

Executive Summary
52nd Meeting of the Polar Bear Technical Committee
1-4 February 2021
Virtual Meeting
Host: Government of Québec

The 52nd meeting of the Polar Bear Technical Committee (PBTC) was hosted by the Government of Québec, 1-4 February 2021 in a virtual format due to travel and health restrictions associated with the COVID-19 pandemic. The meeting used an online conferencing platform and a modified agenda that considered both reasonable lengths of time for participants to be sitting in front of computers or on the phone and the time zones over which the participants were spread (5½ hours). The meeting was attended by 16 of 18 Committee Members (Nunavut Tunngavik Incorporated and Wildlife Management Advisory Council - North Slope were unable to attend), as well as 18 permanent participants, invited specialists, and support staff.

Both 'open' and 'closed' sessions comprise the formal meeting of the PBTC. The 'open' session occurs first and provides a forum for members, permanent participants, invited specialists, observers, and support staff to participate and exchange information.

Day One – Open Session

On the morning of the first day of the meeting, the PBTC discussed an email correspondence from the PBAC requesting changes to the comments section of the PBTC status table regarding Nunavut's change from a 2:1 to a 1:1 sex ratio harvest. The PBAC's suggestion was to remove that language from the "Comments" for all subpopulations to which it applies and to replace with a footnote:

"The Government of Nunavut targeted a 2:1 male-biased harvest sex ratio starting in the early 1990's to support a maximum sustainable yield approach to harvest and to promote recovery of polar bear sub-populations. Starting in the 2019/20 harvest season, Nunavut adopted a harvest of up to 1:1 females per male in response to input from Nunavut Users and Co-management partners. The Government of Nunavut and the Wildlife Management Boards will continue to closely monitor the harvest, including the actual proportion female, as harvest is expected to remain male-biased given prohibitions on the take of females with cubs".

The PBTC members noted that it took considerable time to come up with language in the status table that was supported by all, and that it is an accurate technical comment. Members agreed to revisit during the closed portion of the meeting.

The PBTC also learned that the PBAC has changed its own Terms of Reference to include language that allows the PBAC to suggest changes to PBTC status table, but the changes to the PBAC Term of Reference occurred without consultation with PBTC. PBTC members expressed concern that this has the potential to limit PBTC's independence as a technical committee. Finally, PBTC expressed concern that while changes to PBTC Terms of Reference go to PBAC for approval, the PBAC does not reciprocate and seek feedback on potential changes to PBAC Terms of Reference that might affect PBTC. Thus, PBAC could change their Terms of Reference to override advice provided to it by the PBTC.

The PBTC briefly reviewed the annual datasets it maintains including the harvest table, which feeds into the status table, and the research table, which summaries the types and intensity of research on polar bears undertaken in the previous year. Most noteworthy was that there was no polar bear field research (physical capture, genetic biopsy, or aerial survey) undertaken in 2020 due to the COVID-19

pandemic. Thirteen active satellite collars are currently on bears, all have release mechanisms that will drop the collars in fall 2021.

To streamline the meeting to accommodate the reduced length of each day, many of the typical presentations from each jurisdiction were eliminated and the reports were posted on a SharePoint site in advance. Thus, presentations were limited to the most important ones with an open period in which to ask questions either on the presentations or the written reports.

Government of Nunavut provided final reports on new estimates of abundance for the Gulf of Boothia and M'Clintock Channel subpopulations. These reports were welcomed by the PBTC and address two of the five subpopulations (Gulf of Boothia, Lancaster Sound, M'Clintock Channel, Norwegian Bay, and Viscount Melville Sound) for which abundance estimates are > 20 years old.

Based on these new assessments, it appeared that M'Clintock Channel had likely increased whereas Gulf of Boothia was stable. Both reports noted that issues of emigration and immigration confounded survival rate estimates and thus subpopulation estimates. Satellite telemetry was identified as a component in both studies that would have helped, but its use was not supported by communities.

Nunavut noted that it was planning to begin genetic mark-recapture surveys in Lancaster Sound and Norwegian Bay in spring 2021, but that pandemic restrictions may alter plans. Nunavut indicated it hoped that a final report for the Davis Strait subpopulation reassessment might be out in next 2-4 months. Some caution was expressed from Nunavut that costs of doing these types of inventories have increased, which may result in Nunavut not being able to complete inventories according to schedule.

Although no report on the reassessment of Viscount Melville Sound was presented, it was suggested that a final report was coming very soon.

The PBTC had a brief discussion about whether it is time to rethink trying to estimate maximum sustainable harvest levels, which requires detailed data that is becoming expensive to collect. A different approach might allow for less frequent and less expensive inventories that, while less precise, would probably still be a valid approximation.

The USGS presented a summary of recent work undertaken to update survival and abundance of bears on the US side of Southern Beaufort Sea. It was noted that with Canada's moving of the boundary between the Southern Beaufort Sea and Northern Beaufort Sea subpopulations in 2014, that approximately 80% of the Southern Beaufort Sea subpopulation now occurs within US boundaries. Thus, the work being done on the US side likely represents a good index of what is going on across the entire subpopulation. USGS research/analysis has extended the Southern Beaufort Sea time series through 2015. It shows that there has been general stability in number of bears in the range of 500-600 from 2005 onwards. The USGS stressed that the analysis was based only on data collected in the US and does not include Canadian data.

The PBTC Indigenous Knowledge Working Group provided an update on its ongoing work relative to the strengthening of IK within the PBTC. Proposed tasks for the coming year include to (1) continue working on the IK guidelines compendium; (2) generate list of recommended future invited specialists, including IK holders for consideration; (3) develop glossary of terms for PBTC related to IK; (4) develop a contact list for each region (who prospective researchers should be in touch); (5) continue to revise IK Definition and PBTC's Status Table Terms (focusing on IK); and, (6) consider revisions to PBTC status table structure.

The opening day ended with summary updates of the 2020 meeting of the Polar Bear Range States (PBRS) in Svalbard, the PBRS Circumpolar Action Plan, recent activities of the Polar Bear Specialist Group, and the PBRS Conservation Award having been given to Ian Stirling.