

Consultation with Pangnirtung, Amaruq, and Mayukalik Hunters and Trappers Association on Re-estimating the Abundance of the Davis Strait Polar Bear Subpopulation by Genetic Mark-Recapture 2022 Report and the Nunavut Inuit Qaujimajatuqangit on the Health of the Davis Strait Polar Bear Population 2022 Report

May 8, 2023

May 9, 2023

May 11, 2023

Department of Environment
Government of Nunavut
Iqaluit, Nunavut



Executive Summary

Government of Nunavut (GN), Department of Environment (ENV) representatives conducted in-person consultations with Pangnirtung Hunters and Trappers Association (HTA), Amaruq HTA, and Mayukalik HTA on May 8, May 9, and May 11, 2023, respectively.

The intent of this consultation was to ensure the GN and HTAs could discuss the results of the Re-estimating the Abundance of the Davis Strait Polar Bear Subpopulation (DS) by Genetic Mark-Recapture 2022 Report, led by the GN, and the Nunavut Inuit Qaujimajatuqangit on the Health of the Davis Strait Polar Bear Population 2022 Report, with GN collaboration. The abundance report collected data in 2017-2018 and the *Inuit Qaujimajatuqangit* (IQ) report collected data in 2019. The previous abundance data for DS was collected in 2005-2007. The goals of the consultations and presentations were to provide co-management partners with an overview of the results of the reports, collect feedback on the results presented, collect additional IQ, and to discuss the ENV harvest recommendation.

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

Support for ENV's harvest recommendation ranged from enthusiastic support to less involved participation. At the end of the consultation, HTAs were left with questions to discuss and send their feedback to ENV.

The feedback and IQ collected during these consultations will be considered when forming Total Allowable Harvest (TAH) recommendations for the DS subpopulation to be submitted to the Nunavut Wildlife Management Board (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 Associations of Pangnirtung, Iqaluit, and Kimmirut on May 8, May 9, and May 11, 2023, respectively.

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

Table of Contents

Executive Summary	ii
Preface	iii
1.0 Report Purpose and Structure	1
2.0 Purpose of Consultation	1
2.1 Format of Meetings	1
3.0 Summary of Consultations	2
Appendix A	2
Davis Strait Polar Bear Abundance and IQ Reports Consultation Meeting Notes.....	2
Participants.....	2
Goal of meeting:	3
Next Steps and Action Items:	3
Short term Action Items (within 4-6 weeks):	3
Longer term Action Items (next 2-3 months):.....	3
Meeting Notes:.....	3
Davis Strait Polar Bear Abundance and IQ Reports Consultation Meeting Notes.....	7
Participants.....	7
Goal of meeting:	8
Next Steps and Action Items:	8
Short term Action Items (within 4-6 weeks):	8
Longer term Action Items (next 2-3 months):.....	8
Meeting Notes:.....	8
Davis Strait Polar Bear Abundance and IQ Reports Consultation Meeting Notes.....	13
Participants.....	13
Goal of meeting:	14
Next Steps and Action Items:	14
Short term Action Items (within 4-6 weeks):	14
Longer term Action Items (next 2-3 months):.....	14
Meeting Notes:.....	14

1.0 Report Purpose and Structure

This report is intended to collate and summarize comments, questions, concerns and suggestions provided by the Pangnirtung HTA, Amaruq HTA, and Mayukalik HTA regarding the results of the Re-estimating the Abundance of the Davis Strait Polar Bear Subpopulation by Genetic Mark-Recapture 2022 Report, led by the GN, and the Nunavut Inuit Qaujimagatuqangit (IQ) on the Health of the Davis Strait Polar Bear Population 2022 Report, with collaboration from the GN.

Representatives from the Department of Environment (GN) 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 and IQ information regarding the DS polar bear subpopulation as reported in the GN scientific study report and the IQ report, both in part produced by GN polar bear biologists. In addition, the GN also put forward a TAH recommendation during these consultations, but also discussed that management objectives can be formulated depending on the communities' needs and objectives for this subpopulation.

2.1 Format of Meetings

The meetings were held in the evenings and ran for approximately 2 - 3 hours. Government of Nunavut Polar Bear Biologist, Alyssa Bohart, Associate Deputy Minister, Jason Aliqatuqtuq, and Senior Wildlife Advisor, Jonathan Pynn, facilitated and led the meetings. Each presentation started with opening remarks from A. Bohart, J. Pynn, and J. Aliqatuqtuq 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 historic management background, and a detailed overview of the results from the 2017-2018 polar bear abundance study and 2019 IQ study conducted in DS (Appendix 1). The participants were invited to ask questions, raise concerns, or provide recommendations throughout the meetings. At the end of the meeting, the GN position on the TAH for DS was presented. After the presentations, questions/discussion continued until no further questions were raised, or until the HTAs adjourned the meeting. HTAs were left with discussion questions regarding the studies and DS management objectives from ENV to internally discuss and send responses to ENV. The Pangnirtung and Amaruq HTAs expressed support at the end of the meeting for the recommended TAH.

3.0 Summary of Consultations

This summary combines the general themes and ideas generated from the three HTAs. For specific commentary and participants in each consultation, please see Appendix A.

Comments and questions:

- HTAs expressed general support for the proposed TAH recommendation or did not comment at the time.
- HTAs reported decreased polar bear harvest in DS was due to low hide prices.
- HTAs reported concerns about the increase of bears since the 1970s and risks to public safety.
- HTAs expressed that they would like more collaboration in future studies.

Appendix A

Davis Strait Polar Bear Abundance and IQ Reports Consultation Meeting Notes

Location: Pangnirtung HTA office
Date/Time: May 8, 2023
Start time: 19:00
End time: 22:42

Participants

Mark Kilabuk (HTA Manager)
Simeonie Keenainak (HTA Chairperson)
Billy Etuangat (HTA Vice-Chairperson)
Kelly Kilabuk (HTA Secretary-Treasurer)
Lazarusie Ishulutuq
Patrick Kilabuk
Jaco Ishulutuq
George Qaqqasiq
Manasie Maniapik
Alyssa Bohart, Polar Bear Biologist, GN ENV
Jason Aliqatuqtuq, Associate Deputy Minister, GN ENV
Jonathan Pynn, Senior Wildlife Advisor, GN ENV
Dominique Henri, Research Scientist, Environment and Climate Change Canada – call-in
Denis Ndeloh, Director of Wildlife Management, Nunavut Wildlife Management Board
Michael Ferguson, Director of Wildlife and Environment, Qikiqtaaluk Wildlife Board
Margaret Qumuatuq, Translator

Goal of meeting:

Provide an overview of the newest scientific and IQ information regarding the DS polar bear subpopulation as reported in the GN scientific study report and the IQ report. Discuss the GN TAH recommendation. Discuss any questions HTA has for both studies. Collect feedback and IQ on DS management.

Next Steps and Action Items:

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

- **Jaco** asked: Do you biopsy mothers or cubs or both?
- **Mike**: Questions about the graph. 2017-2018 what is the exact number from those graphs?
- Email HTAs the harvest management questions.

The Department is looking into questions and concerns raised during the consultations and are working to resolve them.

Longer term Action Items (next 2-3 months):

- NA

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 abundance and IQ study and to hear HTA feedback.

Abundance study background slides: Review

- **Kelly**: Why the decision was made to not cover the same area that was covered in the 1970s, just to do a comparison?
- **Alyssa**: So my understanding of it is that in the 1970s, they didn't cover some of the areas that were covered in the 2005-2007 survey. I know in the 1970s, they found a pretty low estimate and then in the 1990s survey, it showed a doubling of the population. So we really don't compare to the 1970s because now we are able to cover more area and the methods have improved to get a better estimate.
- **Lazarusie**: I want to comment on the 1960s. Back in the 1960s you didn't see polar bears even when travelling far, across the Cumberland Sound. In the 1980s when caribou were abundant, that's when you really started to see a lot of polar bears. It was like being greeted by many dogs or many people when you reach the land after boating. That is how it is now compared to the 1960s. It's a worrisome matter now and a safety issue. I am very concerned for youth because of the abundance of the polar bears. I was very close to death last year. My wife luckily saw the polar bear, so therefore we saw the bear before it attacked.
- **Alyssa**: Thank you for sharing.

Abundance study methodology/field work: Review

- **Billy**: Do you mark all bears?

- **Alyssa:** No. We try to mark as many as we can, but there are times, such as females with cubs, that we don't want to mark because it would stress them and we want to avoid that.
- **Jaco:** Can you talk more about cubs? Why don't you mark cubs?
- **Alyssa:** For an example in the Davis Strait area, cubs are often climbing with females near steep areas, so there may be a chance of them falling or being injured. In those situations, we avoid them altogether for the bears safety. I'm not sure if that answers your question?
- **Jason:** I think he is asking do you biopsy mothers or cubs or both?
- **Alyssa:** I'll have to double-check the report, but I think in some cases they will biopsy dart cubs, but not in a dangerous situation. Another example is that if the helicopter has taken awhile to try and get close to the female and they have been running more than 2-3 minutes, they won't biopsy because they don't want the bears to overheat.
- **Jaco:** Thank you for the clarification and I'm sharing of IQ concerns: cubs they are a special category. Because of that, we are told to not play with them, and not to biopsy them. That's been a long Inuit tradition understanding is to not disturb the cubs at any point. It's not something to play around with.
- **Lazarusie:** Before any kind of research was conducted and after research began in the mid 1970s, it started affecting the food. Because they are being researched and they are being darted, to me the food and taste is different. It is affecting the gathering together of a family, of a community. Once it was caught, it would be consumed by everyone and enjoyed thoroughly. But since they are darted and research is having conducted, it has affected the way we eat polar bears. Before I would make stew, but now I do not eat it. It is my choice to not eat it anymore.
- **Alyssa:** Thank you for sharing.
- **Alyssa** stressed we don't handle or drug bears with the biopsy darting. Collects a bit of fur, skin and fat when it falls out.
- **Simeonie:** How many polar bears does your department want to see to be satisfied that there is enough bears?

20:30 – 20:45 Break

Abundance study results & harvest: Review

- **Alyssa:** I don't know exactly what's been done in the past, but at least during this process, we looked at the health of the population. We're not necessarily looking for an exact number of bears per survey. We'll take a number of factors into consideration when we go out for a survey. For this study, we looked several things including the number of bears.
- **Simeonie:** Please understand and know the polar bears as they are now, with the abundance of polar bears on our environment and our ice, it's a big safety concern. They are putting people in danger, with the abundance of polar bears in Davis Strait. Please know now that as a polar bear biologist, know these facts that this is a big safety concern. You are teaching bears to not be afraid of humans as they had been. It's becoming more and more that they are not scared of humans at all, so you are putting human lives at risk with the abundance of polar bear.
- **Alyssa:** Thank you.
- **Jaco:** I would like to know the paper I am holding onto, who are they? (The IQ Summary).

- **Alyssa:** I'm not quite sure of the question.
- It was mutually discovered and discussed by the room participants that they were who participated in the IQ Study.
- **Kelly:** Do you find any carcasses along the way doing the survey?
- **Alyssa:** I don't believe they found any dead bears as it wasn't noted in the report. I don't believe they found any dead bears during this research.
- **Peter:** Do the polar bears live up to 12 years?
- **Alyssa:** Bears can at least live up to 12 years. We use the age we first find them at; then we look at what happens when we find the bears again. Sometimes they've been found to live up to 30 years based on science, but that isn't the norm, based on science.
- **Kelly:** No offspring in some years. Some years with no sub-adults. Did you not see them or not do any biopsies?
- **Alyssa:** This is a bit of a complicated graph. We only collected field data in 2005-2007 and 2017-2018. Otherwise we use what we get from harvest samples. We use simulations to fill in the time periods. The reason we don't have much cub data is because they age up into subadults and adulthood, so we only know of cubs when we collect data and use the simulations to help fill in the information.
- **Jaco:** How about the teeth that are sent for samples? How are they used in research?
- **Alyssa:** We send those for age testing by cutting them and counting growth rings.
- **Mike:** Questions about the graph. 2017-2018 what is the exact number from those graphs?
- **Alyssa:** I don't have the exact numbers but they're in the report and I can send them to you.
- **Mike:** Follow up question. Biologists can't say we don't know how many animals are on the land. I believe Alyssa can say what she believes, but I can't say that. There are some dotted lines on the graph that mean a confidence interval. The confidence intervals don't really show, based on my interpretation of these graphs, that the population decreased. I'm giving you this information as a biologist. I want to point out that the hunters are saying that there are more and more bears. I don't think there is disagreement between biologists, there may be disagreement in the data they are seeing may contradict what hunters are seeing on the land. The science presented is the best that we have but may not be the best that can be done.
- **Alyssa:** I wouldn't compare the science and the IQ. Dominique can provide some of that information when she speaks. The methods aren't confidence intervals, they're credible intervals because it's a Bayesian method. We consider the probability that the population falls in this range. It is important to point out the range and that the numbers can fall somewhere in between these dots, but the chances are highest that the estimate is in the middle, not at the ends. We consider this the most confident and most defensible estimate.
- Abundance is just one thing we looked at. We also looked at the health of the bears and other considerations when we are making management decisions.
- **Mike:** It says there is no quota from Quebec. But then you say these numbers. How confident are you that the Quebec hunters are reporting every harvest.
- **Alyssa:** There is no requirement for reporting in Quebec. They get those numbers from hunters who go to get an export permit. I can't speak to Quebec's management system.

Their scientists, in speaking with them, are pretty confident that the export permits are a good way of tracking Quebec harvest.

- **Lazarusie:** Before the quota system was introduced, hunters could freely hunt bears, but didn't because you didn't see them all the time. Now we can sell the pelts and we get compensated. Today we have no economic value from polar bear hides. Today, we can't even sleep in tents nor igloos anymore because of the abundance of polar bears. There's a quota, and we can't sell, what do we do now?
- **Alyssa:** That's a really good question. Thank you for your comments. I can't speak to the price of the hides, unfortunately it is not something that we can control. I've heard that the price of hides and other types of fur has decreased in value across the world. I'm hopeful that the prices will eventually go back up and hunters can get money from hides, but that's not within our control and it is definitely an issue we recognize.
- I wanted to show you this graph of DLP kills. There are spikes in some years but generally less than 10 per year since 2000-now.

21:25 – 21:40 Break

Dominique Henri presented slide show with brief background and results on the IQ study. These slides were not reviewed in advance, but done as a separate, but included section. Dominique had met with the HTA Board in March and provided physical copies of the IQ report with the HTA. Dominique presented on some key points from the report and how the findings from the abundance and IQ study fit together to provide a more complete picture of DS polar bears.

IQ study: Review, no questions

Alyssa Bohart presented slide show with the GN TAH recommendation. She gave the HTA Board options to provide answers to discussion questions via email at a later date, but the board could also share initial thoughts within the current meeting.

Questions from presentation:

- Do you agree that the number of polar bears stayed relatively the same over time?
- Are there enough bears to harvest? Are there too few? Too many?
- What did you observe in the bears' body condition over time?
- Is there anything special that you observed and wanted to share with us?
- Where do you agree/disagree with our findings?
- Think about how your HTO would like to manage the Davis Strait subpopulation?

Harvest management and TAH recommendation: Review

- **Denis:** When you look at the actual harvest, the average harvest has been 44 bears per year. So with this below TAH, how does this factor into meeting the management objective to reduce the populations?
- There's a slide that shows there may be interjurisdictional processes. You're also saying there could be other processes. Maybe we can have this discussion after. How does the Government of Nunavut see this moving forward? How does that factor in when we go into the multi-jurisdictional decision-making processes?
- Translator stated she's losing her voice.
- **Simeonie:** Would like to comment that the Pangnirtung residents are happy with the system as it is now. It's working for everyone. If you see a polar bear, you can hunt it. We

follow the guidelines and don't overharvest. The population of Pangnirtung is increasing so you need to factor this into consideration. The Pangnirtung hunters are happy with how the system is now.

- To the researchers so far, this is something that is going to happen now. This is something that will go on maybe forever now, whether it increases or decreases. But we all have to work together. It's for the future and we need to work together.
- **Jason:** Here's an opportunity for western science and Inuit knowledge to be amalgamated. We also have to go meet with two other HTOs. Here's a chance for this HTO to make their voice known. The *Nunavut Agreement* states that Inuit must be given equal opportunity and we all provide that input to the *Nunavut Agreement* to the NWMB as a main instrument who will make that decision.
- **Mike:** For multiple communities that harvest from the same subpopulation, it's the role of the RWO to make a presentation to NWMB on what's in the *Nunavut Agreement* to make a valid conservation purpose for DS polar bears. There's a disagreement between the science and the IQ. Is the rate of the decrease good enough to satisfy the public safety concerns? I'll take what I hear here and the other communities and bring it to NWMB.

Participants were thanked for attending, and their feedback.

22:42 Meeting End

Davis Strait Polar Bear Abundance and IQ Reports Consultation Meeting Notes

Location: Amaruq HTA office

Date/Time: May 9, 2023

Start time: 19:00

End time: 21:42

Participants

Sally Mikijuk (HTA Manager)

Jimmy Akavak (HTA Chairperson)

Noah Alookie (HTA Vice-chairperson)

Adamee Itorcheak (HTA Secretary/Treasurer)

Kathy Hanson

Archie Angnakak

Nash Sagiatook

Jetaloo Kakee

Dinos Tikivik

Alyssa Bohart, Polar Bear Biologist, GN ENV

Jason Aliqatuqtuq, Associate Deputy Minister, GN ENV

Drikus Gissing, Director of Wildlife Research, GN ENV

Dominique Henri, Research Scientist, Environment and Climate Change Canada – video call-in

Denis Ndeloh, Director of Wildlife Management, Nunavut Wildlife Management Board

Bert Dean, Assistant Director, Nunavut Tunngavik Inc.

Michael Ferguson, Director of Wildlife and Environment, Qikiqtaaluk Wildlife Board
Jacopoosie Peter, Translator

Goal of meeting:

Provide an overview of the newest scientific and IQ information regarding the DS polar bear subpopulation as reported in the GN scientific study report and the IQ report. Discuss the GN TAH recommendation. Discuss any questions HTA has for both studies. Collect feedback and IQ on DS management.

Next Steps and Action Items:

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

- **Mike:** How many bears were sampled from 2005 – 2007 and from 2017, were they also sampled in 2018? What are those numbers?
- **Jetaloo:** The oldest data is 2005-2007, are you able to report on the older studies? Knowledge of the past?
- **Mike:** 2 Requests – says here during 2017 – 2018 you captured 177 bears, originally captured in 2005/07 this is only my suggestions, this is only a request, I appreciate seeing a map to show where they have been marked. The second map I would like to see is 2017 and recaptured 2018 the one year period, so we can see where the marked bears only. How much movement that took place. Maybe you can send the maps to the HTOs please.
- Email HTAs the harvest management questions.

The Department is looking into questions and concerns raised during the consultations and are working to resolve them.

Longer term Action Items (next 2-3 months):

- NA

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 abundance and IQ study and to hear HTA feedback.

Abundance study background slides: Review

- **Archie** in reference to the 2005-2007 estimates: the estimates seem to be out-dated. That's 16 years ago in Davis Strait. That was a great loss of that biologist.
- **Alyssa:** I am presenting from 2005-2018 and comparing the old numbers that show the health of the population. This will tell us the health of the population. I will be happy to discuss again after the presentation.

Abundance study methodology/field work: Review

- **Mike Ferguson:** How many bears were sampled from 2005 – 2007 and from 2017, were they also sampled in 2018? What are those numbers?
- **Alyssa:** I do not have those numbers, I will look at those numbers and email them to you. We have the 2005-2007 collar data, new biopsy data, and also harvest samples from hunters. Those are the data we are able to use right now.
- **Jetaloo:** The oldest data is 2005-2007, are you able to report on the older studies? Knowledge of the past?
- **Archie:** I think he was touching up on commercial, baseline information. 2005/07 that history.
- **Alyssa:** I do not know, this is my first time hearing it. I can look into it.
- **Jetaloo:** I was not born in the 1800's. I was born in 1942, used to think that Pangnirtung had no polar bears, only in Cumberland sound. In 1960 moved to Iqaluit, there were bears here in Iqaluit before it became populated. None here to be seen like my ancestors knew about bears, they seem to have no fear of humans when DEW Line came. These elders have a lot of knowledge.
- **Jimmy:** Can you combine Inuit oral history and your studies?
- **Archie:** Inuit Knowledge is included, wildlife is very clear in there. Very valid as far as he is concerned.
- **Jetaloo:** the experts – when does the cubs tooth emerge? Nobody knew, I didn't know.

Abundance study results & harvest: Review

- **Mike** in reference to the survival graph: How did you get those results?
- **Alyssa:** The model will generate all the numbers, it predicts this pattern. It could be similar to how scientist look at climate change.
- **Kathy:** what are the differences between Newfoundland bears and Nunavut bears? How does this pattern model your predictions?
- **Alyssa:** Great questions. There could be differences. I don't have an answer. I think it could tie in with the IQ study. Dominique can answer that question.
- **Jimmy:** Bears numbers in Newfoundland Labrador?
- **Alyssa:** We only have an estimate for bears in Davis Strait as a whole. I'm not sure what local hunters have seen in that area.
- **Mike:** Go back to the slide presentation. Very few in Hopedale.
- (Slideshow reversed)
- **Alyssa:** thank you Mike.
- **Adamee:** 2017 – samples data, does that go to the baseline, where the numbers are, the more you put in, the more you get. Where does the data come from? I understand, doesn't really change, when we go out there we see more.
- **Alyssa:** Are you talking about the sampling you get from hunters?
- **Jetaloo:** IQ, there are more bears, helicopter counts, the quota doesn't change, the money watchers government too obstacle or delays funds, elders are getting a little credit. It seems that it wasn't really listened to.
- **Alyssa:** Thank you.

20:00 – 20:15 Break

- **Jimmy:** we can start again. Alyssa you are going to present more?

- **Alyssa:** Yes. I was just reminded by a colleague that harvest samples from 2005 – 2018 provides data when a bear dies from harvest, this also goes into the survival estimate. The last thing we calculated was the abundance. There was a slight decrease from 2,250 to 2,015 bears, possibly due to increased harvest. In the IQ studies elders have identified ring seals numbers have gone down, less seals might also mean less bears. When we look at recommending a management decision, we use all that information [survival, body condition, reproduction] on top of the abundance to make decisions. Any questions?
- **Jetaloo:** I don't have similar knowledge, I don't worry about seals, but now I think about it more, seals diet are shrimp and fish. All wildlife follow their diet. I would also thought of scientist like that too, only seeing. I used to think like that, I no longer think like that. When you become older you will realize this as well.
- **Alyssa:** This estimate is for the whole Davis Strait area, so it doesn't necessarily mean that the bears aren't increasing in your area. Any other questions?
- **Archie:** With the notion you gave us, we know that bears harvest bearded seals, and ringed seals are less, possibility that they are out in the ocean. The numbers you are collecting are from August to October is coastal, there is a possibility they are out in the ocean. They could be out in the ocean. The population of the harp seal numbers, right now are great. They can easily go to another zone because they are known to swim 200 miles just by swimming. Previous studies, studies we heard in the past using collars, is there was one region where bears move. We have seen videos of them harvesting harp seals, bearded seals, seen them eating tons of eggs. They've moved. Results, scientists say they are decreasing, other line/zones might be increasing, that's where they are going. Elders knowledge is not in here, it should be. We've seen videos of them harvesting a harp seal. Should check to see if they moved to another zone. They eat eggs where the birds nest. With the elders knowledge you get to learn more. They moved to the adjacent zone, for that particular zone to be increasing. You should be open to that. Using that to determine the tags, maybe they moved to the adjacent zones.
- **Jimmy:** Thank you Archie.
- **Alyssa:** Thank you for sharing what your observation is. You make a good point on the collar data. It is the most precise data we can collect to see where bears are moving. What's been done in the past, is they used the old collar data to make the boundaries for Davis Strait. They've done genetic studies in the different areas, using that data too, and that's the best outline we can make using that data. You are right, bears don't see that line, we do not know exactly when they move over the boundary. For the most part, they usually stay in the same areas.
- **Archie:** My concern is when the scientists say they are doing well. We should work together since day one: the systematics, drones, watching whales, wildlife. We have a commercial industry that exists, a lot more expensive than helicopters collecting data. I prefer collaring as it is more accurate. Collaring is the best. Come to a consensus [with methods]. Invasive [methods, bears] can get scarred, and aggressive. Technology can be organized for proper polar bear management, responsibilities as well. We need a harvest study with planning stages, consulting, need a lot of improvement. Pretty close to getting proper numbers. Something well rounded for our members, asserting our rights as an HTO. We were supposed to be involved in the study, making sure it is thorough. That's our right. To do it, we need to work together.
- **Dinos:** Stories I heard growing up, 1970's to now, my relatives lived down in outpost camps, 1960/1970 were lucky to see a bear every 2 years. His uncle lived in Minngutuuq, saw polar bears live in water. Between March and May, come inland to hunt seal pups on the ice. Between January and May, chance of finding on the ice. Last year I went to

Alingatuq near Tinituqajaq during late fall. We saw 15 – 16 bears, 5 with cubs. Late fall hunting in shallow water. I usually go in April or May when they are hunting on the ice. I find there are more cubs, now a lot more.

- **Mike:** 2 Requests – says here during 2017 – 2018 you captured 177 bears, originally captured in 2005/07 this is only my suggestion, this is only a request, I appreciate seeing a map to show where they have been marked. The second map I would like to see is 2017 and recaptured 2018 the one year period, so we can see where the marked bears only. How much movement that took place. Maybe you can send the maps to the HTOs please.
- The vertical lines are 90% chance, real numbers of bears. 2005 crudely where the other dots are, my interpretation, she probably has her reasons why the numbers vary, biologists included bears overall. I just want to let the hunters know that estimates that come from these studies, very good graph/picture that Alyssa has shown credible intervals, the estimates are among those lines. Bears might die some are born, science manages, that's my comment.
- **Alyssa:** For the map, I can't give you a timeline of that due to low staffing. I might have to compare and put that together. I can get back to you on that. Time consuming, but will look into it. I'd like to point out and talk about collaring and "credible intervals" data. The credible intervals are shorter in the 2005-2007 estimate because this used collar data, it is more precise. When they consulted with the HTO for the 2017-2018 survey, they indicated to move away from collars and use biopsy genetic data, we do get a wider interval, but the area covered was same for both. Comparison between the two, keeping them the same. There is always a level of uncertainty with numbers. We look for a trend.
- **Archie:** Timing intervals August and October, polar bears are apex predators, the seals pups are born in spring. This has been the same year after year. From August to October is when they migrate, they aren't there. The prime is spring when the seal pups are born far from August to October. You should do these studies during spring when they are going for prey based on Inuit Knowledge, you should use it. Prime time is a month while the ice is still there. Respectively studying should be now, Spring, rather than August to October.
- **Jetaloo:** You have a burden and you will carry it. Polar bears destroy duck nests are destroyed and cabins, government (insurers) always need proof.
- **Alyssa:** Thank you.
- **Jetaloo:** (Pointing to slideshow) That hide is not cut up properly. Explains why it was cut wrong.

- **Archie:** Thank you Chair. Do defense kills come from quotas?
- **Alyssa:** Yes.
- **Archie:** That is a defence kill not allowable harvest. That contradicts under the Land Claim.
- **Jetaloo:** Take away from quota, as elders, if a person is stranded and hungry, they should not have to look at numbers. They should not have taken off the quota under the land claim.
- **Adamee:** Two things - Satellite technology is one thing that can be used. Two, direct recipients. We were not HTO members because we were dealing with researchers, Peregrine, polar bear, geologists, caribou biologists, minerals overlapping. Four helicopters going off at the same time so many helicopters that disrupted the animals and made them move to where there were no helicopters/noise. It's nice to have studies, but they are going to do that.

- **Mike:** Allocations – defense kills how can it impact your quota? Defense kills come off the credit. They had to come through the board. Credits should not be coming off the quota.
- **Archie:** Recipient of that claim – nothing. Total allowable harvest. Is total allowable harvest asserting ourselves? This has nothing to do with the credit, quota. Defense, that is not total allowable harvest. That is completely separate. Asserting ourselves under the claim.
- **Mike:** When credit system was developed in the 1980's, 1990's, through the Nunavut agreement, credits carry forward from unused bear tags, quotas were not related to defense kills. People ask for and it was what it was about.
- **Jetaloo:** I'll be good. Credible, anywhere it has been getting blizzardy, the cycle is getting unpredictable, it may be snowing a lot but not ice, the ice is getting uncertain, our trails climate should be considered in the process. We lived at a time when weather is not a concern. Back then, we depended on oil (seal), now it is fossil fuel.

21:15 – 21:30 Break

Dominique Henri presented slide show with brief background and results on the IQ study. These slides were not reviewed in advance, but done as a separate, but included section. Dominique had mailed physical copies of the IQ report to the HTA Board in March. Dominique presented on some key points from the report and how the findings from the abundance and IQ study fit together to provide a more complete picture of DS polar bears.

IQ study: Review

- **Archie:** Thank you very much Dominique for your presentation, very interesting. There are less of ring seals. In the 1960's I was 200 miles due west from Resolute Bay, still moving to Russia. Like every other animal like birds, moving with the magnetic field, we see more mallard ducks, snowy owls, bumble bees, warble flies. Change is happening in the animal kingdom. All wildlife is all connected to the magnetic field, keep that in mind. Goes right down to insects. I also believe the elders saying that the polar bears are increasing. Keep that in mind that the magnetic field is moving, further north they are even seeing mosquitoes when there never used to be any before.

Alyssa Bohart presented slide show with the GN TAH recommendation. She gave the HTA Board options to provide answers to discussion questions via email at a later date, but the board could also share initial thoughts within the current meeting.

Questions from presentation:

- Do you agree that the number of polar bears stayed relatively the same over time?
- Are there enough bears to harvest? Are there too few? Too many?
- What did you observe in the bears' body condition over time?
- Is there anything special that you observed and wanted to share with us?
- Where do you agree/disagree with our findings?
- Think about how your HTO would like to manage the Davis Strait subpopulation?

Harvest management and TAH recommendation: Review

- **Archie:** Involvement with managing polar bear with harvesting area. When it comes to making a decision on Davis Strait, I would love to see other areas. One zone decreased,

the two adjacent ones increased, because the bears travelled to those zones. Culling program, one decreased one increased. Hitting the mark. Keep in mind, like our elder said, the younger generation, there is ton of preparing, losing culture, different polar bears, like he pointed the hide that he was talking about. A lot of our younger generation won't understand when you say "naglitugit". Start developing, younger generation with an elder, we have that power, we have to start now how to work together, get extra funds, we heard you, we can help you. Sake of life, only to shoot only when the bears are looking at you, don't shoot it when it isn't looking. Cultural erosion. Ensure GN help them get funds, drones, these are the things we can do. This will be a sound. Thank you, Mr. Chairperson.

- **Jetaloo:** In Iqaluit, our hunting season for polar bears is from July to June. We can get reports on the ice conditions from the radio.
- **Mike:** Thank you on behalf of QWB, QWB is actually made up of chairmen of the HTOs so HTOs are QWBs bosses. Continue to work with you to coordinate everything.
- **Adamee:** We have not seen this type of meeting in quite a few years. We dealt with a lot of researchers and finances. This is the first in a long time we have actually dealt with wildlife issues. Our cultures, our mandate is to serve our members and deal with wildlife. We have to touch on a little bit. We need to deal with a long of things.
- **Jimmy:** Thank you Alyssa you did not throw anything at us. We just need to work better. If you need space or the boardroom just let Sally know. Work together more, it was very informative for me.

Participants were thanked for attending, and their feedback.

22:05 Meeting End

Davis Strait Polar Bear Abundance and IQ Reports Consultation Meeting Notes

Location: Mayukalik HTA office

Date/Time: May 11, 2023

Start time: 19:08

End time: 22:14

Participants

Killiktee Padluq (HTA Chairperson)

Rosie Akavak (HTA Vice-Chairperson)

Sandy Akavak

Jawlie Akavak

Jawlie Mingiriak

Nathan Padluq

Alyssa Bohart, Polar Bear Biologist, GN ENV

Jason Aliqatuqtuq, Associate Deputy Minister, GN ENV

Matilde Tomaselli, Wildlife Researcher, Polar Knowledge Canada

Denis Ndeloh, Director of Wildlife Management, Nunavut Wildlife Management Board

Kolola Pitsiulak, Executive Director, Qikiqtaaluk Wildlife Board

Michael Ferguson, Director of Wildlife and Environment, Qikiqtaaluk Wildlife Board
Naomi Akavak, Translator

Goal of meeting:

Provide an overview of the newest scientific and IQ information regarding the DS polar bear subpopulation as reported in the GN scientific study report and the IQ report. Discuss the GN TAH recommendation. Discuss any questions HTA has for both studies. Collect feedback and IQ on DS management.

Next Steps and Action Items:

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

- **Mike:** Another point, a request to Alyssa, is she mentioned at one point that maybe in Nunavut, well she didn't say this exactly, but the population is increasing in Nunavut, but decreasing in Quebec and Labrador. Well the reality is that they did studies in both places and I would ask the government to provide us with their two sets of estimates, their estimates for the population in Quebec and Newfoundland and what the changes were between 2005 and 2018, and I think they have the data or they could generate the results to answer that question.
- Email HTAs the harvest management questions.

The Department is looking into questions and concerns raised during the consultations and are working to resolve them.

Longer term Action Items (next 2-3 months):

- NA

Meeting Notes:

Question to Group after Introductions:

The meeting began with introduction of participants. The IQ study was presented first because the presenter was in a time zone ahead of Eastern Daylight Time. **Matilde Tomaselli** presented slide show with brief background and results on the IQ study. These slides were not reviewed in advance, but done as a separate, but included section. Dominique Henri (a co-author on the IQ report) had tried to meet with the HTA Board in March 2022, but weather did not permit it. Alternatively, she sent physical copies of the IQ report to the HTA and Matilde was presenting the content of the report relevant to Kimmirut, that Dominique had tried to present in March, in this meeting. Matilde presented on some key points from the report.

IQ study: Review, no questions

- **Sandy:** Would you know or was there any report on what happened or why there was fur loss?
- **Matilde:** Thank you for the question, we asked that question and people reported that it could be related to ice injuries and there is a wide range of things that could cause that, but we cannot know for sure.

- **Sandy:** I asked the question so the other members could understand what could have caused the fur loss. Yes, I understand it could be coming off from being around the ice for too long. Sometimes when they've been swimming too much and they have to go through thin ice coming in and out of that causes fur loss.
- **Matilde:** Yes, we recorded that in interviews and it was included in the full report. Thank you for sharing that with us.

19:58 – 20:16 Break

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 abundance and IQ study and to hear HTA feedback.

Abundance study background slides: Review, no questions.

Abundance study methodology/field work: Review

- **Killiktee:** What do you mean by mark? Do you physically mark it?
- **Alyssa:** On my next slide I'll explain, that's a great question.
- **Mike:** The lines of the study area, doesn't include Greenland, but on the map [in the room] Greenland is apart of Davis Strait. Has this changed? If Greenland is part of it, was a similar study done in Greenland in 2017-2018?
- **Alyssa:** What I do know is that we do have to work with Greenland on this subpopulation, but I'm not familiar if they did sampling in their region. For this report, we're just talking about the Canada results. I'd have to look into that further for you.
- After the next break **Alyssa:** I checked and Greenland doesn't really harvest out of DS and so we don't have to be concerned about their harvest and therefore don't survey that area for management purposes. We do have to work with Greenland when we work on Kane Basin and Baffin Bay.

Alyssa presented on the key results and how the findings from the abundance and IQ study fit together to provide a more complete picture of DS polar bears.

Abundance study results & harvest: Review, no questions.

21:03 – 21:15 Break

Abundance study results & harvest continued: Review

- **Mike:** Just to give an example, Baffin Bay was surveyed years ago and they said the population was definitely decreasing and so they reduced the quota. And after that, the Inuit in that area kept on insisting polar bears were increasing not decreasing. So biologists reanalyzed the old data in a new way and the biologists found that the population actually had increased, so the quota went up. Inuit are often right.
- **Sandy:** What I know, there's an increase of polar bears up to today. When they first started surveying in 1970, 1965, up to this day there is an abundance of bears. When I was

younger, as a boy, I never heard or know no polar bears here. Long ago there was lots of polar bears, but at the time I was born, there was no polar bears. I don't want to, but I predict that the polar bears might start declining again.

- I think, because around here there are hardly any more seal in our hunting areas, I want seal meat, but we can't get it because there's none around. It's hard, we come home empty handed. Now, seals are a polar bear's main meal. Knowing that, not much seals in this area, polar bears may move away from our area or decline. This has happened to other animals, for example the caribous were declining so much faster than before. Now there is hardly any caribou, but I know they will become abundant one day.
- You as biologists are not getting enough help from the locals, they're not providing you with enough information about the polar bears. They could be funding the local HTOs for the ground survey. The community hunters could go out and collect. That way if there is funding from sources, the locals could help with the survey that you do. We could be a great help if we were given funding to do a ground survey on polar bears. The locals could start going by skidoos down towards south and they could also go northside. This would be a great help to you, I'm sure. Before when they started doing ground surveys, they were funded by the government to take the biologists out with them. I don't know what happened, it just kind of suddenly stopped. I know for a fact that it would be a great help to you as biologists if we start doing a ground study from each community. I'm sure it would be a lot less expensive to do a ground survey.
- **Alyssa:** Thank you very much and we will be coming back for the Foxe Basin survey, so that is something we can think about for that survey.
- **Sandy:** I know that it worked that time we did a ground survey.
- **Denis:** The NWMB has some funding for the community or HTO to do some of the work that Sandy is talking about. It's not a lot, up to \$50,000 to fund wildlife studies or \$50,000 for IQ studies.

Alyssa Bohart presented slide show with the GN TAH recommendation. She gave the HTA Board options to provide answers to discussion questions via email at a later date, but the board could also share initial thoughts within the current meeting.

Questions from presentation:

- Do you agree that the number of polar bears stayed relatively the same over time?
- Are there enough bears to harvest? Are there too few? Too many?
- What did you observe in the bears' body condition over time?
- Is there anything special that you observed and wanted to share with us?
- Where do you agree/disagree with our findings?
- Think about how your HTO would like to manage the Davis Strait subpopulation?

Alyssa presented on how the findings from the abundance and IQ study fit together to provide a more complete picture of DS polar bears.

Harvest management and TAH recommendation: Review

- **Sandy:** We don't really hunt polar bears anymore because there are not much buyers for the hides. If we could ship them out raw, not dry, we might do that. We don't really want to hunt polar bears anymore because there's not a lot of ladies to clean the hides and at

the same time the cleaners will ask for a high price to clean the hide. A lot of hunters are seeing polar bears, but not hunting them anymore. In the older days, they would've hunted everything they saw, but not now.

- **Denis:** Just a comment on how TAH decisions are made. NWMB has 8 board members. They are from different communities and help make decisions. The information will come from the government, requesting that a decision is made. I work for the board, I'm not a member. You can make a submission to the government who will send their submission to us, or you can send it to us directly. The board will make a decision on the science and IQ information.
- **Mike:** There are three points I'd like to make. As Alyssa has somewhat said, the numbers in these studies are not exact. There's a lot of variability in them and, so they can be interpreted using IQ and come up with different conclusions. Your conclusions from the IQ study seems to be that the population is increasing in your area and that's what all three communities have said.
- Another point, a request to Alyssa, is she mentioned at one point that maybe in Nunavut, well she didn't say this exactly, but the population is increasing in Nunavut, but decreasing in Quebec and Labrador. Well the reality is that they did studies in both places and I would ask the government to provide us with their two sets of estimates, their estimates for the population in Quebec and Newfoundland and what the changes were between 2005 and 2018, and I think they have the data or they could generate the results to answer that question.
- My last point I want to make is that the QWB and regional wildlife boards in general including the Kivalliq and the Kitikmeot, their role is to group together the points of view when there is more than one HTO involved, which in this case there are three HTOs involved. So, one of our roles is to work with you and the government on a view. So, for those questions that the GN is asking you to answer, for example, I don't know if the question is there, but do you think that the TAH should be increased? Well, that could be something that we discuss among the HTOs and through the QWB and the QWB provide the answer. I believe the question should be answered by the QWB working with the HTOs because that's our job. Not that you can't answer the GN directly, you can, if you wish, but we might be able to come up with better ideas with three HTOs and have a stronger view. That's all.
- **Sandy:** NWMB have the final say in the TAH?
- **Denis:** The NWMB makes the decision and forwards it to the government. The government has the ultimate responsibility. They can change the NWMB decision, but they would have to explain why.
- **Alyssa:** And for example, all recent decisions for polar bear management, the Minister has accepted what NWMB proposes. So there's not usually a discrepancy.
- **Mike:** Another example of how QWB may be able to help in all of these issues, is through what has happened recently with the Baffin island caribou. QWB has been effective with 10 HTOs on Baffin Island to get increases in caribou TAH on Baffin Island.
- **Sandy:** The question I have now was answered earlier. If the HTO works with QWB, I now understand that we can work with QWB and it can be handled that way when they are trying to make a quota.

- **Killiktee:** From QWB, it goes to NWMB?
- **Mike:** Yeah, QWB will send to NWMB.
- **Alyssa:** And the information that you guys provide us, the answers from the questions, we will include that in our consultation report that goes to NWMB. So, they'll also have that information from us.

- **Denis:** Question to Alyssa, do you have an idea on when the government will make its recommendation to NWMB for the Total Allowable Harvest?
- **Alyssa:** I can write up the report and I imagine the timing will depend on when we get feedback from the HTOs to include in the report. When would the deadline be Denis, for the next submission?
- **Denis:** Early August, first week of August.

- **Jawlie:** Further up north, how do they do theirs for the Foxe Basin area? How many do they harvest? Do they harvest all of the tags up there?
- **Alyssa:** I have the harvest table on my computer and can pull it up.
- **Denis:** Generally, the harvesting of polar bears in Nunavut is lower than the TAH, generally.
- **Jawlie:** The reason why I ask that question is because some other communities have requests to see if they can get their Kimmirut credits.
- **Alyssa** showing the harvest table: So this is the total, 123 for the whole of Foxe Basin. Last year, only 109 of the 123 were harvested. And this is Kimmirut, out of the 12, only 6 were harvested.
- **Killiktee:** The other communities will ask us for tags.
- **Mike:** I am told that some communities have no credit switch. Some communities, in the Kivalliq have no credits because they've had a lot of defence kills and that's why they're asking you for tags, because you have credits.
- If your community is interested in exchanging or just giving credits to other communities, or tags, you do that through the QWB, that's one of the roles we have. If you are willing to give tags to a community, you discuss it with them and how you're going to do it and when and then you send a request attached with a motion from your HTO and their HTO to the QWB. The QWB will indicate if it can happen or not, then the QWB will send that to the government and ask them to make the change in their documents. In most cases, it doesn't have to go to the NWMB.
- **Kolola:** If you want, you can always tell me and I can send your information to the department.
- **Killiktee:** Yes, we do get requests and they must go through the QWB, even before Kolola was here.
- **Mike:** Yes, I've been working with QWB since 2017 and I saw one request from Kivalliq communities requesting credits from here, but it wasn't very clear what they wanted. So, I asked them some questions on what exactly they wanted to do and I never got a reply from them.

Participants were thanked for attending, and their feedback.

22:14 Meeting End

