

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, whereas the second component of the PBTC meeting is a 'closed' session to allow the members to address specific Committee business. During the open 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