

Consultation with Kangiqliniq, Arviat, and Issatik Hunters and Trappers Organizations on the 2021 Aerial Survey of the Western Hudson Bay Polar Bear Subpopulation Report

March 26, 2024

March 27, 2024

May 9, 2024

May 10, 2024

Department of Environment
Government of Nunavut
Iqaluit, Nunavut



Executive Summary

Government of Nunavut (GN), Department of Environment (ENV) representatives conducted in-person consultations with Kangiqliniq Hunters and Trappers Organization (HTO) on March 27 the Arviat HTO March 27, and the Issatik HTO on May 9 and May 10, 2024.

The intent of this consultation was to ensure the GN and HTOs could discuss the results of the 2021 Aerial Survey of the Western Hudson Bay Polar Bear Subpopulation (WH) Report, led by the GN. The survey collected data in 2021. The previous abundance data for WH was collected in 2011 and 2016. The 2021 survey results suggested a decline in the polar bear subpopulation from 2016 to 2021, but when results were pooled with the 2021 Aerial Survey of Southern Hudson (SH) Bay Polar Bear Subpopulation results, there was a difference of 1 bear between 2016 and 2021. Due to the limitations of aerial survey methodology, it could not be determined how much of the decline was due to movement between subpopulations. Environment and Climate Change Canada (ECCC) have been conducting research on WH since the 1980s, including a biopsy darting project from 2017 to present. Results from this work suggested that the decline was partially due to movement near the boundary between WH and SH in 2021, as opposed to declines in survival. The goals of the consultations and presentations were to provide co-management partners with an overview of the results of the GN report and ECCC's research, collect feedback on the results presented, collect additional *Inuit Qaujimagatuqangit* (IQ), and to discuss the ENV Total Allowable Harvest (TAH) recommendation.

Polar bear biologists met with each community's respective HTO that hunts from the WH subpopulation.

Support for ENV's harvest recommendation were not expressed by HTOs at the time of consultation. The HTOs indicated they would like to see an increase in the TAH. At the end of the consultation, HTOs were left with questions to discuss and send their feedback to ENV or the Nunavut Wildlife Management Board (NWMB), whichever was preferred by the HTOs.

The feedback and IQ collected during these consultations will be summarized when submitting TAH recommendations for the WH subpopulation to the NWMB for decision.

This report attempts to summarize the comments made by participants during the consultations.

Preface

This report represents the Department of Environment's best efforts to accurately capture all of the information that was shared during consultation meetings with the Hunters and Trappers Organizations of Rankin Inlet on March 26 Arviat on 27, and Whale Cove on May 9 and May 10, 2024.

The views expressed herein do not necessarily reflect those of the Department of Environment, or the Government of Nunavut.

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1.0 Report Purpose and Structure

This report is intended to collate and summarize comments, questions, concerns and suggestions provided by the Kangiqliniq HTO, Arviat HTO, and Issatik HTO regarding the results of the 2021 Aerial Survey of the Western Hudson Bay (WH) Polar Bear Subpopulation Report.

Representatives from the Department of Environment (ENV) attended the consultation along with other co-management partners and interested parties.

2.0 Purpose of Consultation

The purpose of the consultation was to discuss the newest scientific information regarding the WH polar bear subpopulation as reported in the 2021 Aerial Abundance Survey report and scientific work done by Environment and Climate Change Canada (ECCC). In addition, the Government of Nunavut (GN) also put forward a Total Allowable Harvest (TAH) recommendation during this consultation, but also discussed that management objectives can be formulated depending on the communities' needs and objectives for this subpopulation.

3.0 Format of Meetings

The meetings were held in the evenings and one morning, and ran for approximately 2 - 3 hours. Government of Nunavut Polar Bear Biologist, Alyssa Bohart, and Environment and Climate Change Canada Polar Bear Biologist, Evan Richardson facilitated and led the meetings. Each presentation started with opening remarks from A. Bohart and E. Richardson on who they are and what organization they are representing as well as the purpose of the consultation. This was followed by a PowerPoint presentation with an overview of the scientific survey and co-management process, historic management background, a detailed overview of the results from the 2021 polar bear aerial abundance survey, and the results from scientific work conducted by ECCC in Hudson Bay. Work by ECCC aided in the explanation of the aerial abundance survey results. The participants were invited to ask questions, raise concerns, or provide recommendations throughout the meetings. At the end of the meeting, the GN recommendation on the TAH for WH was presented. After the presentations, questions/discussion continued until no further questions were raised, or until the HTOs adjourned the meeting. HTOs were left with discussion questions regarding the studies and WH management objectives from ENV to internally discuss and send responses to ENV or directly to the Nunavut Wildlife Management Board (NWMB).

4.0 Summary of Consultations

This summary combines the general themes and ideas generated from the three HTOs. For a summary of key commentary and participants in each consultation, please see Appendix A.

Comments and questions:

- HTOs indicated that they would like to see an increase in TAH. Discussions around determining a management objective for WH at the NWMB meeting.
- HTOs raised public safety concerns:
 - Not able to camp in tents anymore, can't egg pick along the shore, need to carry rifles now, bears getting fish in nets, processing seal/beluga kills differently to prevent bears from coming, and bears at cabins/property damage.
 - The number of public safety incidents and deaths need to be considered in the TAH decision.
- HTOs expressed frustrations with the co-management system and feelings that their voices are not heard and consultation meetings seem pointless. Inuit Qaujimajatuqangit needs to be incorporated into the management system more. Dedicated studies are needed to collect Inuit Qaujimajatuqangit for decision making. Frustrations with people from the south making decisions affecting Inuit lives.
- HTO indicated how the TAH system conflicts with Inuit culture:
 - Creates competition with other communities, which is not Inuit culture.
 - Harvesting a polar bear has become rare for men, due to the TAH being too low. Polar bear hunting is an important part of Inuit culture and becoming a man.
 - Feelings of “disrespecting our elders and their traditions”.
- HTOs expressed concerns about limitations/accuracy of the aerial survey method (missing bears in the water, sightability issues). Distrust in science.
- Concerns were raised regarding polar bear tourism in Churchill and the public safety threats it creates for Nunavummiut, including habituation, hearing damage from bear bangers, tissue damage from imbedded rubber bullets, and relocating bears closer to Arviat.
- HTOs asked questions about genetics/relatedness and movement between WH, SH, and Foxe Basin. HTOs asked questions about collaring and biopsy darting methods and safety of the bears.

Appendix A

2021 Western Hudson Bay Polar Bear Subpopulation Aerial Survey Report Consultation Meeting Notes Rankin Inlet

Location: Rankin Inlet, NU, Kangiqliniq HTO office

Date/Time: March 26, 2024

Start time: 19:17

End time: 21:31

Participants

Donna Adams (HTO manager)

Harry Ittinuar (HTO Chairperson)

Levi Curley (HTO Secretary-Treasurer)

Chris Connelly (HTO Member)

Savikataaq Kowmuk (HTO Member)

Sam Alagalak (HTO Member)

Alyssa Bohart, Polar Bear Biologist, GN ENV

Evan Richardson, Polar Bear Biologist, ECCC

Ezra Greene, Acting Senior Advisor - Land Use Planning and Regulatory Review, Nunavut Tunngavik Inc.

Raymond Mercer, Resource Management Coordinator, Nunavut Tunngavik Inc.

Clayton Tartak, Meeting Attendee

Johanne Coutu-Autut, ENV Conservation Officer Rankin Inlet

Daniel Kaludjak, ENV Conservation Officer Rankin Inlet

Goal of meeting:

Provide an overview of the newest scientific information regarding the WH polar bear subpopulation as reported in the 2021 Aerial Abundance Survey report and scientific work done by ECCC. Discuss the GN TAH recommendation. Discuss any questions HTO has for both studies. Collect feedback and IQ on WH management.

Next Steps and Action Items:

Short term Action Items (within 4-6 weeks of meeting):

- Email HTO the questions
- Email to confirm correct spelling of aerial survey participants names
- Email HTO with how far offshore was surveyed
- Email HTO the % of harvest of polar bears for the last 10 years

Longer term Action Items (within 2-3 months of meeting):

- Provide HTO the animation of collared bears
- Ask for occurrence reports involving polar bears from Operations

Meeting Notes:

Question to Group after Introductions:

The meeting began with introduction of participants. Alyssa Bohart presented slide show with background on the transition at the GN polar bear research group due to the loss of biologist

Markus Dyck. She then presented an overview of the polar bear study process including the planning stages up to when a TAH management decision is accepted by the minister and harvest tags are distributed to communities. She then noted that the purpose of this meeting was to provide a summary of the results from the aerial abundance survey and ECCC's work to hear HTO feedback.

Aerial abundance survey background slides

- **Sam:** Have you looked at the diets of bears around Arviat area?
- **Evan:** There has been work done in Manitoba. Lots of berries, I've seen bears kill seals, and bears on caribou carcasses.
- **Sam:** How much of your studies incorporate IQ studies?
- **Evan:** I've only done western science, but I'm learning how to incorporate IQ studies.

Aerial abundance survey methodology/field work

- **Clayton** identified that several of the observer participant's names were spelled wrong in the report. Alyssa apologized and indicated that she would look into getting those fixed.
- **Chris:** How far offshore do you guys survey?
- **Alyssa:** I will double-check and get back to you.
- **Chris:** Some bears stay in the ocean almost all summer too.
- **Alyssa:** Yeah, this is feedback we've heard before. The tricky part about surveying water is it's not safe to do so in helicopters, so something that we're looking at for future surveys is Mitch Campbell is doing a pilot project using drones to survey. We're hopeful that if drones seem to be an effective way to survey, we can send drones out onto the water to survey water.
- **Clayton:** Is there any genetic variation between Foxe Basin, Western and Southern Hudson Bay bears?
- **Evan:** There's a little bit of variation, but not full distinction between the two. We do see these mother, daughter, offspring relationships. Females quite often go back to where their moms had them in their dens - they tend to go back to the same areas, whereas males tend to roam more. It's a continuum of relatedness across the landscape. There's no hard divides based on genetics or movements.
- **Sam:** The methodologies used, is leaving a lot of loopholes. You're not going far offshore. They've been known to be 200 miles offshore. If you start missing 5 or 10% of bears, that's a potential increase to our quota. It seems that the authorities that be, have become quite comfortable in never increasing any quota, whether its muskox or polar bears, yet they act so quick when it comes time to decreasing allowable harvest. So it's very important that the time of year these studies are being done, you're able to identify population growth by the man made border system. There's really no way to prove it, but it's easy to assume because of what we're seeing, especially in Arviat, more polar bears. Maybe the Southern Hudson Bay population is in decline and they're kind of borrowing some Western Hudson Bay population. That's where Inuit Qaujimagatuqangit becomes very important right from step one of this whole process, not just at the NWMB level. Maybe that should be your first study, what are you seeing the differences between 1990 and 2023, the polar bear population. Every single Arviammuit is going to say there's more bears. Your studies are showing there's not more bears.
- **Harry:** Having been with the board, early 2000s. I used to listen to my dad and other elders talk about polar bears being surveyed, even back in the 80s and 90s, they've always said

that this method being used for doing surveys is not accurate at all (estimates). It's obvious nowadays we're seeing more and more bears around our communities in the summer. We never used to have that problem. Today, a lot of people will not stay in tents because of the increase in polar bears. Even for our community, we never ever had problems like that. So today we have more incidents. Because of climate change? I don't know. Probably mostly because of that. A lot of bears are not making it back to where they usually summer. So a lot more bears are starting to be seen in these areas.

- The survey is not sufficient. I wouldn't call it accurate. Not even close. I've been hearing for years. They've always known they've been way offshore. Not a small number, but a lot of bigger bears. Animals have no boundaries. People's boundaries are not accurate at all.
- **Donna:** It's a form of being able to manage with those boundaries.
- You start off with the memory of your coworker's tragic death. We've had tragic deaths. That triggers. Deaths, mauled to death. And near-death experiences. I know you noted down public safety, but you have to include deaths, I think. One life is one too many.

- **Sam:** With the goal of government, you have climate change now, stooping into wildlife. What would you like to achieve? What would the government like to achieve?
- **Evan:** It's a question we frequently get asked and I've thought about it a lot over my career. The one fundamental thing I think probably everybody in the room could maybe agree on is we all want to see polar bears in the future. We all want there to be polar bears, 10, 15, 20, 60, 80, a hundred years from now for future generations.
- **Sam:** I'm sure you've had your discussions with your peers, caribou biologists, fisheries, climate change. Can you name one species that Inuit have hunted to extinction?
- **Evan:** No.
- **Sam:** Then what are we doing here at this table? Let us do what we do. Let us live how we live. That's where problems arise. Really, what's the point of these meetings? Let us live.
- **Evan:** We're all wrapped up in this system right?
- **Sam:** Your system, it's not my system.
- **Evan:** Well, the Land Claims Agreement.
- **Sam:** Even that is your system. It's nothing personal.
- **Donna:** They're in place, but there's always broken systems, no matter what level, that need serious addressing.
- **Sam:** I was sworn in last night and I was thinking why am I going to go spend 2 hours? What do I want to see? What do Inuit want to see? So what are we going to achieve?
- **Evan:** I'm hoping we can share some information and have some comments.
- **Sam/Donna:** We've been sharing information for 30 years, 40 years, 50 years and we've yet to see it in one of these (presentation/report).
- **Evan:** Maybe that's an important thing that comes out of the meeting is that you guys are frustrated that IQ is not being considered more and that it should be incorporated more into the management system and dedicated studies should be done to collect and curate IQ of polar bears and Western Hudson Bay. That should be a recommendation for the future.
- **Sam:** It's the same song we've been singing.
- **Donna:** It hasn't done us any earthly good. In any way shape or form. It's actually brought despair.
- **Evan:** The whole management process?
- **Donna:** Yeah, counting, we don't count our animals. Harry was sharing, his dad was a really good leader, Savik's dad. They're gone now, and we're left here to share what they

knew. Especially like you said, it's a picture. If I took a picture of you today and 10 years from now, I expected that you look exactly the same? That's not how our animals and climate and environment thrives. We adapt to all the changes, we always have. It's not going to change if they're counted. If they go extinct, let us be there to enjoy until the last day. It's our majestic animal.

- **Johanne:** What percentage are polar bears harvested at in all of Nunavut?
- **Alyssa:** I don't know the number off the top of my head. The TAH has traditionally been set at 4.5% of what the estimate for that population. The last decision that was made for Western Hudson, when it was increased to 38, NWMB changed it to 38 because 38 was 4.5% of that estimate.
- **Johanne:** Are you sure? Because I've been hearing 3%.
- **Sam:** There was a time where it was 3%. I think it was even 2%, it was very low and we were forced to agree with it. When the polar bear population reached a target, that percentage ratio would increase. The total allowable harvest should have increased, but didn't because the government keeps moving the healthy population figure. Sometimes its 2000, 3000, 5000, whatever it might be. That's a moving target.

- **Johanne** expressed concerns over people's safety on the land.
- **Sam:** We used to be able to camp in tents. You didn't need a dog. We'd pick eggs miles from home along the shore as kids. You can't do that anymore.
- **Chris:** Even now, when we go out, we sleep on the boat because when we were staying in a tent, a couple times you'd wake up and there's two or three bears around the tent, so we stopped using it.
- **Clayton:** The Kivalliq Wildlife Board previously recommended that they wanted to look at options for reducing the population. Has that been considered in this TAH recommendation?
- **Alyssa:** No it hasn't, but this is part of the discussion right? If the HTO wants to decide that's the management goal, then we can record that in the notes and it can be incorporated. For example, this was done in the Davis Strait subpopulation. Before my time, the decision those communities indicated, that their management objective was to decrease the subpopulation and so that was incorporated into the TAH. The newest decision by NWMB was to increase the TAH by 4. I wanted to highlight the fact that NWMB does increase the TAH sometimes. It has been done in Gulf of Boothia, M'Clintock Channel, and Davis Strait.
- **Clayton:** Is that an explicit purpose of the consultation to determine management objectives?
- **Alyssa:** Well, it can be, I think. I think this is the time to capture that, if there is management objectives.
- **Ezra:** I've been looking at management objectives and thinking about who determines them, and I've been looking because of issues in other places. In the Polar Bear Management Plan that NWMB recommended for approval and GN accepted, the way management objectives are described is that when there's a new TAH that's going to be determined, the NWMB is also supposed to make a decision on the management objective. From what I've read, that has actually not been done in any case. So even though the GN says there's a management objective, it's not coming from an NWMB decision. The way the management plan is written is that it should come from that decision. In the Polar Bear Management Plan, there's management recommendations, not objectives, so the wording I think matters. The only one where there's explicitly a management objective named is M'Clintock Channel, which it says the management

objective of M'Clintock Channel is to keep a stable population. That's one thing that I've been arguing related to PBTC and PBAC, Polar Bear Technical Committee and Administrative Committee. In my opinion, even though there's statements like, the goal is to, the objective is to lower the population or to keep it stable. The process that's supposed to be followed, according to the management plan, hasn't been followed. My point here is that if there's going to be a total allowable harvest hearing, part of that discussion should be what the management objective is.

- Even when it was 38, I helped a lot with the Kivalliq Wildlife Board at that time. At that time, I talked to the board because KWB suggested 45 (estimate was 842, that's where the 4.5% of 842 is 38), we had recommended 45 and we said that based on Inuit Qaujimagatuqangit, we assume that the population could easily be higher than 842 and that it would still be within the confidence interval of the science. The NWMB decided to recommend the 38, which is 4.5% of the 842. At that time, I had asked the board, because I helped prepare the written documents, whether we wanted to explicitly argue, to decrease the population and the board said that they thought that that request would be within keeping the population stable, but then later there was more discussions. I felt like at one point it was about keeping it stable. And then at one point, people were talking about decreasing or having the goal be to decrease the population. So that's just some historical context from my background. I would say that if a hearing comes up, definitely a conversation on the objective for this subpopulation would be important to include in that discussion.
- **Johanne** commented how harvesting too many bears and getting an NDF wouldn't be detrimental because there's no longer a market for bear hides.
- **Evan:** I 100% agree with all the safety issues and the things that people have been dealing with and the sensitivities around that. The importance of having discussions in regard to, cultural carrying capacity for polar bears on the landscape, what's the goal there. On the CITES piece, hide prices are down right now. China was buying a lot and not so much anymore. You guys all know fur prices go up and down, there's lulls and they come back. The one thing is if polar bears get moved to CITES appendix one (up listed), the chance that they'll ever come back is low, so once you cross that threshold, even if hide prices do come back, once you get to that CITES appendix one, the likelihood of species being delisted after that is pretty low historically. Not saying it couldn't happen, but just maybe a cautionary note. I understand your comments and the current value of hides, and the international stuff obviously is a thorn in the side for you guys.
- **Johanne** commented how not being able to sell hides could provide cultural opportunities for youth and selling within the territory.
- **Harry:** Have you seen an increase in defence kills?
- **Johanne:** There's a very big difference with bears handled here compared to other areas of Nunavut because of the tourism in Manitoba. They're encouraging them to be close to people on the buggy. You'll see bears look in people's windows in Arviat. You don't see that in Arctic Bay, the bears there have a healthy fear of people. The tourism is why the bears here are so scary.
- **Harry:** I find it hard to accept the numbers being given, reported by using this survey method. I find it really hard to accept with what we're being given as total allowable harvest, but we have no choice. We're given what we're given by the GN. For 20-30 years now, our elders were talking about this, the method being used that's not accurate. We're being given certain numbers that are not accurate. That's why we keep repeating this.

- **Clayton:** Could we start with the results of the aerial survey and talk about sightability? On 2 days of the survey, I know that we missed bears. Also, I fly a plane a lot and the attitudes we were flying for the survey were too low to get good sightability. If you could fly a bit higher, you'd be more likely to see bears. I've flown my plane down into Manitoba and I've observed bears that just run into the bush before you have a chance to see them. If that's how they react when you survey, there's a good possibility that you're missing bears.
- **Alyssa:** Thanks for bringing those points up. I can understand the issues of sightability for the fact that if we're always putting 4.5% on the estimate. I know when the aerial abundance surveys were first suggested, it was more so to get a trend.
- **Raymond:** You said this is good grounds and notes being taken for what's wanted from HTOs and locals. Marcus took the same notes. Mitch Taylor took the same notes. But yet it's still being repeated today. I know you guys are both new and just starting. So the outcome from this meeting/consultation hopefully will be used. Nick Lunn didn't listen, he was told by the board to do community consultations. He never did. I appreciate you doing this, Evan. It's a good sign. For years and years, Inuit have been lobbying for no contact, no darting, no tags, no collars. Biopsy is a really big step forward for Inuit that you guys are listening. So we appreciate that. There's no demand for bear hides.
- It used to be called bear encounters. Now its always how many bear problems are we going to have? For safety of all Nunavummiut. In the NWT days, bears used to be numbered out of Churchill, now you don't see it, which is a plus. It's moving forward really slowly. Requests to lower the population has been brought up a number of times before your guys' time, before Markus' time and this HACCS system, that's got to go. It doesn't work anywhere else. It's not used anywhere else in the world. Why is it used in Nunavut, with polar bears?
- You'll hear about a lot of safety for people and property. You'll hear a lot, no matter where you go.
- **Clayton:** For the CITES listing, who determines designatable units for the CITES process? Is that something done by Environment Canada?
- **Evan:** Designatable units are typically done through COSEWIC for polar bears. Right now, Canada is considered one single designatable unit. All 13 subpopulations are one designatable unit.
- **Clayton:** So a change in TAH in WH will not have an impact on CITES?
- **Evan:** It may stir things up in terms of people viewing it as sustainable or not. It gets back to cultural sustainability of how many bears you want on the landscape and human polar bear conflicts and climate change, changes in sea ice. You never know what somebody way down south is going to do right and it's not me. I'm not petitioning for them to be uplisted, I'm not in favor of that. I think the harvest management system works and I believe in cultural use of the resource. I completely understand the perspective of not wanting more bears on the landscape. I've worked on polar bears. I've had close encounters and I know how scary it can be. People have lost their lives and that's tragic. When it comes to CITES, you have people in South Africa saying we should uplist polar bears because of climate change, so you just never know who's going to come out of the woodwork and put one of these petitions out, so that's a tough one.
- **Harry:** Last summer, HTO looked into getting funding from WWF for bear guards, but it was our very first time to discuss this and we felt there's a real need for bear watch. For a

couple guys being hired every summer for bear watch alone or community, outlying rivers, and camp sites and popular fishing areas, and we still, I think myself, that it's needed. Very much needed now because of increase of bears in our area every spring, summer, right through the summer and into fall.

- **Johanne** commented how there's a misconception of bears starving in the summertime – they're able to scavenge on harvester-killed whale carcasses. Most defence kills they get are fat bears.
- **Harry**: Every day I see something posted by activists and this is from today, but every day they post something about polar bears, it's ridiculous.
- **Donna**: Just to share again the different principles our elders always followed. They were always disturbed and not just frustrated, but fed up with people coming up here, doing these surveys or just visiting for a time, for a season and then they go back down. If we challenged everyone who's having a say in decision making, let's say, over our polar bears, what if we challenge you to go camp out there and then you'll see. If you don't live up here, you don't have the value. You have to live up here, get to know. Even if you live up here 20 years, you still won't know it all. We can't. We can't even know it all. Elders would never say we know it all, we have the answers. They just speak from their experience. Even if they're not saying they're the experts themselves. No one dare even try, especially if you don't live up here. That was a huge issue they had all the time. They didn't like people coming up here making decisions affecting our lives impacting us and then go back south.
- **Alyssa**: Thank you, Donna, for sharing that. I think that's the goal of the co-management system, to make sure that the communities and the people that it affects, your perspectives are incorporated into that decision making process. I'm at least hopeful with the conversation that's captured in these minutes and that will be forwarded to the Nunavut Wildlife Management Board, everything that you're sharing with us today, that will be captured in the report. I'm hopeful at least the Nunavut Wildlife Management Board will do the due diligence of incorporating all the community feedback. It's hard though, I know. But you know, I'm hopeful, at least from the past few decisions they have made, to me, it seems like they are incorporating perspectives more.
- **Donna**: Something has to break, there's too much damage here with our lives.
- **Sam**: Would you want your family to experience and go through the close encounters you've been through? Your children, your grandchildren, your brothers, your sisters and your elders? Nobody wants that. We wouldn't wish it upon you, and we don't wish it upon anybody.
- You know your methods have evolved over the years. They're done at different seasons now. If you're doing it by using different methods, how accurate? You know your 2011, 2021 numbers, that's a pretty big jump, so what's happening?

Aerial abundance survey results

- **Savik**: The surveys are done in August and September. A lot of bears are not being spotted due to thick willow.
 - **Alyssa**: We try to account for that in the models. When observations are made, they'll also record the different types of obstructions and sightability issues that could happen in the habitat. Ideally that's incorporated into the model, but obviously there's always a level of some error. We know that this method is not perfect. The history of going to an aerial survey was because at the time, that was the method that seemed to be the least invasive
-

way to get an estimate. The traditional methods used to be collaring and so as communities indicated they didn't support collaring, there's a lot of concerns around immobilization and drugging bears. That's why at that time an aerial survey was chosen as the method, but we also can recognize it is a snapshot, it does have limitations to it as a method.

- **Sam:** If you look at the WH numbers, it shows that the population is declining. You're going to get somebody out there that's going to see this, they're going to ignore what you just said and what you show on the next slide (SH results), because of your method, right? I could argue and say, hey, look, we need to decrease our total allowable harvest and just show the Western Hudson Bay population, that's so easy. It almost seems like that's what the government wants, but of course you will say no.
- **Alyssa:** What I can tell you, is I've had other researchers that I've worked with when this survey came out. Alarm bells. You know, people are saying, oh, my goodness, the population's crashing. I've seen the media and I respond to them with you're not seeing the other side of the picture because the Southern Hudson Bay report isn't getting the media attention. I agree completely with you.
- **Sam:** I'm suggesting you get rid of these two populations. Just show just the one. You're begging for us to get trampled on like there's no tomorrow. You get somebody in South Africa to see that with social media now. You're begging for it whether you like it or not, you're going to get that.
- **Alyssa:** For me, I want to make sure that the truth is being told in the media. I can't control the media unfortunately, but I'm just as appalled as you when those stories go out, because I know it's not accurate.
- **Clayton:** Andrew Derocher has already used that number (the 2021 WH estimate) in the media and it was immediately before Christmas, as soon as the report went out. That is an issue because I don't believe the government had released the report prior to that. It's an issue that needs to be addressed within the government already.

- **Donna:** When you submit the report, do they (NWMB) react or notice when there had been a death? The number of interactions with bears approaching people, like the danger? Do they see that? You provide a report, then what? Besides never changing the quota or decreasing. But do they have a human part of them that realizes, hey, we should really do something?
- **Alyssa:** What we did with the Davis Straight submission, we submitted the data of how many DLP (defense) kills have happened. We could also include, I would have to get it from Operations, the occurrence reports of the amount of conflict. I think it's a really good point that it's an important thing for us to include.
- The last Nunavut Wildlife Management Board meeting, from what I have heard, there was community members at that meeting expressing the issue of public safety and that heavily weighed into the decision to increase the TAH at that time.
- **Ezra:** Yeah, that one happened in January of 2018 - the last time there was a hearing. So that was before the maulings had happened - that was later that summer. I helped write the submission and present the submission for the Kivalliq Wildlife Board. We emphasized public safety a lot. Joe Savikataaq Jr. had the numbers of how many incident reports they had, from just what they're doing. That's not everything, that's not everybody who's had a bear come to their cabin or whatever. So we had all those numbers in the report and then, I think, the HTO Chairpersons and stuff came and they all emphasized it as well. It definitely was a strong point and I think the NWMB made an emphasis on the importance of public safety in their decision or they commented on public safety. So yeah, I would say get those numbers. Even if at the HTO, if you know there's been a run in with a polar bear,

try to maybe keep a spreadsheet or something that you're telling them - let people know how many things you know about.

- **Harry:** This fall we had to open up a tag for a problem bear. Cabin owners kept spotting going right up to their cabins. Ongoing problem every year, at the same spot. Bears are being spotted on these islands, every summer month close by, 5 kilometers or even closer.
- **Donna:** We get punished for defence kills. That's one of your tags.
- **Raymond:** WH border is where you stop the survey, you don't go to Foxe Basin or into SH?
- **Alyssa:** When we do the aerial abundance survey, we do WH and SH at the same time. But you're right that we don't do Foxe Basin and I think the main challenge with Foxe Basin is it's just so large and so logistically and financially challenging. We just don't have the resources to do all three together, but I'm assuming the point you're making is that movement could be happening between them and yeah, for sure. I think that's one of the limitations of the aerial abundance survey. But as I've mentioned we'll go over what types of different research methods Evan's research group does, and how those do capture movements and the question of movement between the borders.
- **Donna:** Since we're sharing about boundaries, you can see here (shows map on the wall) that's from Inuit heritage. They're doing all the place names. That's just one little area and that's how many names and big families in the past used to have their own land. It was family land lots and that's how many names for every inch of Nunavut we have. We have to adjust to Southern Hudson Bay, like in the boundaries, I don't see what Inuit calls them, and it's not really with boundaries or limitations, but they can tell you, and I have yet to ever see that, those regions where you've labeled them Western civilization, Inuit have it labeled or the place names as well. Those need to be included and taken seriously. They weren't just collected overnight. They're streams, lakes, hills - everything they all have, they can identify. Again, it's so personal because if I came and told you how to brush your hair, how to wear your hair, that's how personal it is. When it comes to having outsiders labeling them and doing their studies and making us listen to it and adapt to, OK, how they say it, this is how they say it. This is their system, this is how they manage it. It's our backyard. We have names for it. And we know what animals go which way.
- **Chris:** This aerial abundance survey map, do you have one for SH?
- **Alyssa:** I don't have one for SH. The GN didn't lead that survey. It was led by the Government of Ontario and in their report they don't produce them.
- **Chris:** Some of these bears are going to travel way past the border. So it's inaccurate.
- **Alyssa:** We don't have data for the Foxe Basin north area because we're actually doing that survey this summer. We'll have data from this summer, but we will produce a map similar to that one for the Foxe Basin stuff.

ECCC research

- **Sam:** How many bears have you sampled?
- **Evan:** For the biopsy work, I think we're over 900 samples for individuals. That's between WH and SH.
- **Sam:** You sampled them once or every year?
- **Evan:** Multiple times. Sometimes some individuals have only been seen once. Some individuals seen two or three times. So it is variable. But as you build up your list of known bears, you get more information every time you go out.

- **Clayton:** 2021 was a really windy summer. I woke up one morning to Harry knocking on my door saying my plane was knocked over.
- **Ezra:** There's been way more biopsy work over time in Western Hudson than Southern Hudson. So even though a lot of bears were previously sampled in Western Hudson, because there's less work that's been done in Southern Hudson, these bears could be moving back and forth, or there could be patterns that aren't captured and just because of when the research happened.
- **Evan:** Yeah, 100%. There's obviously a longer history of research in WH than SH, but we've been making dedicated efforts on both sides of the border for three years now, so we think the picture's coming together, we're getting decent sample sizes.
- **Harry:** Do you know they migrate? Do you know where they go when you say move around?
- **Evan:** My understanding is from science data and collar movements, but sometimes bears like living in a smaller area. Other bears have larger areas and other bears just go and walk right around the north end of Canada and end up in Greenland. They do lots of different things.
- **Harry:** OK, it happens every fall, where we expect bears migrating this way, they migrate north where there's more ice and more seals. Every year it's always the same. They migrate along this coast. They don't just move back and forth like you're saying. Do you know a lot about where they start moving?
- **Evan:** They move through Churchill and move toward Arviat in the fall. We have collar data we're going to share on movements.

20:53-20:59 Break

- **Clayton:** When will this be submitted to NWMB?
- **Alyssa:** The next one is in June, but I don't think realistically, given the amount of work that goes into a submission, we'll be able to submit for that meeting. So it'll likely be the fall meeting.
- **Johanne:** July 1 is the new year, so we're not going to get a TAH change this year. It'll come the following year.
- **Sam:** Governments come here to defend their decision that's already made. If we stay at 4.5%, why don't you give us 10%? How is that going to change your recommendation? We have the meetings every year and our two hours have no impact because officials come in defending the decision that they made. The timing, HTOs, typically tags are open October 1 and it's right at the last hour and we have decisions to make. How many are we going to allow? In our civil obedience, we ensure there's a little buffer there so we don't overharvest. And then we also allocate some to sport hunters. What are we doing here? You've already made a decision. You come here to tell us why you made that decision. We provide feedback. What kind of an impact is this meeting going to have? We've had these meetings for over 50 years. The government already has an agenda and they're not shy about it - international agreements.
- **Clayton:** Have any of these WH/SH bears been harvested in Foxe Basin?
- **Alyssa:** As part of the Foxe Basin survey that we're planning, we're hoping that we can submit samples, harvester samples to the same database that these (WH/SH samples) are kept in, and try and see if there are any matches between the two.

- **Sam:** Almost none of the bears (collar data) go to Rankin. Are you sure we're not hunting Foxe Basin bears here?
- **Ezra:** These are only female bears (collar data)?
- **Evan:** Yes.
- **Chris:** How many bears do you have collared in WH?
- **Evan:** Wearing a GPS collar at any given point in time, typically 10 collars go out a year, and they last for a couple of years. So anywhere from like 10 to 20 individuals in total.
- **Johanne:** Are you putting ear tags at all on male bears?
- **Evan:** We're not doing any ear tagging of males. I think they are putting some ear tags on problem bears that are released.
- **Alyssa:** It's only collars, not ear tags in this video. The ear tag data I believe started in 2017, so we could see if we could add that data into the animation, to see the difference between males and females.
- **Harry:** Where are these bears being collared?
- **Evan:** Primarily in Wapusk National Park.
- **Harry:** No bears were collared along the Nunavut coast?
- **Alyssa:** No.
- **Harry:** And that's what's being used for the TAH?
- **Alyssa:** The collar data? No.
- **Harry:** So why is it being shown to us? Why bother? If it's not going to be of any use for us?
- **Alyssa:** We had gotten feedback before from HTOs that they wanted to see the collar data, what is that data being used for. Based on that feedback, I took the initiative to have this animation created so we could show the HTOs.

Public safety initiatives in WH

- **Harry:** That blue dye that stays on after biopsy darting, does that wear off? After how long?
- **Evan:** Like a good swim in the water and it's gone. Yeah, it's pretty water soluble. So it comes off in, like, a week.
- **Harry:** So what you said earlier doesn't really apply, you said you're not going to get the same bear twice, but as soon as it cools down in the water...
- **Evan:** We work our way up the coast, so we'll do 100 kilometers of coast, just kind of keep going. So we don't typically get that many repeat samples.
- **Alyssa:** In the case of using dye for bears in town, the dye might not be as reliable, as you say Harry.
- **Daniel:** Every year we send our harvester samples. What's happening with those? Are they used with biopsy samples?
- **Alyssa:** Yeah, that's what Evan was presenting on, those harvested bears, that was Nunavut data. That was compared to the biopsy samples. The GN itself, we have all the samples and we don't typically have the time to take on the projects to analyze a lot of the data. A lot of the data gets requested by collaborators who then run the genetic analysis. As I mentioned before with the Foxe Basin survey that we're planning to do this August, we're hoping to have a component of biopsy darting in that survey. So we'll collect some

samples from the Foxe Basin subpopulation. Part of that is we'd also like to submit some harvester samples within Foxe Basin to try and piece together. I think the useful feedback that we've gotten here is that it's of interest and there's this potential that Rankin Inlet is harvesting Foxe Basin bears. I think it'll be really valuable for the Foxe Basin survey to submit samples to then be compared to the WH/SH, because then we'll have a better understanding of all of the Hudson Bay Complex, of the genetics and the movements.

- **Johanne:** The spring hunt bears, there's a good chance they're coming from Foxe Basin.
- **Group** identified that seal pupping happens at that time.

TAH Discussion

- **Sam:** For what it's worth, we would like to see the TAH increased for this upcoming harvest season.
- **Alyssa** discussed the timeline of the submission and the potential delays, not making a June submission realistic.

Participants were thanked for attending, and their feedback.

21:31 Meeting End

2021 Western Hudson Bay Polar Bear Subpopulation Aerial Survey Report Consultation Meeting Notes Arviat

Location: Arviat HTO office
Date/Time: March 27, 2024
Start time: 19:00
End time: 20:49

Participants

Nicole Issakiark (HTO Manager)
Alex Ishalook (Chairperson) via phone
Kevin Kalluak (Vice Chairperson)
Laurent Angalik (Secretary Treasurer) via phone
Peter Shamee (Director)
Alyssa Bohart, Polar Bear Biologist, GN ENV
Evan Richardson, Polar Bear Biologist, ECCC
Mitch Campbell, Kivalliq Regional Biologist, GN ENV

Goal of meeting:

Provide an overview of the newest scientific information regarding the WH polar bear subpopulation as reported in the 2021 Aerial Abundance Survey report and scientific work done by ECCC. Discuss the GN TAH recommendation. Discuss any questions HTO has for both studies. Collect feedback and IQ on WH management.

Next Steps and Action Items:

Short term Action Items (within 4-6 weeks of meeting):

- Email HTO the questions
- Email to confirm correct spelling of aerial survey participants names
- Email HTO how many polar bear tags were allocated each year after 2007 between the communities of Arviat, Whale Cove, Rankin Inlet, Chesterfield Inlet, and Baker Lake.

Longer term Action Items (within 2-3 months of meeting):

- Provide HTO the animation of collared bears
- Email the HTO if the dead bears found during the survey were reported to any authorities.

Meeting Notes:

Question to Group after Introductions:

The meeting began with introduction of participants. Alyssa Bohart presented slide show with background on the transition at the GN polar bear research group due to the loss of biologist Markus Dyck. She then presented an overview of the polar bear study process including the planning stages up to when a TAH management decision is accepted by the minister and harvest tags are distributed to communities. She then noted that the purpose of this meeting was to provide a summary of the results from the aerial abundance survey and ECCC's work to hear HTO feedback.

Aerial abundance survey background slides

- No comments received.

Aerial abundance survey methodology/field work

- **Kevin:** When you cover the Hudson Bay Ocean, how far offshore do you go?
- **Alyssa:** We'll fly along the coastline and observers from aircraft can look from the coastline into the ocean, but as you can imagine, we can't see too far into the ocean. The main reason that we don't survey the water is due to safety concerns with the passengers in the aircraft. Something that's promising, is the testing of drones. We're hoping once the technology gets a little bit more advanced, we can use drones to survey the ocean, and I think Mitch has a project coming up with drones.
- **Mitch:** In Nunavut, we did fly out onto the water to cover the islands that are in that area, so we would just keep going. So there was quite a bit of water coverage and it was a twin Otter, so we could fly over water, just north of Whale Cove where there were islands. In 2016, we had a twin engine helicopter so were able to go further out into the water in 2016 as well.
- There's these new drones that have come out. They can have up to, especially in the summertime up to 20 hours, so they can be autonomous and fly up to 20 hours. We're looking to test them this summer.
- **Kevin:** When I take boat trips along the coast to Churchill, I'll see 3 or 4 bears in just one trip. Those are usually the bigger ones. You may be limited to only seeing a little speck of white if you're in the helicopter. If your drone system is successful, they'll be able to spot what we encounter during our long-distance trips.
- **Mitch:** It's high-resolution imagery, so you'd be able to detect a polar bear for sure.

Aerial abundance survey results

- **Alex:** I have 2 questions. How many polar bear tags were allocated each year after 2007 between the communities of Arviat, Whale Cove, Rankin Inlet, Chesterfield Inlet, and Baker Lake?
- Since the 1950s, 1960s, 1970s, we the communities in this region have been following the polar bear GN recommendation of a 3:1 ratio, which means all those years we've been harvesting mostly male polar bears. We followed the regulation enforced by the GN for those 35 years. Over that time, the GN suggested that the population had declined and maybe that is a result of harvesting too many males. Since 2015, the ratio is now changed to 1:1. Now that being said, I don't think we, the beneficiaries, made the polar bear population decline, but the GN at the time for those 30+ years, was saying the polar bear population has declined.
- More of a comment, when we're presented with the 38 TAH between the communities of Arviat, Whale Cove, and Rankin Inlet, we are now facing since 2007, we are fighting for those 38 tags, which is not our Inuit culture to fight each other. With Arviat being the big community, we encounter lots and lots of polar bears each year since 2007. We get the same equal amount with Rankin Inlet and Whale Cove. I think Arviat should have more of the TAH allocated.
- **Alyssa:** In regards to your first question, I'll look into our files and I can pull those numbers for you and I can e-mail them to Nicole to share it to you.
- There can be detrimental effects if too many males are harvested, so thank you for sharing that, Alex. I'll remind folks that the up to 1 to one ratio is where you can harvest one male for every female. But if you do choose to harvest more males than females, that's also allowed in the one-to-one system. So if you wanted to harvest out of that 12, 8 males and the rest females, you could do that or you could do 6 males, 6 females. It's up to the HTO.

- **Kevin:** Listening and watching your slide show, it looks like you fly and sit at a computer, then do statistics to decide how much TAH we receive, is that right?
- How is Inuit Qaujimajatuqangit helped in getting your number?
- There's 8 Inuit Qaujimajatuqangit principles. One of them is respect for their culture and surroundings. A saying from our elders, no matter which community, region or northern country you go to (Alaska, Greenland), they have always said, don't let predator numbers be so high. It seems like there's a worry of having to keep polar bear numbers high. I'm not saying kill them all or reduce them to a tiny little bit, but please respect the Inuit Qaujimajatuqangit and show how Inuit Qaujimajatuqangit has been involved in your study.
- **Alyssa:** Our study is Western science, but we do incorporate Inuit Qaujimajatuqangit to inform the areas that we cover and the knowledge of where the bears will be. We have community participants on the survey as well. We've been trying to have Inuit Qaujimajatuqangit studies with our polar bear projects, when we're able to. Other organizations will conduct an IQ study in the communities and gather knowledge. We did this in Davis Straight, which gave us a much better understanding of the polar bear population because we had both science and Inuit Qaujimajatuqangit. Science is limited to the short amount of time on the land each year and it only started in the 1980s, whereas harvesters are out on the land much of the year, making observations. Inuit Qaujimajatuqangit spans generations and decades. Having both Inuit Qaujimajatuqangit and science gives us a more full understanding.
- The statistics will give us an estimate and so based on that estimate number, then we'll consider all those types of factors I covered like public safety, conservation, and we typically try and look for the trend, not necessarily the number of bears. When we look at WH and SH combined estimates between 2016 and 2021, it looks like the population

hasn't changed, then that would influence our recommendation to say the TAH should stay the same.

- The history of 38 TAH in Western Hudson came from the number 4.5%, which was a number that was scientifically calculated, before my time, to be a sustainable harvest percent of the population estimate. And so 38 is 4.5% of 842.
- One of the goals of this consultation is discuss the draft TAH of 38 and capture in the meeting minutes, the HTOs thoughts around this number. It's also important for us to share information with each other, so thank you for sharing one of the principles about too many predators.
- **Kevin** clarified that he was not necessarily suggesting there should be a decrease, he was sharing Inuit Qaujimajatuqangit.

- **Lorne:** Clayton from NIWS told us that there was an interview on Inuit Qaujimajatuqangit that was held in Arviat that they asked questions about the polar bear population. Was this given to you guys? This was 2015, 2014, I can't remember the year.
- I remember that Alex mentioned that 2021 was a bad year for our area, we had a lot of east winds and bad weather and all that - and while they were doing the survey or counting the polar bears in our area. Looking at the WH and SH numbers, it looks like they switched, and the combined numbers, there's a difference of 1 bear, would this be a decrease?
- **Alyssa:** I had heard that an Inuit Qaujimajatuqangit study was planned, but he hasn't shared that data with us. It would be important that the information be shared with the Nunavut Wildlife Management Board.
- I'm glad you brought that up, because we have heard from other communities that 2021 seemed to be a weird weather year and Evan's going to go into a bit about how the ice was unique in that year.
- In regards to the combined WH and SH estimates between 2016 and 2021, we wouldn't consider the difference of 1 bear a decrease in the population, we'd consider the population stable.

- **Peter:** Do you see any sick bears when you do the surveys? Would you report it to NTI? Do they decrease the numbers that can be harvested by the communities?
- **Alyssa:** On this particular survey in the report, they had four dead bears that they found and unfortunately no samples were collected, so we don't know the cause of death of those bears. It could be something like disease or starvation or old age. I think it was noted one of the bears was a 21 year old male. So that's older for bear, so not super out of the ordinary. I'm not sure what the process was, if that was ever reported to anybody, I can ask.
- When a dead bear that died of natural causes is found, it's not taken off the quota.
- **Mitch:** We flew the Nunavut side and all the bears looked healthy, Stephen flew the Manitoba side where the dead bears were found.

ECCC research

- Alyssa offered to share the collar animation video with the HTO and when the SH collars are incorporated into the video.
- **Alex:** The GN did an aerial survey in 2006 and 2007, at the time I was on the Board. We saw the reports that the GN put out. The biologist at the time requested a 14-day aerial survey, which had poor weather at the time, and they flew only two days. That was the time when the Western Hudson Bay polar bear tags were cut right down to 0. We had no tags/quota for the WH zone until 2010. At least now we're at 38. I'm trying to go back in

time so that it's in the record. In 2018, we had strong winds from the east, and all the polar bears were drifted to northern Quebec area. Our neighbours down there, reported over the radio that there's lots and lots of polar bears around Sanikiluaq and northern Quebec.

- **Alyssa:** Thank you, Alex, for sharing that with us.
- **Evan:** I can certainly appreciate that we need to be cognizant of how the environment influences not only the distribution of bears, but also the success of the surveys. If it's really foggy, it's not a good year to fly surveys. All those things need to be taken into consideration when considering results.

- **Kevin:** From the 2016, 2021, 2022 population, what percentage of that was tested with biopsy?
- **Evan:** I think the database, and this includes previous samples that were collected from bears and in Churchill as part of Polar Bear Alert and Environment Canada's work there, I think the biopsies were around 900 individuals, but we have DNA fingerprints for close to around 3000 bears in total, but that's from like 1980 all the way till now. So that's 40 years of data, so a lot of those bears aren't living anymore. But the biopsy program was around 900 samples taken I think.
- **Kevin:** So you can recognize Western Hudson Bay or Southern Hudson Bay or Foxe Basin bear by the biopsy you collect?
- **Evan:** Yeah, the one issue is that you have to have caught it somewhere before because you just catch it for the first time, you don't know if it just walked down from Foxe Basin and came. It's most informative if you get multiple samples from the same individual. We saw this bear north of Churchill, then we saw it in Nelson River and then back north of Churchill again. That's a Western Hudson Bay bear because we always see it in Western Hudson Bay, but some of them jump back and forth. So you have to build up this knowledge of where you've seen bears before and where they like to hang out, and then you can put the picture together.

Public safety initiatives in WH

- **Alex:** I'm glad to hear that there's some different methods to deter polar bears, which you guys have presented. Watching the polar bear town in Churchill, MB, I've seen lots of times where people use bear bangers too much. When the bear is running away, they're still using bear bangers and shooting at the bear. Polar bears are really sensitive in hearing. That's their hunting style, they hear seals under the ice. They can smell 50 miles away. If they're being shot at too much, they're going to go deaf. When they come to Arviat, they can't hear properly. The conservation officers are overdoing it, and should be properly trained. Maybe your department can make some recommendations.
- **Alyssa:** I really appreciate you sharing because we can ensure at least, in Nunavut, we can make sure that we aren't using bear bangers too much. Unfortunately, the Manitoba conservation officers are out of either mine or Evan's jurisdiction. We can certainly share what you've shared with us today with folks in Manitoba.
- **Evan:** Thanks, Alex. One other point I would make is that there is a group called the Polar Bear Technical Committee that's comprised of territorial and provincial biologists that are involved in polar bear research and management. There is a woman on that committee that represents Manitoba. She's a biologist from Thompson. Her name is Vicky Trim and she's kind of in charge of running that Polar Bear Alert program. So we can certainly share your message with her on the overuse of bear bangers and concerns that community members have about polar bear hearing and problem bear behavior in towns.

- **Peter:** In Churchill, MB, when the conservation officers move the bears by helicopter, they move them north into our boundary area. Here in our hometown, the people don't like it. Why don't they bring down the polar bear from where they got it?
- **Evan:** It's a frequent issue that's brought up. When you talk to the province of Manitoba, because the bears naturally migrate north, they start walking north, to come to the sea ice in the fall time, that's their reasoning. I'm not saying it's right, but their reasoning for not flying the bears south is that they'll just walk back and be a problem bear in Churchill again. So they take them across the river, but then obviously as you guys know, they walk up the coast, and can end up in Arviat as a problem.
- I think it would be good to get everybody in a room together, like the province of Manitoba, all the HTO's, and maybe the Wildlife Board and discuss jurisdictional obstacles.
- **Alex:** I have friends in Coral Harbour that have seen polar bears with green markers on their back, which were painted in Churchill, MB. They can go way up to Coral Harbor area, just wanted to share that with you all.
- **Kevin:** In Arviat, in September, mostly October and some November we go, we see a lot of bears at the local dump. Sometimes we'll see a big skinny bear that can hardly step on their hind leg. These bears are very bony and very dangerous. If the biopsy is being taken from the rump, is there a possibility it can become infected?
- **Evan:** The needles we use are sterile when they come in the package. There's always a possibility, when we take them out of the package. We've done hundreds of biopsies, so if it was a frequent thing, we'd see this a lot, so we don't think it would lead to infection.
- **Kevin:** Because we've just recently started to see the very scary way too skinny bears. They were not very common during the fall migration previously.
- **Alyssa:** Thank you. I'm just trying to think of what else it could be. I know sometimes there can be injuries associated with too many rubber bullets or something like that too. I've seen that in black bears before and so I'm just trying to think of other reasons. It's a good observation. I think it it's something for us to keep in mind.
- **Alex:** I've seen myself, here in Arviat, times where we have to put down bears because they're too skinny. We have spotted rubber bullets inside the tissue when they were put down.
- **Alyssa:** It'd be really important if you find that happens again, if you would be able to take pictures and send it to us at the polar bear lab or even to Joe Jr. We want to keep track of it, to make sure that it's not becoming a problem and it's not causing more problem bears.
- **Alex:** Joe would be aware because he was there to see it.
- **Alyssa:** Thanks Alex, I'll follow up with him.

TAH Discussion

- **Alex:** This topic can become very sensitive and we talk for days and not come up with any kind of recommendation. However, TAH, between the communities, we lobby, we fight, we compete, which is not normal to us between Arviat, Whale Cove, and Rankin Inlet. We fight each other to get the biggest part of the TAH. Only because polar bear hunting is our Inuit culture in becoming a hunter. If you've seen the movie Big Game, where the men become a man when they harvest their first kill, that is our Inuit tradition, how a young boy becomes a man, a hunter. I recommend you watch that.
- I have 3 boys. The oldest one is turning 30. He hasn't even found a bear his whole life. The second oldest is 20 and he hasn't shot a polar bear. Third oldest, 16 now, hasn't had a chance to shoot a polar bear because our TAH is too low. Myself, I was drawn once in

my whole life. I just wanted to share with you all how important it is to give the community TAH, because of our tradition.

- **Evan:** Thanks for sharing that, Alex. It's important to hear those sorts of things to help frame the context of these discussions and the importance of the cultural value of bears and considerations of that and the broader context of conservation and management that all these things need to be considered.
- **Lorne:** I just wanted to share a story that happened last year, I just want to see some smiles so we don't forget this. There were some people who just moved to Arviat and these polar bear patrol guys thought they saw a wolf somewhere in the town. And they were skinning it and it was a dog, but they thought it was a wolf. They didn't know it was a dog, a musher that owns it. Thank you for this night to share about polar bears and I hope the TAH will be higher this year or higher in coming years.
- **Peter:** Do you do this work every year? How often do you guys come here and report like this one?
- **Alyssa:** As the GN, we try to do a survey about every five years, if we can and that's just to get an abundance estimate, but I'll let Evan speak to his work and how much work they do.
- **Evan:** We've been to visit the communities in the past and I recently took over as the leader for the research programs around Churchill. Our goal moving forward is to come back to the communities more often and visit with you guys and talk to you and listen to what you're seeing and what's going on. Share our results on a more regular basis and also do a better job of just sending out some short reports, documents that are translated and trying to be better at exchanging knowledge with each other, so we have common understandings, and we can work together to make sure there's polar bears for everybody in the future.
- **Kevin:** I just wanted to share what I have experienced in my life in Arviat. As a child in the summertime, my late dad had a canoe, and every opportunity we get, we would go out to Sentry Island, because that's the only island we have out on the Hudson Bay - it has a nice sandy beach on the west side and there's a watch tower where people could scope for marine mammals. Lots of Arctic tern and eider duck eggs. As soon as the boat(s) would land, us kids would jump out of the boat and race to the top of the hill and be the first to collect eggs or try and be the first to reach the top of that homemade tower, without worries. Our mothers or fathers didn't even care if we disappeared somewhere on the island. That's how life was. When the mothers and fathers or the family was collecting eggs, we did not even have to carry our rifle with us. That's how worry free life was.
- Today you go there, you don't want to even step on land because there will be at least 5, 6, 7, 8 bears on the island already. When you have your nets, they'll be waiting on the shore for any movement. Once a fish gets in your net, they'll go right in and because of the strength, they won't even get tangled in the net, they will just bite off the fish. You catch a seal or beluga, which are one of our main staples, we don't want to work on it on that island. We want to either try and bring it home or try and do it maybe on the open water because once we land, we know who's coming and how many are coming to us.
- For decades, as Alex said, for 30-40 years we've been asking to back what was about 20 tags, that were suddenly stopped in 2007 for so long. How long will we wait? When will the scale balance out? How much should we repeat the same message? When will it not fall on deaf ears? What next event must we witness before we finally get the quota or even more than what was 20? We've waited long enough. What else should we say? Should

we say anything at all? It is worth voicing our concern? What use is this meeting or other types of these similar meetings? How long must we disrespect our elders and their traditions? Do we even know them anymore? Are we getting numb?

- **Evan:** Thanks for those comments, Kevin. We heard similar things in Rankin Inlet yesterday in regards to people's frustrations with the management system, more polar bears being on the landscape, human polar bear conflicts, people not being able to go out and go to the places they used to hunt and enjoying in the summer time because there's too many bears now and they don't want their kids out and it's more dangerous. It's a common thread amongst a lot of the discussions we've been a part of and hopefully since this is being recorded, that theme will continue through Whale Cove and it'll potentially resonate with NWMB and the decision makers on quotas and be part of the broader discussion when those decisions are made.
- **Alex:** To close my comments, we have over 1500 hunters interested in hunting a polar bear. Only 10-12 are given a tag, which is a lottery. Those lucky people hunt 2 days in 48 hours and it's a big event for our community. Hopefully we get an increase in TAH, only because the past survey failures (that resulted in a TAH of 0). Now science and IQ is not balanced. Science is saying polar bears are declining. In the summer, we are encountering more and more polar bears. All along the coast of Arviat. It is hard to believe science.

Participants were thanked for attending, and their feedback.

20:49 Meeting End

2021 Western Hudson Bay Polar Bear Subpopulation Aerial Survey Report Consultation Meeting Notes Whale Cove

Location: Whale Cove Hamlet Chambers

Date/Time: May 9, 2024

Start time: 19:20

End time: 20:31

Participants

Robert Enuapik (HTO Chairperson)

Alyssa Bohart, Polar Bear Biologist, GN ENV

Evan Richardson, Polar Bear Biologist, ECCC

Jonathan Pynn, Senior Wildlife Advisor, GN ENV

Kyle Ritchie, Senior Wildlife and Policy Advisor, Wildlife Management Biologist, NWMB

Oliver Shipton-Ouellet, ENV Conservation Officer Whale Cove

Regrets: Gabriel Nirlungayak, Director, Nunavut Tunngavik Inc. and Raymond Mercer, Resource Management Coordinator, Nunavut Tunngavik Inc.

Goal of meeting:

Provide an overview of the newest scientific information regarding the WH polar bear subpopulation as reported in the 2021 Aerial Abundance Survey report and scientific work done

by ECCC. Discuss the GN TAH recommendation. Discuss any questions HTO has for both studies. Collect feedback and IQ on WH management.

Next Steps and Action Items:

Short term Action Items (within 4-6 weeks of meeting):

- Email HTO the questions
- Email to confirm correct spelling of aerial survey participants names
- Email HTO and KWB regarding credit use process

Longer term Action Items (within 2-3 months of meeting):

- Provide HTO the animation of collared bears

Meeting Notes:

Question to Group after Introductions:

The meeting began with introduction of participants. Alyssa Bohart offered to postpone the consultation either remotely or to the next day to allow for more board members to attend the meeting. Robert Enuapik indicated that he would reach out to board members to see if they would be available to meet the next day, but to continue with the meeting today since they have trouble meeting quorum. Alyssa Bohart presented slide show with background on the transition at the GN polar bear research group due to the loss of biologist Markus Dyck. She then presented an overview of the polar bear study process including the planning stages up to when a TAH management decision is accepted by the minister and harvest tags are distributed to communities. She then noted that the purpose of this meeting was to provide a summary of the results from the aerial abundance survey and ECCC's work to hear HTO feedback.

Aerial abundance survey background slides

- No comments received.

Aerial abundance survey methodology/field work

- **Robert:** When you do your survey, that includes the Churchill area?
- **Alyssa:** Yes, that's right. When we do Western Hudson aerial survey, we also do Southern Hudson aerial survey at the same time. We recognize that these boundaries are more like management units, since the bears don't see them as boundaries and movement can happen.
- **Robert:** Do you survey the land?
- **Alyssa:** Yes. When we consulted (remote at the time due to COVID), we surveyed the land as well under recommendation from the HTOs. We do our best to incorporate Inuit Qaujimagatuqangit into our studies.

Aerial abundance survey results

- **Robert:** When we had the meeting in Rankin with KWB, there was a presentation about the survey. The presentation was that we lost 500 bears and Southern Hudson gained 500. They move a lot.
- **Alyssa:** Yes, so it probably wasn't surprising for you to see these results hey? (Robert nodded in agreement).

- **Oliver:** Its kind of nice that you looked at them both together and that they seem to move together.

ECCC research

- **Evan:** If the community is interested, we could work with you Oliver on analyzing biopsy samples that you collect. Could tie into identifying patterns particularly about problem bear dynamics. Who they are, where they go, where they come from.
- **Oliver:** Yes, let's discuss that further.
- **Robert:** When you talk about dying them/tagging, what do you mean?
- **Evan:** There's a couple of parts to our program, so there's some tagging that goes on as well and that's how the collars get put out. We're monitoring for things like disease, like Avian Influenza, stuff like that, you know things people are concerned about. We collect other samples for health assessments and contaminants. Understanding what contaminants are in the marine environment and wildlife is consuming, and what people are consuming and what levels they are in wildlife and in different species. Environment Canada is kind of responsible for understanding chemicals in the environment and how they influence human and wildlife health. A little bit of demographic work too. Just understanding population growth and impacts and changing sea ice.
- **Oliver:** What are studies on when bears are paint tagged? Are they more visible to prey?
- **Evan:** Not aware of any research on this. Dyes are water soluble and don't last too long.
- **Oliver:** If the studies keep showing mixing, will this be a combined subpopulation and result in an increased TAH?
- **Alyssa:** We aren't considering managing them as one unit or changing boundaries, but do consider our TAH recommendation of WH and SH at the same time, looking at the results of both. If you look strictly at the data separately, we would suggest a lower TAH in WH and a higher in SH because of the "decline" and "increase". But based on both surveys, we recommend the TAH stays the same for both.
- **Oliver:** How many surveys will it take to change the boundaries? You've got 3 surveys now, but say in 15 years and if that information stays the same to show one group, would you look at changing the boundaries?
- **Alyssa:** I can't really answer that as it is a broad scale discussion. The boundaries were set out based on the information at the time and made at a higher level than the GN.
- There was further discussion on this and how remaking the boundary lines would be a decision at the national or international level.
- Alyssa explained how aerial surveys were chosen as a less invasive method to surveying bears. This decision was in respect to HTO wishes. Other methods can be discussed with HTOs for future surveys.
- **Oliver:** It'd be really interesting to do biopsy darting in other places like Coral Harbour. I'm curious if their population ever mingles with WH.
- **Alyssa:** We are actually planning to do Foxe Basin this year and will get more information from that. Hoping to add a biopsy darting component to this to look at movement between boundaries.
- **Oliver:** Are you considering doing hair snagging like they do for grizzly?
- **Alyssa:** Yes this is something we plan to start this year too in Foxe Basin.

- Alyssa showed an animation of ECCC and University of Alberta polar bear collar data.
- **Oliver:** Does the size of a bear indicate where it goes?
- **Evan:** Its all really nutritionally based. Bears that are born in a good ice year with a lot of food tend to get bigger.
- **Oliver:** Do you collar males?
- **Evan:** No. The necks on males are too big for collars to stay on. So these are all female bears in the animation. There are “burrs” on the fur, but they don’t work as well, bears are pretty hard on them. There are some new ear tags with antennas, but the antennas are weak points that break. They’ve been put on males and subadults. Technology is coming a long way and as it gets better then we may be able to explore other GPS options.
- **Oliver:** Can you share this animation with the HTO?
- **Alyssa:** Yes. I’ll make sure to send a copy.
- **Evan:** A lot of bears tend to congregate into the centre of Hudson Bay once the ice comes. Is this something you’ve seen or has anyone travelled there? I haven’t been there so don’t know what is drawing them there.
- **Robert:** Not sure.
- **Evan:** It’s amazing their ability to navigate, they cover such huge areas. Since they’re collared, we see the same bears navigate to the same areas and small islands year after year.

Public safety initiatives in WH

- Some discussions on bear deterrence and projects on how to collect additional information via biopsies and the existing genetic database for WH bears.
- Discussion on pilot research in Arviat testing deterrence types.
- **Oliver:** Rubber bullets don’t do much for me. Screamers work sometimes. The big ones don’t care too much, so I usually just monitor it until it leaves. It depends on their age, body condition. Small ones are curious and follow people up to their house, but when you scare them, it works well. Skinny ones don’t care any more. There’s so many variables to all of this.

TAH Discussion

- **Robert:** We’ve been trying to get more tags for a while.
- **Oliver:** On credits. How does that work?
- **Alyssa** went over Credit Process from HACCS. Went into detail on how the credits accumulate and reiterated that we are here to give advice.
- **Oliver:** What is WWF’s role? Are they helping you guys at all or with any data because they’re collecting data here, we have a joint program. HTO has a partnership with WWF for bear monitors. They do their own Occurrence Reports and share it with me.
- **Evan:** We’ve never asked for it.
- **Oliver:** get in contact with Jason Harasimo if you want that information. Great program, especially if other communities get it. Their Bear Deterrence project helps me sleep at night.
- **Robert:** The bear that was shot with the collar, do you have that?
- **Evan:** That bear was collared in September 2022 and was spotted just south of Churchill in September of this year, and had a 1 year old cub. The cub wasn’t around when she was

harvested. She was 24 years old (showed image of collar location on screen). She walked all the way over to Coats Island and then back.

- Oliver asked that the map be sent to the hunter. 1st bear for the hunter. Relayed additional details about the harvest. Thinks it would be great to share the tag/harvest information with the hunter.
- **Robert:** No other questions but I'll try to get the other members for tomorrow and if not we'll get the information back to you.

20:31 Meeting End

2021 Western Hudson Bay Polar Bear Subpopulation Aerial Survey Report Consultation Meeting Notes Whale Cove

Location: Whale Cove Hamlet Chambers

Date/Time: May 10, 2024

Start time: 10:40

End time: 11:45

Participants

Mona Okalik (HTO Manager)

Robert Enuapik (HTO Chairperson)

Shiela Ebing

Manu Nattar

Alyssa Bohart, Polar Bear Biologist, GN ENV

Jonathan Pynn, Senior Wildlife Advisor, GN ENV

Kyle Ritchie, Senior Wildlife and Policy Advisor, Wildlife Management Biologist, Nunavut Wildlife Management Board

Oliver Shipton-Ouellet, ENV Conservation Officer Whale Cove

Regrets: Gabriel Nirlungayak, Director, Nunavut Tunngavik Inc. and Raymond Mercer, Resource Management Coordinator, Nunavut Tunngavik Inc.

Goal of meeting:

Provide an overview of the newest scientific information regarding the WH polar bear subpopulation as reported in the 2021 Aerial Abundance Survey report and scientific work done by ECCC. Discuss the GN TAH recommendation. Discuss any questions HTO has for both studies. Collect feedback and IQ on WH management.

Next Steps and Action Items:

Short term Action Items (within 4-6 weeks of meeting):

- Email HTO the questions
- Email to confirm correct spelling of aerial survey participants names
- Email HTO and KWB regarding credit use process

Longer term Action Items (within 2-3 months of meeting):

- Provide HTO the animation of collared bears

Meeting Notes:

Question to Group after Introductions:

This meeting was held again to allow for higher attendance of board members. The meeting began with introduction of participants. Alyssa Bohart presented slide show with background on the transition at the GN polar bear research group due to the loss of biologist Markus Dyck. She then presented an overview of the polar bear study process including the planning stages up to when a TAH management decision is accepted by the minister and harvest tags are distributed to communities. She then noted that the purpose of this meeting was to provide a summary of the results from the aerial abundance survey and ECCC's work to hear HTO feedback.

Aerial abundance survey background slides

- No comments received.

Aerial abundance survey methodology/field work

- No comments received.

Aerial abundance survey results

- **Robert:** When you get the survey numbers, is the whole total you have there from Western and Southern Hudson together? Does that number go to manage the TAH?
- **Alyssa:** The way we are looking at it now is to manage it as one/taking each into account, but there are two separate TAHs. If we look at the numbers, there isn't a change from the last survey. To us it seems that the population hasn't changed and it would be reasonable to keep it the same. If WH draft TAH is to stay the same, then SH TAH would be to stay the same.
- **Robert:** In looking at the numbers it looks like the numbers went down.
- **Alyssa:** Agreed. 2021 looked like a windy year and aerial surveys have limitations.
- Highlights the reason to survey both subpopulations at the same time.
- **Oliver:** At the end of the day, the populations are stable.
- **Alyssa:** Yes, and I think Evan's research really highlights that.

ECCC research

- During showing animation, Alyssa reminded everyone that the collar information only shows female bears.
- **Robert:** When is mating season? March/April?
- **Evan:** April/May

Public safety initiatives in WH

- No comments received.

TAH Discussion

- Alyssa reiterated the GN recommendation is to not change the TAH
- **Robert:** We usually try to ask for more for WH. For SH, what is the TAH?

- **Alyssa:** 25 for Sanikiluaq. SH is shared with Ontario and Quebec. There is little harvesting from Ontario but there is a TAT of 23 for Quebec. So that would be 48 take from SH total.
- **Robert:** When we have KWB, Chesterfield Inlet, there is always tags given to Chesterfield. How come Chesterfield who is in Foxe Basin, why do they get WH tags?
- **Alyssa:** KWB only decides who receives tags. A few years ago I noticed that Baker Lake and Chesterfield Inlet only get FB tags now and we haven't heard from KWB on other allocations. We're only meeting with the communities that currently have a WH allocation.
- Showed information about the collared bear that was recently harvested by resident of Whale Cove.
- **Shiela:** How long was the collar on?
- **Evan:** Two years.
- **Shiela:** Do you check up on bears when they are collared?
- **Evan:** Collar was scheduled to drop off in September. It has a release mechanism with a timer for it to fall off. I wasn't involved when it was collared, but whoever fitted the collar made it too tight, we will be following up to make sure it doesn't happen again. We don't want to see pictures or hear that collars are impacting the bears and thanks for sharing this information.
- **Evan** showed a picture of typical collar wear on the fur.
- **Shiela:** When you have a date for the collar to come off, do you go to the bear to make sure its off?
- **Evan:** Depending on where the bears are, if we are working in the area we do go check. The collars have beacons on them and we listen to and go check on them if they are in the area. Even if a collar was programmed to come off, we will listen for it in the following years to try and make sure its off. We can't come up to Nunavut as we don't have a permit to work up here but we do our best.
- **Shiela:** What do you do with the collars?
- **Evan:** We send them back to get refurbished. We also download the data on the collar. They are satellite based, but not all the information gets transmitted (technology limitation). The data gets stored on a memory card on the collar that we can download on a laptop.
- **Robert:** Its always nice when you show the movement of the collared bear. But when we see pictures that bears are affected like that, we don't like it. Even with caribou we sometimes get people shooting collared caribou. We don't really accept any more collaring. Even elders say it isn't good to put collars on animals - it is pretty hard to make decisions about putting collars on. Most times we'll say we don't like that, but we know it's just going to happen anyways. Not much say about that, I think. If the GN wants to do that, we don't have much say about it.
- **Evan:** There are some jurisdictional issues. This collaring happens in Manitoba, there's Manitoba research permits. I know there's work to get more Inuit representation on boards in Manitoba. We are now putting out less collars (typically maximum of 10) and doing the bare minimum to get the information needed for research. Just enough to balance needs between community concerns, management and science needs. We try to strike a balance. We do our best.
- **Robert:** How many years do you guys do collaring?
- **Evan:** Every year we do 10 collars. They fall off and we replace them. Its part of an ongoing monitoring program.
- **Alyssa:** Thank you to the Board Members for showing up and meeting with us today. We'll be sending copies of the presentation and the video to the HTO. And we have these questions that we'd like to have input on.

- **Robert:** That was a good one. We got the survey numbers. That was good information for us.
- **Manu:** this was good information for us too. Thank you.

- Some discussion on HTO hunting season.
- **Alyssa:** Do you do sport hunts?
- **Robert:** A few years back the quotas would go pretty quick in the fall. When it used to ice up late, the quotas would go quick. Now when the ice forms its quick and the bears go. Its like beluga, we used to get them the third week of August when they migrated. Now its September. I guess its climate change. Even our caribou are migrating sooner than last year.

11:45 Meeting End