

- **Option 1** – Return to the historical TAH of 64 per year beginning with the 2008/2009 harvest year.
- **Option 2** – Return to the historical TAH of 64 per year beginning with the 2008/2009 harvest year. Then implement a phased reduction of 5 per year until the TAH is reduced to 50% of the current BB maximum sustained yield (45 per year at current numbers or less than 45 per year if the population continues to decline).
- **Option 3** – Return to the historical TAH of 64 per year beginning with the 2008/2009 harvest year. Then implement a phased reduction of 5 per year until the TAH is reduced to 50% of the estimated 90% harvest risk level (34 per year at current numbers or less than 34 per year if the population continues to decline).
- **Option 4** – Beginning with the 2008/2009 harvest year impose a harvest moratorium in BB (reduce the TAH to 0) until the population has increased to the target number of 2074 polar bears, as identified in the MOU.

Elders and senior hunters from the communities of Pond Inlet, Clyde River, and Qikiqtarjuaq participated in a Traditional Knowledge study during spring of 2005 (9, p.2). At that time, participants reported seeing more bears near their communities and camps. Hunters also reported seeing more bear sign in areas where it was not normally found. Some participants noted that the changes in observations might be caused by behaviour changes in the bears and not the result of an increasing population. Just over half of the people interviewed reported that bears were skinnier now than in the past.

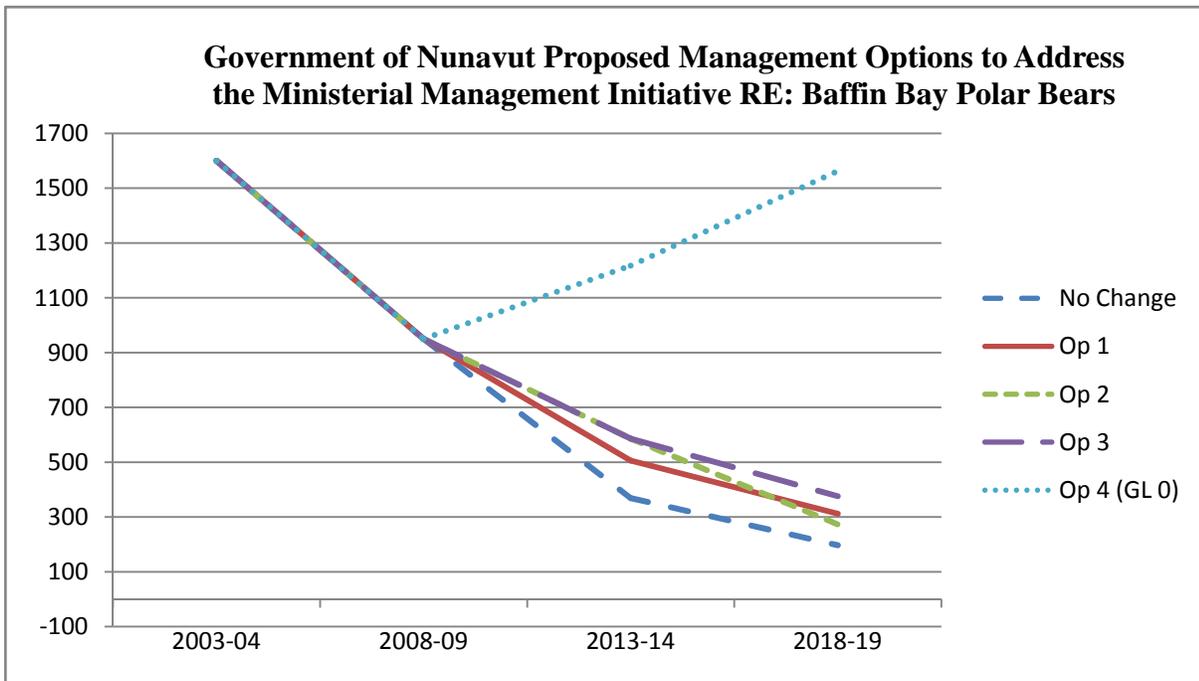


Figure 1. RISKMAN projected population response of Baffin Bay polar bears to each of the four management options presented by the Government of Nunavut (8). The results of continuing to harvest at current levels (105 Nunavut, 73 Greenland) are also shown. **Option 1** is a return to the historical TAH of 64 per year beginning with the 2008/2009 harvest year. **Option 2** is return to the historical TAH of 64 per year beginning with the 2008/2009 harvest year. Then implement a phased reduction of 5 per year until the TAH is reduced to 50% of the current BB maximum sustained yield (45 per year at current numbers or less than 45 per year if the population continues to decline). **Option 3** is a return to the historical TAH of 64 per year beginning with the 2008/2009 harvest year. Then implement a phased reduction of 5 per year until the TAH is reduced to 50% of the estimated 90% harvest risk level (34 per year at current numbers or less than 34 per year if the population continues to decline). **Option 4** is to impose a harvest moratorium in BB (reduce the TAH to 0) until the population has increased to the target number of 2074 polar bears, as identified in the MOU. The most recent scientific BB population size estimate is 1546 made in 2004 (7, Table1, p. 35), which was used as the starting point for the graph in figure 1. For the years 2004-2008, the annual Nunavut and Greenland quotas were used with the most recent measures of reproduction and survival to estimate the population size. The results show a steady decline in the number of bears in Baffin Bay population between 2004 and now (2008). This portion of the graph demonstrates the conservation concern that the Government of Nunavut has expressed for the Baffin Bay polar bear population.

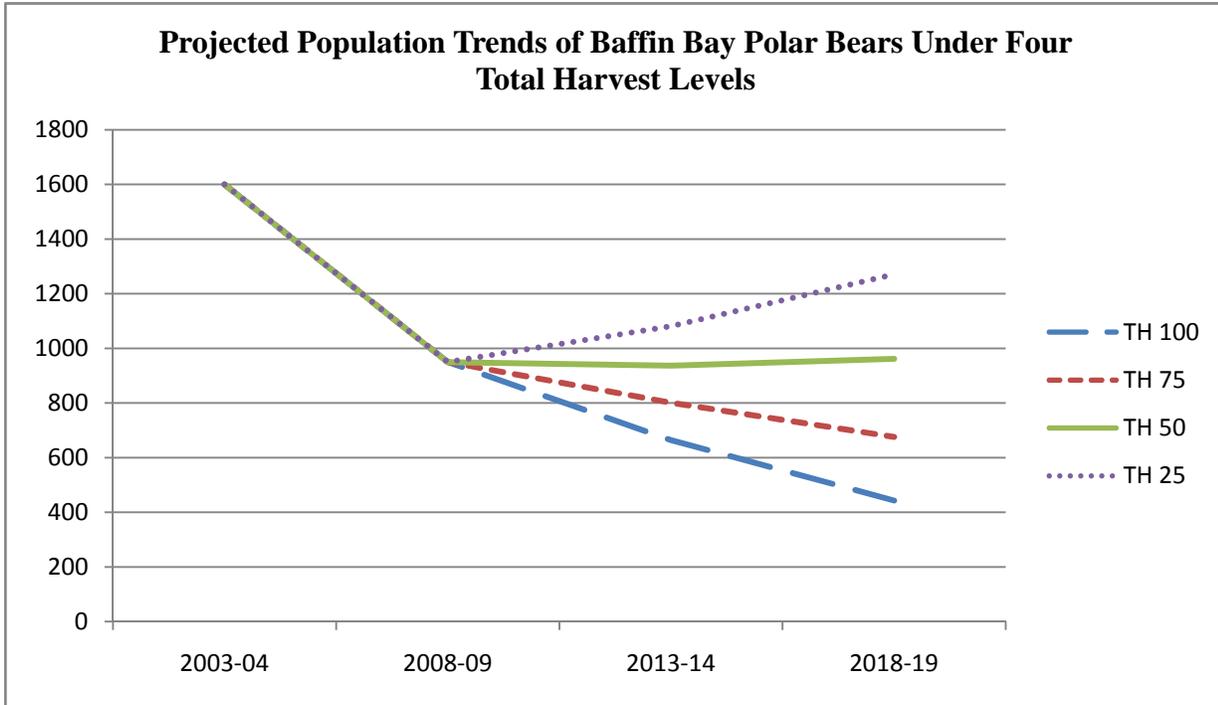


Figure 2. RISKMAN projected Baffin Bay population response to four different total harvest (TH) levels for the combined Nunavut and Greenland hunts. These numbers are presented to aid the NWMB in making a decision on quota. These are not intended as recommendations. The most recent scientific population estimate was 1546 in 2004 (7, Table1, p. 35), which was used as the starting point for the above graph. For the years 2004-2008, the annual Nunavut and Greenland quotas were used with the most recent measures of reproduction and survival to estimate the population size. The results show a steady decline in the number of bears in Baffin Bay population between 2004 and now (2008). This portion of the graph demonstrates the conservation concern that the Government of Nunavut has for the Baffin Bay population.

Consultations: See reference section

Recommendations:

Consider, weigh and review all of the submitted written and oral evidence provided by participants of the public hearing in deciding the prudent management action, if any, to be made with respect to the current TAH for polar bear in the Baffin Bay population.

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References

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2. Taylor, M. K., *et al.* 2005. Demography and viability of a hunted population of polar bears. *Arctic* 58:203-214.
3. Government of Nunavut. 2005b. Consultations on polar bear quota recommendations for the Western Hudson Bay (WH) and Baffin Bay (BB) populations for 2006/2007. Briefing note presented at NWMB Regular Meeting #44, 6-8 December 2005, Kugaaruk, Nunavut.
4. Government of Nunavut. 2005c. Status of polar bears in Baffin Bay (BB) and Western Hudson Bay (WH). Power Point Presentation to the NWMB at Regular Meeting #44, 6-8 December 2005, Kugaaruk, Nunavut.
5. Government of Nunavut. 2007a. Nunavut polar bear harvest for 2006/2007. Attachment to email received by the NWMB 23 July 2007.
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7. Aars, J., *et al.* 2006. Proceedings of the 14th working meeting of the IUCN/SSC Polar Bear Specialist Group, 20-24 June 2005, Seattle, Washington, USA.
8. Government of Nunavut. 2007b. Request for a decision of the Nunavut Wildlife Management Board on a management response to conservation concerns with the Baffin Bay (BB) polar bear population. Letter to the NWMB dated 30 April 2007.
9. Dowsley, M. 2005. Draft report on Inuit knowledge regarding climate change and the Baffin Bay polar bear population. Unpublished report presented at the NWMB Regular Meeting #44, 6-8 December 2005, Kugaaruk, Nunavut.