



Nunavut Tunngavik Incorporated submission for Nunavut Wildlife Management Decision

Issue:

Request for an increase in the Total Allowable Harvest (TAH) of polar bear for the Davis Strait polar bear management unit.

Background:

Inuit first observed and indicated a significant increase in the population of Davis Strait since the last survey was conducted in the 1970's. In 2004, the population of Davis Strait was estimated to be approximately 1650 based on *Inuit Qaujimagatuqangit* and RISKMAN simulations.

The Government of Nunavut study presents a polar bear estimate of 2,158 animals (2007) for Davis Strait. This is a significant increase from the previous survey estimate of approximately 900 animals. Despite commonalities, these two population surveys are generally advised against direct comparison because of differences in study area, design, and season of study.

However, there is general acknowledgement amongst polar bear biologists, respective jurisdictional managers and Inuit that the unit has increased. Both the accepted study and the GN report corroborate Inuit knowledge.

"We estimated the population size in 2007 to be $2,158 \pm 180$ (SE), a likely increase from the 1970s¹."

The Davis Strait polar bear management unit is not in decline:

At various meetings² and previous reports³, the Davis Strait management unit was conveyed to be experiencing a decline in productivity at current harvest levels. However, analysis was not finalized at that time and the most recent analysis includes new information based on new data and removal of bears not thought to be part of the Davis Strait management unit.

The results of the recent analysis are significant because it indicates that the current harvest of 65 bears sustained the population level. The current population growth rate (λ) with current harvest levels was estimated to be 1.008 in 2007⁴.

Without full access to the data, we can only speculate that any minor increase in the harvest would not significantly impact the short term viability of the management unit given its current size, and assuming similar vital rates.

¹ Peacock, E., Taylor, M. K, Laake, J., and Stirling, I. 2011. Population Ecology of Polar Bears in Davis Strait, Canada and Greenland, Document 113-1-2 submitted for NWMB Public Hearing Davis Strait: page 2.

² Meetings include 2010 Davis Strait Montreal Interjurisdictional meeting and the 2010 Davis Strait Kuujjuak Interjurisdictional Meeting.

³ 2009 Government of Nunavut Davis Strait polar bear report and the background section of the 2011 GN Doe Request for Decision of the NWMB.

⁴ Peacock et al., page 19.

Target population size has been exceeded by nearly 500 animals as per the Memorandum of Understanding:

The new population estimate for the Davis Strait management unit of 2158 animals (2007) exceeds the target number of 1650 by slightly over 500 animals. Under the Davis Strait MOU signed by the Hunter's and Trapper's organizations, Regional Wildlife Organization, and the Government of Nunavut, Inuit agreed to a level that would not compromise the local environment.

However, this has already happened. For example, bird nesting colonies in the Davis Strait area, in Frobisher Bay and surrounding islands near the three Nunavut communities are being completely devastated by foraging polar bears according to Inuit observations.

There has also been an increase in the number of human bear encounters. It is increasingly difficult to practice traditional camping & berry picking grounds without encountering bears and this requires Inuit to be constantly looking out for polar bears. Cabins and meat caches are being destroyed by polar bears as the polar bear population increases.

User to User inter-jurisdictional meeting resolutions:

In September 2010, representatives of the user groups of Nunatsiavut, Nunavik, and Nunavut met in September in Kuujjuak, Quebec. As a result of scientific information and traditional knowledge shared, the concerns expressed by user groups and government were incorporated into two resolutions⁵.

The first resolution supported an increase in the harvest by the Inuit of Nunatsiavut by 6.

The second resolution supported the removal of the current quota system in Nunavut for a 5 year period; otherwise, they supported a substantial increase in the harvest taken from the Davis Strait management unit to be allocated to the 3 Nunavut communities.

At the meeting, The Government of Nunavut indicated that they could support an increase in the TAH for the Davis Strait management unit.

Recommendations:

A management objective that respects the current target (1650) may be the most appropriate to address some of the concerns expressed by Inuit when considering the new population estimates, trend and harvest data.

It is our understanding that the HTO's of Kimmirut & Pangnirtung did not oppose an increase in each of their base TAH allocation by 3, and because the population of Iqaluit is much larger than the two other communities, they have requested an increase in their Davis Strait polar bear TAH by 10.

NTI supports the three Hunters and Trappers Organization's and Regional Wildlife Organization request for an increase in TAH from Davis Strait given all of the information provided by science and *Inuit Qaujimajatuqangit*.

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⁵ These resolutions are included in the NWMB public hearing package.