



November 17, 2011

Honourable Terry French  
Minister of Environment and Conservation  
P.O. Box 8700  
4<sup>th</sup> Floor, West Block  
Confederation Building  
St. John's, NL, A1B 4J6

**Re: Nunatsiavut 2012 Polar Bear Total Allowable Harvest**

Dear Minister French,

As Chairperson of the Torngat Wildlife and Plants Co-management Board, and subject to the provisions of the Labrador Inuit Land Claims Agreement, I am pleased to submit the Board's decision to:

- establish a total allowable harvest of 12 polar bears in Nunatsiavut for 2012.

This decision results from extensive board deliberations, scientific and policy research and analysis, and consultations with users and managers in the three jurisdictions that share the resource.

The decision reflects current understandings of physical and social carrying capacity, and is responsive to an increasing population trend dating to the 1990's. Furthermore, the decision is indicative of the importance of polar bear to the mixed economy in Nunatsiavut, and the newly-acquired rights and responsibilities entrenched in the Labrador Inuit Land Claims Agreement.

As per our letter dated November 10, 2011, it would be appreciated if we could further discuss this decision in person. We look forward to hearing from you soon.

Sincerely,

Bruce Roberts  
Chairman  
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  
(November 17, 2011)

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

**Decision:**

As per Part 12.9.1(a) of the Labrador Inuit Land Claims Agreement (LILCA), the Torngat Wildlife and Plants Co-Management Board has decided that:

- the polar bear total allowable harvest for 2012 be 12 bears.

Given this is the 3<sup>rd</sup> consecutive year the TWPCB has made this decision, we kindly ask that we meet in person prior to your consideration of Part 12.9.4 of the LILCA.

**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.



- On December 21, 2010, the TWPCB submitted a more thorough analysis to the Minister of Environment and Conservation, and reaffirmed their decision to establish a TAH of 12 polar bears in Nunatsiavut. The decision was rejected, and a flexible quota system was implemented, bringing the 2011 TAH to 11.

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

- Polar bear was a regular agenda item at meetings of the TWPCB held throughout 2009, 2010, and 2011.
- 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 TWPCB was represented at public hearings of the Nunavut Wildlife Management Board (NWMB) held in Iqaluit in May of 2011. The hearings were triggered by a Government of Nunavut recommendation to increase Nunavut's polar bear harvest by 15, with 6 allocated to Nunatsiavut. In accordance with processes identified in the Nunavut Claims Agreement, the NWMB had decided to increase the TAH by 30; this decision was rejected by the Government of Nunavut and at this time the NWMB is currently reconsidering their original decision as per the processes defined in the Nunavut Land Claims Agreement.
- The TWPCB was represented on the Canadian Delegation to the Range States meetings in Iqaluit, Nunavut from October 24-26, 2011. At the Range States meeting, states received presentations from the International Union for Conservation of Nature Polar Bear Special Group (IUCN PBSG). The presentations were delivered by some of the world's pre-eminent polar bear scientists, Dr. Steven Amstrup and Dr. Ian Stirling. In summary Climate Change was the primary focus of these presentations. Climate Change is considered the primary threat to polar bears and states were urged to take action on Climate Change to prevent any further loss of polar bear habitat.
- 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 July 28, 2011. At the time of this submission, the TWPCB had not received a reply from the NG however the TWPCB was copied on the October 31, 2011 letter from the Nunatsiavut Government to Minister French whereby a 6 bear increase was requested.

### **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 70: Nunavut (46), Newfoundland and Labrador (11), Greenland (2), and a 5 year average of 11 in Nunavik<sup>1</sup>. In 2011, there were 11 bears harvested in Nunatsiavut. Of these, 8 were male and all were reported as being in either excellent (6) or good (4) condition.
- 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 two or more sub-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 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. 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). Moreover, survival and reproduction is higher in the southern portion (the Nunatsiavut portion) of the Davis Strait, and bears demonstrate a high degree of geographic fidelity.

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<sup>1</sup> The five year average is current to 2009-10. Harvest data for 2010-11 is being compiled by the Nunavik Marine Region Wildlife Board and is not yet available. Total annual harvests from 2005 to 2010 varied from a low of 8 to a high of 22.





- 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 has designed a study to access Inuit knowledge of polar bear in Nunatsiavut. This study design is based on studies currently being conducted by Inuit in Inuvialuit and internationally in Alaska, USA.
- Inuit based Governments and co-management boards met on October 2, 2011 in Inuvik to discuss polar bear ITK and the importance of comparability of polar bear ATK studies across the Canadian Inuit regions.
- The TWPCB is currently awaiting approval from the Nunatsiavut Government Research Advisory Committee on its proposed Polar Bear ITK research.
- There is potential for negative human/bear interactions in Nunatsiavut. In 2011 two of the bears which were subsequently harvested threatened people and/or property. The Inuit knowledge study being designed by the Torngat Secretariat will quantify and qualify social carrying capacity.



## 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)). The Labrador Inuit Land Claims Agreement forms the constitutional and legislative basis for this decision.

## 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.