Muskox harvest advice for autumn 2011 / winter 2012

ADVISORY DOCUMENT TO THE GOVERNMENT OF GREENLAND

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This document from the Greenland Institute of Natural Resources (GINR) to the Ministry of Fisheries, Hunting and Agriculture (APNN) of the Government of Greenland, presents advice for muskoxen (Ovibos moschatus) harvests in the autumn 2011 / winter 2012 period in Greenland. Only those muskoxen populations that are harvested are represented (Figure 1).

Figure 1. Names and locations of the nine harvested muskoxen populations in Greenland are indicated in red. The size and shape of the regions are approximate and indicate an area of use and not population size. For example the relatively small Kangerlussuaq area contains the largest muskoxen population in West Greenland. NOTE: The muskoxen population within the National Park in NE Greenland, and another in the Akia-Manissoq Central region of West Greenland, are not displayed on this map because hunting is not permitted.
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The recommendations in this document are intended as short-term advice applying only to the 2011-2012 season. Given the available information this advice represents our best short-term judgment. This advice is unchanged from Cuyler et al. (2010), which built upon Cuyler (2003, 2005) and Cuyler & Witting (2004).

Hunters are encouraged to shoot equal numbers of males and females, the goal being a natural population sex ratio to ensure the future genetic diversity and growth potentials in the populations.

Hunter reports – Continued cooperation by hunters should be encouraged regarding the use and return of hunter licenses/reports. Recognizing the difficulties involved, we strongly recommend that information on catch numbers by sex and population are included in Piniarneq because this information is needed to assess the impacts of the hunt.

Muskoxen populations are presented in order from north to south, and further first those for which there has previously been written a harvest advice recommendation.

Recommendations North-West & West Greenland

Inglefield Land

We have no new data for this region. In 1986, 14 muskoxen were released in Rensselaer Bay. In 1999 this population was estimated at ca. 270 muskoxen, with a recruitment of about 30 calves annually. This region is relatively inaccessible to hunters for most of the year. The harvest quota in 2010 was 70 animals. Consultation with local hunters may indicate whether herd size has changed and in which direction the quota may be adjusted, otherwise there are no changes to the advice given by Cuyler (2005), i.e., two hunting seasons, one in the autumn and one in winter are reasonable. The refuge/reserve in the eastern third or half of Inglefield Land should continue.

Kangerlussuaq (Søndre Strømfjord) & Sisimiut:

The Kangerlussuaq and Sisimiut populations are actually one and the same. Management has always handled these two separately. We have no new data for the Sisimiut sub-region, and data from Kangerlussuaq indicates no change in status. Kangerlussuaq holds the largest muskoxen population in West Greenland with peak densities on core winter range of 20 to 30 muskoxen per sq km (Cuyler & Witting 2004). The 2010 harvest quotas were 1000 animals for Sisimiut and open harvest for Kangerlussuaq (both summer and winter). Past and recent harvests have not reduced herd number in either area. No change from the 2010 harvest is suggested, and our advice is relatively unchanged from Cuyler & Witting (2004), Cuyler et al (2010), i.e., muskoxen density is greatest on the core winter range therefore concentrate the winter harvest there, and maintain an even sex ratio in the harvest.
We recommend the prohibition of all skidoo or other motorized travel south of the Kangerlussuaq airport until the start of the winter muskoxen hunt, which is when the muskoxen hunters have dispensation to use motorised vehicles. GINR’s frequent minimum count of muskoxen abundance and herd structure is always done just prior to the start of the winter muskoxen harvest. Having been left in peace, the muskoxen are naturally distributed throughout the terrain when we arrive. Use by others of skidoos or motorized vehicles in the area south of the Kangerlussuaq airport in the months prior to the start of the winter muskoxen harvest will disturb the distribution of muskoxen before we arrive. If motorized vehicle use is permitted south of the Kangerlussuaq airport prior to the winter muskoxen hunt, the results from the semi-annual minimum count of muskoxen abundance and herd structure will become unreliable and useless.

Ivittuut

We have no new data for this region. 15 muskoxen were released here in 1987. In 2001 the Ivittuut municipality indicated they wanted a stable herd of 300 muskoxen. The autumn 2009 minimum count observed about 900 animals (Per Hansen pers comm). The 2010 harvest quota was 300 muskoxen. No change from the 2010 harvest is suggested, i.e., with ca. 900 muskoxen and a total Ivittuut land area of ca. 450 sq km, muskoxen density is at least 2 per sq km, which may cause overgrazing and trampling of vegetation. Preventing further growth in herd size is the minimum recommended. A reduction in herd size is advisable. We suggest a reduction to 400-500 muskoxen, which would result in a density of about 1 per sq km. Consultation with local knowledge, may indicate whether herd size has further increased (which is undesirable) and adjust the quota accordingly.

Recommendations East Greenland

Jameson Land & Inner Scoresbysund (Bunden af fjorden)

The muskoxen in these two areas are in reality of the same population.

We have no new data for the Jameson Land region. A survey in 2000 resulted in an estimate of ca. 1750 muskoxen. The 2010 harvest quota was 180 animals. No change from the 2011 harvest is suggested however, consultation with local knowledge may indicate whether herd size has changed and in which direction the quota may be adjusted.

We have no new data for this region. Minimum counts observed 1325 and 373 animals in 2002 and 2003 respectively. The low number observed in 2003 does not necessarily reflect a real decline. The 2010 harvest quota was for 124 animals. No change from the 2010 harvest is suggested, however, consultation with local knowledge may indicate whether herd size has changed and in which direction the quota may be adjusted.
**New Recommendations North-West & West Greenland**

**Kap Atholl**

We have no new data for this region. Seven muskoxen were released here in 1986. There have been no assessments of abundance. In 1997 a minimum of 47 were observed and a similar number in 2010. We suspect the herd remains at modest numbers. The 2010 harvest quota was 15 animals. We recommend no change in current management, however, consultation with local hunters may indicate whether herd size has changed and in which direction the quota may be adjusted. Hooves can be extremely overgrown on adults.

**Svartenhuk**

We have no new data for this region. 31 muskoxen were released here in 1991. A minimum count in 2002 observed 193 animals. The 2010 harvest quota was 82 animals. We recommend no change in current management, however, consultation with local hunters may indicate whether herd size has changed and in which direction the quota may be adjusted if at all.

**Naternaq**

We have no new data for this region. 31 muskoxen were released here in 1993. A minimum count in 2004 observed 112 animals. The 2010 harvest quota was 135 animals. We recommend no change in current management, however, consultation with local hunters may indicate whether herd size has changed and in which direction the quota may be adjusted.

**West Greenland: Nuuk – Godthåbsfjord**

At present, the area north of Godthåbsfjord is not a muskoxen harvest region. GINR have been asked the following question by APNN. What is the status of the muskoxen population that exists north of Godthåbsfjord and south of Sukkertoppen?

These animals stem from those that have immigrated south into the region from the large Kangerlussuaq population to the north, i.e., they crossed the Sukkertoppen Ice Cap. Since 1998 locals have observed and reported muskoxen at several locations. The size of the population north of Godthåbsfjord is at present unknown. Low-flying helicopter surveys for caribou have monitored the region between Sukkertoppen and Godthåbsfjord four times since 2001, and muskoxen have never been observed. This is in sharp contrast to similar helicopter surveys monitoring Sisimiut, where muskoxen are regularly observed, or Kangerlussuaq where multitudes are observed. Therefore we assume it probable that the muskoxen population north of Godthåbsfjord is small.
References


