



Wednesday, May 4, 2011

Nunavut Wildlife Management Board  
Parnaivik Building  
P.O. Box 1379  
Iqaluit, NU  
X0A 0H0

**Re: Torngat Wildlife and Plants Co-Management Board Submission to the NWMB  
Public Hearing on the Davis Strait Polar Bear Subpopulation**

Dear Colleagues,

The Torngat Wildlife and Plants Co-Management Board (TWPCB) supports the Total Allowable Harvest increase (and allocation thereof) recommended to the Nunavut Wildlife Management Board by Nunavut's Minister of Environment on 3 March, 2011. The recommendation is consistent with biological science, social-cultural preference, and allocation principles resolved at an inter-jurisdictional meeting of users held in Kuujuaq in September of 2011.

In December of 2010 the TWPCB informed the Newfoundland and Labrador Minister of Environment and Conservation of its decision to increase the Nunatsiavut harvest of Davis Strait Polar Bear from 6 to 12. The decision integrates years of scientific, social, and policy research and analysis, and is attached here as the TWPCB's submission to the Nunavut Wildlife Management Board. It was rejected/varied by the Newfoundland and Labrador Minister of Environment and Conservation in April of 2011.

In addition to this submission, Mr. Todd Broomfield and I will be in attendance, and we look forward to engaging and productive discussions.

Sincerely,

Bruce Roberts  
Chairperson  
Torngat Wildlife and Plants Co-Management Board



**Torngat Wildlife & Plants Co-Management Board**  
**Memorandum to the Minister of Environment and Conservation**  
**Polar Bear Management in Nunatsiavut**  
**(December 21, 2010)**

**Issue: Nunatsiavut Polar Bear Total Allowable Harvest Decision**

**Decision:**

It is decided by a vote of the Torngat Wildlife and Plants Co-Management Board that:

- the polar bear total allowable harvest for 2011 be 12 bears.

We respectfully acknowledge the Minister's authority under the Labrador Inuit Land Claims Agreement (12.9.4) to disallow or vary this decision, and as per 12.9.8, the decision will not be released to the public until such time as the Minister grants leave to do so. We look forward to your timely reply.

**Background:**

**1. Case History and Context**

- The Torngat Wildlife & Plants Co-Management Board (TWPCB) is the creation of the three negotiating parties to the Labrador Inuit Land Claims Agreement (LILCA) and established under the Agreement in Part 12.8 of Chapter 12, with its roles, responsibilities and powers outlined in Part 12.9. For greater clarity, and ease of reference, the TWPCB is empowered by the LILCA to establish, modify and eliminate Total Allowable Harvests (12.9.1(a)) for all species of wildlife, other than caribou and migratory birds (12.1.1).
- On January 25, 2010, the TWPCB submitted its decision to establish a 2010 total allowable harvest of 12 bears, as per 12.9.1(a), 12.9.4, and 12.1.1 of the LILCA.
- In a letter dated March 12, 2010, the Minister of the Newfoundland and Labrador Department of Environment and Conservation disallowed the decision of the TWPCB, citing Parts 12.9.4 and 12.9.5 of the LILCA, as well as Sections 39 and 114 of the Wild Life Regulations and the annual Polar Bear Hunting Order.

## **2. Current Status of Consultations**

- Polar Bear were discussed at regular meetings of the TWPCB throughout 2009 and 2010.
- Dr. Lily Peacock, former Polar Bear Biologist for Nunavut, presented to a meeting of the TWPCB in May of 2009.
- The Polar Bear Administrative Committee (PBAC) met in Ottawa on October 28, 2010, and in Yellowknife on April 22, 2010.
- An Inter-Jurisdictional Meeting on the Davis Strait Polar Bear subpopulation was held in Montreal, February 4, 2010. The meeting consisted of representatives of Nunavut Tunngavik Incorporated, Qikiqtaaluk Wildlife Board, Government of Nunavut, Nunavut Wildlife Management Board, Environment Canada, Government of Newfoundland and Labrador, Nunatsiavut Government, Torngat Wildlife, Plants and Fisheries Secretariat, Ministère des Ressources naturelles et de la Faune, Nunavik Marine Region Wildlife Board, and Makivik Corporation. This meeting of what has been called 'the Montreal Group', but which now refers to itself tentatively as the Interjurisdictional Davis Strait Committee' or IDSC, identified a need for a user-to-user workshop to access Inuit knowledge, and determine allocation amongst jurisdictions.
- A user-to-user meeting (the first of its kind) held in Kuujuaq, September 13-16, 2010, was intended as a forum for users to share their knowledge of polar bear abundance, and discuss allocation principles. Although the primary goals – 1) to re-allocate a portion of the total allowable harvest to balance inequalities in allocation, and 2) to develop a clear management objective for the Davis Strait subpopulation – were not met, those present officially and unanimously supported a total allowable harvest of 12 bears in Nunatsiavut.
- The Torngat Wildlife and Plants Co-Management Board met on September 20, 2010 and by a vote supported the decision contained herein.
- The IDSC has met regularly since the September user-to-user meeting and at the time of this briefing are preparing a summative letter which emphasizes many of the points contained herein but importantly acknowledges support for a Nunatsiavut quota of 12 bears.
- In accordance with the Labrador Inuit Land Claims Agreement definition of "consult" the TWPCB issued a draft of this decision to the Nunatsiavut Government on November 26, 2010.

- The Executive Council of the Nunatsiavut Government met on December 8, and on December 10, 2010, the Nunatsiavut Government issued a consultation letter to the TWPCB and both parties have satisfied their duty to consult as per the LILCA. The TWPCB is obligated not only to consult but, where possible, to accommodate. In this case, the TWPCB accommodated the concerns of the Nunatsiavut Government and removed the contested reference to a flexible quota system. The Nunatsiavut Government otherwise supported the decision of the TWPCB.

### **3. Scientific Knowledge**

- The Government of Nunavut, Department of Environment, led a population inventory of the Davis Strait polar bear subpopulation between 2005 and 2007. The methodology employed incorporated long term mark-recapture-recovery data dating to 1974. The report estimates a population of 2 142 bears (95% CI, 1,811 – 2,534), with significantly increased survival attributed to increased harp seal abundance and relatively low harvest pressure since the 1970's. Previous population inventories conducted in the 1970's (Stirling et al., 1980; Stirling and Killian 1980) estimated abundance at 800-900 bears, but were likely biased low, and are not directly comparable to the most recent inventory due to methodological differences.
- The current annual harvest is 65: Nunavut (46), Newfoundland and Labrador (6), Greenland (2), and a 5 year average of 11 in Nunavik. A recent report to the Nunavut Wildlife Management Board concludes that "both professional scientific opinions combined with local knowledge and ATK in the area coalesces in support for a significant increase in abundance of polar bears in the region over the last three decades. This increase in abundance is also corroborated by our estimated rates of increasing survival over time" (Peacock, 2009; 12).
- Allocations assumed a small percentage of bears were accessible to Inuit in Labrador, but this no longer appears to be the case. The delineation of subpopulations is imprecise and boundaries are fuzzy. The Davis Strait subpopulation may eventually be further subdivided into northern and southern subpopulations, but there is currently insufficient data to warrant a modification to existing management units, and at this time the IDSC does not support a change.

- The most recent analysis of the data collected between 2005 and 2007 indicates a natural growth rate of 3.3% as of 2008, with an absolute growth rate of 0% factoring for average annual harvest pressure. Survival has likely plateaued, and decreased survival rates are attributed to declines in harp seal abundance, density effects, and lag effects of deteriorating ice conditions. That said, trends are uncertain and imprecise – a natural decline, with or without increased harvest pressure, is a distinct possibility, given the age structure of the population and other parameters such as reproductive rates, litter sizes, and body condition indices. Density is reported at 5.6 bears/1 000 KM<sup>2</sup> of sea-ice, and it is possible that the subpopulation has exceeded or is approaching carrying capacity. A population decrease in the Davis Strait region is socially tolerable, or preferable (see below), and may be ecologically preferable.
- Concentration of summer ice has declined since 1984 (Stirling and Parkinson, 2006), and a net decline of annual sea-ice over the continental shelf is likely the most significant threat to polar bear abundance and spatial distribution.

#### **4. Inuit Knowledge**

- Kotierk (2009), working on behalf of the Government of Nunavut, conducted a public opinion pole to quantitatively assess issues relating to polar bear abundance, environmental change, Inuit knowledge, and wildlife management. The methodology employed is consistent with definitions of Inuit knowledge that recognize Inuit values and belief as a core component of knowledge. The project was intended to develop and quantify an understanding of social carrying capacity for polar bears – the optimum abundance to maximize positive human/bear interactions through hunting and viewing opportunities, without exceeding social tolerance for negative interactions such as property damage or a decreased sense of security (after Peyton *et al.* 2001). Most respondents involved in the study indicated that they preferred a medium abundance (neither low nor high). Amongst Inuit hunters surveyed, 54% indicated that polar bear abundance is higher than they would prefer, and 37% indicated that polar bear abundance is at their preferred level.
- There has been no systematic or comparable attempt to document Inuit knowledge of polar bear in Nunatsiavut or Quebec. The Torngat Wildlife, Plants and Fisheries Secretariat recognizes this research gap, and is currently designing a strategy to access Inuit knowledge of polar bear in Nunatsiavut.



## **5. Legislative and Policy Considerations:**

- Where a provision of the LILCA conflicts with the Newfoundland and Labrador Wild Life Act, or Regulations made under it, the provision of the LILCA prevails to the extent of the conflict (Newfoundland and Labrador Wild Life Act, 3.1(1)).

## **6. Key Considerations**

- The Government of Newfoundland and Labrador Department of Environment and the Nunatsiavut Government have expressed satisfaction with the current administration of polar bear harvests in Nunatsiavut. An increase to the total allowable harvest, as per this decision, will not significantly increase the administrative burden of polar bear management.
- Users / hunters in Nunavik and Nunavut, and the IDSC, are supportive of the decision to establish a total allowable harvest of 12 bears in Nunatsiavut – a decision which they are confident is precautionary and supported by Inuit knowledge, scientific knowledge, and social-cultural preference.
- There is some potential that Nunavut will increase its total allowable harvest, which will exacerbate allocation imbalances across the region. An increase in the total allowable harvest in Nunavut may undermine social and political capital in Nunatsiavut if this decision of the TWPCB is varied or rejected.
- The Inuit of Nunatsiavut have been recognized provincially and regionally for their responsible stewardship of polar bears in Nunatsiavut. The decision to establish a total allowable harvest of 12 will satisfy the need advocated by the Nunatsiavut Government and is unlikely to significantly affect the long-term viability of the Davis Strait subpopulation.
- The current total allowable harvest of 6 has been static since the 1990's, despite increasing abundance, repeated requests for an increase, and the ratification of the Labrador Inuit Land Claims Agreement. Linking environmental feedback with management is increasingly recognized as fundamental to successful co-management. If the population estimate indicated that the Davis Strait subpopulation had declined, a decrease in total allowable harvest would have rightly ensued – total allowable harvests must be equally responsive to population increases.

## References

Peacock, E. 2009. Davis Strait Polar Bear Population Inventory: Final Report to the Nunavut Wildlife Management Board.

Peyton, B., P. Bull, T. Reis and L. Visser. 2001. An assessment of the social carrying capacity of black bears in the lower peninsula of Michigan. Submitted to Michigan Department of Natural Resources, Wildlife Division.

Kotierk, M. 2009. Document of Inuit Knowledge of Davis Strait Polar Bears, Climate Change, Inuit Knowledge and Wildlife Management. Draft submitted to the Government of Nunavut, Department of Environment.

Stirling, I. & Killian, H. P. L. (1980) Population ecology studies of the polar bear in northern Labrador. Canadian Wildlife Service Occasional Paper 42. 19 pp.

Stirling, I., Calvert, W. & Andriashek, D. (1980) Population ecology studies of the polar bear in the area of southeastern Baffin Island. Canadian Wildlife Service Occasional Paper 44. 31 pp.

Stirling, I. & Parkinson, C. L. (2006) Possible effects of climate warming on selected populations of polar bears (*Ursus maritimus*) in the Canadian Arctic. *Arctic*, **59**, 261-275.