



# REPORT ON THE 10<sup>TH</sup> BIENNIAL DEHCHO REGIONAL WILDLIFE WORKSHOP

October 18-19, 2022, Łíídlı́ Kúé First Nation Band Office Boardroom, Fort Simpson, NWT

ÈVE LAMONTAGNE

2023

Government of  
Northwest Territories



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## INTRODUCTION

The Department of Environment and Climate Change (ECC), Dehcho Region, held a Regional Wildlife Workshop at the Łíídlı́ Kúé First Nation (LKFN) boardroom in Fort Simpson, Northwest Territories (NWT) on 18-19 October 2022. This was the tenth regional wildlife workshop; ECC held the first workshop in September 2002, with the others occurring in October every second following year. Because of Covid-19 restrictions, the year 2020 was skipped. First Nations have expressed their desire to continue having those workshops; we resumed as soon as possible.

The Dehcho Wildlife Workshop is a crucial component of the regional wildlife research and monitoring program. This workshop provides updates on regional wildlife programs to representatives from all Dehcho First Nations, Federal agencies (Parks Canada, Canadian Wildlife Service, Environment and Climate Change Canada), neighbouring jurisdictions, academic/non-academic researchers, and the public. It also provides a forum incorporating traditional and scientific knowledge in open discussion. The workshop facilitates open communication, critique and exchange on regional wildlife issues, concerns, and monitoring programs.

Topics for discussion integrates local wildlife species and broader theme such as climate change effects, wildlife management, wildlife health, food security, environmental assessment, and protected areas (to name just a few). Addressing those questions helps ECC conduct appropriate wildlife monitoring programs following regional stakeholders' interests. Building strong and trustworthy working relationships between Federal, Territorial, and local indigenous government organizations is key for the Department.

# 2022 DEHCHO WILDLIFE WORKSHOP

The goals of the 2022 workshop were to:

- Bring together all Dehcho First Nations, knowledge-holders, researchers, all levels of government, and members of the public to discuss central wildlife questions.
- Provide updates on wildlife surveys conducted since the last workshop in 2018, wildlife health, and harvest records.
- Train participants on the harvester's sample kit for future wildlife research programs.
- Connect participants to facilitate the exchange of information, experiences, and opinions through an open dialogue.

ECC chartered an aircraft to allow Sambaa K'e representative to attend the workshop. All other participants were able to drive into town. All Dehcho communities attended except for Pehdzeh Ki First Nation. The workshop included 15 presentations, six round-table discussions, one breakout session, and one training. Presentations and their presenters are listed below; copies of the presentations are available upon request. Posters were also on display during the workshop providing additional information on other wildlife research and monitoring programs in the Dehcho region.

## Workshop presentations and posters

- Boreal caribou monitoring program in the Dehcho, Ève Lamontagne, ECC
- Boreal caribou range planning in the southern NWT, Kathy Unger, ECC
- Wood bison monitoring program in the Dehcho, Ève Lamontagne, ECC
- Biodiversity monitoring programs in the NWT, Samuel Haché, CWS
- Wildlife health in the Dehcho, Naima Jutha, ECC
- Moose monitoring program in the Dehcho, Ève Lamontagne, ECC
- Dall's sheep monitoring program in the Dehcho, Ève Lamontagne, ECC
- Overview of the biodiversity monitoring programs in the Sahtú, Kevin Chan, ECC
- Overview of the wildlife research programs in the Nahanni National Park Reserve, Colleen Murchison, Parks Canada
- Invasive species monitoring in the southern NWT, Johanna Stewart, ECC
- Bat surveys in the Dehcho, Michael Gast, ECC
- Amphibian surveys in the Dehcho, Joanna Wilson, ECC
- Bee monitoring in the Dehcho, Joanna Wilson, ECC
- Arctic salmon monitoring and sample collection, Karen Dunmall, DFO (poster only)
- Small mammal survey in the NWT, Suzanne Carrière, ECC (poster only)
- Hare survey, and lynx and other furbearers population monitoring in the NWT, Suzanne Carrière, ECC (poster only)



**Figure 1.** Day 1 – boreal caribou presentation.

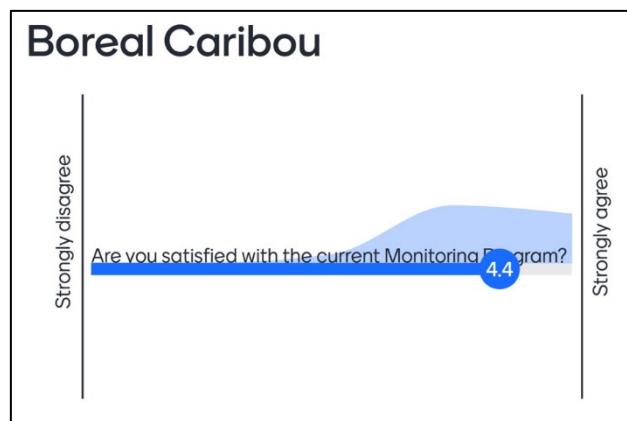
# DISCUSSION OVERVIEW

The main species of interest during this workshop were, in order of presentation, boreal caribou, wood bison, moose and Dall's sheep. In the following section, only those presentations will be discussed. If the reader would like more feedback on the other topics presented, ECC can provide it upon request.

## Boreal Caribou

On the first day, ECC presented the progress made on boreal caribou research, monitoring and management. The group reconfirmed the GPS collaring goals and the number of animals to collar. ECC explained the various population trends analysis, their results and their meaning (calving events, calf recruitment, adult female survival, and lambda). Wolf surveys and monitoring proposal were also discussed, given the relation between seismic lines and wolf predation on boreal caribou. An update was made on the boreal caribou range planning goals and progress, and on the following steps to expect shortly. A round-table discussion closed the caribou section of this workshop. We used the Mentimeter App to ask questions to the group and offer a chance to people less prone to public speaking to express their opinion and provide feedback. The group determined that the boreal caribou program should continue according to the plan presented. We asked the group to rate our program on a scale from 1-5. The overall satisfaction was 4.4 (Figure 2). Comments collected during this discussion were:

- Increase collaboration between ECC and guardians, including elders, and integrate more traditional methods to alleviate some of the stress related to collaring operations. Involve the communities and run the program collaboratively.
- Rethink the collar belting material to resemble natural caribou hide.
- Run analysis on samples collected from mortalities to examine stress levels, bacteria, toxins, heavy metals or mineral deficiencies.



**Figure 2.** Overall satisfaction of current boreal caribou monitoring program.

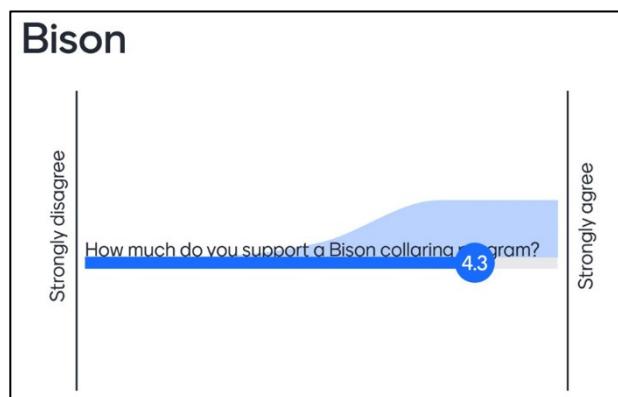
## Wood Bison

Next, ECC presented the latest work on the Nahanni wood bison herd. We discussed the summer composition survey results from 2019 onwards and the demographic trends in the Nahanni population. Winter population survey results and trends since 2004 were also presented. A Nahanni herd health update was provided in response to the winter 2022 mortality outbreak. The conclusions from the necropsies and lab analysis results were provided to the group. We presented the Nahanni wood bison working group goals and outcomes. We introduced to the group two new projects ECC is considering:

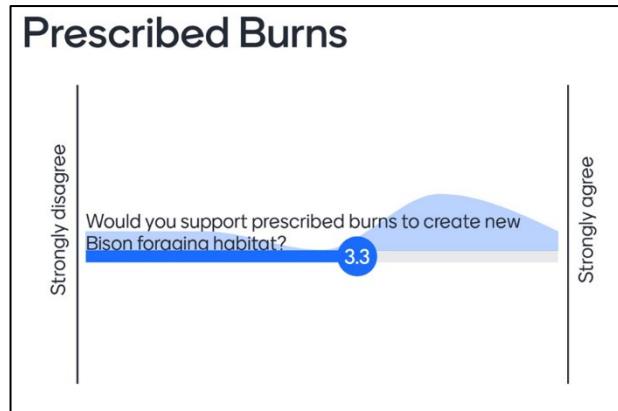
- Deploy GPS collars on female Wood Bison to estimate better the Nahanni herd abundance for more accurate harvest quotas; to understand high-quality habitat that will help reduce nuisance bison in the community and on highways.
- Perform prescribed fire to modify the habitat to a high-quality bison habitat and attract bison away from communities.

Overall, the delegates supported continuing the bison monitoring work ECC has been doing in the past. The group strongly supported deploying GPS collars on bison (4.3 out of 5), and moderately supported exploring the prescribed fire option to attract bison away from communities (3.3 out of 5). Comments collected during this discussion were:

- Provide an update on the genetics of the Nahanni Wood Bison herd (genetic diversity and species differentiation between Plain Bison and Wood Bison)
- Research the interaction between bison, moose, and caribou, and analyse their potential competition for food in certain habitats.



**Figure 3.** Group support, resulting in a score of 4.3, for deployment of GPS collars on wood bison.



**Figure 4.** Group support for prescribed fire options to attract bison away from communities.

The afternoon of day one was dedicated to wildlife health, necropsy introduction, and harvesters' sample kit training (Figure 5). This hands-on experience was great for getting the participants to share their way of handling animals and what samples they would agree to give away for research purposes. It fostered great conversation on how to work together to develop methods/protocol that respects each party's goals and culture.



**Figure 5.** Day 1 – bison necropsy introduction and harvester's sample kit training.

## Moose

The second day started with a presentation on the highway patrols ECC Renewable Resource Officers have been doing in the past few years. Then we discussed the moose monitoring program, reviewed the previous population survey results as well as the details of the upcoming population survey planned for November 2022. We divided the participants into small breakout groups to identify high-quality moose habitats. This activity intended to stratify the survey area before the fall moose survey. Nic Larter and Danny Allaire had already completed a similar exercise when they oversaw the Dehcho programs, but such time has passed since the last survey, ECC wanted to verify if the habitat had changed since. Maps of each survey block were printed on large posters, and participants were welcome to move around and highlight what they considered high-quality habitat. This exercise helped get good input for the upcoming survey. It fostered open communication on other wildlife stories, what people have seen on the land, their concerns, or simply memorable life stories of on-the-land adventures.



a.



b.

moose breakout sessions.

**Figure 6a and b.** Day 2 –

The group mentioned not receiving ECC's wildlife survey reports when we share them with band offices. People are particularly interested in reading the moose survey reports and population estimates. The group suggested sending copies of the report to the participants who shared their email addresses and printing paper copies to leave at band offices, bulletin boards and ECC Dehcho offices.

## Dall's Sheep

Next on the agenda was the Dall's sheep recent survey update. We discussed the 2022 summer distribution and composition survey along the Prairie Creek Road alignment. We talked about the sample collection currently ongoing with the Dehcho outfitters. We discussed how the group would support ongoing annual surveys that would allow us to produce population trends. We also discussed the possibility of collaring Dall's sheep to look at behaviour patterns, seasonal movement, habitat of importance and adult survival estimates. Overall, the group was supportive of those suggestions. At the round table discussion, the takeaway messages we noted were:

- Perform the sheep survey during the winter months using the tracks in the snow to indicate the caves being used. Mix this technique with summer composition surveys to classify animals by sex and age.
- Any accessible zone outside the Nahanni National Park has intense hunting and harvest pressure. People are worried that the increased pressure for trophies removes good genetics from the local population.
- Because of industrial development in the area, the amount of noise and disturbance is pushing away the sheep further into the mountains. Dene people cannot harvest sheep as they used to.
- Research has shown that Dall's Sheep are very sensitive to human disturbance (mine exploration and roads); they can leave areas for five years. More data is needed to identify nursery areas and high-quality habitats to request appropriate wildlife mitigation from industrial developers.

# REVIEW OF THE 2018 ACTION ITEMS

What follows is an overview of the ten action items from the 2018 Dehcho wildlife workshop and detailing how they have been pursued by ECC.

**Table 1.** 2018 actions and responses to items identified in the 2018 Dehcho wildlife workshop.

2018 Action Items	How ECC has responded
<b>1.</b> Ensure the final report of this workshop is completed on a timely basis distributed to all first nations and posted on the ECC website.	The final 2018 Dehcho wildlife workshop report is available online. Nic Larter shared copies of it with all Dehcho First Nations.
<b>2.</b> Secure funding to host another regional wildlife workshop at about the same time of year in two years; the format invitation of two delegates per first nation to attend the workshop should remain but ECC should provide an honorarium for delegates in addition to covering travel, room, and board costs.	Because of Covid-19 restrictions, 2020 was skipped, but the biennial regional wildlife workshop format resumed in 2022. ECC sponsored two delegates per first nation to cover all travel costs. However, ECC couldn't secure enough funds for each participant's honorarium.
<b>3.</b> Deploy the 17 collars on caribou in February 2019 (11 on females and six on males); ECC should continue to maintain active collars on $\geq 30$ females during calving period and $\geq 12$ on males during the rut.	Deployed boreal caribou collars by years: <ul style="list-style-type: none"><li>• 2019: 17 total (11 females, 6 males)</li><li>• 2020: 10 total (4 females, 6 males)</li><li>• 2021: 11 total (6 females, 5 males)</li><li>• 2022: 15 total (10 females, 5 males)</li></ul> Current active collars: 36 females, 12 males
<b>4.</b> Pursue constructing and displaying interpretive signs on Highways 1 and 7 for boreal caribou, Nahanni bison, and western toads (NWT amphibians) and consult with local first nations about appropriate locations.	Interpretive signs for boreal caribou, wood bison and western toads have been installed along Highways 1 and 7 in the Jean-Marie River, Nahanni Butte, Muskeg River and Fort Liard areas.
<b>5.</b> Collecting samples from harvested boreal caribou in the Dehcho as soon as possible. The Fort Simpson office will provide sampling kits to communities and reimburse harvesters \$75/completed sample kit.	ECC hasn't followed up on this action item. Change in personnel made this project fall aside. The new staff will reengage with harvesters and Headquarters to determine the feasibility of this project.
<b>6.</b> Purchase and deploy collars in late-winter 2019 on ten boreal caribou females located from Wrigley north to the Sahtú in areas adjacent to the Mackenzie Valley Highway. This would be collars in addition to the 17 deployed for the ongoing Dehcho boreal	ECC attempted to collar ten females in 2019 but could locate only one animal. However, 13 collars were deployed the following year (nine in the North Wrigley area, four in Sahtú). Current active collars deployed for the

caribou monitoring program.	Mackenzie Valley Highway project: 11 in the Dehcho, 10 in the Sahtú.
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<b>7.</b> At this and future wildlife workshops, ECC should collect info from each community or First Nation on whether they feel that numbers of different wildlife species have gone up or down or remained the same since the previous workshop and what the general condition of harvested wildlife has been over the past year.	ECC addressed this topic at the 2022 Dehcho Wildlife Workshop. Comments and action items related to this are detailed in the Discussion Overview section and the 2022 Action Items list.
<b>8.</b> Continue to use the 40/60 two phase approach with future large scale geospatial moose surveys; based upon results of the winter 2017/2018 survey, the Mackenzie study area should be surveyed before the Liard study area and ideally by winter 2021/2022.	The small-scale moose survey was completed in November 2022. The report will be shared with all Dehcho communities by fall 2023.
<b>9.</b> Pursue changing the current allocation of seven wood bison tags for the Nahanni population to better ensure they are used. First Nations are encouraged to contact Acho Dene Koe First Nation and Nahanni Butt Dene Band to facilitate improvements in allocation and use.	ECC created the Nahanni Wood Bison Working Group, which aims to make management decisions and recommendations to implement the ECC Wood Bison Management Plan. Reviewing the tag allocation and quotas is included in the list of tasks.
<b>10.</b> Have enforcement make presentations to clear up some of the misconceptions related to fall hunting activity and ECC fall highway patrols.	ECC Renewable Resources Officers have patrolled and increased their presence on Highway 7 each fall since 2020. Their work and conclusions were presented to the group at the 2022 Dehcho wildlife workshop.

## 2022 ACTION ITEMS LIST

What follows is the list of action items generated from the 2022 Dehcho wildlife workshop for ECC to pursue.

1. Create a contact list of individuals who wants to receive ECC's wildlife reports by email. Print paper copies of reports and distribute them to band offices, bulletin boards and ECC Dehcho offices.
2. Increase collaboration between ECC and local communities to integrate traditional methods into our research programs better. Run some programs collaboratively.
3. Deploy GPS collars on ten female wood bison to estimate better the Nahanni herd abundance for more accurate harvest quotas; to understand high-quality habitat that will help reduce nuisance bison in the community and on highways.
4. Develop the capacity to perform prescribed fire to modify the habitat to a high-quality bison habitat and attract bison away from communities.
5. Provide an update on the genetics of the Nahanni wood bison herd (genetic diversity and species differentiation between plains bison and wood bison).
6. Research the interaction between bison, moose and caribou, and analyze their potential competition for food in specific habitats.
7. Perform annual surveys on Dall's sheep (consider summer and winter months) to identify nursery areas, high-quality habitat, and demographic composition. Request industrial developers to adequately mitigate their disturbance to wildlife at crucial times of the year (i.e., lambing period).
8. Investigate further the possibility of collaring Dall's sheep to look at behaviour patterns, seasonal movement, habitat of importance and adult survival estimates.

## CONCLUSION

Over the course of the two-day workshop, delegates and audience participants provided much feedback on ECC's current wildlife programs and their concerns related to wildlife disturbance and climate change. Representatives suggested many options for improving our current programs and ideas for new research projects on a wide variety of wildlife-related topics. ECC would like to take this opportunity to thank all first nations who sent delegates to participate in this workshop. There was a high attendance and participation, but we continue encouraging the participation of youth delegates. Our programs can only benefit from the comments and suggestions from all age groups, and we value everyone's opinion. ECC would also like to thank all guest presenters for participating in this workshop. We are already looking forward to the next edition.

# APPENDIX 1 - ATTENDANCE

## 2022 Wildlife Workshop Delegates

Name	Indigenous Group Organizations
Absent	Pehdzeh Ki First Nation
Dieter Cazon	Łíidl̨ Kúé First Nation
Edward Cholo	
Jeff Cholette	Fort Simpson Métis Local
Jonas Sanguez	Jean Marie River First Nation
Angus Sanguez	
Jessica Jumbo	
Anthony Ekenale	Sambaa K'e First Nation
Ronald Kotchea	
Brendan Konisenta	
David Konisenta	Nahanni Butte Dene Band
Donny Bertrand	
Angus Capot-Blanc	Acho Dene Koe First Nation
Allan Bonnetrouge	
Richard Sanguez	Dehcho First Nation – Guardian Program
Michael Minoza	

## Environment and Climate Change Representatives

Name	Position
Jamie Chambers	Regional Superintendent, Dehcho Region
Michael Gast	Wildlife Technician, Dehcho Region
Jarret Hardisty	Manager, Wildlife and Environment, Dehcho Region
Ève Lamontagne	Manager, Wildlife Research and Monitoring, Dehcho Region
Kevin Chan	Regional Biologist, Sahtú Region
Naima Jutha	Wildlife Veterinarian, Headquarters
Johanna Stewart	Wildlife Technician (Invasive species), Headquarters
Kathy Unger	Acting Manager, Habitat and Environmental Assessment, Headquarters

Name	Position
Joanna Wilson	Wildlife Biologist (Species at Risk), Headquarters
Nick Wilson	GIS and Wildlife Data Specialist, Headquarters

## Other Participants

Name	Organization
Heidi Wiebe	Edéhzhíe Management Board
Robert Norwegian	
Jim Antoine	Łíídlı́ Kúé First Nation
Wilbert Antoine	
Colleen Murchison	
Erin Calder	
Kirsten Azar	
Sarah Arnold	
Alex Heathcote	
Jonathan Tsetso	
Samuel Haché	
Jennifer Gast	Canadian Wildlife Services