

Executive Summary

50th Meeting of the Polar Bear Technical Committee

5-7 February 2019, Edmonton, Alberta

Environment and Climate Change Canada hosted the 50th meeting of the Polar Bear Technical Committee in Edmonton, 5-7 February 2019. The meeting was attended by 17 of 18 Committee Members (Government of Ontario unable to attend) as well as 15 permanent participants, invited specialists, observers, and support staff.

The first component of the Polar Bear Technical Committee (PBTC) meeting is an 'open session', open to members, permanent participants, invited specialists, observers, and support staff. During this session, updates were given on research and management initiatives since the last face-to-face meeting, including:

- Aerial surveys of both the Southern and Northern Beaufort Sea subpopulations were conducted in Spring 2017. Analysis of the results has been ongoing. Few bears were seen on transect, which presents a challenge in estimation of abundance. The implication is that the aerial survey method is not appropriate for these subpopulations
- A genetic mark-recapture study to estimate abundance for both the Southern and Northern Beaufort Sea subpopulations is planned for 2019-2022
- Analysis of Viscount Melville Sound data is ongoing from the 2012-2014 survey
- Data analysis is ongoing with respect to anticipated abundance estimates for both Gulf of Boothia and M'Clintock Channel; the field component for Davis Strait inventory was completed but may require additional field work due to areas missed in 2018 because of poor weather; abundance estimates for the Lancaster Sound and Norwegian Bay subpopulations are the next priorities for Nunavut
- An Indigenous Knowledge study in Davis Strait has been completed; common themes from this study were: human safety concerns, and an increase in bears compared to past numbers, and biological information such as diet, denning, and movement patterns
- Following the conversation on the IK report the committee discussed the possibility of underreporting of harvest in Quebec.
- Although not a subpopulation shared by Canada, the first Chukchi Sea abundance estimate was recently completed using integrative population model. There was a suggestion that the Committee should consider holding a workshop in advance of next year's meeting to discuss potential application of integrative population models to Canadian subpopulations

As part of the annual meeting, participants reviewed technical issues related to polar bear research. Two key issues of concern were discussed:

- Use of Collars – there have been some failures of the release mechanisms (especially with the CR2a mechanism) related to o-ring corrosion. Many jurisdictions have stopped the collaring of polar bears due to concerns raised about negative impacts of collaring, especially with respect to collar release failure. The CR2a mechanism is no longer available; there is a newer release

mechanism (CR5a) now available that will hopefully have solved problem. The Committee agreed to track and summarize the performance of the CR5a mechanism for the 2020 meeting

- Biopsy Darts – an issue was encountered with the cutter head of the dart, resulting in no sample being obtained despite the dart striking the bear. The manufacturer is aware of the issue and has taken steps to resolve it

Presentations were given by Nunavut Regional Wildlife Organizations in attendance. Common and consistent themes were:

- Public safety concerns increasing across the North as human-bear encounters increase
- The need for more/better funded public deterrent systems
- Polar bears have been observed to be in better condition and numbers appear to be increasing
- Dissatisfaction with the current 2:1 sex selective harvest system in Nunavut and the current way that penalties are imposed on communities

The second component of the PBTC meeting was a closed door session, with members and support staff, to discuss specific Committee business. Topics covered included:

- The PBTC Status Table:
 - There were no changes made to the status table because, apart from updating harvest numbers, there was no new information that would have changed any of the trends/categories/concerns. This was one of the first times in recent years where no changes in status occurred.
 - There was a discussion on the inclusion of a column in the status table for management objectives. The Committee consensus was that a management objective column should be included; the PBAC would receive the management objectives from the responsible management authorities and provide them to the PBTC for inclusion in the status table. The PBTC would make it clear in the status table that the management objectives come from the responsible management authorities.
- PBTC mandate: Prior to the meeting, an online survey was developed with respect to whether or not the members felt that the Committee was meeting its mandate; the survey link was sent to all current members plus those who had been members within the past five years. Thirteen current members and four previous members completed the survey; an in-depth analysis of survey results is ongoing.
- PBTC Terms of Reference: The Committee discussed its Terms of Reference, particularly with respect to invited specialists, observers, and support staff; there is an ongoing issue with respect to trying to strike right balance, be inclusive, but not overburden the host with costs. There were different perspectives among the members as to what the roles of invited specialists, observers, and support staff are and/or should be.
- Terminology:
 - The Committee accepted a definition for the term 'Inuit Knowledge' (IK), which will provide further clarity for inclusion of IK in the Status Table.
 - The Committee discussed the term 'statistically significant' and the need for the PBTC to be able to use the totality of evidence to make a determination for subpopulation

status, even in situations where there is not a strict statistical difference in abundance over time.

- Co-chairs: Gregor Gilbert (Makivik Corporation) stepped down as Co-Chair; Vicki Trim (Manitoba) and Mark Basterfield (Nunavik Marine Region Wildlife Board) were elected Co-Chairs
- Next meetings: The next two meeting locations are: February 2020 in Ottawa (hosted by Government of Ontario) and February 2021 in Québec City or Montréal (hosted by Government of Québec)