

Tłıchǫ and Ekwò

Wek'èezhii Renewable Resource Board
Public Hearing

Sahtì Ekwò
(Bluenose East Caribou)
April 9-11, 2019
Behchokò



Tłıchǫ Ndekw'awoo



Tłıchǫ Government



Tłıchq Ndek'awoo Sahtì Ekwò Hearing Team



John B. Zoe

Archie Wetrade

Joe Rabesca

Michael Birlea

Petter Jacobsen

John Nishi

Paul Bachand

Tammy Steinwand-Deschambeault

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My name is Tammy Steinwand-Deschambeault, I'm the Director for the, Department of Culture and Lands Protection.

Our TG Sahtì Ekwò Hearing Team Consists of the following members:

John B. Zoe – TG Senior Advisor

Archie Wetrade - TG Advisor

Joe Rabesca – TG Elder

Michael Birlea – Manager, Lands Protection

Petter Jacobsen– TK Researcher

John Nishi – Wildlife Biologist who has worked with TG for many years

Paul Bachand – TG Legal Counsel

Tłichq Ndek'awoo Key Messages



1. TG recommends a 300 bull only harvest
2. Tłichq primary harvesters of the Sahti Ekwò
3. Diga Management
4. Ekwò Nàxoède K'è (Boots on the Ground)
5. Tłichq Nàowo: 12.1.1 of the Tłichq Agreement - The importance of caribou and its habitat to Tłichq First Nation well-being, way of life and land-based economy
6. Education

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Our Presentation will go through 6 Key Points/Messages:

1. Why TG supports a 300 bull only harvest
 - a. We acknowledge the further decline of the herd.
 - b. We are looking for a balance between reducing our harvest and keeping our Tlicho Cultural Practices going by:
 - i. Maintaining our cultural connection to the Sahti Ekwò and the Idaá trail.
 - ii. Maintain and strengthen teachings amongst the women as well as the youth.
 - iii. Taking care of our Elders by providing them with Caribou
 - iv. Maintaining and strengthening the language of the land by being out on the land with the caribou physically, mentalling, emotionally and spiritually. These connections to the land also bring healthing to the mind and body.

2. The Tlicho remain the primary harvesters of the Sahti Ekwo in

Wek'eezhii

-We will look at the percentage of TAH for the herd for each region.

3. Diga Management

- a. Tłıchọ Community Based Diga Harvesing Project
- b. Monitor and managing our relationship with diga

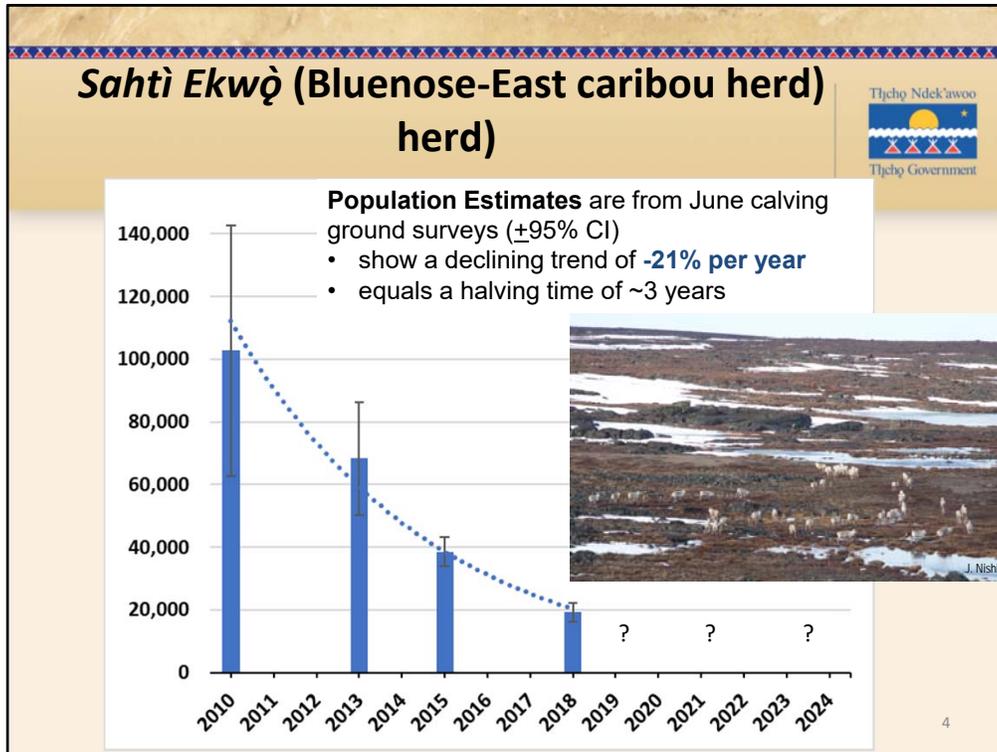
3. Ekwò Nàxoède K'è - Boots on the Ground - “We Watch Everything”

- a. Use Tłıcho Knowledge to inform management
- b. Combine observations of biological nature with traditional knowledge

4. Tłıchọ Knowledge: 12.1.1 of the Tłıchọ Agreement - The importance of caribou and its habitat to Tłıchọ First Nation well-being, way of life and land-based economy

- a. Our people's connection to the caribou
- b. Social and cultural effects of the decline
- c. Challenges to practice cultural and knowledge transfer in the face of harvesting restrictions

5. Education: How can we better work with the caribou? What are the laws that we need to abide by?



Good to follow ENR's detailed technical presentation on details of data and analyses. Provides an opportunity to provide TG high level perspective on available biological data.

The main goal for my part of this TG presentation is to: 1) provide a high level technical overview of survey results and biological information, and describe the TG technical reasons for recommended actions in the JRP. My secondary goal is to provide a segue and link to the next presenters who will provide the broader TG TK perspective and rationale behind recommendations in the JRP.

NOTES:

Explain details of graph (Y-Axis, X-Axis, precision, trend line)

June 2018 Calving ground photographic survey estimated 19,294 caribou (+/- 2,991 95% CI)

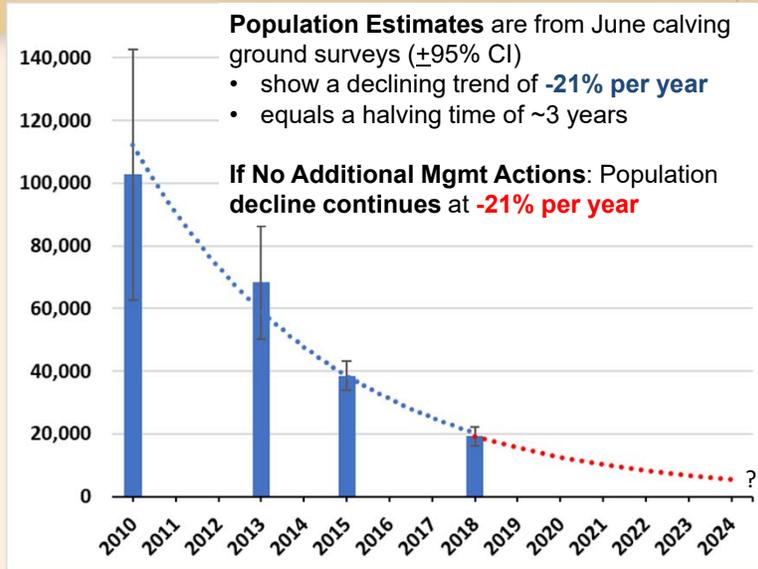
Other Estimates: 2010 – 102,704; 2013 – 68,295; 2015 – 38,592

Analysis of trend over the past 4 calving ground surveys since 2010, shows that the BNE herd has declined at ~21% per year

This rate of decline has a halving rate of ~3 years.

Because caribou are such an important resource (food security and social-cultural keystone species), we ask how healthy is the herd and how large might it be in the future? What can be done to help the caribou?

Sahtì Ekwò (Bluenose-East caribou herd)

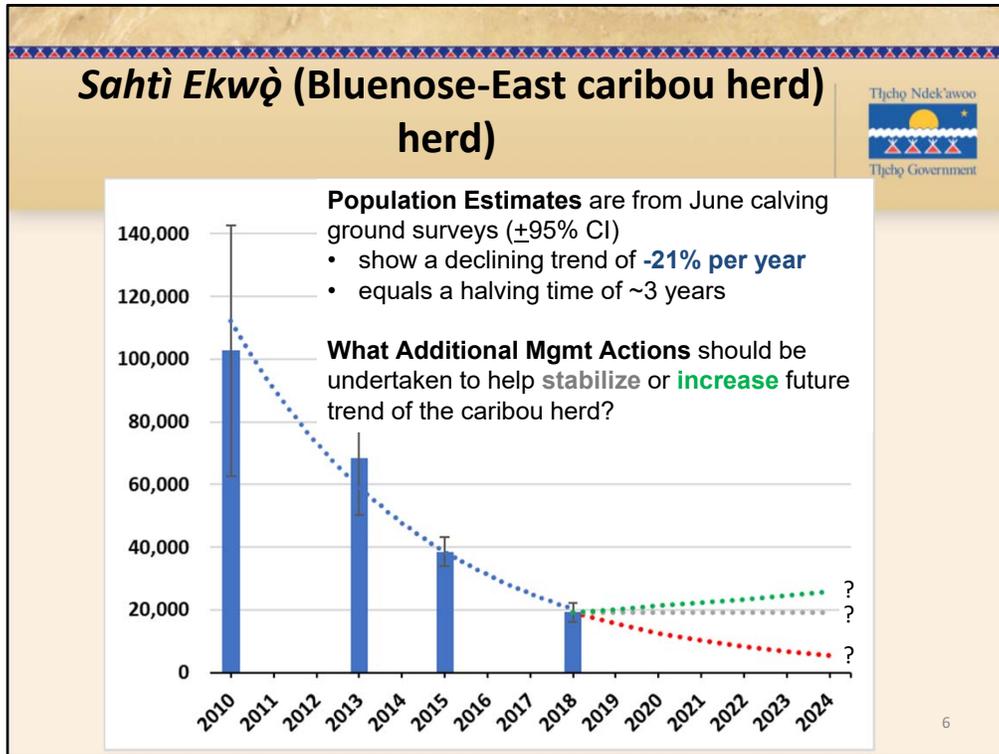


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If there are no additional management actions taken, and conditions do not change, we would expect the population to continue to decline at the observed rate over the past 8 years.

If this rate of decline were to continue, the herd of about 20,000 would be $\sim 10,000$ in 2021 (3 years since the 2018 survey, and may be $\sim 5,000$ in 2024 (6 years from the recent survey)

For the caribou herd, and for the people who rely on it for food and to their culture, language and way of life, this is a serious problem.



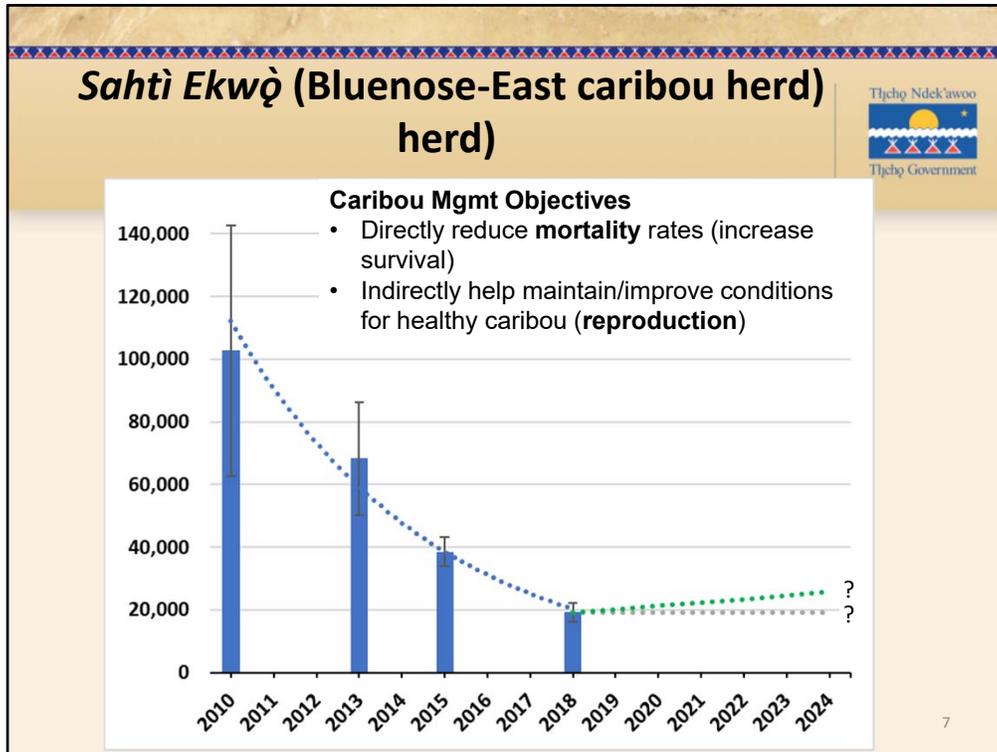
The purpose of the joint management proposal and for this public hearing are to provide the WRRB with perspective, rationale, and evidence behind the recommended management actions to help address this serious problem

In this part of the presentation, my focus is on caribou centered management actions.

Recommendations in the JMP were developed to address the question of “**What specific Additional Mgmt Actions** should be undertaken to help stabilize or increase future trend the caribou herd?”

In other words without additional management actions we would expect the herd to continue to decline as shown by the red dotted line.

What management actions should be undertaken so that herd trend becomes stable (grey dotted line) and it starts to increase (green line), i.e., 5% growth per year



By definition, a population declines if death rates are greater than birth rates, or in other words when its mortality rates are greater than the its rates of reproduction.

NOTE: Survival is the opposite of mortality. For example if a mortality rate is 20%, than the survival rate is 100% minus 20% which is 80%

Consequently Mgmt recommendations in the JMP that were focused specifically on caribou, were based firstly on a rationale to directly reduce mortality rates in the herd, and secondly on the rationale to indirectly promote / maintain conditions for healthy reproduction in the herd.

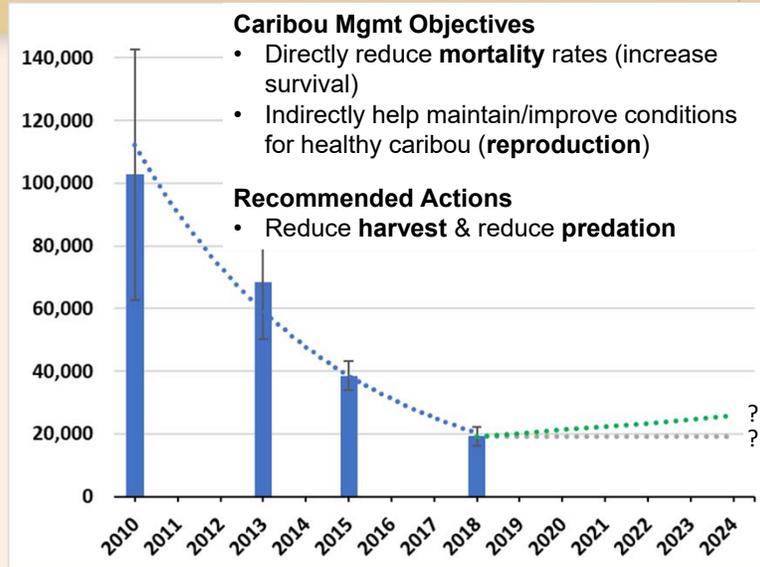
NOTES to help with a response to likely questions:

For declining caribou populations, mortality (and survival) rates for adult females and calves are considered key parameters. For the BNE, the average mortality rate of adult cows (based on collared animals) has been too high. The estimated mortality rate for cows between 2015 and 2018 was 24%, which is equivalent to an annual survival rate of 76%. Another key parameter is calf survival (otherwise referred to as recruitment), which is measured by counting the ratio of calves to cows in late winter (March/April). For the BNE herd, based on 5 surveys since 2012 an average of 29 calves per 100 cows has been

observed in late winter (n=5; 2012-2018;), which combined with low adult female survival is much too low for the population to grow and results in the observed rates of population decline. (results of combined parameters provide a lambda of 0.870 or an *r* of -0.14).

To provide perspective, management actions that improved survival would likely result in a stable population trend if two results were achieved: 1) mgmt. actions reduced adult female mortality rates by 10%, in other words average annual female survival increased to ~86%. And, average cow:calf ratios in late winter would also need to increase to ~35 calves:100 cows. [also Refer/Use ENR's slides]

Sahtì Ekwo (Bluenose-East caribou herd)



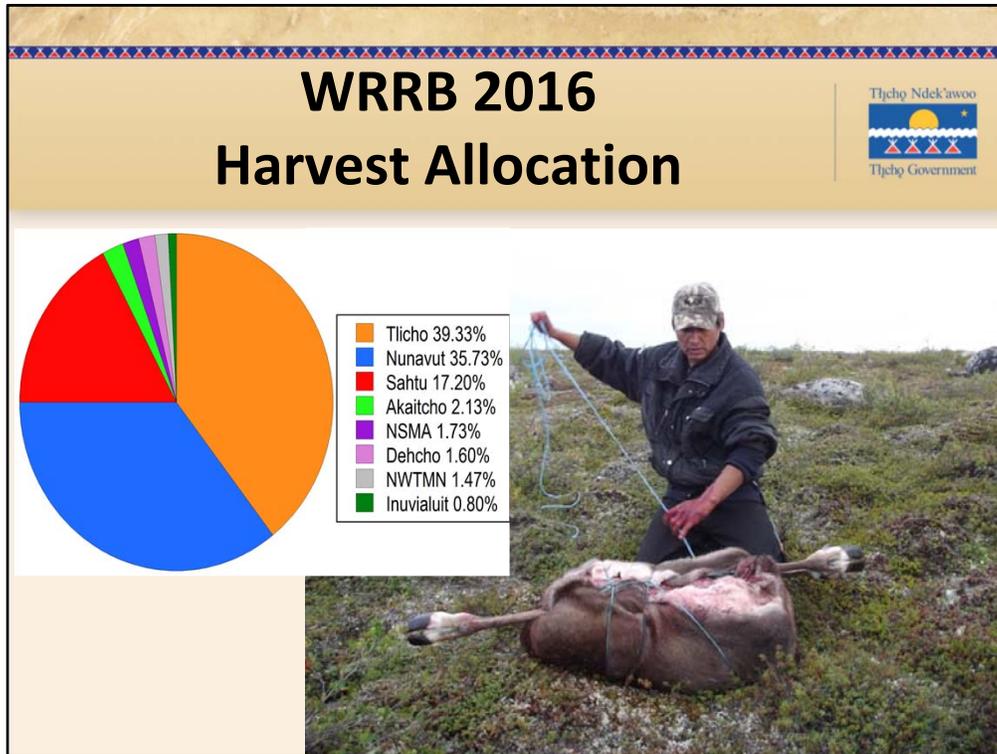
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From this caribou management perspective, the most direct management actions that are most likely to effectively reduce mortality rates are

- 1) reduction in harvest or hunting by people and
- 2) sustained reduction in predators and mortality levels due to predation.

WRT reduced harvest levels, the recommended action is to reduce the TAH further to 300 bulls only.

- With a focus on younger bulls, this TAH represents a low additive risk for the herd, which has been outlined in ENR's presentation and modelling work.
- TG suggests that a herd-wide TAH of 300 bulls for the BNE herd, provides a balance between the potential benefit to caribou of a complete harvest closure and the needs of Tlicho (and other Aboriginal people) who may still take caribou at suitably low level of a closely monitored harvest.
- A TAH of 300 bulls would allow Tlicho (and other Aboriginal communities) to still take caribou for food and provide a means for Tlicho to maintain their relationships with ekwo, which is fundamentally based on hunting, preparing, eating and using all parts of the harvested caribou.
- My colleagues will provide further perspective and evidence on the need to maintain this relationship through hunting, and that a TAH of 300 bulls may still support that relationship

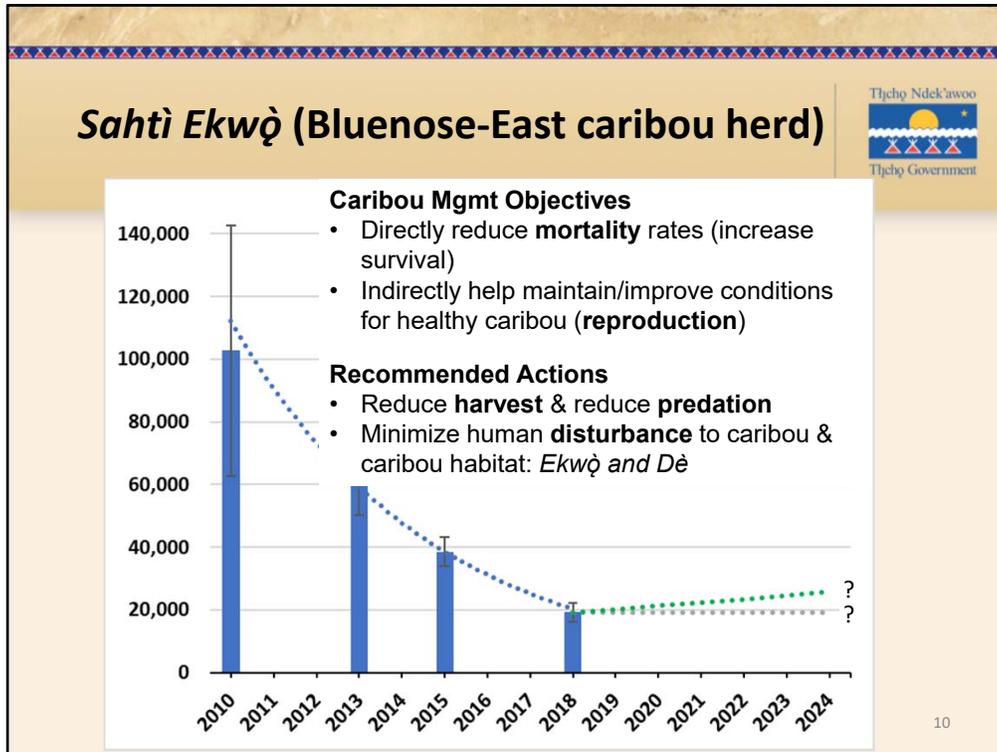


- TG acknowledges the difficult decisions regarding a determination on a TAH that the WRRB will be making as an outcome of this public hearing.
- As outlined in the JMP, TG jointly recommends with ENR that the TAH for Sahti Ekwo be reduced further to 300 bulls. TG also suggests that the WRRB apply the same allocation formula it used in its 2016 determination. That allocation was based on best available information on reported harvests by First Nations, Inuit and Metis of the BNE herd from 2010 – 2014, and summarized in this pie chart.
- Based on that information, the largest share was 39.3% for Tlicho harvesters, followed by 35.7% for Kugluktuk harvesters and 17.2% for Deline harvesters.
- TG recognizes that any changes to harvest made by the WRRB will apply in Wekheezhi, and that any changes in harvest in NU and Sahtu will need to be made by the respective management authorities. But if additional harvest recommendations are to be made, it is best to think of the big picture at the outset – i.e., at the herd level.

Note:

Harry Rabesca

Picture has been used previously – not many opportunities to take new pictures of people hunting caribou because of limited hunting opportunities.



As highlighted by the last point in this slide, the JMP also made recommendations regarding Habitat and Land-use.

The rationale for managing (or minimizing) human-caused disturbance to ekwo provides the basis for recommendations in the JMP on the need to monitor and manage land use.

- Basically, the rationale for minimizing human-caused disturbance to caribou (*Ekwò*) and caribou habitat (*Dè*), is to provide the best conditions for caribou so that they may reach their reproductive potential, which is supported by environmental conditions and health of the land. From an ecological perspective, I suggest that fecundity or number of calves born to adult females in a population (and early calf survival) is largely a result of the cow's condition and health, which in turn is largely a reflection of habitat conditions and their ability to access and eat enough good food especially during the growing season.
- Thus WRT to land use, key steps in implementing monitoring and management actions are to understand, identify, and conserve important habitats and sensitive areas for ekwo, which my colleague Petter Jacobsen will expand on in his presentation.
- A final point is that although I have talked about and distinguished between management actions that affect caribou, people, wolves, and habitat – from an ecological and Tlicho perspective we know that these components are intertwined and interactive.
- To illustrate this point, I would like to read a short passage from the recent Boots on the

Ground report:

Dè has a broader meaning than “land,” because it refers to a whole ecosystem or environment; “however, where the word ecosystem is based on the idea that living things exist in association with non-living elements, the Dogrib term dè expands the meaning of “association” to encompass the knowledge that everything in the environment has life and spirit” (Legat, Zoe & Chocolate, 1995). Dè is not an independent object “out there,” existing separate from culture and our daily lives, but rather is an all-encompassing, holistic system, of which indigenous culture is an integral part. (p. 14 Tlich Research and Training Institute 2018 – “Boots on the Ground Caribou Monitoring Program 2017 Results”)

So with that I conclude my part of the presentation, and would invite my colleague Petter Jacobsen to continue the TG presentation.

Tłıchq Community Based Diga Harvesting Project



- Goal: Community members leading the TCBDHP to reduce diga predation on caribou.
- Based on recommendations from the Elders
- Focused on Tłıchq Nàowo
- Following traditional diga harvesting laws
- Monitoring along with ENR

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Goal: Community members leading the TCBDHP to reduce diga predation on caribou.
Based on recommendations from the Elders
Focused on Tłıchq TK
Following past diga harvesting laws
Monitoring along with ENR

Ekwò Nàxoède K'è
(Boots on the Ground)

Tłıchq Ekwò Monitoring





2016: Domenico Santomauro, Petter Jacobsen, Archie Black, Leon Ekendia, Sean Richardson, Roy Judas, Jorgen Bolt, Moise Rabesca, Michel Louis Rabesca



2017: Mercie Kaodloak, Roy Judas, Joe Zoe, Narcisse Rabesca, Leon Ekendia, Petter Jacobsen, Russell Drybones, John Kaodloak, Tyanna Steinwand



2018: Jimmy Mantla, Russell Drybones, Petter Jacobsen, Leon Ekendia, Tyanna Steinwand, Mercie Kaodloak, John Kaodloak, Roy Judas, Joe Zoe






The goal of my presentation is to; 1) demonstrate the use of traditional knowledge in caribou monitoring by providing results and expansion plans for the Ekwò Nàdehçà K'è program and; 2) research plans to document important and sensitive habitat for the Bluenose-east caribou leading to continued monitoring and conservation of caribou habitat.

Ekwò Nàdehçà K'è caribou monitoring program: original idea from Tlıcho Chiefs, for their own people to be on the land watching caribou and their habitat, using Tlıcho methods for traveling the land and understanding the biocultural dynamics based on traditional knowledge. The importance is that Tlıcho people are on the ancestors' trail, at the traditional harvesting places, can observe with our own eyes the land and the caribou, and that our own people report back to the Chiefs.



As a participatory action research approach, the elders and harvesters on the team defined our research framework and what specifically to study and monitor. The importance is how the elders identified all elements of the ecosystem, human cultures included, and the complexities and connections from time immemorial to present, shared through cultural stories.

Ekwò Nàxoède K'è Results



- Impacts of climate change on caribou and its habitat
- Effects of mining infrastructure on caribou migration
- Predators and caribou
 - Wolf predation on summer range
 - Bald eagle; new predator on the caribou summer range
- Indigenous cultures vital to ecosystem sustainability



After three years of monitoring the Bathurst range, we identified several pathways of effects to Bathurst caribou. The Bathurst and Bluenose east herd overlap ranges and share similar habitat during fall and winter and we can expect similar effects, as observed; 1) impacts of climate change on caribou and its habitat: because of increasing temperature and melting summer snow, caribou are now engaging in new behaviours like standing in water and running in circles trying to avoid heat and harassment by insects; 2) effects of mining infrastructure on caribou migration, where infrastructure is built on tataa and caribou migration routes, this forces caribou into narrow routes that can increase their exposure to predators or block them from important areas; 3) predators and caribou: contraction of herd range provides a supply of caribou meat for wolves on barrenland throughout the year, the bald-eagle expands their range above treeline onto barrenland and has become new predator on the caribou herds summer range, and 4) how indigenous cultures are vital to ecosystem sustainability through the cultural practices as harvesters and maintaining connection to the land and animals. Statements as “caribou are not here, because people are not here”, demonstrate program recommendations to support Indigenous peoples on the land activities as efforts to restore balances in the ecosystem.

Tłichq Nàowo Research



- To gather and use Tłichq Nàowo to inform decision-making and management.
- Research priorities:
 - Expand Ekwò Nàxoède K'è program to Sahtì Ekwò range.
 - Monitoring could start on Deèzàati (Point Lake) in summer 2020; if herd is in vicinity
 - Identify important caribou habitat as Ekwò no'oke, tataa and unburned winter habitat



One purpose of the traditional knowledge research is to gather and use the elder's knowledge, and create space for the knowledge, in decision-making and management. Research priorities, outlined in the management proposal, are to expand the Ekwò Nàxoède K'è (Boots on the Ground) program to the Bluenose-East caribou range. We have purchased boats and the elder advisors identified several historical caribou harvesting sites, where basecamps can be established for caribou monitoring. The success for Boots on the Ground on the Bathurst range is due to the large lakes where we use boats to find caribou. On Bluenose-East range these are few large lakes, and the ability to monitor the herd depends on their presence around the large lakes during summer and fall. When monitoring occurs, we can observe herd health, understand cumulative impacts on the herd, and continue to document important habitat from a traditional knowledge perspective. Further research priorities are to continue ongoing research to identify and document important caribou habitat as Ekwò no'oke (watercrossings), tataa (land crossings) and valuable unburned winter habitat. Much of this work has already been conducted for the Bathurst herd range, and used in the Bathurst Range Plan. We plan to expand this research for the Bluenose east range, leading to potential conservation of important and sensitive caribou habitat and include valuable winter habitat in the Value at Risk hierarchy for forest fire management. The elders are the only ones who hold this detailed knowledge of the land, it does not exist anywhere else, thus we are a critical point now to use and create space for traditional knowledge in management initiatives. With that I will conclude my part of the Tłichq Government presentation and hand it over to the holders of this traditional knowledge; Joe Rabesca, Archie Wetrade and John B. Zoe.

Ekwò Zò Gha Dzò Nàts'edè



“We Live Here For Caribou”



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Joe Rabesca
Archie Wetrade
John B. Zoe

Cabin at Tseëmjts'ahtì



Archie Wetrade &
Edward Chocolate



Archie Wetrade

Weyìhàak'èe



Education



- Promote TG Ekwò Nàxoède K'è - Boots on the Ground program
- Respecting the Caribou -- > Caribou Laws
- ENR hunter education programs
- Ekwò Population Estimates updates
- Tools to inform the community:
 - Community meetings
 - Posters for public education
 - Radio /Social Media

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1. Promote TG Ekwò Nàxoède K'è -Boots on the Ground to identify new team members for the expansion to the Sahti Ekwo herd
2. Respecting the Caribou, share the Caribou Laws, review them and live by them.
3. Include ENR hunter education programs
4. Ekwo population estimates updated to the public regularly
5. Use a variety of tools to reach out to the public, community meetings, posters, radio, social media

Tłıchq and Ekwò



- Importance of finding and creating a balance
- Monitor Sahtı Ekwò habitat
- Reduce predators (and work with other organizations and gov'ts)
- Education
- Live in harmony
- Continue our relationship with the caribou.

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Conclusion:

Importance of finding and creating a balance: We propose a reduced harvest. A reduced total allowable harvest from 750 to 300 is a reduction of 60%. This will allow us and other Indigenous groups, to maintain our way of life involving caribou.

As Tłıchq people, we depend on the caribou to sustain our way of life. You have heard from our Elders and the rest of the team that the caribou are an important species. Through our Boots on the Ground Program and our Diga Management program along with a variety of caribou teachings through TG and ENR's educational programs, working with other organizations and governments, TG is committed to doing what is best in order to see the Sahtı Ekwò populations stabilize or better yet, improve. The caribou need us just as much as we need them. We have always lived in harmony, we need to continue that relationship for the benefit of the caribou and ourselves. We need each other.

Tłichq̄ and Ekwò



- Tłichq̄ rely on ekwò for our physical, spiritual, and cultural sustenance
- Management decisions affect Tłichq̄ connection to ekwò, ndè and nàowo



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Tłichq̄ relied on ekwò for our physical, spiritual, and cultural sustenance

Management decisions affect Tłichq̄ connection to ekwò, ndè and nàowo

That concludes the Tłichq̄ Governments presentation on the Sahti Ekwo. I would like to thank our team for their hard work to put this presentation together and for speaking from the heart. Masi.