

## Lars Maltha Rasmussen

General:

Misspelling: Uria lomvia, = Uria lomvia

Cepphus grille = Cepphus grylle

### Figure 4.9. Distribution and Size of Seabird Colonies

Data from the Sea Bird Database showing comprehensive data on mixed colonies should be displayed. All sea bird colonies with more than 5 pairs should be mapped. A larger map is needed.

Many species (common eider, iceland gull etc.) occur as dispersed breeders in smaller colonies, These may as well be affected by large oil spill.

#### 4.3.5. Seabirds:

16 species of sea birds breed in the area. (According to tab. 4.10)

#### 7.2.2. Assessment of Disturbance from Lights and Flaring

Missing recent publication on this subject:

Nr. 84 - Light-induced bird strikes on vessels in Southwest Greenland 2010

[http://natur.gl/fileadmin/user\\_upload/Publikationer/Afhandlinger/Tekniske%20rapporter/Birdstrike%20Technical%20Report%2084.pdf](http://natur.gl/fileadmin/user_upload/Publikationer/Afhandlinger/Tekniske%20rapporter/Birdstrike%20Technical%20Report%2084.pdf)

*Given the short hours of darkness over the summer and the likely low numbers of birds passing through the block over this period, the potential impact of increased bird collisions as a result of vessel lighting and flaring is considered to be of minor significance.*

From the text it is not clear how the seabird sensitivity to lights and flaring is assessed. There are no data on the extend of used lights on boats and flaring in darkness and how these incidents will coincide bad weather and darkness situations and with the timing of migration. The assessment could as well characterize the risk as “Insignificant” or as “Moderate”. Migration must be expected to peak in august –september, where the operation is still active, and within hours of darkness.

Tab. 3: It is mentioned that

*“Potential effects on migratory birds are minimised by shielding external lights on MODUs and vessels to the extent possible. Flaring duration will be minimised and timing will be planned to avoid flaring in darkness to the extent possible.”*

These indications are only relative and does not provide a basis for an assessment.

Nothing is known about the “numbers of birds passing through the block during the drilling campaign,” and it is not possible to assume that this is likely “low numbers”.

Concerning text for *Table 4.10* which indicates the importance of the license block to the population:

*Please note that a description of “not ecologically important” does not refer to the ecological importance of the species to western Greenland. It refers instead to the ecological importance of the license block alone to the species. For example, a description of “not ecologically important” may be due to the wide availability of similar habitat in the greater area to the species.*

For most species it is an irrelevant consideration if the license block is essential to the sea bird species (shown by the fact that “*Not ecologically Important*” implies for practically all species). Most impact on birds (oil spill, disturbance, collision caused by lights etc.) may occur far outside the licence blocks.

Concerning: **Figure 4.10 Seabird Colonies Greater than 500 Individuals**

Many species (common eider, iceland gull etc.) occur as dispersed breeders in smaller colonies, These may as well be affected by large oil spill. All sea bird colonies with more than 5 pairs should be mapped. A larger map is needed.

s. 4-23: *Information on the distribution of seabird species on the west coast of Greenland is generally good, however, some data are in need of updating as they are from the 1920s onwards and changes in colony size, location and diversity have been observed in some areas.*

But then on page 4-34:

*However, the knowledge on winter abundance and distribution of seabirds in the offshore parts of these waters is very limited.*

**Both statements cannot be valid!**

Compared to other areas of the world only very little is known about the distribution and numbers of seabirds in the areas with and surrounding the blocks. Many data are 10-40 years old or older, and practically nothing is known about migration routes and annual fluctuations.

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Tenna Boye

I have gone through the general chapters and tables in the EIAs for Eqqua and Napariaq concerning toothed whales and baleen whales. I have not gone into species specific corrections.

**My general comment is that the information in these chapters and table 4.11 are almost exclusively based on information from two NERI reports (Mosbech et al., 2007 and Boertmann et al., 2009.) and it would be both relevant and available to include other *firsthand* literature to update/correct these chapters regarding both stock size and ecology.**

Also it is written on page 4-29:

“Further detailed descriptions of relevant marine mammal species are provided in Annex E. Details for those species which the license area is considered most relevant (listed as “may use the license area” in Table 4.11) are provided below.”

Here it is chosen to describe bowhead whale and beluga whale. But for instance:

The vicinity of the license area is also important winter feeding habitat for Narwhal and several baleen whale species feed along the coast in the vicinity of the license area from Spring-Autumn.

It's written in a note prior to table 4.11

“Please note, these population estimates are based on the most reliable, up-to-date information available at the time this report was prepared.”

But some stock estimates for West Greenland are incorrect and others are not West Greenland stock estimates but combined Baffin Bay stock estimates.

Concerning text for Table 4.11 (as for birds table 4.10) which indicates the importance of the license block to the population:

Please note that a description of “not ecologically important” does not refer to the ecological importance of the species to western Greenland. It refers instead to the ecological importance of the license block alone to

the species. For example, a description of “not ecologically important” may be due to the wide availability of similar habitat in the greater area to the species.

Some relevant references:

Dietz, R., Heide-Jørgensen, M.P., Richard, P., Orr, J., Laidre, K. and Schmidt, H.C. 2008. Movements of narwhals (*Monodon monoceros*) from Admiralty Inlet monitored by satellite telemetry. *Polar Biology* 31, 1295–1306

Heide-Jørgensen, M.P. and Laidre, K.L. 2007. Autumn space-use patterns of humpback whales (*Megaptera novaeangliae*) in West Greenland. *Journal of Cetacean Research Management* 9, 121-126.

Heide-Jørgensen, M.P., Laidre, K.L., Hansen, R.G., Rasmussen, M., Burt, M.L., Borchers, D.L., Dietz, R. and Teilmann, R. 2008. Revised abundance estimates of humpback whales in West Greenland. SC/60/AWMP7.

Kapel, F.O. 1979. Exploitation of large whales in West Greenland in the twentieth century. Report of the International Whaling Commission 29, 197-214

Simon, M., Stafford, K.M., Beedholm, K., Lee, C.M. and Madsen, P.T. 2010. Singing behavior of fin whales in the Davis Strait with implications for mating, migration and foraging. *Journal of the Acoustic Society of America* 128, 3200-3210.

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