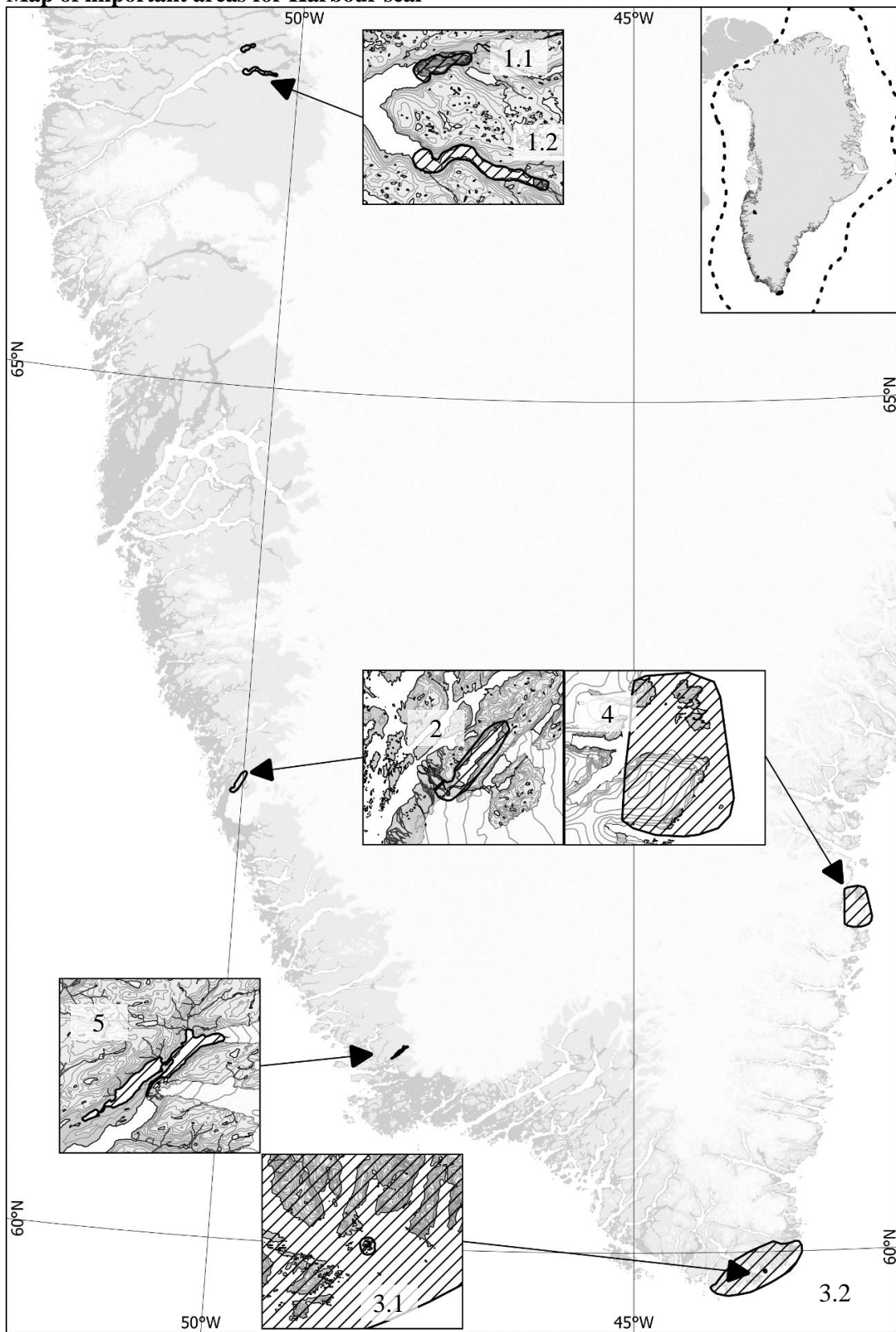
1. Kangerlussuaq, head of fjord:
 - 1.1. River delta near the airport: Breeding and moulting.
 - 1.2. Umiiviit fjord: Breeding.
2. Majorariaq, north of Sioqqap Sermia (Frederikshåb Isblink): Breeding and moulting.
3. Nunap isua (Cape Farewell) region:
 - 3.1. Qeqertat group of islands: Moulting.
 - 3.2. Unidentified sites in the region: Breeding and moulting.
4. Puisortoq: Breeding.
5. Qoornoq: Protected area.

It is advised to include a section in the field rules stating the following:

2.03.11 Harbour seal areas. During the period May 15 - September 15, the following regulations apply, unless approved by the Environmental Agency for Mineral Resource Activities:

- a. It is not allowed to cause disturbance, including firing guns or traveling by boat at speeds above 3 knots.*
- b. It is not allowed to fly by fixed-wing plane or helicopter within a vertical distance of 500 meters.*
- c. It is not allowed to fly drones within a vertical or horizontal distance of 100 meters.*
- d. Traffic on land is not allowed (coastal area).*

Map of important areas for Harbour seal



References

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