

To the organizations managing the Davis Strait polar bear subpopulation

In Canada, the Davis Strait polar bear subpopulation straddles Quebec, Nunavut, and Labrador. Together, the three Provincial and Territorial governments share responsibility for the management of this subpopulation. In early 2010, the Government of Newfoundland and Labrador, the Torngat Wildlife and Plants Co-management Board and the Nunatsiavut Government determined that the harvest of this subpopulation was disproportionately allocated across the three jurisdictions and did not meet Nunatsiavut needs. At the time of this request, there was no formal mechanism for the joint management of polar bear subpopulations. As such, the jurisdictions asked Environment Canada to assist in the establishment of a process that would provide recommendations to address this issue, as well as the opportunity to establish a structure to cooperatively manage this shared resource.

Representatives of all concerned Provinces, Territories, Wildlife Management Boards and other concerned organizations (hereafter known as the 'Interjurisdictional Davis Strait Committee' or IDSC), met in Montreal on 04 February 2010 to initiate this process. It was decided that in order to determine the appropriate allocation of harvest, it was necessary to provide advice on the establishment of a management objective, to set harvest levels in accordance with these objectives, and to appropriately allocate the harvest between the three jurisdictions. It was acknowledged that the management objective(s) should be based on conservation principles and should take into account concerns for human safety. It was determined that advice regarding harvest levels should be based on the best available western science and traditional knowledge, and should also include input from Users that harvest polar bear from the Davis Strait subpopulation. As such, it was felt to be most appropriate that User advice be sought via a User-to-User workshop. Upon receiving advice from all three sources, the IDSC would then review the information and provide recommendations to the authorities for their consideration.

To facilitate collection of the necessary information, a Core Group of participants from the IDSC planned a two-and-a-half day User-to-User workshop that was held in Kuujuaq, Quebec from 13-16 September 2010. At this meeting, participants (members of the IDSC and Users from the three jurisdictions) heard presentations from jurisdiction representatives on their respective polar bear management processes, as well as a presentation from Dr. Stephen Atkinson (polar bear biologist, Government of Nunavut) on the most recent western science population analyses, and a Nunavut public opinion survey presentation by Moshi Kotierk (Social Science researcher, Government of Nunavut). In addition, following an extended period of discussion, the Inuit representatives from Nunatsiavut, Nunavik and Nunavut presented two resolutions to the IDSC that were based on their traditional knowledge of the Davis Strait polar bears.

It should be noted that this process provided the first opportunity for Users from the three jurisdictions to meet face-to-face, exchange information and formulate common positions. Minutes of the meeting are appended to this document as Annex 1.

Summaries of these presentations are as follows:

Western science:

A population inventory conducted in Davis Strait between 1974 and 1979 estimated that the population size was approximately 900 bears. This study was carried out on spring sea-ice where access to some bears in the population may have been limited. As such, it is recognized that the study may have underestimated the population size. Results from a new mark-recapture study conducted during the fall of 2005 to 2007 were first presented in 2009, and provided an estimate of 2 142 polar bears (95% confidence interval, 1811 – 2,534). More recent analyses of these data now estimate the Davis Strait subpopulation to be at 2 158 (95% confidence interval, 1 978 – 2 338). The preliminary results, which were used to inform the initial Montreal meeting, suggested that the Davis Strait subpopulation was (as of 2008) likely to decline in the absence of harvest and that any harvest would be appreciably additive. However, more recent analyses of the data indicate the unharvested population growth rate was approximately 3.3% in 2008. Taking into account the current 5-year mean annual harvest, the growth rate was 0% (i.e. considering current harvest regimes, as of 2008 the population was neither increasing nor decreasing in size).

It was also noted that polar bear density in the Davis Strait subpopulation is very high at 5.6 bears/1 000 km² of sea ice¹, but that bears are currently showing relatively poor reproductive performance compared to other subpopulations. This may indicate that the population has reached carrying capacity (i.e. has peaked in size) and may decline in the future. It was further noted that a return to a lower density (i.e. a population decrease) is possible in the absence of any harvesting as a result of density-dependent processes and/or changes in environmental carrying capacity. Indeed, several lines of evidence support the prediction that the abundance of polar bears in the Davis Strait subpopulation will decline in future, including an aging population, decreased reproduction (i.e. low litter production rates and small litter sizes), as well as documented declines in body condition and size. Furthermore, if the current trend continues, a reduction in the quality and quantity of sea ice habitat, due to climate change, is predicted, and this may lead to reduced availability of prey species.

Biologists have prepared a presentation that summarizes their findings. This presentation is provided as an annex to this document (Annex 2).

¹. For comparison, densities in other seasonal ice subpopulations such as Baffin Bay, Western Hudson Bay and Southern Hudson Bay are approximately 3.5 bears/1 000km².

Aboriginal Traditional Knowledge and User experience

Inuit populations are encountering an increased number of bears near communities and out on the land, as well as more frequent human-bear interactions. They also report a rise in the frequency with which there is destruction to property including camps, snowmobiles and meat caches. This creates a significant negative impact on Inuit, and presents safety issues both within communities and for hunters out on the land. The Users also indicated that the increased number of bears was negatively impacting other animal resources that are important to Inuit for subsistence (e.g. predation of waterfowl species and their eggs). They also feared that this predation may have a notable impact on the survival of these species.

The Users present at the workshop in Kuujjuaq created two resolutions that are provided as annexes to this document (Annex 3 & 4).

Summary of conclusions reached following the Montreal meeting, the User-to-User Workshop, and follow-up teleconferences:

1. Polar bears from the Davis Strait subpopulation are abundant and, as of 2008, the population was probably stable. While it is likely that the population estimate from the surveys in the 1970's underestimated the abundance of bears in Davis Strait, evidence suggests that the subpopulation has increased since that time. As noted during the western science presentation in Kuujjuaq, a population decline may now ensue (see Annex 2), although at this time local communities and hunters are experiencing an unacceptable amount of negative impact from interactions with bears.
2. The Inuit Users have witnessed an increase in the number of polar bears in Davis Strait.
3. While the scientific evidence presented in Kuujjuaq indicated some degree of fidelity to sub-regions, as well as regional variability in survival and recruitment, there is currently not enough evidence to warrant a change in the delineation of this subpopulation. Should new information become available through further investigation and analyses, this issue could be reconsidered.
4. While Users are challenging the naming and overall notion of subpopulations, as well as current subpopulation delineations in general, western science suggests that the Davis Strait subpopulation represents an appropriate grouping for harvest management decision making and should be maintained (see point 3, above).
5. At the meeting in Kuujjuaq, some users noted that quota systems could create a perverse incentive to maximize harvest whereas a harvest management system not based on a definitive quota system may better align with traditional Inuit conservation values, thereby leading to a lower overall harvest. Accordingly, the users requested that a pilot project be set up for period of five years in Nunavut. During this time, the quota system, as currently defined, would be abandoned in Davis Strait. Note that such a system could include the recording of take and may

still impose other limits (e.g. take within a specific time period, “bag limit” or possession limit). While this concept has merits and is successfully employed in other hunting management regimes (e.g. waterfowl) it requires extremely careful consideration. Canada’s capacity to responsibly manage wildlife is scrutinized both within Canada and by the international community. This will need to be factored into decision making processes. It is important to note that discussions with management authorities since the Kuujjuaq meeting indicate that there is not a great deal of support for the concept of abandoning the quota system.

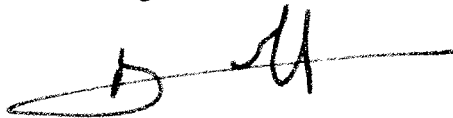
6. At this point in time a reallocation of the current harvest (i.e. a reduction in harvest in Nunavut and Nunavik coupled with an increase in harvest in Nunatsiavut) is unacceptable to the Nunavut and Nunavik representatives. Current harvest levels have been in place for some time and any notion of re-allocation was not met with any support at either the Montreal or User-to-User meetings.
7. There was consensus during the meeting in Kuujjuaq that, in jurisdictions where a quota will be used, a flexible quota system, that allows for unused harvest carry-over from one year to the next, and a longer hunting season (as is current practice in Nunavut) may provide an appropriate way to address some User needs, while adhering to conservation principles.
8. While Users have provided an extensive list of recommendations, it is important to note that some are within the purview of Provincial and Territorial governments, while others are the responsibilities of Wildlife Management Boards.
9. A management objective should be established for the Davis Strait subpopulation in accordance with effective management principles and taking into account the long-term health of the subpopulation. This management objective could be reached through a combination of natural and anthropogenic causes, as well as through an increase in harvest, coupled with a commitment to continued monitoring of the subpopulation.
10. In order to address Inuit safety concerns such as human-bear interactions and conflict, and considering the new population estimates and trend and harvest data, this management objective may be most appropriately set at a level that is below the current population size. During the meeting in Kuujjuaq, some Users noted that a management objective of 1 800 polar bears may be appropriate considering their harvest needs, and the level of human-bear conflicts.
11. Population modeling, carried out following the meeting in Kuujjuaq, and based on current numbers, suggests that an increase in Total Allowable Harvest of 12 bears should not have a notable impact on the Davis Strait subpopulation (i.e. population growth rate would be 0.99 ± 0.01 standard error).
12. It is important to note that, due to uncertainties associated with the pressures impacting this subpopulation, there are risks that reaching and sustaining a management objective may not be feasible. This risk can be mitigated by increasing the frequency of population surveys.

13. Any increase in harvest should be allocated first to Nunatsiavut Inuit as their current share does not reflect an equitable allocation of the harvest taking into account a much increased population of hunters in Labrador in recent years.
14. An increase by six bears/year (for a new Total Allowable Harvest of 12 polar bear/year) for Nunatsiavut could be supported. It is important to note that this recommendation was supported by participants from Nunavut, Nunavik and Nunatsiavut. For Nunavut, any change in harvest level would be most appropriately discussed through community consultations. Nunavik will retain the Guaranteed Harvest Level afforded under the James Bay and Northern Quebec Agreement.
15. For the 2011 season, the Nunatsiavut request for a quota increase may be addressed through the adoption of a flexible quota approach. In 2010, five (5) bears were left un-harvested from the quota of six. These five bears could be added to the 2011 quota.
16. Users should be encouraged to continue their participation in management decision-making processes through involvement in workshops such as one held in Kuujuaq. The opportunity to formalize this role, as has been done in the Western Arctic (i.e. Inuvialuit - Kitikmeot agreement), should be explored.
17. Jurisdictions should continue to coordinate decision-making both through specific, purpose building meetings and teleconferences, as well as through use of the Polar Bear Administrative Committee (PBAC). Use of the PBAC or informal contact will be necessary in some cases in order to meet the tight regulatory timelines of some jurisdictions. For example, in Nunavut management objectives and recommendations of TAH have to be submitted to the NWMB before February 2011 to allow for implementation in time for the July 2011/12 harvest season.
18. All incidences of human-bear conflict should be documented and reported on an annual basis to authorities who will share the data with the PBAC through the Polar Bear Technical Committee.

Recommendations

The Interjurisdictional Davis Strait Committee therefore recommends that jurisdictions,

1. recognize the thorough engagement of Users and managers from the relevant jurisdictions in this process,
2. use the information provided to guide appropriate decision-making,
3. ask the Interjurisdictional Davis Strait Committee, in collaboration with the PBAC, to continue its work, providing more precise recommendations for a management objective, associated Total Allowable Harvest levels and allocation of the harvest between Nunavut, Nunavik and Nunatsiavut,
4. independent from any changes to harvest level, adopt a flexible quota system in Labrador to address immediate Nunatsiavut requests for an increase in Total Allowable Harvest while efforts associated with recommendation 3 (above) continue,
5. as initiated through this process, continue to make collaborative Total Allowable Harvest decisions that acknowledge both the autonomy of each jurisdiction, as well as the shared nature of the Davis Strait polar bear resource,
6. review and update recommendations whenever new monitoring data or scientific population estimates become available,
7. conduct population surveys during the fall months, whenever possible, to ensure robust, compatible and accurate population estimates,
8. whenever possible, and subject to the availability of funds, conduct population inventories at intervals that match the harvest decision made.
9. If TAH is increased by 12 bears, jurisdictions should anticipate that some form of monitoring will be required within the next 10 years to manage risk that the population does not fall below 1 500-1 800 bears.
10. develop a standardized reporting system to be implemented across jurisdictions regarding encounter rates/human-polar bear interactions and defense kills so that changes in frequency are documented and are quantifiable,
11. explore with experts the determination of appropriate Inuktitut names for the subpopulation,
12. encourage jurisdictions to explore the benefit of systematically documenting Aboriginal Traditional Knowledge



Basile van Havre

On behalf of the Interjurisdictional Davis Strait Committee

Director, Population Conservation and Management
Canadian Wildlife Service, Environment Canada

Annexes:

1. Minutes of the Kuujjuaq User-to-User meeting
2. Western science presentation
3. Resolution #1 from the Users
4. Resolution #2 from the Users

**Davis Strait User-to-User Meeting
Kuujuaq, Quebec
September 14-16, 2010**

Minutes of the User to User Davis Strait Polar Bear Population Meeting, scheduled September 14 - 16, 2010 in the Town Hall, Kuujuaq, QC.

DAY 1: SEPTEMBER 14, 2010

Attendees:

Drikus Gissing, GNU	Jennifer Mitchell, Torngat Secretariat
Stephen Atkinson, GNU	Bruce Roberts, Torngat Wildlife & Plants Co-management Board
Paul Imqaut, NTI	Ron Webb, Torngat Wildlife & Plants Co-management Board
David Lee, NTI	Rebecca Willcott, Nunatsiavut Government
Moshi Kotierk, GNU	Derrick Pottle, Rigolet Polar Bear Hunter
Jayko Alooooloo, QWB	Todd Broomfield, Makkovik Polar Bear Hunter
Robert Kidd, NWMB	Ross Flowers, Hopedale Polar Bear Hunter
Kolola Pitsiulak, Kimmirut HTO	Isabelle Schmelzer, Government of NL
Joshua Kango, Iqaluit HTO	Veronica Dewar, Interpreter
Basile Van Havre, EC	Eena Alivaktuk, Interpreter
Rachel Vallender, EC	Jetaloo Kakee, Iqaluit HTO
Jamie Snook, Torngat Secretariat	Bobby Barron, HTA of Kangiqsuallujuaq
Stas Oplinski, Makivik Corporation	Johnny Peters, Makivik Corporation
Chris Corrigan, Facilitator	Beverly Blake, Torngat Secretariat
Dave Brackett, Facilitator	Charlie Arngaq, Avataq (President)
Gregor Gilbert, NMRWB	Jimmy Johannes, NHFTA Kuujuaq
Mark O'Connor, NMRWB	Raymond Ningeocheak, NTI
Bobby Epoo, NMRWB	Saqiqtaq Temela, Kimmirut HTO
	Pitsiulaq Pinguatuq, HTA of Kangiqsujuuaq, Nunavik
	Aqoyak Qissiq, HTA of Kangiqsujuuaq, Nunavik

PREPARATION OF MINUTES:

Beverly Blake, Torngat Secretariat

MEETING CONVENED

C. Corrigan, Facilitator, started the meeting at 8:53 a.m., asking J. Kango, Iqaluit HTO to open the meeting with a prayer.

C. Corrigan, Facilitator, initiated introductions.

B. Van Havre, Environment Canada

The idea of a user to user Davis Strait polar bear workshop came from interest expressed by parties from Labrador, Quebec and Nunavut related to the conservation and management of polar bear. They wanted to formalize discussions regarding the harvest of polar bears. In January 2010 the parties met in Montreal and one key element was to get users together to start dialogue. A core group was created at that time to organize such a meeting. There is a similar (and successful) ongoing process in the western arctic, as well as with Greenland.

Canada was able to show how well polar bears were being managed during a CITES meeting in Qatar

and so now there is a heightened responsibility to show that we are managing well. We are being watched closely and if there is a problem in one part of Canada it will reflect on rest of the country.

S. Oplinski, Makivik Corporation

Questioned the existence of a Davis Strait subpopulation of polar bears, or if all bears are a part of one large metapopulation. He asked, in the context of management, is it necessary to have a separation of populations.

R. Webb, Nunatsiavut

There are polar bears that den in Labrador, along with bears from the Davis Strait sub-population. He stated that it's a privilege for hunters in Nunatsiavut to go polar bear hunting and that the income is important to the hunters and trappers. When a bear is hunted, the meat is shared throughout the community and the head is contributed to the Newfoundland and Labrador Wildlife Division for science purposes. People have noticed the changes in weather and ice affecting the bears' movements (less ice means bears are moving on shore more).

J. Kango, Iqaluit HTO

Asked if Labrador hunters were represented when the boundaries were determined for the Davis Strait Sub-population. Nunavut people were not informed where the boundaries were being set.

D. Pottle, Nunatsiavut

Prior to the 1970s the provincial and federal governments did not allow the Labrador Inuit to hunt polar bear. A quota of 6 bears was given to the Inuit in 1995. A hunter in Nunatsiavut is only allowed to acquire a licence every three years – this restriction seems too long given the number of hunters and the appearance of an increase in the bear population.

Polar bear is who we are, part of us.

1978 was when the Labrador Inuit started to go north for the caribou, for 18 years it was rare to see polar bear. Over the last 15 years, we've started to face the same issues as the Nunavik/Nunavut Inuit are facing. Yes, our population has gone up to a point where it's very scary.

Unidentified User

When you catch a bear, how many years after that are you not allowed hunting, and why is it like that?

R. Flowers, Nunatsiavut

In 1995 the provincial government gave LIA 6 licenses for harvesting. LIA felt it would be wise to give as many people as possible a chance to hunt and restricted the hunt to five years between hunts per individual. This policy was carried over when the Nunatsiavut Government was formed in 2005. Last year it was changed from 5 to 3 years.

D. Pottle, Nunatsiavut

The Nunatsiavut Government was only formed in 2005, noting that Nunavik and Nunavut have many more years of self-government. Labrador Inuit are only now beginning to fight for themselves.

Unidentified User from Quebec

This is a polar bear management zone. The 3 governments are involved; I'm not seeing good co-management in all areas. Our government didn't want to be a part of this meeting. These areas that are divided and the boundary issues, maybe this is just for the researchers benefit. I'm not seeing things that I'm not satisfied with. Governments from Newfoundland and Labrador, Nunavut and Quebec should be looking at ways to co-manage together. There are too many bears; we can't even sleep in tents. Our caches are being taken by polar bears.

Unidentified User

I've been to Labrador in 1950s and they had absolutely nothing and we'd cry because of the suppression they've received. Now I'm so happy for them. They had no airstrip; we had to use 4 aircrafts to get to Labrador. We seen they were being mistreated by the government. Now you have self government and a

polar bear management system. Have you asked your government for an increase in quota? Has it been increased?

T. Broomfield, Nunatsiavut

Last year the Nunatsiavut Government put in a request for an additional 6 polar bears; which would result in 12 licences total. Up to the time of my departure, we did not receive a response from the government of Newfoundland and Labrador.

R. Willcott, Nunatsiavut Government

We, along with the Torngat Wildlife & Plants Co-management Board (TWPCB) received a reply later this summer. The government of Newfoundland and Labrador would like the Nunatsiavut Government to put the request on hold until after the outcome of research carried out this summer. The provincial government also asked the Nunatsiavut Government to speak to other aboriginal groups who share the same population about possibly re-allocating quotas.

I. Schmelzer, Government of Newfoundland and Labrador

Because polar bear population is in decline, and there's a lot of uncertainty about the Labrador portion of the Davis Strait population, it was recommended that the increase be withheld and parties discuss the possibility of re-allocation.

R. Webb, Nunatsiavut

I'm still trying to understand the boundaries and the quota. If we catch our 6 bear quota, can other hunters come into our area and hunt? With our own population plus resident bears, how will we tell the difference between the two? The boundaries are not clear.

Unidentified User

I'm happy we are together. The bears have increased; we have seen it with our own eyes. Why are the researchers saying different? Why? Listen to us for once.

Unidentified User

The researchers need to work with the Inuit personally. Inuit knowledge needs to be involved in management issues. The bears are coming from different regions – we need better organization.

Health Break: The meeting recessed at 10:25 a.m. and reconvened at 10:51 a.m.

R. Ningeocheak, NTI

At the beginning of self government, the North West Territories (NWT) gave us the responsibility and the old policies were transferred to Nunavut. We were not involved in the policy making at the beginning. At the time, it was very difficult for us when the wildlife issues were brought forth globally. At the beginning, we didn't have a clue how to deal with government issues, but now we are learned. Since 1993 when it was given to us, we had to produce policies coming from the Nunavut Inuit Land Claims Agreement; we produced them accordingly based on the Nunavut people. We were given the opportunity to change some of our wildlife policies, based on Nunavut needs. Having quotas is still established today, but various governments are trying to decrease them; why? Our delegates are supposed to be involved with government decisions. In 2000, they counted over 2000 polar bears, that's an increase in the Davis Strait area. January 16, 2005, we met with Jim Prentice in Winnipeg; he said they produce policies pertaining to their findings. They have not done this for the Davis Strait polar bear population. We Inuit have a traditional knowledge that is effective and we know a lot more about them today, about their migration and each region has quotas so up to now. Our fore fathers told us and taught us and kept us aware of their traditional knowledge, they passed it on. My father said never to camp around the polar bear denning area, they migrate, they move around and they were our livelihood, some move all over the place. We caught polar bear whenever we wanted to in those days, there were no quotas, and we even went into the dens because there were no policies. We need these today to keep our people informed but we have policies that hurt us.

J. Alooloo, QWB

1972 – 1980; NWT ran everything and we feared our government at the time. Inuit have had to tend with polar bear meat in secrecy so they wouldn't be taken to courts. The quota of 8 was decreased about 4 years, it's even said that quota would be decreased to 2. But 18 bears have been taken as defence kills – how does that work? We need a better plan. (Note: talking about the Western Hudson subpopulation).

B. Barron, HTA of Kangiqsuallujuaq

This isn't the first time we've had to deal with this. I've heard the Inuit have not been included in the making boundaries. Maybe some boundaries can be adjusted, can there be changes made to the boundaries?

R. Ningeocheak, NTI

The boundaries have not been made by Inuit at all. Biologists have set the boundaries based on their surveys.

P. Inqaut, NTI

The NWMB sets policies, once a quota is set to them and they get to the RWOs, the quota is given to QWB, and they usually have an agreement and there are lots of little bylaws like you're not allowed to hunt female bears with cubs. If you catch a female bear, two tags are taken for that one bear. Their quota was 19 but since they were hunting too many, they reduced the quota. If one does get killed during surveys than it's taken from the closest community's quota.

R. Ningeocheak, NTI

One of the issues on what Paul just said is that people who are not Canadian go to the North Pole and if they run into a bear and if they kill that bear, it will be taken from the Resolute Bay quota. They shouldn't be doing that. There should be another alternative.

J. Peters, Makivik Corporation

I'm happy that we're having these discussions. Management of bears have always been an issue. I've never heard another Inuk tell someone to never hunt bears. Government only rely on the surveys, on what the scientists say. Everyday hunters in their land are very familiar with how things really are. I even told the Minister Prentice that since Canada is a large place and the Government is in Ottawa and our people are the most familiar with the arctic animals, then we should make our own policies. They have no knowledge of our land, our animals and they try to make laws for us. The Minister said that community members should be involved in planning and management. Our land areas are large and they just look at us; they have very little knowledge of what I know. I've seen bears dying from blood loss when researchers tried to take blood from them. There are so many of our Inuit who have been taken to court for hunting our polar bears even though it's our tradition. They were trying to take their tradition away from them and it's not right. We are Inuit and stand by our fellow Inuit. The boundaries are not done properly; the hunters' knowledge and skills should be involved in decision making. One area had sports hunters coming up and we produced a paper to protect ourselves and the hunters in our communities. We know which community got less or more, I'm always involved so I'm aware of what's going on around me. I'm not allowed? They're not depleting the polar bears when they catch one? In the past the government produced quotas that would be divided by the communities. Only 2 bears per community and the laws were made by people who are not familiar with our environment, our waters. We have more strength with our land claims agreement. I'm saying the facts.

R. Ningeocheak, NTI

The Nunavut Wildlife Management Board is involved and we need to talk to them.

C. Arngaq, , Avataq (President)

Our language, our culture is very important to us and our wildlife has sustained us for many years. We have to care for our wildlife very well. Our people need to be involved pertaining to the wildlife decisions. We earn wages from our wildlife. We need to be involved if someone wants to introduce something foreign to us. The Inuit have vast knowledge of the polar bear issues and the scientists have powers and authorities to do whatever they wish and the Inuit have to be recognized as well. Sometimes we don't

understand, when foreign people say they understand our environment. If I have an area where I hunt and the cabin was destroyed by a polar bear or they come into the communities or they're driven into the communities by weather changes and ships, what are we supposed to do?

R. Ningeocheak, NTI

There are polar bears that have been harassing and the quotas have been used for it. It's a problem with it and we're not happy with it. Our fore fathers knew the wildlife is male and female but now we're told to only hunt males. The government made a rule that we're not allowed to touch the female. In traditional knowledge, the scientists' decisions don't make sense. If we just kill the female they will not produce cubs, and this is the knowledge of the Inuit – we need to balance the kill so the population will grow. My father told me this.

Unidentified User

I would like to say the scientists were mentioned and the traditional knowledge of the Inuit have never been put together. The Inuit have taught their children and they taught them the migrations of the wildlife. I believe those, that they are true. I honour and thank the Inuit for the traditional knowledge. Every year people of the arctic have changed and the wildlife are aware as well. When I was a young man I remember we couldn't catch polar bears but today within the last 10 years our environment has increased, we have more and more each year and they're coming in to our camp. It was pretty difficult to catch them but I know they have increased and I do not agree with the surveys. I'm happy the Inuit are becoming more involved.

D. Pottle, Nunatsiavut

First of all, I want to say that being in the presence of experienced hunters I'm like a kid again. I'm learning so much, thank you. In Nunatsiavut our past hunting season (2009 – 2010) we only took one bear from our quota because of very poor ice and snow conditions. In Nunavik and Nunavut, can you transfer left over quota to the next hunting season?

R. Ningeocheak, NTI

Not for wildlife, but for other animals we do. Sports hunters become our problem because they come from our quota, if we find a dead polar bear it comes from our quota and the closest community would be affected.

D. Gissing, GNU

There's a flexible quota system in Nunavut. If you harvest more males, it could mean an increase in the next year, if you harvest more females, then it could mean a decrease in next year's quota.

D. Pottle, Nunatsiavut

Nunatsiavut could take this information as a guide for carry over or to extend the season. Also, we are seeing more bears from boats – perhaps the season could be extended?

P. Irnqaut, NTI

Once they get the tags it's up to them how to allocate them. The HTO sets the season – they can have an open season if they want it.

S. Oplinski, Makivik Corporation

This comes to the heart of the matter. We do not have a quota (from the James Bay and Northern Quebec Agreement, 62 bears allocated). It is subject to the principle of conservation. It means that up to a total of 62 bears can be taken in any given year. Voluntary agreements have been put into place regarding season and sex of bear. There is no management plan in place in Quebec. There is no representative from the Quebec government here, which is unfortunate. We should start with a biological potential of how many could be taken in a given year. This could start with subdivision of populations, related to genetic distinction, discreteness, migration and behavior, denning locations etc. Then, overlying all this you have jurisdiction, government, and management boards, the decision-making authorities in place. Also, you have land claim agreements. Elsewhere, in Newfoundland and Labrador there are restrictions with respect to quotas. We are looking for a management process that provides some commonality between all of the jurisdictions. The challenge we are facing is how to do the harvest allocation. We are

talking about subsistence-and for the Inuk hunters, that is the most important thing, related to tradition, culture and food requirements. In addition, there is sport hunting; in some jurisdictions this has been impacted by governments outside of Canada, where the export of Polar bears from Canada would have been illegal. This was defeated. This will come up again. We will all need to be prepared for this, and show that Canada has very good management in regards to polar bears in place. We will need a co-management process that accounts for needs of individuals and potentially sport harvesting. But there is also tremendous international pressure, since we have 60% of the world's population. We need some commonality, and to have an equitable share of bears taken by the different communities. We need to take into account the science, and the Inuit hunters who are on the land 365 days of the year.

D. Brackett, Facilitator

Very useful information has been shared this morning. Very early on it became clear that we all understood that we're talking about a shared resource but the boundary issues is something that we need to discuss. How can the boundaries laid by government correspond with traditional knowledge? How can we find a way to manage this shared resource in a shared fashion? Understanding that the actions of people in one area could/do affect the opinion of people/governments in other areas. How do we find a way to have a better balance between the knowledge of the people who live with the resources and the people who study the resources?

Lunch Break: The meeting recessed at 12:12 p.m. and reconvened at 1:22 p.m.

J. Kango, Iqaluit HTO

When a scientist kills a bear accidentally they have to pay \$5000, why does that not apply to the visitors?

R. Ningeocheak, NTI

We've now been informed that they have to pay this.

J. Kango, Iqaluit HTO

I want to ask the people from Labrador, when you have tags left over at the end of your hunting season, do you give those back to the HTO or wildlife office? In the HTO left over tags are issued to someone to harvest.

D. Pottle, Nunatsiavut

The left over tags go back to the Nunatsiavut Government. Hunters were told that they can't hunt after June 30. If we don't use the quota, we lose it.

Unidentified User

Due to increase in polar bears a lot of property has been damaged. Nesting islands have been damaged. Bears eat the eggs and the blame gets put on humans. I feel older seals that used to have pups they tend not to have as many pups as polar bears eat them. We are in a place where bears tend to migrate through, I always have a concern about the bears that get tranquilized as they pass through our communities and are hungry. Bears are usually hungry and we're not sure if it's safe to eat the meat of the bears that have been tranquilized and they are usually thinner than bears that have not been tranquilized. I know our hunting areas; I've been familiar with it since I've been growing up. The bears that have been touched with tranquilizers pass through there and the ones that have not been tranquilized are big and healthy. You can tell which ones have been tranquilized because their lips are tattooed. We are not the only ones who are responsible for the decrease in numbers. Sled dogs were able to help us, protect us from approaching predators. A lot of people don't even have dogs anymore.

J. Peters, Makivik Corporation

I think a lot of us feel today there are a lot more bears than in the past and bears tend to go on islands and they damage all the nesting areas for birds and people wait for the down to collect as it'll be their winter clothing. Due to too many bears and them eating the eggs, it's affecting all of us, and especially the cabins getting damaged. I heard that the door on my cabin was damaged by the bears. There are a lot of cabins getting damaged like that. Inuit tend to camp during spring and summer but they're hesitant of sleeping in tents now because of bears, and even in cabins. I think we all know that polar bears are very wise, wiser than humans, great hunters and great predators. But when there are too many and they're causing

damage. If there's going to be a management plan all of these things need to be considered. There are lots of bears out there and I've heard from many people. Which one is more important, a human or a polar bear? I've been asked that many times. When someone doesn't carry a rifle, it's scary. Outsiders shouldn't be ruling on what we should do. Inuit should be involved on all the decisions; it's not right for Inuit to depend on outsiders for what we should do. We have to come up with a plan that will work for everybody.

J, Kakee, Iqaluit HTO

When I was growing up there was not many bears. The meat of the polar bear and the fat just like the walrus, the fat is good. The fat of the bear is even better so when I came to Iqaluit from Pangnirtung in the early 70s the bears started to increase. It was shocking to see the polar bear followed ski-doo tracks and they couldn't ward off the bear. My step-father was attacked by a bear but he survived, he had to be rescued by boat and taken to the Iqaluit hospital. These have been shocking to me, especially when they have an effect on humans. How can we manage the bears, the only thing that's stopping us, or we may not even have to be here today if the bears were being managed by Inuit. I used to go egging far from the community but there are no nests there anymore, probably because of bears. Ducks and birds have different nesting areas now. We, the younger generation, have been hearing this for years now, and the people that have passed on their knowledge, they didn't want to have conflict, but how many bears are there? I'm asking myself, in 2010, how many bears are pregnant now, that will have cubs in January and will start walking about in March? They should decrease the core population in bears and increase the quotas – maybe that will solve some of the problem. My older brother was taken to court for harvesting a bear, they even took his rifle away.

Overhead presentation titled "Davis Strait Polar Bear Population Inventory: An Overview"

S. Atkinson, Polar Bear Biologist, GNU, informed the participants of what the scientific information says about the Davis Strait Population. He made the following points:

- this workshop is important because it's an opportunity for people to exchange his/her point of view
- setting quotas is not "my" job. Here to tell you what the scientific information of the population is, and how hunting bears might or might not change the population
- early studies in Davis Strait (Stirling): results from the 1974-1978 spring sea ice surveys suggested a population of about 900 bears. A study in 2007 shows an increase
- until recently, all marked bears that were harvested were taken in Nunavut – recently some tagged bears were harvested in Labrador and Quebec
- 886 bears were captured/recaptured in Davis Strait – it's unusual to have so many; the bears were easy to find and capture
- 168 marked bears were harvested between 1974 – 2009; 140 in the Davis Strait management zone, 28 in another zone (some movement between zones but, by and large, a bear that is born in Davis Strait tends to stay in Davis Strait)
- Population estimate of 2 158 bears in 2007
- In response to the question of "is the population growing": the natural growth rate without harvesting is 3.3% (2007). In reality, the growth rate with harvesting factored in was 0% - so it was stable.
- There are many old bears, bears have survived well
- Relationship between seal abundance and food habits of Davis Strait polar bears (e.g. 5 million hooded and harp seals in 1990s versus 2 million in 1978)
- 50% of the polar bear diet in Davis Strait is harp seals; in other parts of the arctic 80% of the bear's diet is ringed seal. In northern Davis Strait bears eat hooded seals – this is the only place this has been seen
- Density of 5.6 bears/1000km² of ice compared to Baffin Bay – 3.6 bears/1000km²
- Study showed relatively poor reproductive performance – signs that the population has gone through an increase, has reached a peak and may now be in decline again.
- The Davis Strait population has the smallest litter size of any of the populations - 1.5 cubs/female bears
- Overall, an aging polar bear population, declining body condition and size means that there is less food to eat or there is too much competition for existing food
- There is evidence that the amount of summertime ice has been declining since the mid 1980s; this will negatively affect the bears ability to hunt

- There are 3 sub-regions within the Davis Strait: Northern Davis Strait, Central Davis Strait (south of Cumberland Sound) and Southern Davis Strait (south of Hudson Strait; Labrador bears included here)
- The 3 sub-regions differ with respect to bear survival due to variations in harvesting, food availability and seal populations
- Within the last five years there has been an average of 66.9 bears harvested per year. At this rate, the growth rate will stay the same but could be affected by changes in the survival of bears or numbers of cubs being born
- Possible effects of different harvest levels:
 - current harvest – managing for **no** increase
 - increase harvest to 70 or 80 bears – growth rate declines to .98 or more (assuming constant rates of survival and recruitment)
 - current harvest is sustainable, but not necessarily so for the future given that survival and reproduction are declining.

R. Ningeocheak, NTI

Thank you for your presentation Steve. According to Inuit knowledge what I see is that there's an increase from 2005. How did you determine that they're decreasing and not surviving? You haven't done a survey in 2009 so how can you determine that they're decreasing? We can tell by the tracks of the bears and their cubs when we're hunting. The bears seem to be migrating north. Ice forms later so they tend to be more inland.

J. Peters, Makivik Corporation

I don't want polar bears to become extinct but something needs to be done. Are we just trying to increase the population of bears, never mind the other animals? When they run out of the food they usually eat, is it ok if they start eating humans? When the population gets too high, what are they going to start feeding on? Who makes the decision, and how do we make the decision on how many bears we take?

S. Oplinski, Makivik Corporation

I find it ironic talking about doing something now when the level is so high. Normally we react to this when it's much lower when talking about the principal of conservation. Are we comfortable with the boundary designations as they are now? The harvest rate – it's a choice as managers (and users) what we do as to how many bears are taken. I have some questions with the comparison of 2007 and 1979 study information. How rigorous is the comparison?

S. Atkinson, GNU

We're not saying the population is declining, we're saying it's an abundant population. We do know that there are some signs that we have seen in other populations that accompany declines. What we are concerned about is any action that will affect the population in the future (e.g. the number of cubs, body conditions declining, decline in sea ice). In terms of there being too many bears and having an effect on other wildlife and humans, what is the management objective? It is alright to have a management objective for a declining population. I can advise you as to the impacts of that decision on the population. Regarding Stas' question about the boundaries, there has always been discussion about movement but at some point we need to partition the into regions, and one of the ways we do this is to look that movement of bears over the years, in some cases many years, and look at where tagged bears are turning up. We have learned that bears tend to stay in specific area in their lifetime, from this, we can draw these boundaries. Bears in this management area are more likely to stay there than to move to another one. Their abundance is determined by survival and recruitment and not by immigration or emigration into the area. Comparing the studies of the 1970s to the studies of the 2000s - we're not particularly comfortable with the comparison. The 1970s was a smaller study done in a different time of the year but we're confident that it's an underestimate; there were not 2000+ bears then.

J. Aooloo, QWB

Have you done studies in the 3 sub-regions that you have identified?

J. Johannes, NHFTA

You're talking about estimates, for us it's a guess not the whole numbers. Do you have Inuit with you when you do the surveys?

D. Lee, NTI

When providing science advice, it would be preferable to use less emotional terms such as "troublesome". Based on new analyses there is some fuzziness about the population delineation at the boundaries. In light of this, do you think it's appropriate to use an open population model for this exercise? I asked Lily a similar question.

R. Ningeocheak, NTI

When you wanted to do a survey in Davis Strait you contacted Iqaluit and said that there might be an increase in quota. When are you going to respond to them?

S. Atkinson, Nunavut

To Jayko, the survey covered the whole area of Davis Strait. During the summer when most of the ice is gone, the bears tend to hang out on the islands, that's why the numbers are concentrated there. Jimmy mentioned estimates. It's true, we do use estimates, we cannot count every single bear. But there's such a thing as good estimates, especially since so many of the bears were handled, and we got a very good sample of the population. Jimmy also asked if we work with Inuit and how do we include inuit knowledge? We had Inuit from Nunavik, Nunavut and Nunatsiavut. Moshi will talk more about the information he's been working with. David, sorry about the tone, Davis Strait is a good news story, the population has increased. But we're talking about the future and decisions made now could affect the population for 10 years or more. My job is to give you the facts and according to the information we've gathered, the numbers will decrease in the future. Open population modeling; there are different ways of analyzing population data. This information has been through extensive reviews by a lot of different biologists. Open population model takes into consideration that some animals will leave the population; some will come in from another population. Raymond, your comment about Inuit waiting for quota increase, I'm going to deflect that one to someone from government. I hear what you're saying. The management objective is something that needs to be discussed. People are concerned about their life and property; it's a valid concern. Johnny, you had a comment that there are areas that have been surveyed but are not hunted. The Davis Strait population move around so much amongst the region that the whole area needs to be covered.

K. Pitsiulak, Kimmirut HTO

At what population level will there be a need for concern?

S. Oplinski, Makivik Corporation

Regarding ice cover, is it single year ice or multiple year ice? Do you have any recent seal data from the Department of Fisheries and Oceans (DFO)? With the harvest levels being relatively consistent are you assuming that natural mortality is static?

Health Break: The meeting recessed at 3:20 p.m. and reconvened at 3:50 p.m.

J. Kakee, Iqaluit HTO

Could climate change be affecting the polar bear population?

T. Broomfield, Nunatsiavut

This past winter has been challenging for hunters in Nunatsiavut. We had over 200 mm of rain in February so we weren't able to harvest our quota (due to ice conditions) which is unusual. Our original quota was based on an estimate of 900 bears. Government puts so much stock into science and the population has nearly tripled and our quota has not increased. What's it going to take for us to get additional quota? This winter coming may be a cold winter and we may see lots of bears. Can we harvest last year's quota? With the knowledge we have here today, maybe we can come to some kind of arrangement to increase our quota in a small way.

S. Atkinson, GNU

In response to Stas; we use multi-year ice data. We don't know how frequently DFO conducts seal surveys. Are we assuming the mortality rates remain constant? Yes and no, we use the mortality rates from 2007 but it's an estimate. In response to Kolola's question – we don't know. It's dependant on how well the population is surviving, not so much how many bears there are.

R. Willcott, Nunatsiavut Government

It's unlikely that we will see more bears than there are now in the population. We have asked for an increase in the quota and the province of Newfoundland and Labrador have denied it so we are now seeking a reallocation. If the population is at maximum density, than we should increase the quota to decrease the population and encourage reproduction.

Overhead presentation titled "Public Opinion on Polar Bears Moshi Kotierk Department of Environment Government of Nunavut"

M. Kotierk, GNU, informed the participants of a population survey he participated in with his colleagues in 2007.

D. Gissing, GNU, informed the participants that the NWMB has the sole authority to set Total Allowable Harvests (TAH) and seasons. If the Minister rejects a decision that the board suggests, the Land Claim Agreement states that the decision will go to cabinet and their final decision will be implemented by the Minister. The approach is to reach consensus between co-management partners.

Overhead presentation titled "Nunavut Decision-Making Process for setting Total Allowable Harvest"

D. Gissing, GNU, discussed the decision making process with the Nunavut Wildlife Management Board.

Overhead presentation titled "polar bear management in Newfoundland and Labrador"

I. Schmelzer discussed the polar bear management process within the Nunatsiavut Government /Government of Newfoundland and Labrador. D. Pottle, hunter from Nunatsiavut, elaborated on the process, informing the participants of the recent change which extends the license availability to include beneficiaries living out of the Labrador Inuit Settlement Area.

B. Van Havre, Environment Canada, informed the participants of the federal government process for polar bear management.

S. Oplinski, Makivik Corporation, informed the participants of the government of Quebec's process.

C. Corrigan gave an overview of the day's events.

ADJOURNMENT

The User to User Davis Strait Polar Bear Population Meeting held September 14 - 16, 2010 adjourned at 6:00 p.m. on Day 1, September 14, 2010; and determined to reconvene at 8:30 a.m. on Day 2, September 15, 2010.

**Davis Strait User-to-User Meeting
Kuujuaq, Quebec
September 14-16, 2010**

Minutes of the User to User Davis Strait Polar Bear Population Meeting, scheduled September 14 - 16, 2010 in the Town Hall, Kuujuaq, QC.

DAY 2: SEPTEMBER 15, 2010

All participants gathered at the town hall and travelled to Johnny Peters' camp outside of town at 9:00 a.m. Returning at 1:00 p.m., the users only met at the town hall. During this time two resolutions were drafted for presentation to all other participants on day 3 of the workshop.

ADJOURNMENT

The User to User Davis Strait Polar Bear Population Meeting held September 14 - 16, 2010 adjourned at 5:00 p.m. on Day 2, September 15, 2010; and determined to reconvene at 10:00 a.m. on Day 3, September 16, 2010.

**Davis Strait User-to-User Meeting
Kuujuaq, Quebec
September 14-16, 2010**

Minutes of the User to User Davis Strait Polar Bear Population Meeting, scheduled September 14 - 16, 2010 in the Town Hall, Kuujuaq, QC.

DAY 3: SEPTEMBER 16, 2010

Attendees:

Drikus Gissing, GNU	Jennifer Mitchell, Torngat Secretariat
Paul Imqaut, NTI	Bruce Roberts, Torngat Wildlife & Plants Co-management Board
David Lee, NTI	Ron Webb, Torngat Wildlife & Plants Co-management Board
Moshi Kotierk, GNU	Rebecca Willcott, Nunatsiavut Government
Jayko Alooooloo, QWB	Derrick Pottle, Rigolet Polar Bear Hunter
Robert Kidd, NWMB	Todd Broomfield, Makkovik Polar Bear Hunter
Leopa Akpalialuk, Pangnirtung HTO	Ross Flowers, Hopedale Polar Bear Hunter
Kolola Pitsiulak, Kimmirut HTO	Isabelle Schmelzer, Government of NL
Joshua Kango, Iqaluit HTO	Veronica Dewar, Interpreter
Basile Van Havre, EC	Eena Alivaktuk, Interpreter
Rachel Vallender, EC	Jetaloo Kakee, Iqaluit HTO
Jamie Snook, Torngat Secretariat	Bobby Barron, HTA of Kangiqsuallujuaq
Stas Oplinski, Makivik Corporation	Lucassie Iqaluk, Inukjuag
Chris Corrigan, Facilitator	Moses Alaykoo – Inukjuak Polar Bear Hunter
Dave Brackett, Facilitator	Johnny Arnaituk, Kangiqsujuag
Gregor Gilbert, NMRWB	Jimmy Johannes, Kuujuaq
Mark O'Connor, NMRWB	Raymond Ningeocheak, NTI
Bobby Epoo, NMRWB	Charlie Arngaq, Avataq (President)
Johnny Peters, Makivik Corporation	Saqiqtaq Temela, Kimmirut HTO
Beverly Blake, Torngat Secretariat	Pitsiulaq Pnguatug, HTA of Kangiqsujuag, Nunavik
	Aqoyak Qissiq, HTA of Kangiqsujuag, Nunavik

PREPARATION OF MINUTES:

Beverly Blake, Torngat Secretariat

MEETING RECONVENED

R. Ningeocheak, NTI, called the meeting to order at 10:08 a.m.

R. Ningeocheak, NTI

During the user discussions consensus was achieved on two resolutions as to how we could better manage and co-manage together. As Inuit we'd like to get some of our knowledge and pass it on to the scientists and governments. We've never really given them our Traditional Knowledge; we've been listening for many years. We'd like to work together, and we'd like them to listen to us.

J. Kango, Iqaluit HTO

We've been saying for many years that we don't want the quota system anymore. We have 23 tags in Iqaluit. The seals are depleting very fast because of the polar bears. The nesting areas by water fowl that are adjacent to the in the communities are being affected. The harp seals and bearded seals are depleting because of polar bears. The walrus will be next to be eaten by polar bears. Inuit are being endangered. The cabins and camping grounds are being visited all over the arctic by polar bears. In the 1970s the surveys started we were told then that our quota would be increased but it's never been. The

walrus habitat is being harassed, and will eventually move elsewhere. Because there is a quota system, the Inuit are rushing to get their kill; it's drastically changed them and it's not managed well. Sometimes the Inuit are in danger and their snowmobiles are getting damaged. The dog team dogs and the cache are being destroyed by the bears and this is a way of preserving our food. There's been Inuit killed by polar bears, more than one. It's dangerous. People out in tents are endangered and some don't even want to camp in tents anymore and would rather sleep in their boats because of the polar bears. This is happening in Nunavut, Nunavik, and Nunatsiavut. We sometimes leave our snowmobiles in the camp or along the shores in the spring. They're expensive and are being destroyed and ruined by polar bears.

R. Ningeocheak, NTI

Thank you Joshua. In the fall the ice is starting to freeze and the polar bears are starting to come in, there are many polar bears that are arriving and the parents don't want their kids to play outside because of the bears. These are dangerous to the people. We discussed how else we can rectify this problem. People in western Hudson Bay area are losing their quotas very quickly and Rankin Inlet, Chesterfield Inlet, don't get to use their 8 tags because of defence kills. The communities should get their tags as well, instead of using them all for the defence kills. Properties are getting destroyed and there's no compensation.

Saqiqtaq Temela, Kimmirut HTO

My dad used to say that bears are wise. If we talk about them too much, they hear us. They are like humans; they are even wiser than humans.

R. Flowers, hunter from Nunatsiavut

We also have problems in Nunatsiavut. Bears break into cabins, eat birds' eggs and stay around the islands in the summer. Polar bear hunters have been asking for an increase in the quota but that didn't work. Last week in Hopedale Labrador, there were two goose hunters looking for geese, there was a polar bear there. We have the same problems as in Nunavut.

J. Alooloo, QWB

These regions do not want the quota system anymore due to these problems. All the communities have HTOs let them manage the system accordingly.

K. Pitsiulak, Kimmirut HTO

Last year when we went to our cabin there was a bear in our porch. It was ready to attack I had to grab something to make noise before it would start to move back. The skin wasn't very nice but I had no choice but to kill it. Even at night we had a rifle at hand. He wasn't alone, there was another watching and he came and slapped our porch that night. Am I supposed to keep killing bears just to protect myself? I decided I needed a noise maker – maybe bear bangers or sprays could be provided to us.

R. Ningeocheak, NTI

Thanks to the government officials that are here to listen to us and work with us. This is the very first meeting like this. We have made two resolutions and it covers Nunatsiavut and Nunavut. Everyone has been in support of each other regarding the Davis Strait polar bears.

J. Peters, Makivik Corporation

I know this will not be resolved right way. The Davis Strait zone is a very large area; it affects Newfoundland and Labrador, Quebec, Hudson Bay and our communities. We'd like the zones to be amended; when they were formed there was no involvement with the Inuit and they only listened to the scientists. It was really good to be discussing this with Nunatsiavut, Nunavik and Nunavut Inuit.

R. Ningeocheak, NTI

Hunters rush to get their bears when a quota system is put in place. When there is no quota system, Inuit hunters hunt with the season.

Resolutions

The user delegates formulated two resolutions that they have achieved consensus on. The Nunatsiavut quota is based on a population of just over 900 bears; more recent studies indicate a population of 2158. the resolutions have been given to the Government officials to be passed on to the decision makers.

B. Van Havre, Environment Canada made the following points:

- satisfied with the usefulness of the meeting. In a sense it's an immediate success
- pleased with the users' desire to have the input given to government as soon as possible
- would like to gather the core group over the next few days to review the outputs of the meeting
- propose that the letter be sent from the core group to the decision makers
- feels it's important to hear concern from the users
- would like to remind all the participants of the national and international attention this species receives
- would like to hear more about what change will be expected from the proposed changes in zoning
- feels it would be useful to have a better of system in place to record statistics of human and property damage by polar bears

R. Ningeocheak, NTI

There can be a lot more information sessions as this is the first one. There are more wildlife issues that need to be addressed; especially if there will be changes to the zones as suggested.

J. Kango, Iqaluit HTO

I'm concerned about the lack of attention the government has given our knowledge in the past. We want a 5 year pilot project with respect to our resolutions and then we can make changes if necessary.

B. Van Havre, Environment Canada

As clarification, the notion of a flexible quota system in Labrador was mentioned earlier but it isn't reflected in the resolution. Is this something that should be considered?

D. Pottle, Nunatsivut

On the resolution, the first bullet indicates that the current quota of bears for Nunatsiavut was a decision that was made in 1979. We've made requests for 32 years and still haven't been heard. Our population of Nunatsiavut beneficiaries in 1979 was represented by the Former Labrador Inuit Association and today are a recognized self government. In 1979 there may have been 1000 beneficiaries, now there's 7000+. We've been more than fair and feel like we have not been heard. This is why we come forward and request in increase of 6 bears.

S. Oplinski, Makivik Corporation

The notion of flexible quota is on the table with respect to the resolution for an increase in quota for Nunatsiavut. They have requested an increase of 6 bears and it's supported by the other users but the idea of a flexible quota will be a part of the discussion.

D. Gissing, GNU

The objectives of the meeting have been met; recommendations have been made. I suggest you take them to your decision makers and follow the processes we've discussed on day 1.

S. Oplinski, Makivik Corporation

We have to find the ability of making decisions that will take into consideration the consequences of one jurisdiction on another because it is a shared resource. These resolutions should be brought to the Nunavik Marine Region Management Board as well because it's a shared resource. We also have Nunavik people who have rights through the NILCA to hunt in Labrador.

J. Snook, Torngat Secretariat

The Torngat Wildlife & Plants Co-management Board (TWPCB) is meeting this weekend and they'll review the outcomes of this meeting. It's likely that they will make a decision; that will have to be consulted with the Nunatsiavut Government. If the Nunatsiavut Government is in agreement it will be then forwarded to the Minister of Environment and Conservation with the Government of Newfoundland and Labrador who can deny, revise or accept the recommendation. We hope we can get this into the processes in time for the next harvesting season.

J. Kango, Iqaluit HTO closed the meeting with a prayer.

CONCLUSION

The User to User Davis Strait Polar Bear Population Meeting held September 14 - 16, 2010 concluded at 12:07 p.m. on Day 3, September 16, 2010.

This is a true and correct copy of the Minutes of the User to User Davis Strait Polar Bear Population Meeting held September 14 - 16, 2010 and incorporates any and all corrections made at the time of adoption November 8, 2010.

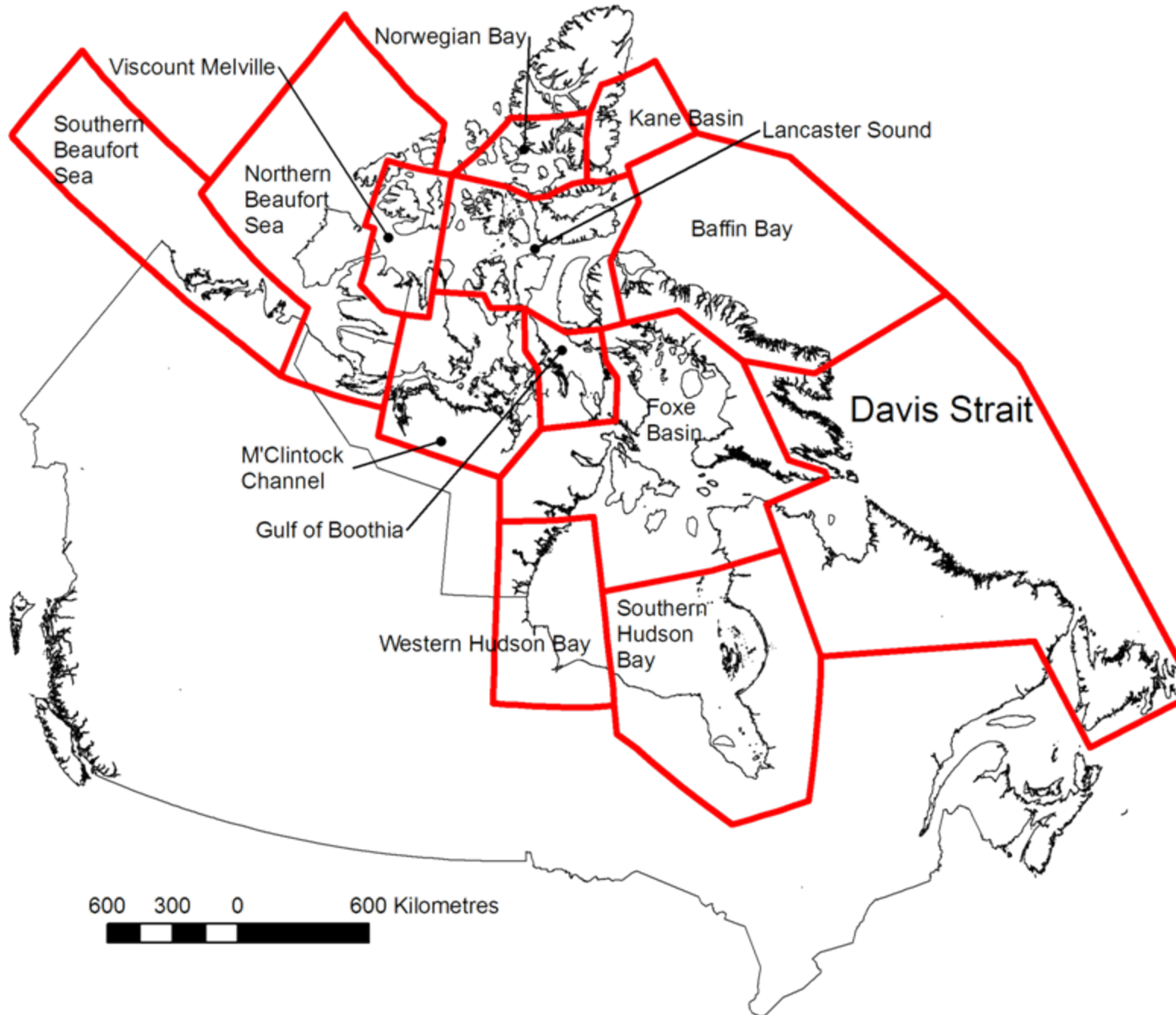


Beverly White, Torngat Secretariat

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Davis Strait Polar Bear Population Inventory: An Overview





Population Studies 1974 - 1979 ...



- Stirling, I., and H. P. L. Killian. 1980. **Population ecology studies of the polar bear in northern Labrador.**
- Stirling, I., W. Calvert, and D. Andriashek. 1980. **Population ecology studies of the polar bear in the area of southeastern Baffin Island.**
- Combined population estimate approximately **900 bears**, as estimated on the spring sea-ice

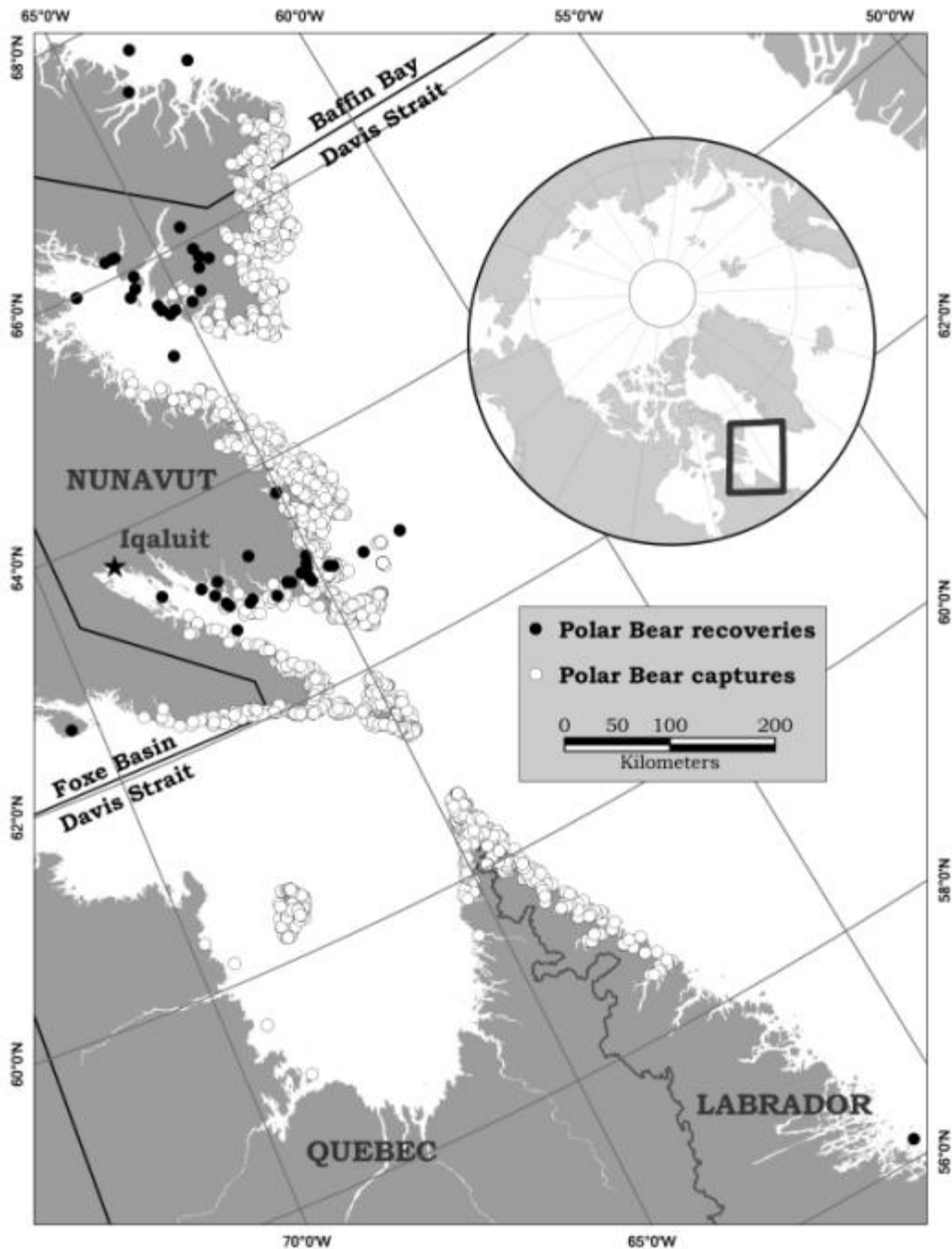
Population Inventory 2005 - 2007

Research Partners & Collaborators

- Government of Newfoundland & Labrador (Rob Otto, Rebecca Jeffery, Ted Pardy)
- Parks Canada (Angus Simpson)
- Makivik, Incorporated (Dr. Bill Doidge, Barrie Ford)
- Nunavut Wildlife Management Board
- Iqaluit, Pangnirtung, Kimmirut HTOs
- Drs. Lily Peacock, Mitch Taylor, Jeff Laake & Ian Stirling



Polar bears Captured and Harvested in Davis Strait 2005 - 2008





Capture Effort

	Labrador			Nunavut			Quebec			Total		
	2005	2006	2007	2005	2006	2007	2005	2006	2007	2005	2006	2007
Adults	34	83	90	381	437	466	8	16	18	423	536	574
Sub-adults	2	11	19	97	136	117	5	8	5	104	155	141
Yearling	3	15	24	36	56	73	2	2	4	41	73	99
COY	1	23	12	49	52	47	5	2	2	55	77	61
All Bears	40	132	147	563	681	714	20	28	29	623	841	886

Data Used in Analyses

1974 - 2008

- 2,804 capture events from 1974 – 2007 from Nain, Labrador to Cape Dyer, Nunavut
- 168 marked-bears harvested from 1974 – 2009



Results

- Size – How many bears?
- Trend – Increasing, stable or decreasing?
- Other things

Population Size:

An estimated 2,158 polar bears in Davis Strait in 2007 (95% CI, 1,978-2,338)



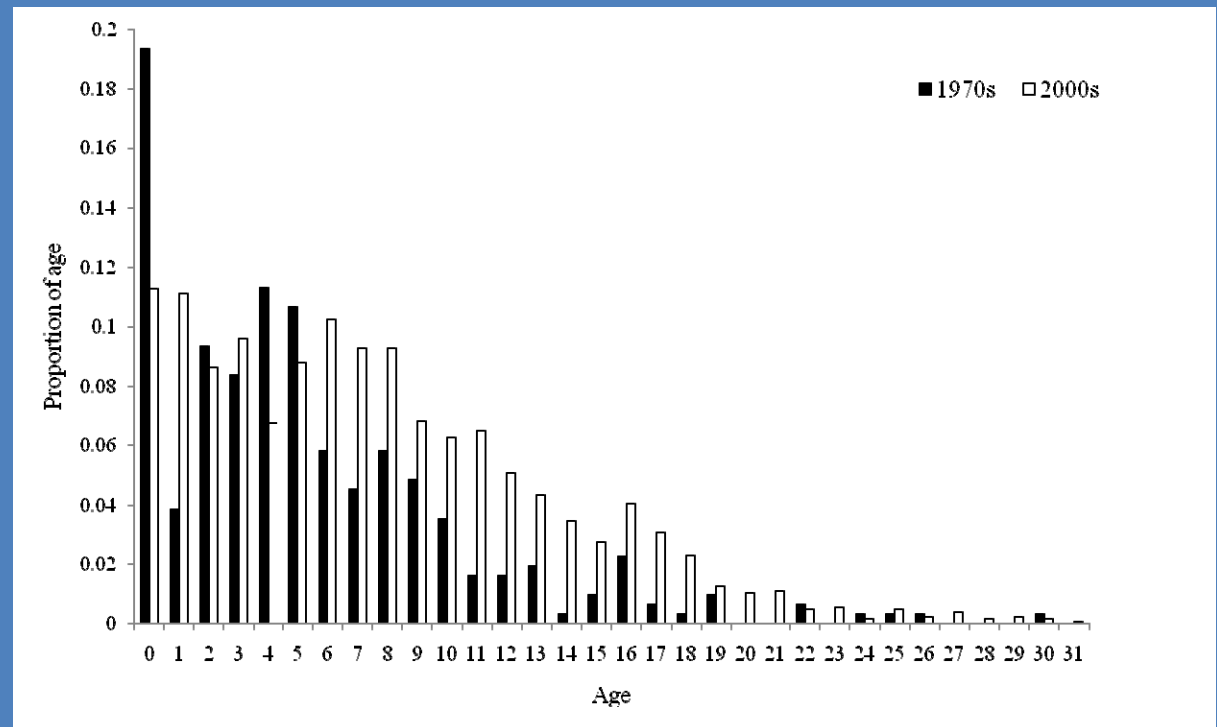
Population Trend:

- Natural population growth rate (2007) = 3.3%
- Harvested population growth rate = 0%

Evidence the population has increased since the 1970's:

- Comparison with previous study (1974-1979)?

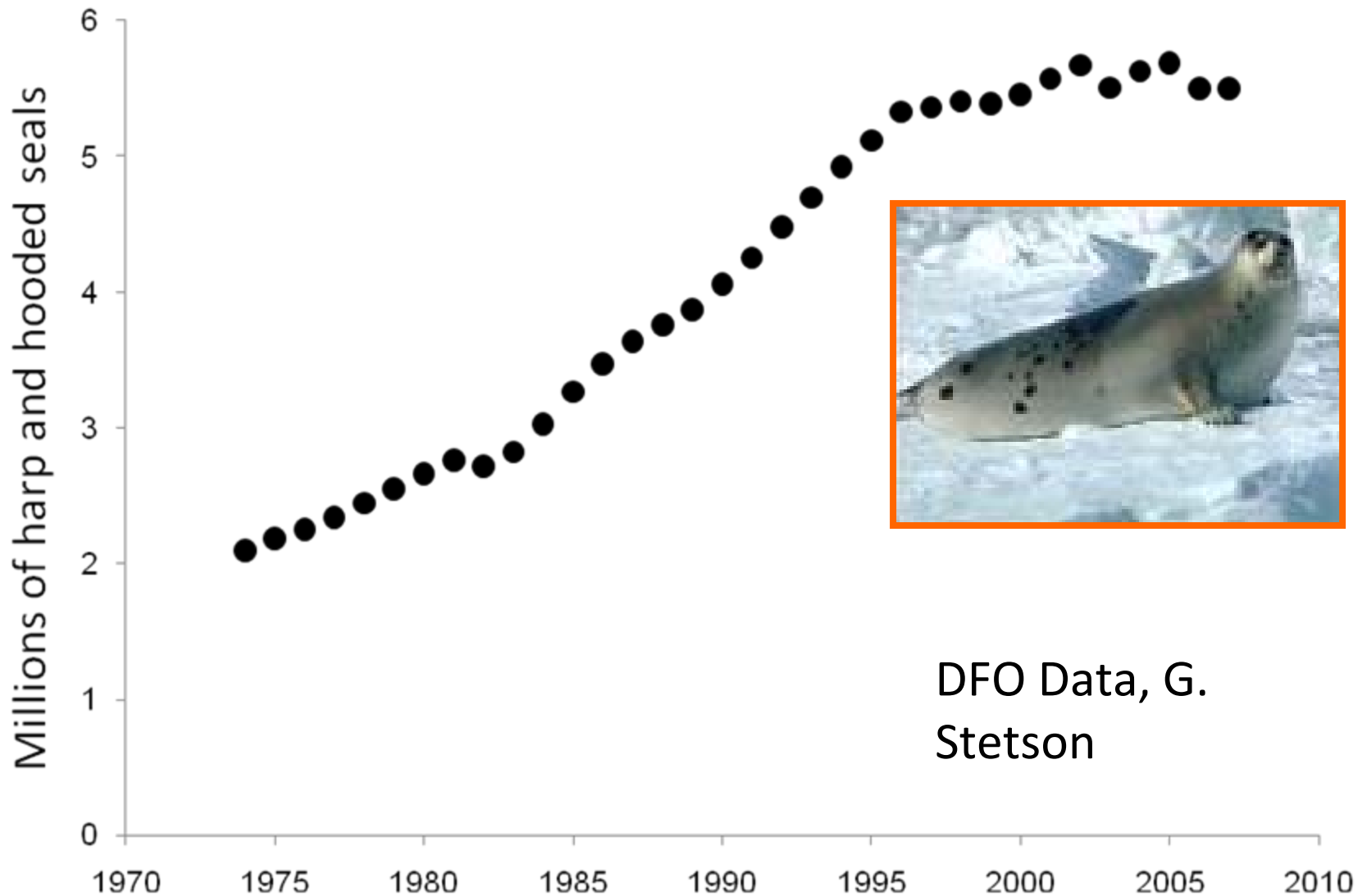
- Age structure



Evidence the population has increased since the 1970's:

- Observations of hunters
- Trends in seal abundance and food habits of polar bears were associated with variation in survival

Harp & Hooded Seals: North Atlantic



Understanding the diet of Davis Strait bears by analyzing fat samples

- Harp seals comprise 50% of polar bear diet in DS (ringed seals are 98% in Beaufort; 80% Hudson)
- Northern DS is only area with evidence of Hooded Seal in diet



(Iverson *et al.* 2006)

Evidence indicating the population has reached a peak and may decline in future:

- Very high densities of bears (5.6 /1000 km²)
- Relatively poor reproductive performance





Litter Production Rates



Pop.	Litter size	5-yr- LPR	6-yr- LPR	>6-yr- LPR
BB	1.587 (0.073)	0.881 (0.398)	1.000 (0.167)	1.000 (0.167)
SH	1.575 (0.116)	0.966 (0.821)	0.967 (0.022)	0.967 (0.022)
WH	1.540 (0.110)	0.257 (0.442)	0.790 (0.180)	0.790 (0.180)
DS	1.47 (0.160)	0.564 (0.184)	0.445 (0.527)	0.389 (0.024)

Evidence indicating the population has reached a peak and may decline in future:

- An aging population
- Declining body condition & size

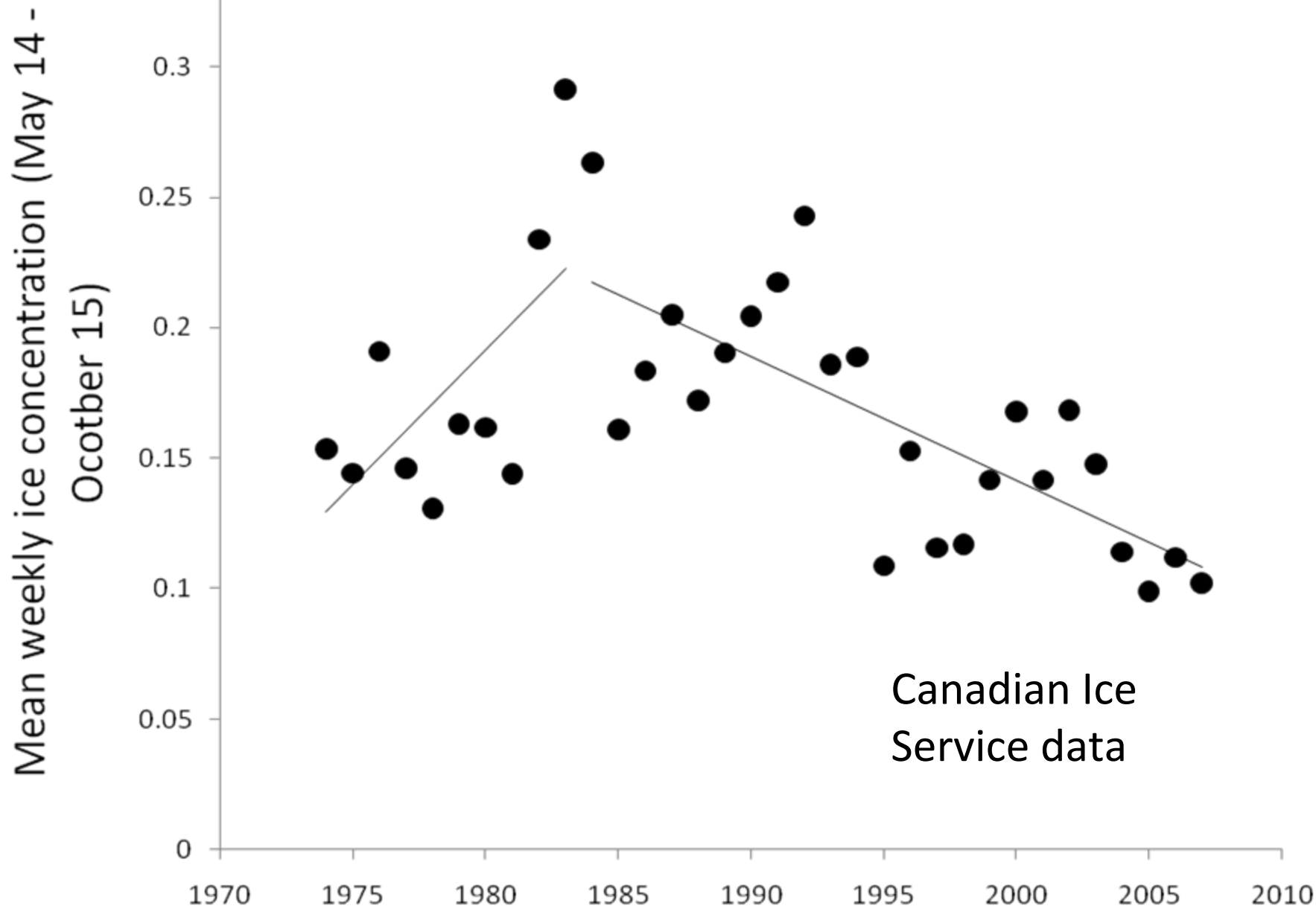
Evidence indicating the population has reached a peak and may decline in future:



Reduced summer time sea-ice cover
(associated with changes in survival)

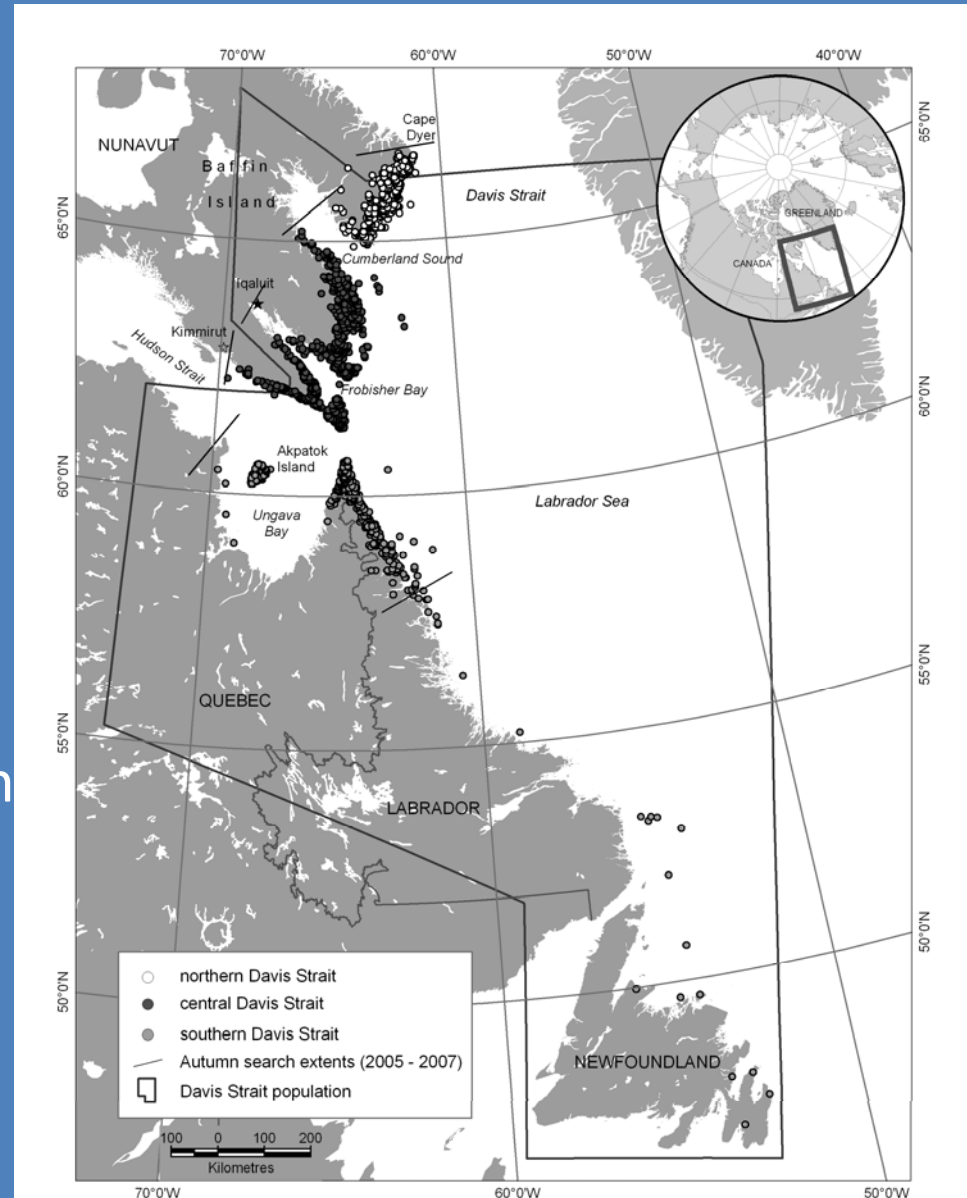


Summer Ice Concentration in Davis Strait



Geographic Sub-regions of DS:

- Southern Davis Strait, south of Hudson Strait (SD)
- Central Davis Strait, south of Cumberland Sound on Baffin Island (CD)
- Northern Davis Strait (ND) on Baffin Island, north of Cumberland Sound



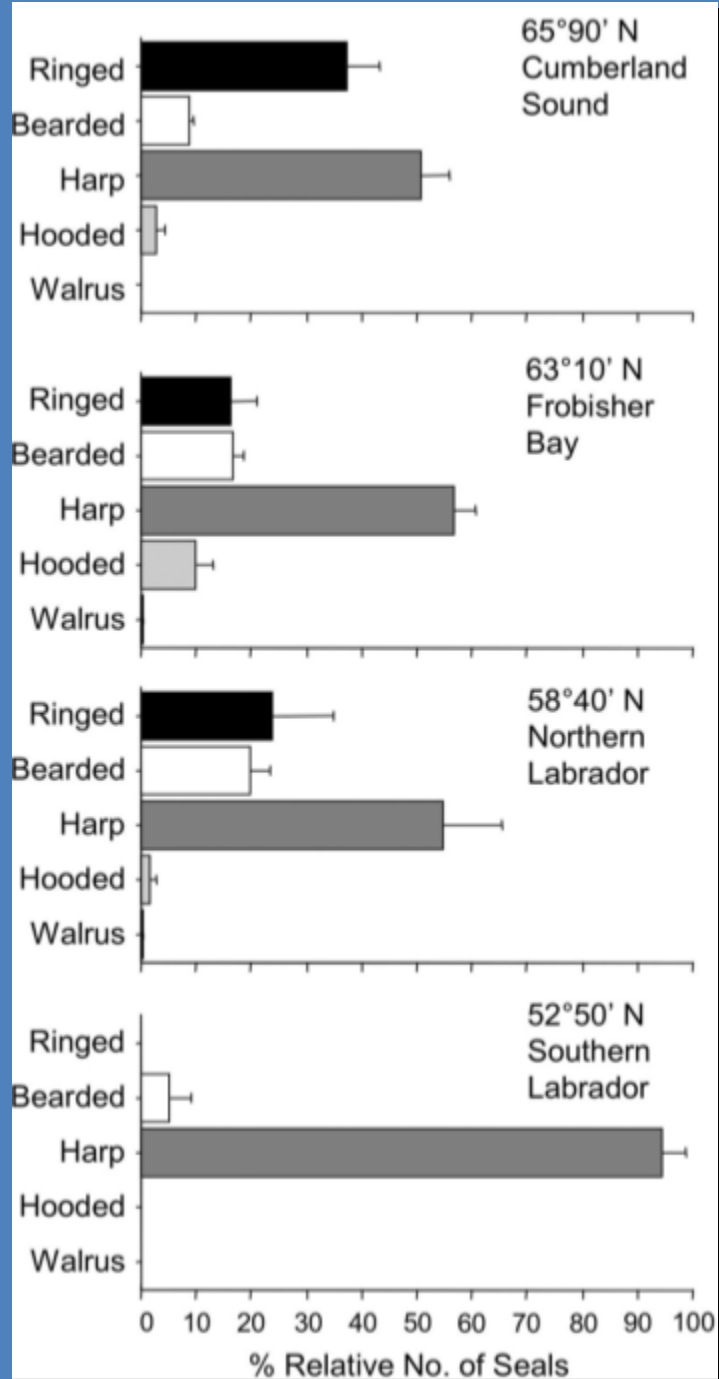
Geographic Variation

- Differences in hunting pressure and food availability among sub-regions
- Survival, recruitment and age-structure varied by sub-region of Davis Strait
- Survival was influenced by seal abundance more in the south, where harp seals increased over the past 35 years.

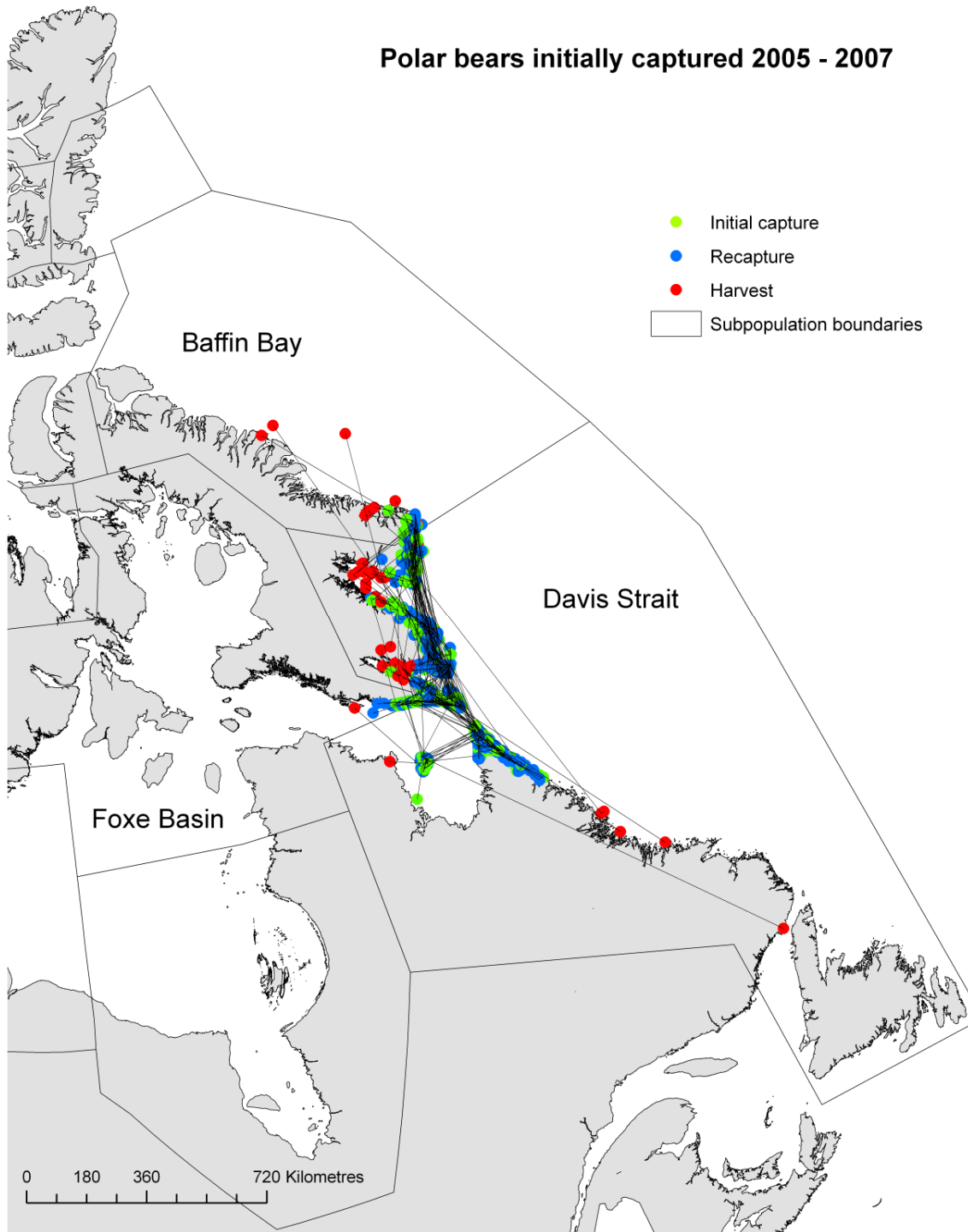
Diet variation within Davis Strait



- In Southern Labrador, Harp seals are 90% of diet



Polar bears initially captured 2005 - 2007



In Summary

- An abundant population
- Evidence of historical increase in abundance
- Evidence the population reached a peak, is near carrying capacity and/or experiencing a reduction in carrying capacity that may reduce abundance in future

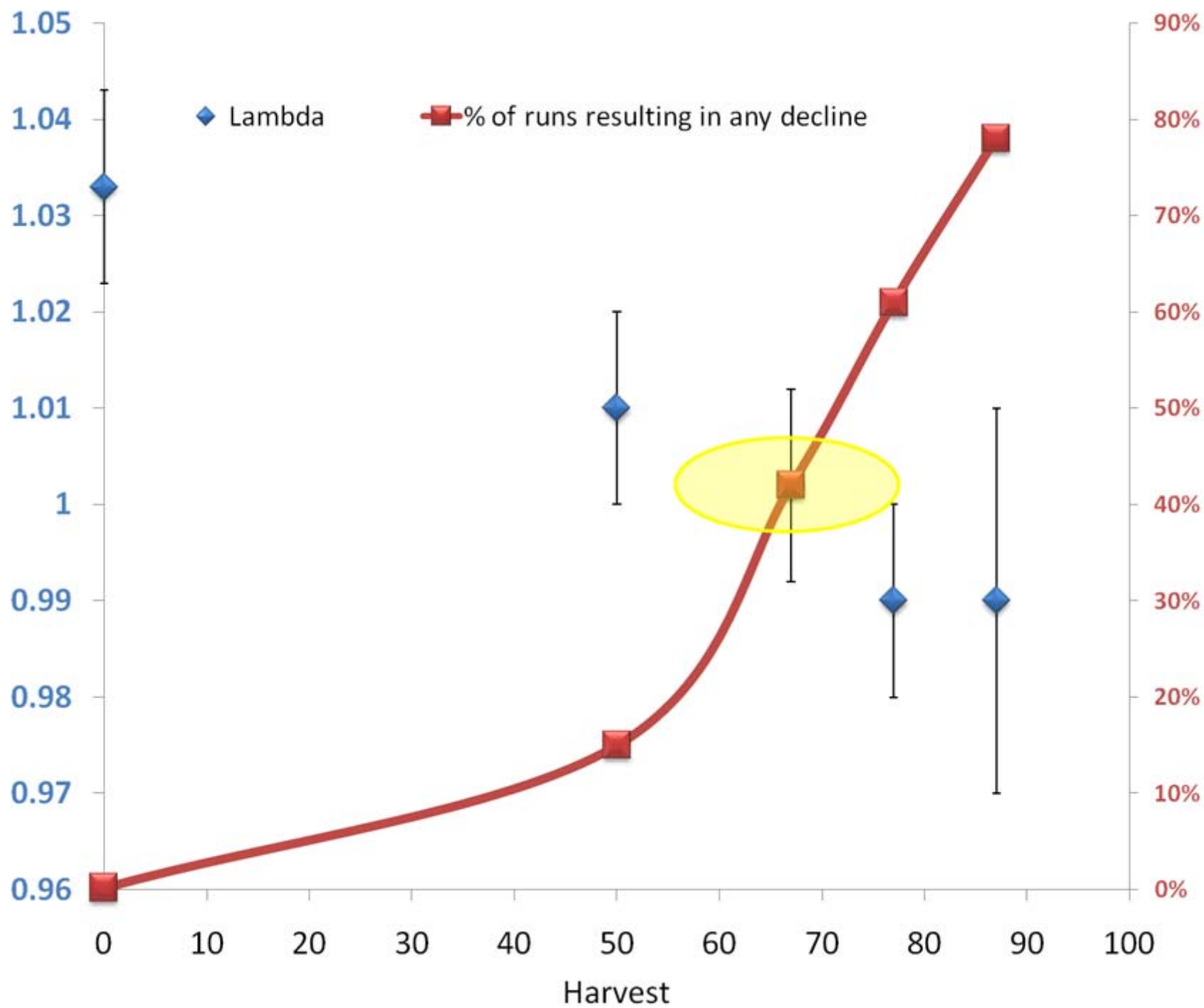
Harvest in Davis Strait

	Nunavut	Nfld & Labrador	Quebec	Greenland	Total
Allowable Harvest	46	6	13.4 (6-22)	2	67.4

Current 5-year average harvest = 66.9 bears per year

Population growth rate at this level of harvest is 0%

Population growth rate ($\lambda \pm \text{SE}$)



But.....assumes that

- All harvest is reported (?)
- Rates of survival and reproduction will not change in future (?)

If either of these assumptions is untrue predictions about the impacts of harvest are probably optimistic



Thank
you

1st Interjurisdictional Davis Strait Polar bear User to User Meeting between User Groups of Nunatsiavut, Nunavik, and Nunavut.

Kuujuak, Québec

September 13th– 16th, 2010.

WHEREAS the current quota for Nunatsiavut is based on an estimate of approximately 900 animals in 1979,

WHEREAS Inuit knowledge has indicated a substantial increase in the Davis Strait polar bear subpopulation for some time,

WHEREAS the most recent scientific survey provides an estimate of 2,142 animals in 2007,

WHEREAS the polar bear density for the Davis Strait subpopulation (5.6 per 1000 square kilometers) is one of the highest known for any polar bear subpopulation,

WHEREAS nesting areas of birds are being depleted by polar bears,

WHEREAS other wildlife such as seals are being depleted by polar bears,

WHEREAS cabins and other personal items are being damaged by polar bears,

WHEREAS there are human safety concerns because of increased polar bear encounters,

THEREFORE be it resolved that

“Representatives of the Inuit user groups of Nunavik and Nunavut support the request by Nunatsiavut to increase their quota by 6”.

Moved by: _____

Seconded by: _____

In favor: _____ Against: _____ Abstained: _____

Passed: _____ Defeated: _____

Resolution # 1

Date: September 15, 2010

1st Interjurisdictional Davis Strait Polar bear User to User Meeting between User Groups of Nunatsiavut, Nunavik, and Nunavut.

Kuujjuak, Québec

September 13th – 16th, 2010.

WHEREAS current population estimates for the Davis strait polar bear subpopulation indicate a significant increase from 900 in 1979 to 2142 in 2007,

WHEREAS user representatives from Nunavik, Nunatsiavut and Nunavut attending a meeting in Kuujjuak discussed their respective concerns related to polar bears harvested in the Davis Strait subpopulation

WHEREAS user representatives identified significant concern including but not limited to damage related to property cabins, tents, threat of injury, and death to humans related to this increase in bear numbers and the greater presence in proximity to communities and camps,

WHEREAS the increased number of bears has equally been seen to be negatively impacting on other animal resources important to Inuit for subsistence consumption including but not limited to predation of assorted waterfowl, their eggs, in addition to various seal species; walrus are anticipated to be impacted in the near future

WHEREAS specific concern was voiced by delegates in respect to Inuit not having been involved in the delineation of respective polar bear subpopulation zones,

WHEREAS in light of current population estimate for Davis Strait, and notwithstanding possible impacts from climate change, user representatives attending the meeting believe there is currently no valid biological conservation threat.

WHEREAS in consequence, Nunavut representatives wish to eliminate the current quota system in Nunavut for a 5 year experimental period; failing this, Nunavut delegates wish to increase their quota by 100 bears taken from Davis Strait to be allocated to the 3 Nunavut communities harvesting Davis strait subpopulation

THEREFORE be it resolved:

That adequate monetary compensation be solicited from government to pay for any damages incurred to property, injury, or loss of human life.

That immediate steps are taken to obtain Inuit input in delineation of polar bear subpopulation zones not limited to Davis Strait

That respective governments and relevant land claims organizations are immediately informed of the decisions contained herein

That user representatives deemed this meeting as particularly valuable in bringing users from the different jurisdictions together for the first time to discuss conservation and management of this shared resource and moreover advocate for meetings to be scheduled on a regular basis.

Moved by: _____

Seconded by: _____

In favor: _____ Against: _____ Abstained: _____

Passed: _____ Defeated: _____

Resolution # 2

Date: September 15, 2010