Ekwǫ̀ Nàxoèhdee K’è

2025 Results



Kokètì

Deèzàatì

Ek'atì

Dedats’eetsaa:
Tłı̨chǫ Research & Training Institute
www.research.tlicho.ca

2026

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ISBN: 978-1-896790-77-0

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Geographical Terminology Useful for Caribou Monitors

Ekwo Nǫɔokè	Caribou Water crossing (any place animal can swim across)
Ekwo Naɔokè	Caribou Water crossing (a place caribou *always* swims across)
Tataà	Land between water bodies
Whatàa	Esker
Hozìı	Barrenland
Hozìı Deè	Barrenland; farthest out, “Big barrens”
Hozìı shìa	Hill or mountain on barrenland
Sih / shih	Hill or mountain
Daka	High points
Ts’ıwıì	Stands of trees (black spruce) on barrenland
Tì	Lake/water
Ta	Water; prefix of a word to do with water
Deh	River
Taıɔaa	Meandering river
Dehti	River lake (a lake in the flow of a river)
Dı	Island
Tɬ'à	Bay
tɬ'ą̀ą	Beach
Tabàa	Lake shore or beach
ɔehdah	A point of land
ʔehdahkw’o	Peninsula
Tı k'abàa	Shoreline (walking by the shoreline)
Wha	Sand: prefix to do with sand / or a pole
Nałeezee	Caribou calving grounds
Dechɻlaa	Treeline
Chɻk'è	North
Sazhɻ/ sazɻ	South
k'àbatsǫ̀ǫ̀	East
dą̀ą̀	West

Wildlife Terminology Useful for Caribou Monitors

Hozìı Ekwǫ̀	Barren-ground caribou
Kokètì ekwǫ̀	Bathurst caribou herd
Sahtì Ekwǫ̀	Bluenose-east caribou herd
Tǫdzìı	Woodland caribou
Ekwǫ̀ łexè k’eɔàa	Caribou herd
Ekwǫ̀ akwe etłee	Caribou leader / lead caribou (any sex)

Ts’ìda akwe etłee	Cow leader
Wedzıa	Small sized bull caribou
Wedzıì	Bull caribou
Yèagoa	Young bull caribou; 3-year-old
Yèagocho	Bull caribou, second largest male
Wedzıìhcho	Large male caribou
Nadeèzhǫ	Older bull caribou
Dets’e	Mature Cow caribou
Dets'èa	Young cow caribou
Tsıa	Caribou calf
Ts'ìdaa	Young caribou (2 or 3 years old)
Ekwǫ̀ Nàxoèhdee K’è	In the migration of ekwǫ̀
Nadeeɔà	Migrating caribou
Ekwo na da dii	Caribou left behind during migration: “caribou that go half way”
Nììzaa	Caribou migrating towards the forest in the fall
Nadèezoǫ	Caribou migrating to the calving grounds
Ekwǫ̀ Edè	Caribou antlers
Ekwǫ̀ keè	Caribou tracks
Ekwo eto	Caribou trail
Ekwǫ̀ ek’a	Caribou fat
Dìga	Male wolf
Dìga dets’è	Female wolf
Dìgazha/ Dìgaza	Wolf pup/ pups
Dìga wozaa /wezaa	Wolf litter
Diga eɔoo	Wolf den
Dìga nàdè	Wolves family, community / wolves living together
Dìga nàdèe k'è	Wolf habitat
Sahcho	Grizzly bear
Hozìı edzıe	Muskox
Nǫ̀gha	Wolverine
Dıdı	Ground squirrel / barrenland squirrel
Dedìı	Moose
Kw’ıh	Mosquito
Behk’òts’ı̨ą	Arctic tern
Tatsǫ̀ gah	Raven
Hatsǫ̀ga	Crow
Tı tso	Loon
Det’ǫcho	Eagle
Ets’imbaa	Arctic fox

Executive Summary

The Ekwǫ̀ Nàxoèhdee K'è (ENK) program is a Tłı̨chǫ Government-led, community-based monitoring program established in 2016 to document the condition of ekwǫ̀ (barren-ground caribou), their habitat, predators, and industrial impacts. The program applies Tłı̨chǫ research methodologies based on a *We Watch Everything* approach combining direct observation of the land and animals with Tłı̨chǫ knowledge, traditional travel routes, and harvesting practices. In addition to documenting ecological information, the program maintains the relationship between Tłı̨chǫ people, the land, and ekwǫ̀.

During 2025, monitoring was conducted at Kokètì (Contwoyto Lake), Deèzàatì (Point Lake), and Ek'atì (Lac de Gras), with observations extending into surrounding areas. Five monitoring teams conducted fieldwork at the three camps over 38 days between July 31 and September 25, contributing to 679 person-days. Teams travelled by boat and on foot, using Tłı̨chǫ knowledge of caribou movements and traditional harvesting locations together with GPS collar information, provided by GNWT-ECC.

The teams observed 4,183 ekwǫ̀ across the monitoring areas. At Kokètì, 1,311 caribou were observed in 154 groups, most of which were small and dispersed. At Deèzàatì, 668 caribou were observed in 67 groups, with Sahtì ekwǫ̀ moving southward through the area during August and September. Beverly caribou were the predominant caribou observed around Ek'atì. The continued presence of Beverly and Sahtì ekwǫ̀ highlights the importance of monitoring the broader landscape and seasonal movements of multiple herds.

A key concern in 2025 was the low calf recruitment; the few calves seen in the herds. At both Kokètì and Deèzàatì, late-summer calf ratios were approximately 18 calves per 100 cows. These ratios are low and indicate limited calf survival, particularly for the severely declining Kokètì ekwǫ̀ herd. The Sahtì ekwǫ̀ estimate should be interpreted cautiously because of the relatively small sample size. Despite the low calf numbers, observed calves were showed good growth and healthy body condition. The caribou body condition was generally good to excellent across all monitoring areas. At Kokètì, most bulls and cows were in good or fat condition and all 25 calves assessed were in good condition. Sahtì ekwǫ̀ at Deèzàatì were also in good or fat condition, while the predominantly male Beverly caribou observed at Ek'atì were in particularly healthy and fat condition.

Habitat and forage conditions were becoming better during 2025, compared to recent years with drought conditions. Kokètì remained relatively dry, but less dry than in previous years, with healthy vegetation and increased abundance of berries and mushrooms. Caribou were observed feeding on willow leaves, lichen and on mushrooms. Deèzàatì also had good late-season forage conditions, including abundant berries, mushrooms, and healthy lichen. These observations suggest that habitat and forage conditions were sufficient, and improving from recent drought years, to maintain good caribou body condition despite continued concerns about calf recruitment.

Predator observations were relatively limited and varied among locations. Two dìga (wolves) were observed at Kokètì, five at Deèzàatì, and two near Ek'atì. At Kokètì, the 2025 observations were higher than in 2023 and 2024 but remained well below observations recorded in several earlier years. Moose were not observed at Kokètì for the second consecutive year but continued to occur at Deèzàatì. Industrial development remains an important cumulative-impact concern. Although mining operations at the Ek'atì Point Lake Pit were suspended during the 2025 monitoring period, monitors noted substantial differences from 2024, when active mining generated high noise levels. Concerns remain regarding the steep-sided

waste-rock pile and the mining road constructed to the shoreline of Lac du Sauvage, which may interfere with caribou movement across the tataa and contribute to habitat fragmentation.

The long-term population status of the Kokètì ekwǫ̀ remains critical low. The Bathurst herd declined from a historic high of approximately 480,000 caribou in the 1980s to an estimated 6,851 adult caribou in 2022 and 3,609 adult caribou in 2025. The Sahtì ekwǫ̀ herd was estimated at 28,759 adult caribou in 2025, while Beverly caribou has increasingly become an important herd for harvesting. The combination of extremely low Kokètì population size and low calf recruitment demonstrates the continued vulnerability of the Kokètì ekwǫ̀ herd.

Overall, the 2025 monitoring results present a mixed picture. Caribou body condition and habitat conditions were generally good, while predator observations were limited and variable. However, the low calf ratios and continued population decline of the Kokètì ekwǫ̀ indicate serious concerns about herd recovery. Continuing our Tłı̨chǫ-led monitoring is therefore essential to document changes in caribou abundance, health, habitat, predators, and industrial impacts, and to support Tłı̨chǫ decision-making and caribou management.



Photo 1: Stephanie Behrens and Karin Clark teaching Future Guardians at the Kokètì camp, August 2025.



Photo 2: Future Guardians at the Kokètì camp, August 2025 (Pat Kane).



Photo 3: Deèzàatì team, August 2025.



Photo 4: Ek’atì team, September 2025

Ekwǫ̀ Nàxoèhdee K’è - Introduction

Started in 2016, the Ekwǫ̀ Nàxoèhdee K’è (ENK) ekwǫ̀ monitoring program has brought Tłı̨chǫ people back to ancestral hozìı ekwǫ̀ (barren-ground caribou) harvesting locations on hozìıdee (barrenlands). The basecamp at Kokètì (Contwoyto Lake), located in the northernmost region of Tłı̨chǫ traditional territory, is situated on the summer range of the Kokètì ekwǫ̀ (Bathurst herd), where caribou migrate with their newborn calves to spend the summer.

The monitoring goal is to assess the state of hozìı ekwǫ̀ within their summer and seasonal ranges, with a specific emphasis on four primary indicators: (1) habitat; (2) ekwǫ̀ health and condition; (3) predator; and (4) industrial development impacts. The program is a collaboration between the Tłı̨chǫ Government, GNWT-ECC, and the Wek’èezhìı Renewable Resources Board (WRRB). Funding for the 2025 monitoring program was provided by the Tłı̨chǫ Government, Burgundy Diamond Mines Ltd., Indigenous Centre for Cumulative Effects (ICCE), and the GNWT Cumulative Impact Monitoring Program (CIMP).



Photo 5: Kokètì Basecamp (Pat Kane).



Photo 6: Deèzàatì basecamp (Petter Jacobsen).

The program operates from three basecamps situated on the barrenlands (Map 1). The primary basecamp is located at Kokètì, where ekwǫ̀ monitoring has been ongoing since the program began in 2016 (Photo 2). In summer 2020, an additional basecamp was established at Deèzàatì (Point Lake) (Photo 3) to monitor Sahtì ekwǫ̀. Establishment of the ekwǫ̀ monitoring program at Deèzàatì followed the Wek’èezhìı Renewable Resources Board (WRRB 2019) recommendation (#15-2019) that the Tłı̨chǫ Government expand its monitoring to the summer range of Sahtì ekwǫ̀. Deèzàatì was selected because it is the largest waterbody within the Sahtì ekwǫ̀ range in Wek’èezhìı and because of the lake’s rich Tłı̨chǫ cultural history and long-standing importance to Tłı̨chǫ travel, harvesting, and land-based activities.

In August 2022, the program was expanded to include Ek’atì (Lac de Gras) and Łıwets’aɔ̀ats’ahtì (Lac du Sauvage) (Photo 4). This expansion extended monitoring into areas used by Beverly ekwǫ̀ and into landscapes increasingly influenced by industrial development. The long-term plan is to establish a research camp on Łıwets’aɔ̀ats’ahtì and initiate additional research and monitoring activities on the lakes and surrounding landscapes in the vicinity of the diamond mines. The expanded monitoring area provides an opportunity to document ekwǫ̀ movements, habitat and the effects of industrial development across a broader portion of the Tłı̨chǫ barrenland landscape.

The Tłı̨chǫ Government has an ongoing commitment to monitoring and understanding the land and ekwǫ̀ herds, guided by the knowledge and experience of Tłı̨chǫ elders. The Kokètì and Sahtì ekwǫ̀ herds have experienced substantial declines in population size over the past decade. The Kokètì ekwǫ̀ (Bathurst herd) has experienced an especially severe long-term decline, from a historic high of approximately 480,000 caribou in the 1980s to an estimated 6,851 adult caribou in 2022. The most recent 2025 population estimate was 3,609 adult caribou, representing a further 47% decline from the 2022 estimate. The Sahtì ekwǫ̀ (Bluenose East herd) was estimated at 28,759 adult caribou in 2025, based on a June 2025 calving-ground survey combined with a late-October 2025 herd composition survey. This represents a decline from the 2023 estimate of 39,525 adult caribou, but the 2025 estimate remains higher than the 2021 estimate of 23,202 adult caribou (GNWT 2025). The Beverly herd was most recently estimated at 152,000 caribou in 2023, which is an increase from earlier herd estimates. The Beverly herd is particularly important in understanding changes in the distribution and movement of Kokètì ekwǫ̀, as some Bathurst caribou have emigrated into the Beverly herd. Monitoring Beverly caribou therefore provides important context for understanding herd movements, seasonal range use, herd mixing, and changes in caribou distribution across the Tłı̨chǫ landscape.

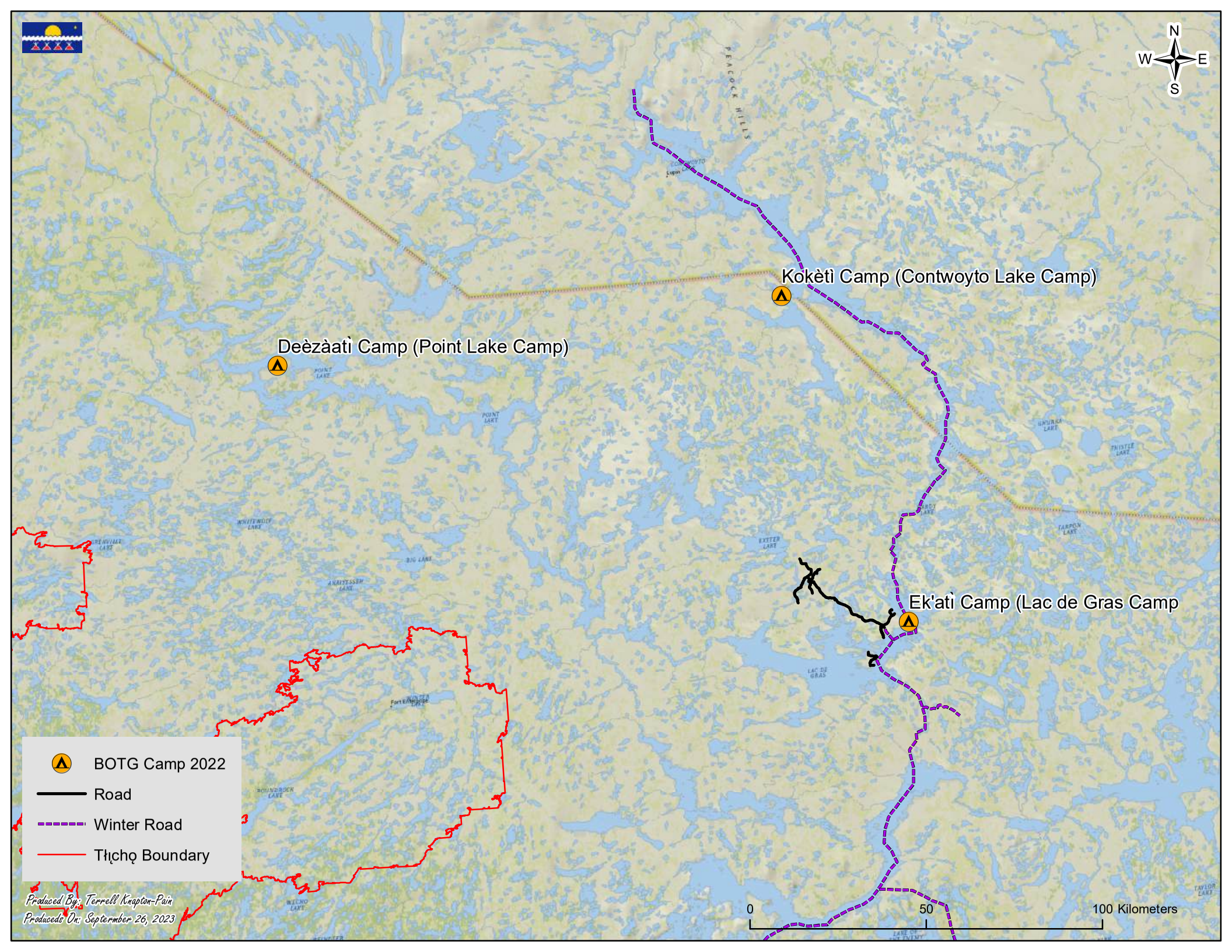
The critical condition of the Kokètì ekwǫ̀ herd, the changing status of the Sahtì ekwǫ̀ herd, and the increasing importance of Beverly caribou within the monitoring area reinforce the need for continued community-based monitoring. Caribou are fundamental to Tłı̨chǫ culture, language, knowledge transmission, and way of life. Our program provides an opportunity for Tłı̨chǫ Elders, harvesters, and Guardians to observe and document changes in ekwǫ̀ and their habitat while bringing Tłı̨chǫ knowledge directly into caribou conservation and management.

Through Ekwǫ̀ Nàxoèhdee K’è, Tłı̨chǫ people travel to ancestral harvesting locations at Kokètì, Deèzàatì and Ek’atì, reconnecting with cultural places, ekwǫ̀, and the land. The program therefore serves a purpose that extends beyond ecological monitoring. It provides Tłı̨chǫ participants with opportunities to return to places where generations of Tłı̨chǫ people travelled, harvested, camped, and lived, and to renew relationships with the land and animals. As John B. Zoe describes, the program helps Tłı̨chǫ participants “go back to the original source to remember” the stories, language, knowledge, and cultural ways of life.

Through on-the-land monitoring, ENK provides an important means of maintaining and strengthening relationships between Tłı̨chǫ people and ekwǫ̀. These relationships encompass language, culture, laws, values, and ways of life. As Zoe (2012a, p. 69) explains, “our relationship with ekwǫ̀ defines who we are. It’s a foundation for our nàowo” — a Tłı̨chǫ concept encompassing language, culture, way of life, knowledge, and laws. In this context, our program is both a wildlife monitoring program and an important means of continuing Tłı̨chǫ cultural practice, knowledge transmission, and relationships with ekwǫ̀ and the land.



Photo 7: ENK camp on Ek'atì (Lac du Sauvage) September 2025 (Petter Jacobsen).


N
W
E
S
Kokètì Camp (Contwoyto Lake Camp)
Deèzàatì Camp (Point Lake Camp)
Ek'atì Camp (Lac de Gras Camp
BOTG Camp 2022
Road
Winter Road
Tłı̨chǫ Boundary
Produced By: Terrell Knapton-Pain
Produceds On: September 26, 2023
0
50
100 Kilometers

The program applies the Tłı̨chǫ research methodology “We Watch Everything” to document current environmental conditions, cumulative impacts on ekwǫ̀ health and populations, and the behaviour, distribution, and condition of ekwǫ̀ during summer and early fall. The approach recognizes that understanding ekwǫ̀ requires observing the broader landscape and the relationships among animals, habitat, weather, predators, and human activities, rather than focusing on caribou alone. The monitoring is grounded in the Tłı̨chǫ methodology “Do as Hunters Do,” which is based on traditional ways of travelling the land and sharing knowledge through people’s daily activities and interactions with the land (Zoe 2012b). In and around the lakes, monitors travel by boat and on foot to key geographical features known as ekwǫ̀ nǫʔokè (ekwǫ̀ water crossings), locations where Elders and harvesters have traditionally anticipated the arrival and movement of ekwǫ̀ herds. At these locations, monitors position themselves in ways similar to traditional hunting parties, remaining quiet and attentive while waiting, watching, and observing ekwǫ̀ and the surrounding habitat.

By applying traditional hunting strategies as wildlife-monitoring methods and using traditional harvesting locations as monitoring sites, the program integrates Tłı̨chǫ knowledge, land-based practice, and contemporary ecological observation. The methodology is grounded in ways of observing and understanding the land that have been used successfully by Tłı̨chǫ people to travel, harvest, and survive in the sub-Arctic environment since time immemorial. In this way, the monitoring program does more than document ecological conditions: it continues a Tłı̨chǫ way of learning from the land and animals by doing what ancestors and generations of harvesters have always done.

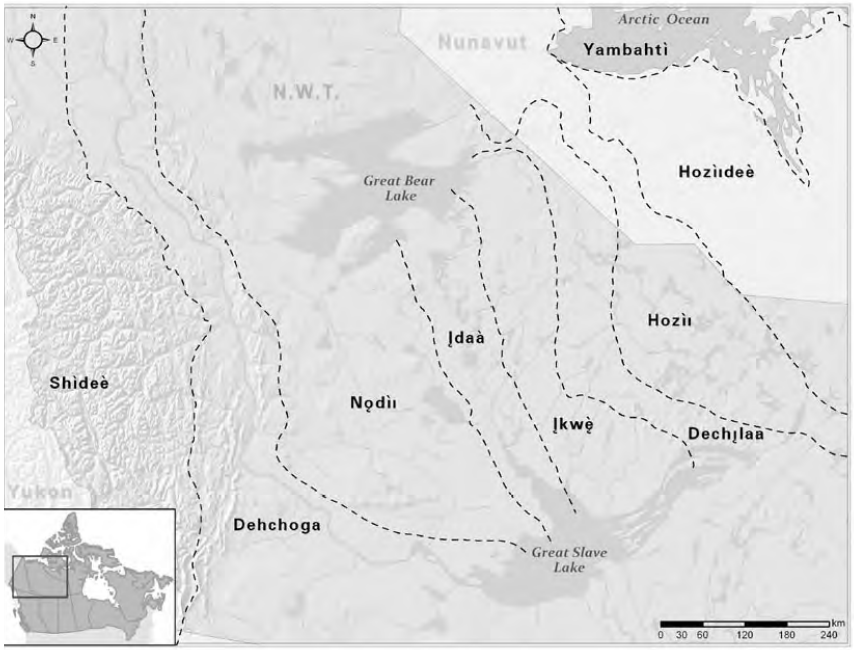
This report provides an overview of the 2025 ENK field season and presents:

- Kokètì ekwǫ̀ monitoring results from Kokètì;
- Sahtì ekwǫ̀ monitoring results from Deèzàatì;
- Beverly ekwǫ̀ monitoring results from Ek’atì; and
- Trends and observations from 2016 to 2025.
- Updates on Future Guardians Program

For additional information on ENK program activities, monitoring results, and observations from 2016 to 2025, please see the Tłı̨chǫ Government’s collection of annual reports, documentaries, and photographs available on the program website.: https://research.tlicho.ca/research/bootsontheground.

Caribou Monitoring Area and Timeline

The study area is situated entirely within hozìıdee (Map 2), referring to the region beyond hozìı (barrenland); a place without trees and only low-growth shrub vegetation (Andrews 2011). The area is classified as a tundra biome and is in the Arctic Tundra climatic zone. Geographically, the ekwǫ̀ monitoring area is focused around our three camps at Kokètì (Contwoyto Lake), Deèzàatì (Point Lake) and Ek’atì (Lac de Gras/ Lac du Sauvage) and the surrounding land that can be reached within a day’s walking distance from lake shorelines (Map 1).



Map 2: Tłı̨chǫ Landscape Units. Source: Andrews 2011

Hozìideè is a shared region utilized by both the Tłı̨chǫ and Inuit people for harvesting hozìı ekwǫ̀ in summer and fall, fur trapping in winter, and as a trade route facilitating interactions between the two cultures. Inuit and Tłı̨chǫ have a long history of meeting at historical hozìı ekwǫ̀ hunting locations. The land surrounding Kokètì plays a pivotal role in both the post-calving and summer ranges of the Kokètì ekwǫ̀. Come July, following calving, herds of cows and calves migrate from the calving grounds and join the bulls, aggregating into larger herds. The cows lead their calves to these feeding grounds around Kokètì, allowing the calves to nourish themselves and learn the best plants to eat, to grow and gain fat before the fall migration and the onset of winter.

The Tłı̨chǫ name for Contwoyto Lake is Kokètì, translated as “empty campsite lake,” in reference to the many camp sites used by Tłı̨chǫ ancestors around this lake. Kokètì is located at the northernmost extremity of Tłı̨chǫ traditional land use territory and is situated in Hozìideè described as “big barrens” (Andrews 2011). The Burnside River drains water from Kokètì to Bathurst Inlet which is about 175 km to the northwest; the areas around Bathurst Inlet have been the calving ground for Kokètì ekwo and is the basis by which biologists named the Bathurst caribou herd (Thomas 1969).

Kokètì runs approximately northwest to southeast, effectively bissecting the post-calving summer range of Kokètì ekwǫ̀. The land around the large lake provides a low rolling landscape with optimal ekwǫ̀ habitat and refuge from biting insects that are heavily influenced by winds coming off the lake. At its widest point, the lake is approximately 19 kilometres wide, and numerous eskers and islands form nǫʔokè (water crossings) that ekwǫ̀ use to cross the lake. The elongated shape of the lake creates a network of nǫʔokè along both eastern and western shores of the lake that creates corresponding ekwǫ̀ etǫ (ekwǫ̀ trails) worn into the ground as these etǫ are continuously used every summer. Kokètì is accessible by canoe and floatplane during the summer; in the winter months it is reached by snowmobile from Kugluktuk or via winter ice road to Yellowknife. The Tibbitt-Contwoyto Winter Road (TCWR Joint Venture) is built from Yellowknife through Kokètì for mining resupply (map 1), although the winter road access north of the Diavik and Ekati mines has not been open each year. There are currently two non-active mines (Lupin and Jericho) in the monitoring area, and several active mines south of the area (Ekati, Diavik, and Gahcho Kuè) as well as several abandoned exploration camps scattered across the landscape.



Photo 8: Kokètì camp in channel between Kokètì (Contwoyto Lake) and Fry Inlet (Aimee Guile).



Photo 9: Future Guardian Program playing handgames at the Kokètì camp, August 2025 (Janelle Nitsiza).

The Silent Crisis – Dramatic Decline of the Kokètì Ekwǫ̀

In 2018, the NWT Conference of Management Authorities (CMA) listed hozìı ekwǫ̀ (barren-ground caribou) as Threatened in the Northwest Territories, based on a 2017 assessment by the Species at Risk Committee (SARC 2017). A Threatened listing means that the barren-ground caribou population in the NWT is declining and that there are threats that could cause the species to disappear from the Northwest Territories within our children's lifetime. Furthermore, the listing states that "barren ground caribou is likely to become endangered in the NWT if nothing is done to reverse the factors leading to its extirpation or extinction" (SARC 2018).

For the Kokètì ekwǫ̀, the most recent calving-ground survey, conducted in June 2025, combined with herd composition surveys completed in late October 2025, resulted in an estimated population of 3,609 adult caribou. This represents a decline of approximately 47% from the 2022 estimate of 6,851 adult caribou (GNWT 2025). At its historic recorded high in 1986, the Bathurst herd was estimated at approximately 470,000 ekwǫ̀. The 2025 estimate of 3,609 adult caribou represents less than 1% of this historic population high and demonstrates the continued severe decline of the herd. The Bathurst herd remains at critically low status, and strong management actions remain necessary to support its recovery.

Emigration of some Bathurst ekwǫ̀ to the Beverly herd is likely to have been an important contributing factor in the observed decline between 2018 and 2021. However, the continued decline of the Bathurst herd is associated with poor demographic performance, including low adult female survival and poor reproduction and calf survival (Government of the Northwest Territories and Tłı̨chǫ Government Joint Proposal on Management Actions for the Bathurst Ekwǫ̀ (Barren-ground Ekwǫ̀) Herd: 2019–2021). The continued decline to 3,609 caribou in 2025 demonstrates that the herd remains in a highly vulnerable condition and that recovery has not yet occurred despite ongoing management actions.

The dramatic rate of decline of the Kokètì ekwǫ̀ fits the criteria of Endangered under COSEWIC (2015). The continued decline of the herd, from approximately 470,000 ekwǫ̀ at its historic recorded high in 1986 to only 3,609 caribou in the 2025 estimate, demonstrates the severity of the population decline. If the current trajectory continues, the herd could progress toward a Critically Endangered status.

Such continued decline has serious implication for Tłı̨chǫ harvesting and cultural relationships with Kokètì ekwǫ̀. As stated in the Tłı̨chǫ Government–GNWT Joint Management Proposal for the Bathurst Ekwǫ̀ Herd (2019), the herd "may not recover for decades to a size that could sustain a meaningful level of hunting." The ongoing population decline shows the need for ongoing management actions aimed at supporting herd recovery.

Field Teams during Summer 2025

During 2025, the program was conducted over a combined period of 38 days, from July 31 to September 25. Five monitoring teams (Teams A to E) conducted field work ranging from two to three weeks, resulting in a combined total of 679 person-days. Daily monitoring activities were conducted by boat and on foot. Teams travelled by boat across the lakes and then walked inland to approach and observe ekwǫ̀ groups at appropriate distance. Daily monitoring locations were determined using a combination of harvesters' knowledge of ekwǫ̀ movements and GPS collar locations for Kokètì ekwǫ̀ provided by GNWT-ECC three times per week. This approach allows teams to focus field effort in areas where caribou were most likely to be migrating, based on incorporating both Tłı̨chǫ knowledge and satellite collar locations into the monitoring strategy.

Table 1: Field time summary for all ENK Teams, summer 2025

			Field Time - 2025				
Herd Range	ENK Camp	Field Team	Start	End	Personnel	# Days	Person-Days
Bathurst	Koketi	A	31-Jul	19-Aug	7	20	140
		B	19-Aug	05-Sep	8	18	144
Beverly	Ekati	E	13-Sep	25-Sep	7	15	91
Bluenose East	Deezaati	C	21-Aug	09-Sep	8	20	160
		D	09-Sep	24-Sep	9	16	144
					39	87	679

Table 2: Field time and trip summaries for Teams A and B at Kokètì, summer 2025.

		Field Time - 2025				
ENK Camp	Field Team	Start	End	Personnel	# Days	Person-Days
Koketi	A	31-Jul	19-Aug	7	20	140
	B	19-Aug	05-Sep	8	18	144
				15	38	284

		Distance			**Time**			
ENK Camp	Field Team	Boat (km)	Walk (km)	Total (km)	Travel (h)	Observation (h)	Total (h)	# Trips
Kokètì	A	708.2	71.0	779.2	37.3	63.0	100.3	21
	B	133.8	1.0	134.8	43.1	9.9	53.0	4
		842.0	72.0	914.0	80.4	72.8	153.2	25

Future Guardians Program

The Future Guardians Program was launched in August 2025 by the Tłı̨chǫ Government's Ekwò Nàxoèhdee K'è (ENK) Program. This initiative represents a landmark investment in the next generation of Tłı̨chǫ land and water guardians. With the support of our partners and funders, we successfully delivered two land-based learning camps at Kokètì, engaging Tłı̨chǫ youth aged 14–19 in traditional knowledge, scientific monitoring, and cultural learning.

Team 1 - August 1–10		**Team 2 - August 17–24**	
Bailee Nitsiza	Lennon Nitsiza	Lian Zoe	Amelia Drybones
Paula Lafferty	Hailey Gargan	Donny Mantla	Jimmy Joe Drybones
Clark Wynter Rabesca	Shiloh Simpson	Francis Huskey	Jakala Mackenzie
Shiloh Simpson	Stevenson Whane	Winter Zoe	

This inaugural program brought together Elders, Knowledge Keepers, researchers, and youth to strengthen connections between Tłı̨chǫ identity, land stewardship, and caribou research. Participants returned home inspired, confident, and committed to carrying forward their cultural and environmental responsibilities.

The Future Guardians Program was created to; empower Tłı̨chǫ youth to become future land and water guardians; support intergenerational knowledge transfer through land-based learning; combine traditional knowledge with scientific methods for monitoring 'everything'; and strengthen cultural identity, leadership, and community well-being. This initiative directly supports the Ekwò Nàxoèhdee K'è Program's mandate to protect caribou and the lands they depend on, while ensuring that traditional Tłı̨chǫ values continue to guide environmental decision-making and is passed down to the next generation. During the two teams experience at Kokètì, we aimed for the following outcomes.

1. Youth Empowerment and Leadership

- 14 Tłı̨chǫ youth gained hands-on experience in land stewardship and cultural learning.
- Participants demonstrated increased confidence, leadership, and pride in Tłı̨chǫ identity.

2. Intergenerational Knowledge Transfer

- Elders and Knowledge Keepers shared stories, values, and teachings that deepened youth understanding of caribou, fish and the land. These teachings were focused on life in the barren-lands.
- Youth engaged directly with traditional practices and oral histories.

3. Integration of Traditional Knowledge and Science

- Participants learned to collect and understand water, sediment, and caribou data alongside traditional observation techniques. They were responsible for data collection and data entry – specifically around weather and observations.
- The program successfully bridged Indigenous knowledge systems with contemporary monitoring practices.

4. Strengthened Cultural Connection

- Youth were able to gain a deeper connection to Tłı̨chǫ lands and culture after returning from Kokètì.

- Activities such as berry picking, fish processing, and storytelling reinforced cultural continuity and belonging.

Building on the success of this inaugural year, the Ekwò Nàxoèhdee K'è Program aims to:

- Expand the Future Guardians Program to include additional youth at a different age range – suggested ages would be 16 – 23.
- Develop mentorship opportunities pairing interested youth with active Guardians; before during and after.
- Strengthen partnerships with research organizations, schools, and funders to ensure program sustainability.
- Continue integrating traditional knowledge and scientific monitoring to inform regional caribou and land management efforts.



Photo 10: Future Guardians on the land with Tłı̨chǫ elder. Kokètì, August 2025 (Pat Kane)



Photo 11: Janelle Nitsiza, leading the Future Guardian Program as "Elder-in-Training". Kokètì, August 2025 (Pat Kane).





Photo 12: Future Guardian Program learning on the land skills. Kokètì, August 2025 (Pat Kane).

2025 Results

Ekwǫ̀ (barren-ground caribou) were the most abundant wildlife species observed by the field teams during the 2025 monitoring period. Across the five teams, a total of 4,183 ekwǫ̀ were observed in 125 groups. The highest number of caribou was recorded at Kokètì, where 3,397 caribou were observed in 43 groups. These observations included a mixture of Beverly and Kokètì ekwǫ̀ (Bathurst).

At Ek'atì, the monitoring teams observed 477 Beverly ekwǫ̀ across 36 groups. At Deèzàatì, 309 Sahtì ekwǫ̀ (Bluenose East) were observed across 46 groups. The observations demonstrate the use of all three monitoring areas by different barren-ground caribou herds during the 2025 field season, with Kokètì supporting the largest number of observed caribou.

Table 3: Summary of all wildlife observations for ENK Field Teams, July – September 2025.

		Animals Observed										
ENK Camp	Field Team	Caribou*	Muskox	Moose	Wolf	Grizzly Bear	Wolverine	Fox	Eagle	Bald Eagle	Golden Eagle	Hawk
Koketi	A	984	185	0	2	1	0	0	1	2	3	0
	B	327	92	0	0	1	0	0	0	1	0	0
Ekati	E	282	0	0	0	4	0	0	3	0	0	0
Subtotal		1593	277	0	2	6	0	0	4	3	3	0
Deezaati	C	271	0	0	3	0	1	0	1	0	0	4
	D	397	0	1	2	4	0	0	0	2	0	1
Subtotal		668	0	1	5	4	1	0	1	2	0	5
Total		**2261**	**277**	**1**	**7**	**10**	**1**	**0**	**5**	**5**	**3**	**5**

Hozìı edzıe (muskox) were observed only at Kokètì, where they were the second-most frequently observed wildlife species. A total of 80 muskoxen were observed across seven groups. Their repeated presence and relatively large group sizes indicate that the Kokètì area provide suitable habitat for muskox. Dedìı (moose) were observed at Deèzàatì, but no moose were observed at Ek'atì. No moose were observed at Kokètì during the 2025 summer monitoring period, despite regular observations at Kokètì during previous years. This absence may indicate a change in moose distribution or reduced use of the Kokètì area during summer 2025. Given the consistent observations in earlier years, the difference may reflect short-term variation in seasonal use of Kokètì as summer habitat.

Table 4: Summary of animal groups observed, 2025

		Groups Observed										
ENK Camp	Field Team	Caribou	Muskox	Moose	Wolf	Grizzly Bear	Wolverine	Fox	Eagle	Bald Eagle	Golden Eagle	Hawk
Koketi	A	83	11	0	2	1	0	0	1	2	3	0
	B	71	2	0	0	1	0	0	0	1	0	0
Ekati	E	29	0	0	0	3	0	0	1	0	0	0
Subtotal		183	13	0	2	5	0	0	2	3	3	0
Deezaati	C	38	0	0	2	0	1	0	1	0	0	3
	D	29	0	1	1	2	0	0	0	2	0	1
Subtotal		67	0	1	3	2	1	0	1	2	0	4
Total		**250**	**13**	**1**	**5**	**7**	**1**	**0**	**3**	**5**	**3**	**4**

Dìga (wolves) were two times observed at Kokètì in early August, and no diga was seen in the remaining monitoring period despite the presence of numerous ekwǫ̀ groups around the lake. No dìga were directly observed at Ekati, although several fresh wolf tracks were documented. At Deèzàatì, monitors observed five dìga. Overall, direct wolf observations during summer 2025 were relatively limited and were concentrated at Deèzàatì. The absence of wolf observations at Kokètì, despite frequent observations of ekwǫ̀, suggests limited spatial overlap between wolves and the caribou groups monitored during the study period. However, the absence of observations should not be interpreted as the absence of wolves from the broader landscape, as wolves may have been present outside the monitored areas or following caribou groups that were not encountered by field teams.
Sahcho (grizzly bears) were observed at all three monitoring areas during the 2025 field season. At Kokètì, monitors observed two sahcho, while four individuals were observed at Deèzàatì. At Ek'atì, four sahcho were observed during the 14 days the monitoring team spent at the lake. The repeated annual observations at Ek'atì suggest that the area is used regularly by grizzly bears for foraging and movement. Although the number of observations was relatively low across the broader study area, the presence of sahcho at all three monitoring locations confirms that grizzly bears continue to occupy a wide range of habitats across the barrenlands.

Nogha (wolverines) were not observed at Kokètì or Ek'atì during the 2025 monitoring period, while a single nogha was observed at Deèzàatì. The low number of observations suggests that wolverines were present within the broader monitoring area but were encountered infrequently. Given their naturally low densities, the few observations provide little information about their overall distribution but confirms their continued presence within the study area. Det'ǫcho (bald eagles) were observed at all the camps with five observed in total. Their presence reflects the availability of food resources in the area, including fish, small game or caribou remains.

Kokètì Ekwǫ̀ – Bathurst Caribou

During summer 2025, Teams A and B at Kokètì observed a total of 1,311 caribou in 154 groups. Group sizes ranged from single animals to a large aggregation of approximately 300 caribou, with an average group size of 8. Overall, the observations indicate that most caribou occurred in small groups, including single animals and pairs, and were generally dispersed across the summer range rather than concentrated in large aggregations. Most Kokètì ekwǫ̀ (Bathurst caribou) were observed during early August. Drone imagery documented approximately 300 caribou, providing additional information on the size and distribution of the largest aggregation encountered during the monitoring period. Observations by Team B, at the end of August and early September, consisted primarily of mature and young bulls, indicating that males dominated the caribou observed during that portion of the field season. An interesting observation was made of a bull with a white-grey colored coat.

Table 5: Summary of wildlife observations for Field Teams at Kokètì, July – September 2025.

		Animals Observed										
ENK Camp	Field Team	Caribou*	Muskox	Moose	Wolf	Grizzly Bear	Wolverine	Fox	Eagle	Bald Eagle	Golden Eagle	Hawk
Koketi	A	984	185	0	2	1	0	0	1	2	3	0
	B	327	92	0	0	1	0	0	0	1	0	0
Subtotal		1311	277	0	2	2	0	0	1	3	3	0
		Groups Observed										
ENK Camp	Field Team	Caribou	Muskox	Moose	Wolf	Grizzly Bear	Wolverine	Fox	Eagle	Bald Eagle	Golden Eagle	Hawk
Koketi	A	83	11	0	2	1	0	0	1	2	3	0
	B	71	2	0	0	1	0	0	0	1	0	0
Subtotal		154	13	0	2	2	0	0	1	3	3	0

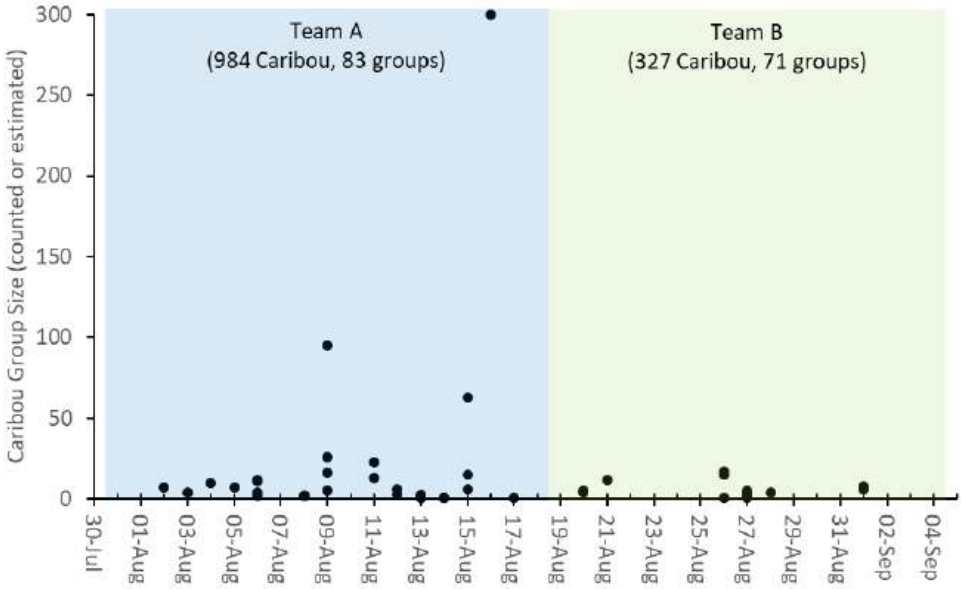


Figure 1: Caribou groups seen at Kokètì in August and September

Kokètì Ekwǫ̀ Calf Abundance

In 2025, the monitoring team at Kokètì observed 41 ekwǫ̀ groups in which at least one cow was classified. These groups included a total of 235 cows and 40 calves, resulting in an estimated calf-to-cow ratio of approximately 18 calves per 100 cows (0.177 ± 0.136 SE). This ratio is low and suggests limited calf recruitment, even if most of the observed calves survive the following winter. Although the estimate is based on a relatively small sample size, the results were supported by two observations that included collared caribou and provided additional information on herd composition.

On August 15th, a group of 12 caribou, consisting of six cows, two calves, and four bulls, classified from a larger group of approximately 63 animals, most of which were more than 1 km away. Of the six cows in the composition sample, one was collared and did not appear to have a calf.



Photo 13: Cow with two calves, Kokètì. August 2025 (John Nishi).



Photo 14: A calf close to the team, Kokètì. August 2025 (John Nishi).

On August 16th, 174 caribou were classified from a group estimated to contain approximately 300 animals. The composition sample consisted of 89 cows, 18 calves, eight yearlings, 34 bulls, and 25 caribou of unconfirmed sex or age. Two collared cows and one collared bull were included in the composition sample. Aerial drone footage collected beyond the height of land, and therefore outside the view of observers on the ground, showed at least 200 additional caribou in the surrounding area, including two additional collared females. The drone footage suggested that the composition sample was representative of the caribou in the area. In total, the observations included four collared cows and one collared bull.

Overall, the 2025 observed calf-to-cow ratio of approximately 18 calves per 100 cows indicate low calf recruitment on the Kokètì summer range. For comparison, a caribou herd would generally be expected to maintain a stable population trend when late-winter calf recruitment is approximately 35 calves per 100 cows, assuming an average adult female survival rate of 85%. The estimated 18 calves per 100 cows observed in 2025 is therefore substantially below the level generally associated with a stable herd population.

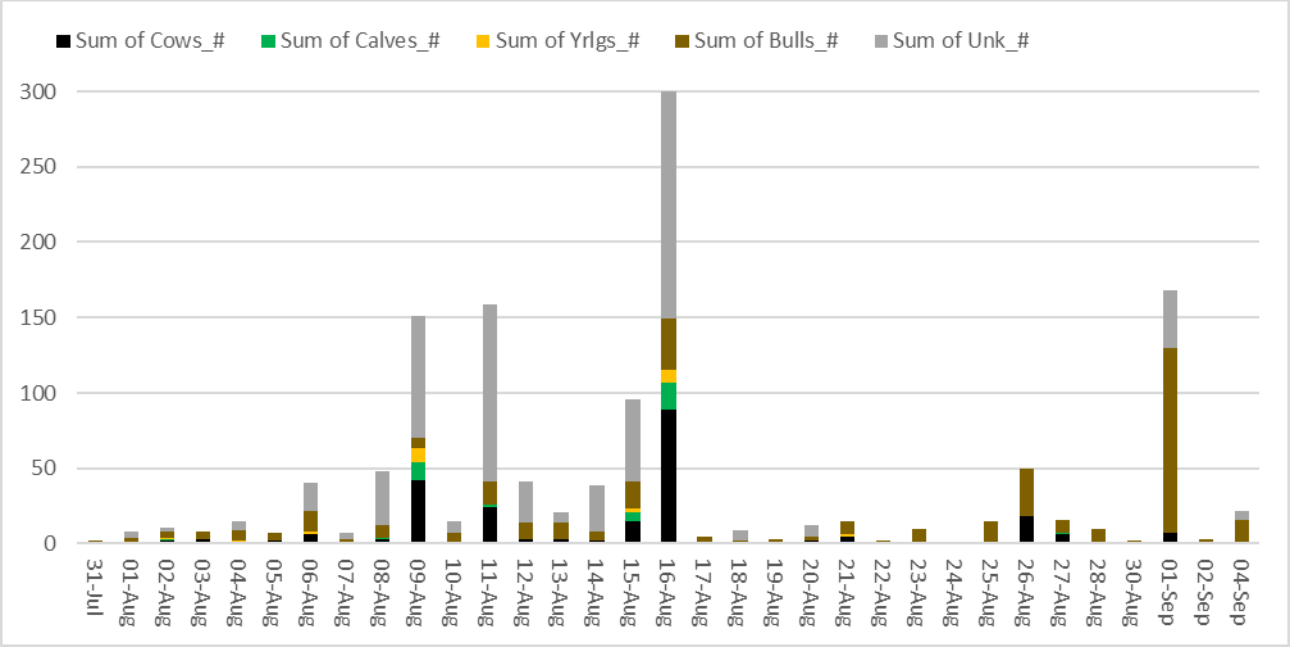


Figure 2: Daily composition of ekwò groups observed by monitors at Koketi, 31 July – 4 September 2025.

Body Condition & Health at Kokètì (Contwoyto Lake)

Overall, the Kokètì ekwǫ̀ observed by monitors were healthy and were in good body condition. The monitoring team at Ekati assessed the body condition of 307 bulls, 195 cows, and 25 calves. The 307 bulls were observed across 87 groups, of which 9% were classified as fat and 91% as being in good body condition. Among the 195 cows observed, 3% were classified as fat and 96% were in good condition, while two cows (1%) were classified as thin. All 25 calves observed were in good body condition. Overall, the body condition observations indicate that the majority of caribou at Ekati were in good to excellent condition during the summer of 2025, with very few animals classified as thin.

Table 6: Summary of body condition score around Kokètì during summer and fall 2025.

Bulls				
Groups	Individuals			
	Fat	Good	Thin	Total
87	27	280	0	307
	9%	91%	0%	100%

Cows				
Groups	Individuals			
	Fat	Good	Thin	Total
32	6	187	2	195
	3%	96%	1%	100%

Calves				
Groups	Individuals			
	Fat	Good	Thin	Total
8	0	25	0	25
	0%	100%	0%	100%

Injuries

Of the 1,311 caribou observed, we assessed 916 caribou (70%) across 99 groups for visible signs of injury, particularly limping or other abnormalities in movement. In total, five bulls, five cows, and one calf were observed with noticeable limps. One injured bull was observed alone, while the other three were observed in groups ranging from 15 to 95 caribou. Three bulls were observed limping on a front leg, while two were observed limping on a hind leg.

Five cows with noticeable limps were observed during August. On August 9, two cows with apparent hind-leg injuries were observed in two separate groups of 95 and 26 caribou, respectively. On August 16, three additional cows with noticeable limps and apparent leg injuries were observed within a large group of more than 300 caribou. A calf with an apparent injury to its front left leg was observed on August 15th in a group of 15 caribou. The group included three bulls, one of which also had an apparent hind-leg injury. Despite the apparent leg injuries observed in the bull and calf, all caribou in the group appeared to be in good body condition.



Photo 15: Healthy and fat bull, Kokètì, August 2025. Pat Kane



Photo 16: A white bull, Kokètì, August 7th, 2025. John Nishi

Dìga and other Predators

Dìga (wolves) were two times observed at Kokètì in early August, and no diga was seen in the remaining monitoring period despite the presence of numerous ekwǫ̀ groups around the lake. In the last two years 2023 and 2024, no dìga activity was observed around Kokètì. This contrasts with the previous years, when 14 dìga were observed during both 2022 and 2021. No dìga were reported in 2020, while 2019 had the highest number of observations, with 31 dìga recorded.

Overall, dìga observations around Kokètì have varied considerably among years, ranging from zero observations in 2020, 2023, and 2024 to a high of 31 observations in 2019. The absence of observed dìga activity during the 2023 and 2024 summer monitoring periods represents a notable decline compared with observations recorded in 2021 and 2022.

Dedìı (Moose) Observations

Dedìı (moose) were not observed at Kokètì during the 2025 summer monitoring period. No dedìı were observed there in 2024 either, following the observation of two moose in 2023. Earlier monitoring recorded one moose in 2022, seven in 2021, and 11 in 2019. Most observations have been made in the vicinity of the basecamp between Kokètì and Kwìıdlìachǫ̨̀. Prior to 2019, dedìı were not observed by Tłı̨chǫ monitors at Kokètì, making their appearance over the past several years a notable change in the local wildlife community. The absence of moose during the 2024 and 2025 field seasons may indicate short-term changes in habitat use or distribution, although additional years of monitoring are needed to determine whether this represents a longer-term trend.

At Deèzàatì, two dedìı were observed during the 2025 monitoring period. This compares with two observations in 2023 and eight observations in 2022. Although annual observations have varied, moose continue to occur regularly around Deèzàatì. The lake is characterized by extensive stands of coniferous forest and tall shrub communities in sheltered valleys along the treeline, providing more suitable habitat for moose than the more open barrenland environment surrounding Kokètì. Continued monitoring of dedìı observations may provide useful insight into changes in habitat use and the northward distribution of moose within the northern part of Tłı̨chǫ lands.



Photo 17: Bathurst bulls feeding by shoreline of Kokètì, September 1st, 2026 (Stephanie Behrens).

Kokètì Ekwǫ̀ Habitat

During summer 2025, the Kokètì landscape remained relatively dry, although conditions were noticeably less dry than during the previous several summers. Overall, vegetation was in good condition throughout the monitoring area, with healthy plant growth observed across much of the summer range, particularly during early August. Field teams reported abundant berries and mushrooms, both of which were more common than in recent years. Blueberries, crowberries, and bearberry were consistently abundant, while bog cranberries were less common. Cloudberries were still immature during the early monitoring period. Although vegetation was generally healthy throughout the study area, monitors noted that particularly vigorous plant growth occurred in parts of the southern Fry Inlet area. Direct observations of foraging caribou indicated that willows remained an important summer forage resource. Caribou were consistently observed browsing willow leaves and terminal twigs, and a young bull was observed eating a mushroom. Drone imagery also documented a bull muskox feeding on mushrooms, indicating that mushrooms were utilized by multiple species during the summer. Willows appeared healthy, with normal leaf colour and little evidence of drought stress despite the relatively dry conditions.

Mushrooms were especially abundant during August 2025. Standardized counts conducted on 17 August along three permanent vegetation transects west of camp recorded the highest number of mushrooms since monitoring began. In contrast, the drought years of 2022 and 2023 produced very few mushrooms. Field observations also indicated that mushrooms remained abundant through late August, together with an increased abundance of berries compared with previous years. Monitors observed improved moisture conditions across the landscape. Wetland areas that had largely dried up during the exceptionally dry summers of 2022 and 2023 had returned to wetter conditions, with standing water and flowing creeks once again present. For example, a fen located south of camp that had been dry enough to walk across in 2022 and 2023 contained flowing water during the 2025 field season. These observations suggest that summer precipitation and soil moisture had improved compared with recent drought years, contributing to healthier vegetation and increased forage availability.

Overall, vegetation and forage conditions at Kokètì were considered good during summer 2025. The abundance of healthy willows, berries, and mushrooms, together with improved soil moisture, indicates that habitat and forage conditions had improved during the monitoring period compared to recent summers. Continued monitoring of vegetation, particularly mushroom, provides a useful indicator of summer growing conditions and forage availability for ekwǫ̀.

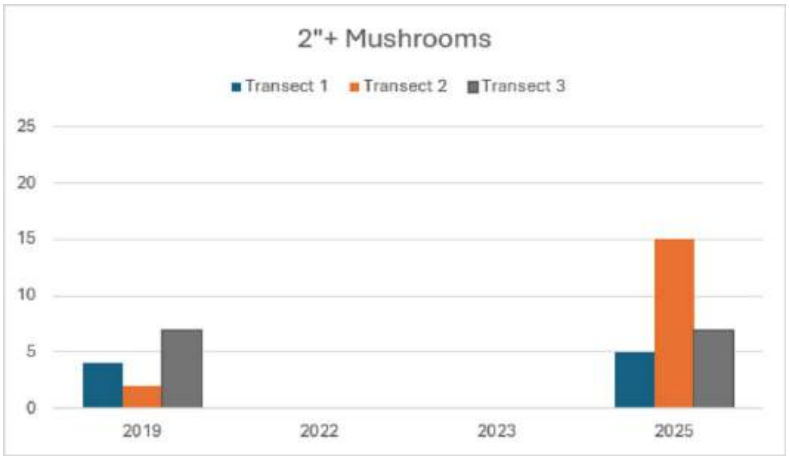




Figure 3: Number of mushrooms counted per year 2019-2025 at Kokètì.

Kokètì Ekwǫ̀ Indicator Trends 2016-2025

Monitoring of the Kokètì ekwǫ̀ (Bathurst caribou herd) is guided by indicators identified by Tłı̨chǫ Elders through the holistic research methodology *We Watch Everything*. Rather than focusing solely on caribou abundance, the monitoring framework considers the interconnected relationships among ekwǫ̀, habitat, predators, weather, vegetation, water, industrial disturbance, and other components of the ecosystem. By continuing to travel on the land and interact directly with ekwǫ̀, Tłı̨chǫ monitors assess these culturally defined indicators and document changes in the condition of the herd and its environment over time.
The table below summarizes the monitoring results and observed trends for each indicator from 2016 to 2025. Together, these long-term observations provide a Tłı̨chǫ knowledge-based assessment of the condition of the Kokètì ekwǫ̀ herd and its summer range, while contributing to a broader understanding of environmental change and cumulative impacts across the barrenlands.

Indicators Over Time

	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Weather and Vegetation	Warm, Dry	Mix Dry/Wet	Wet, Windy	Wet, Windy	Wet, Windy	Cool, Windy	Dry, Windy, No insects	Hot, Dry, Tundra Fires	Mix Dry/Wet	Mix Dry/Wet
Caribou Health	Normal, Many Injured	Normal	Early Fat, Bulls Healthy	Early Fat, Bulls Healthy	Healthy, Fat Animals	Healthy, Fat Animals	Healthy Animals	Healthy Animals	Healthy Animals	Healthy Animals
Calf Abundance	Normal, High	Normal, High	Normal, Low	Low	Low	Low	Normal, Good	Very Good	Low*	Low
Wolves Observed	1	18	16	31	0	13	9	3	0	2
Moose Observed	0	0	0	11	0	7	1	2	0	0

*Small sample size; likely not representative of herd.

Figure 4: Trends of monitoring indicators for the years 2016-2025.

The Ekwǫ̀ Nàxoèhdee K'è monitors reported a trend of warm and dry habitat, with high calf abundance in 2016 to 2017, shifting to a trend of cold, wet weather. During the four years, 2018 to 2021, monitors reported ekwǫ̀ habitat and food in generally excellent condition due to much rain and wind, and that ekwǫ̀ health has been observed as "good", including fat bulls and cows, but low calf abundance during the last four summers, from 2018 to 2021 (table above). Although, the good conditions of ekwǫ̀ habitat and ekwǫ̀ body condition, reported from 2018-2022, provide the necessary environmental conditions for the population to grow. However, the monitors observe many groups with few or no calves, and GNWT-ECCs calving ground survey showed a continued decline of the Kokètì ekwǫ̀ herd from 8,207 ekwǫ̀ in 2018 to 6,243 in 2021, and further decline to 3609 animals in 2025. (Adamczewski et al. 2022). During summer 2022, the previous year's climate trend of wet and cold started to change. The summer was very dry and warm. The **summer of 2022** had good forage conditions but short growing season, and some vegetation was drying up at end of summer. The lack of rain and wet ground was comparatively different than the last couple years, with very few mushrooms observed. The summer was characterized as dry and windy conditions which resulted in few or a lack of insects. The water levels in lakes and ponds were deceasing and became very low at the end of fall.



Photo 18: Herd standing on ridgeline in the wind to avoid the insect harassment. July 2017 (Petter Jacobsen).

During **summer 2022**, the previous year's climate trend of wet and cold started to change. The summer was very dry and warm. The summer had good forage conditions but short growing season, and some vegetation was drying up at end of summer. The lack of rain and wet ground was comparatively different than the last couple years, with very few mushrooms observed. The summer was characterized as dry and windy conditions which resulted in few or a lack of insects. The water levels in lakes and ponds were deceasing and became very low at the end of fall. In 2022, the teams reported more calves than we have observed since 2016. During the summer, we observed 44 ekwǫ̀ groups and counted 48.1 calves to 100 cows. This amount of calves in the herd during summer & fall is considered 'good' and 'normal', compared to low calf numbers we have seen around Kokètì in recent years. Around Ek'atì (Lac de Gras) in August, we observed many Kokètì ekwǫ̀ herds and counted 34.3 calves to 100 cows. Combining the cow-calf observations at Kokètì and Ek'atì, resulted in an estimate of 39.2 calves per 100 cows for summer 2022. Around Ek'atì, the Tłı̨chǫ monitors also observed a high proportion of tsıdaa and yagoa (young cows and young bulls) in many herds.

During **summer 2023**, the shift to warm and dry conditions we experienced during the previous summer was intensified and became even drier and warmer; leading to such dry vegetation, that lightening sparked multiple tundra fires at Contwoyto Lake, marking our first observation of tundra fires in the area. At the same time, we started to see herds with a higher number of calves. This is the second consecutive summer of increased calf abundance in the herds around Kokètì, with an estimated 51.2 calves per 100 cows. This average calf to cow ratio is considered very good for late summer. However, due to few animals observed the estimate is likely not well representative of the herd. Nevertheless, it is encouraging that the calves show healthy growth when compared to the low calf numbers seen around Kokètì between 2018 to 2021.

During the start of **summer 2024**, the habitat was dry; a continuation of the summer drought of the past two years (2022-2023). There was not any rain until August 1st, and until then the vegetation was dry, as the lichen sounded crunchy when we walked on it. In August, finally there was rain providing moisture to the land, which contrasted with last year when the land was very dry and crunchy. Compared to the last two summers, 2022-2023, the ground retained moisture due to the rain in August, and caribou habitat was not as dry and crunchy as it was during the last two summers. There was also a good abundance of mushrooms, and the overall growth of vegetation and berries had improved, in comparison to the past two years. The Kokètì ekwǫ̀ were overall healthy and in good body condition. Body conditions were improving over summer and in late August most animals were in good and fat condition. We observed numerous calves in the previous summer, but during summer 2024 we hardly saw any calves in the herds, and we estimated 16 calves per 100 cows. We consider this ratio to be low for July and August, even if most calves survive the coming winter. However, the sample size for this summer was very small, as most of the collared Bathurst caribou were located further west, and these results are likely not representative of the herd.

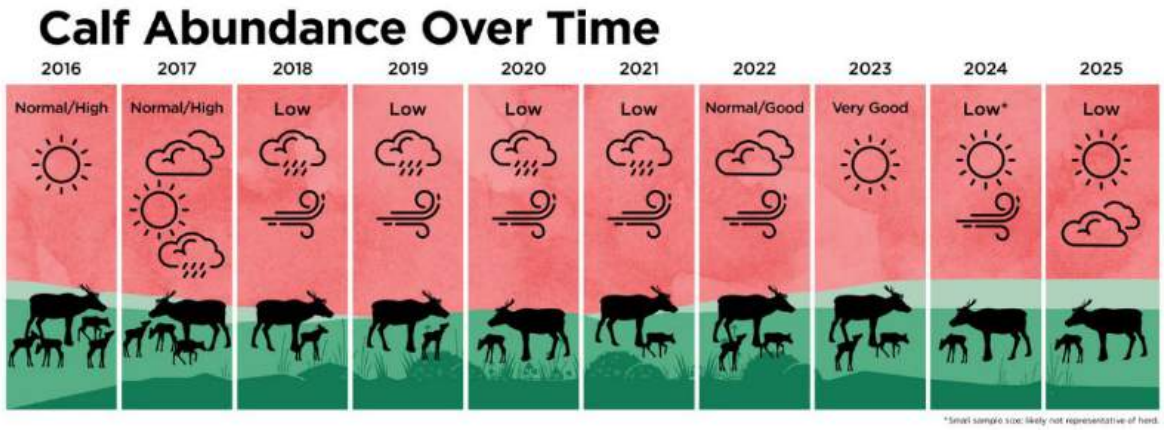


Figure 5: Trends of calf abundance for the years 2016-2025.

During **summer 2025**, the habitat conditions started to improve from the drought conditions we have experienced during the last three years (2022-2024). In August, the mix of rain and sun provided moisture to the land, which contrasted to 2024 and 2023, when the land was very dry and crunchy. Summer 2025 had the highest count of mushrooms compared to previous years. Notably, both 2022 and 2023 had little to no mushrooms and those years were considered dry summers. The number of mushrooms is a reasonable indication of the amount of summer rain and a general indicator of range conditions, and the increase in mushroom counts during summers 2024 and 2025 shows a positive trend from the previous drought years. Overall, the caribou observed were healthy and in good condition. Later in August, body conditions of most animals were good and becoming fat. During summer 2025 we saw few calves in the herds. We estimated 18 calves per 100 cows, and we consider this ratio to be low for July and August. Although the sample size was small, there were several collared cows and bulls in the groups, which suggests a reasonable representation of the Bathurst herd. This is the second year with low calf abundance observed around Kokètì.

Overall, our observations indicate a correlation between environmental habitat trends, caribou body conditions and calf abundance. From 2018-2021, we recorded favorable and very good habitat conditions, and animals with good and fat body conditions. However, we saw small herds with few calves. During those four years, the good habitat and caribou health seemed to provide the necessary environmental conditions for the population to reproduce, but we continued to see low calf numbers. In 2022 and 2023, the environmental trend started to shift to drought conditions with warmer and drier weather, and we observed some animals with less body fat compared to previous years. However, more calves were observed in the herds, and during summer 2023 we considered the calf ratio to be 'very good'. In the following years 2024 and 2025, we started to experience reduced drought conditions, and more moist and productive vegetation with healthy animals observed. During those two summers, we saw fewer calves and low calf abundance in the herds. These observations show a correlation between environmental trends, body conditions and calf abundance, and these patterns suggest a potentially lagged relationship between habitat conditions, body condition, and calf abundance in the Bathurst herd.



Photo 19: Tlicho flag at Kokètì camp, August 2025 (Janelle Nitsiza).



Photo 20: Future Guardian Program. Kokètì, August 2025 (Pat Kane)





Photo 21: Future Guardian Program. Kokètì, August 2025 (Pat Kane)





Photo 22: Future Guardian Program. Kokètì, August 2025 (Pat Kane)

Sahtì Ekwǫ Monitoring Results from Deèzàatì

During fall 2024, two teams of Tłı̨chǫ caribou guardians stayed at the lake from August 23rd to October 1st. Eighteen people stayed at the lake for 41 days. The monitoring was conducted by boat and walking, and the two teams travelled a total of 1315 km.

Table 7: Field times for the two teams at Deèzàatì, 2025

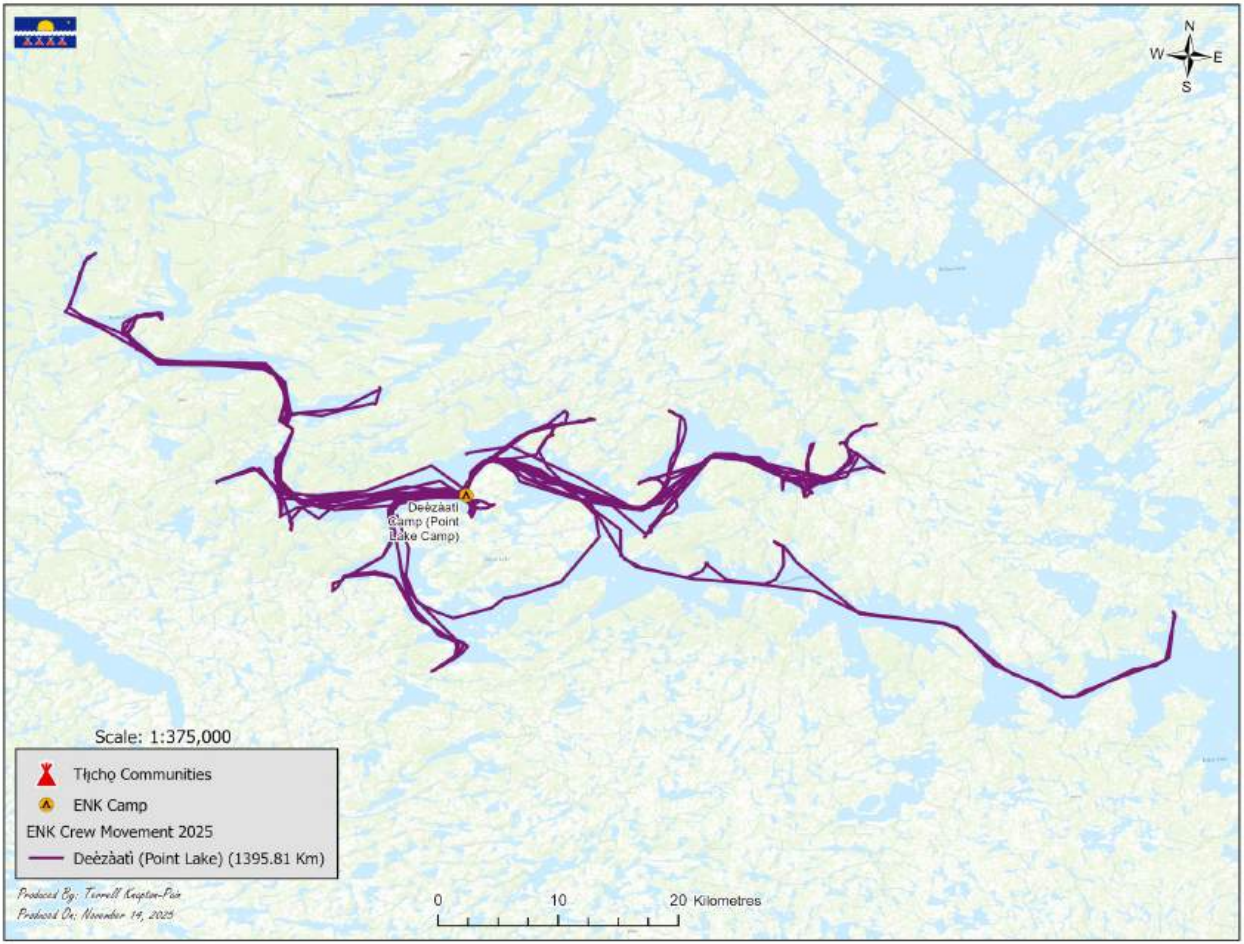
		Field Time - 2025				
ENK Camp	Field Team	Start	End	Personnel	# Days	Person-Days
Deezaati	C	21-Aug	09-Sep	8	20	160
	D	09-Sep	24-Sep	9	16	144
				38	90	684

Deèzàatì (Point Lake) is located within the Tłı̨chǫ landscape units of Dechı̨laa ('edge of the trees') and Hozìı (barrenlands), which correspond broadly to the treeline and barrenlands, respectively (Andrews 2011; Tłı̨chǫ Government 2023). Deèzàatì is a long, narrow lake situated within the upper Coppermine River basin in the central-northern Northwest Territories. The lake is an example of a dehtì, meaning a lake that forms part of the flow of a river (Legat et al. 2014a). The seasonal variation of the flow regime through Deèzàatì is relatively low and is influenced by large upstream lakes (Yamba Lake, Ursula Lake, Lac du Sauvage, and *Ek'atì* – Lac de Gras) that attenuate the runoff from snow melt and rainfall (Coulombe-Pontbriand et a. 1998).

Deèzàatì has a rich cultural history and is an important part of the Tłı̨chǫ traditional territory and cultural landscape that connects people to land through extensive travel and mobility via traditional harvesting trails (Legat et al. 2014b). Deèzàatì has a rich cultural history as Tłı̨chǫ people have travelled and lived there since time immemorial. Deèzàatì was accessed by canoe from the treeline, as people traveled here for ekwǫ harvesting in fall, and by dog team during winter and spring for trapping (Andrews 2011, Legat et al. 2014b).

Located along the treeline, Deèzàatì encompasses two closely connected ecosystems. The western shores, toward Redrock Lake, are characterized by continuous forest cover, while much of the eastern and northern portions of the lake consist of open barrenlands. Between these areas are pockets of coniferous forest located in sheltered bays and along creeks. This combination of forest and barrenland environments provided complementary resources that supported Tłı̨chǫ families throughout the year. The forest provided access to timber, fuel, shelter materials, and wildlife, while the barrenlands provided access to ekwǫ and other resources associated with the open landscape.

This combination provides two integrated ecosystems that sustained families of harvesters throughout the year, by providing both access to resources from the forest and from the barrenland. By knowing what to look for, and know-how for making tools, shelters and acquiring fresh meat from the available resources, the unique location of the lake becomes, what the Elders often refer to, as the "bank" or the "store". Since time immemorial, the continued use of this unique location has created a rich cultural landscape


N
W
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S
Deèzàatì Camp (Point Lake Camp)
Scale: 1:375,000
Tłı̨chǫ Communities
ENK Camp
ENK Crew Movement 2025
Deèzàatì (Point Lake) (1395.81 Km)
Produced By: Terrell Keyten-Pich
Produced On: November 14, 2025
0
10
20 Kilometres

Sahtì Ekwǫ̀ – Bluenose East Caribou

During mid-August, numerous groups of Sahtì ekwǫ̀ were observed migrating southward toward Deèzàatì. Throughout September and into October, groups of ekwǫ̀ remained around the lake and surrounding landscape. The highest number of caribou observations was recorded by the second monitoring team during mid-September; however, the groups were generally small and dispersed across the landscape rather than concentrated in large aggregations.

Table 8: Summary of wildlife observed at Deèzàatì

			Animals Observed										
Herd Range	ENK Camp	Field Team	Caribou*	Muskox	Moose	Wolf	Grizzly Bear	Wolverine	Fox	Eagle	Bald Eagle	Golden Eagle	Hawk
Bluenose East	Deezaati	C	271	0	0	3	0	1	0	1	0	0	4
		D	397	0	1	2	4	0	0	0	2	0	1
	Total		**668**	**0**	**1**	**5**	**4**	**1**	**0**	**1**	**2**	**0**	**5**

			Groups Observed										
Herd Range	ENK Camp	Field Team	Caribou	Muskox	Moose	Wolf	Grizzly Bear	Wolverine	Fox	Eagle	Bald Eagle	Golden Eagle	Hawk
Bluenose East	Deezaati	C	38	0	0	2	0	1	0	1	0	0	3
		D	29	0	1	1	2	0	0	0	2	0	1
	Total		**67**	**0**	**1**	**3**	**2**	**1**	**0**	**1**	**2**	**0**	**4**

The two monitoring teams at Deèzàatì observed a total of 668 caribou in 67 groups. Group sizes ranged from single animals to groups of approximately 100 caribou, with an average group size of 10. The majority of the groups were small with a limited number of larger groups. The caribou observed consisted of a mixture of bulls, cows, and calves, with an abundance of bulls noted during the monitoring period. During mid-August, numerous groups of Sahtì ekwǫ̀ were observed migrating southward toward Deèzàatì and continuing farther south toward Grenville Lake. Most of the caribou observed around Deèzàatì were dispersed throughout the landscape rather than concentrated in large aggregations.

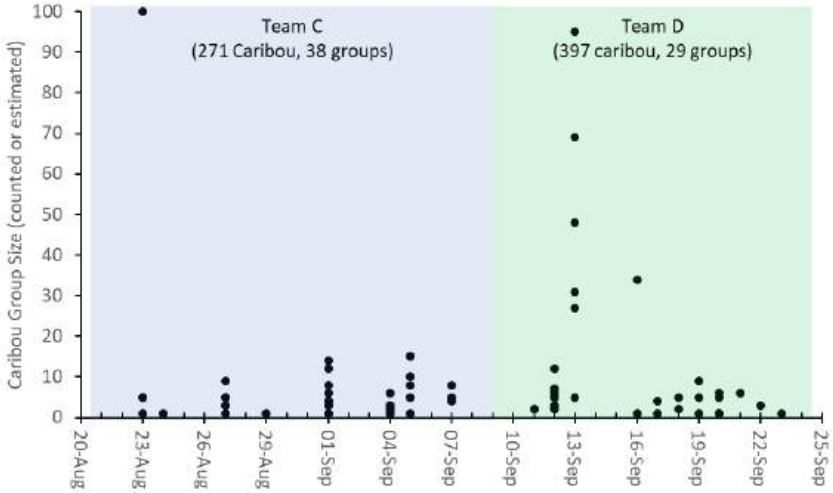


Figure 6: Caribou groups seen at Deèzàatì in August and September

Tsıa – Calves

In 2025, monitoring teams at Deèzàatì observed a total of 67 ekwǫ̀ groups, of which 39 included at least one cow and were considered for counting calves. The observations included a total of 151 cows and 28 calves, resulting in an estimated late-summer calf-to-cow ratio of 18 calves per 100 cows (0.184 ± 0.035 SE). This ratio is low and would indicate limited calf recruitment, even if most of the observed calves survived the following winter. However, the estimated calf-to-cow ratio should be interpreted cautiously because it was based on a relatively small sample of ekwǫ̀ groups and may not be representative of the herd as a whole. The calves that were observed appeared to be in good condition, with relatively large body sizes and good antler development.

Calf observations varied over the monitoring period. During the last week of August, the calf-to-cow ratio was approximately 0.54, indicating a relatively strong presence of calves at that time. One calf was observed travelling alone and may have been separated from its group, or its mother had died. Calf observations became less frequent toward the end of August. By September, the observed calf-to-cow ratio was low, with several groups of females observed with only a single calf.

Overall, the observations suggest that calves were present in reasonable numbers during late August but became less frequently observed toward the end of August and into September. Although our observations show a relatively low calf-to-cow ratio by September, the small sample size limits the ability to draw conclusions about the overall ratio in the Sahtì ekwǫ̀ herd.

For additional context, a stable caribou herd would need to have approximately 35 calves per 100 cows in late winter (March) combined with an average adult female survival rate of 85% (DeCesare et al. 2012). Because some calves will die during summer through to winter, calf to cow ratios in March would most likely be lower than calf counts in September.

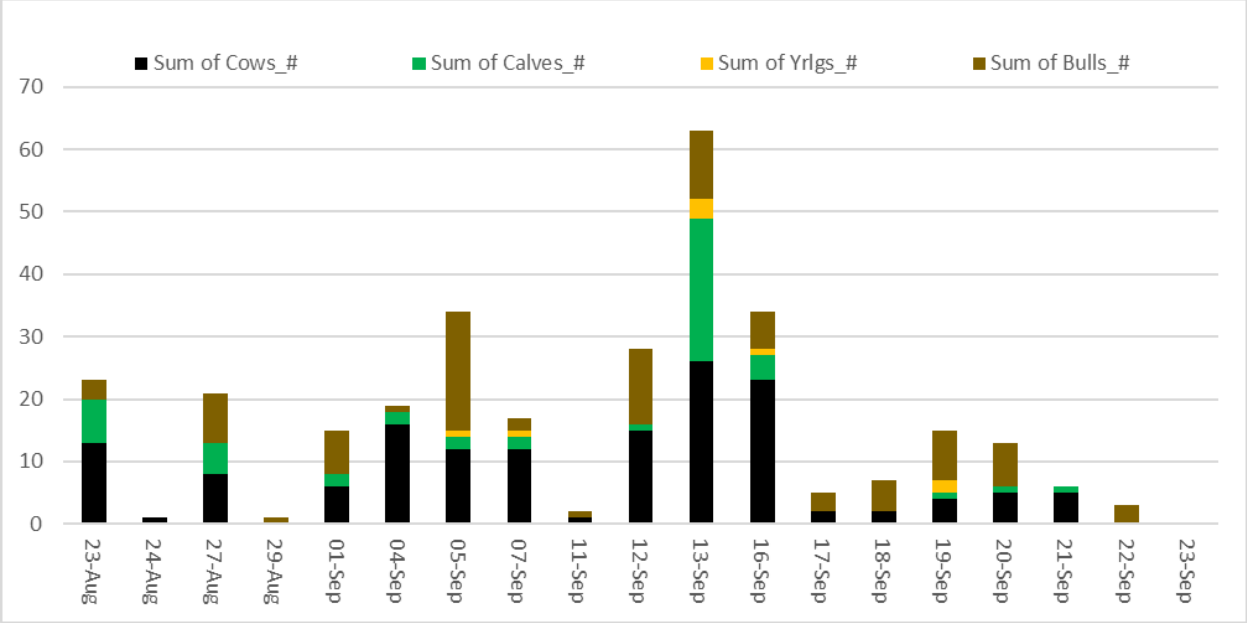


Figure 7: Daily composition of ekwò groups observed by monitors at Deèzàati 23 Aug – 22 Sep 2025 (data do not include “unknown” caribou: not classified).

Body Condition and Health

The Sahtì ekwǫ̀ were generally in good body condition during September 2025. Adult bulls and cows were predominantly described as being in good or fat condition. By mid-September, the caribou had developed healthy new fall coats, and most of the velvet had peeled from their antlers, consistent with normal seasonal changes at this time of year.

Around Deèzàatì, the teams assessed body condition of 69 bulls, 85 cows, and 39 calves. Of the 69 bulls assessed; 52% were classified as fat, 42% as being in good condition, and one thin bull was observed. Among the 85 cows observed, 54% were fat and 42% in good condition. The majority of the 39 calves (82%) were in good condition, while the remaining 18% were classified as fat. Overall, the body-condition observations indicate that the Sahtì ekwǫ̀ were in good to excellent condition during the September monitoring period, with most adult caribou classified as fat or in good condition and most calves also in good body condition.

Table 9: Summary of body condition score around Deèzàatì

Bulls				
Groups	Individuals			
	Fat	Good	Thin	Total
26	36	32	1	69
	52%	46%	1%	100%

Cows				
Groups	Individuals			
	Fat	Good	Thin	Total
27	46	39	0	85
	54%	46%	0%	100%

Calves				
Groups	Individuals			
	Fat	Good	Thin	Total
15	7	32	0	39
	18%	82%	0%	100%

Injuries

Of the 668 caribou observed, monitors assessed 493 caribou (74%) across 42 groups for visible signs of injury or abnormal movement. Three injured or potentially injured caribou were observed during the monitoring period.

- On August 27, the team observed a lone calf travelling by itself. The calf was observed limping and may have become separated from the larger herd, or its mother had died. On September 20, monitors observed a group of six caribou consisting of two bulls, three cows, and one calf. One of the bulls was observed limping and appeared to have an injury to its left hind leg.
- On September 23, monitors observed a thin caribou with an apparent injury to its right leg. The observation of a thin animal with a leg injury may indicate reduced mobility and potentially reduced access to forage or increased vulnerability to predation, although the condition of the animal could not be followed by the team to determine its outcome.



Photo 23: Sahtì ekwo feeding on dwarf birch, Deèzàatì, September 2025.



Photo 24: Young bull caribou, Deèzàatì, September 2025.

Sahtì Ekwǫ̀ Habitat

On the fall range around Deèzàatì in September, vegetation and ekwǫ̀ forage conditions were generally described as good and healthy. Overall caribou forage quality ranged from average to good. Blueberries, crowberries, and cranberries were abundant across the area, while cloudberries were not observed, although their leaves were present. Blueberries were notably large this season. Large numbers of mushrooms of varying sizes were also observed throughout the fall range, providing an additional available food source for caribou.

Water levels had declined substantially for the fourth consecutive year, as indicated by extensive exposed shorelines and sand dunes around the lakes. Water levels were estimated to have decreased by approximately 3m, with exposed shoreline extending approximately 10–20m in some areas. The continued decline in water levels represents a notable change in local environmental conditions and may affect shoreline vegetation, aquatic habitat used by caribou and wildlife.



Photo 25: Caribou and wolf tracks, Deèzàatì (Ariel Rabesca.)



Photo 26: caribou walking on the exposed shoreline from declining water levels, Deèzàatì. Camilla Zoe-Chocolate.

Predators

Predator activity was relatively high during the monitoring period, with six dìga (wolves) observed. A new wolf den was discovered near camp on the island. The den had six entrances, consisting of three large and three medium-sized openings. Numerous caribou bones in various stages of decomposition were observed in the vicinity of the den, indicating that caribou remains had accumulated around the den area. Several wolf observations were made around the camp on the island. The monitors considered it likely that these observations represented the same pair of wolves associated with the den, although this could not be confirmed. The repeated observations suggest that the area around the camp was actively used by wolves during the monitoring period. Four sahcho (grizzly bears) were also observed on the island, including one adult female with two cubs. The presence of a female with cubs indicates that the island was being used by grizzly bears for feeding, movement, or other seasonal activities during the monitoring period.

Beverly Caribou Monitoring at Ek'atì (Lac de Gras)

This year was the third summer conducting caribou monitoring around Ek'atì. The monitoring team, consisting of eight people, was at Ek'atì for 13 days from September 13th to 25th, 2024. During the 13 days at Ek'atì we saw a total of 282 caribou in 29 groups. We saw mostly small groups of caribou, with largest group of 30 animals. All the caribou were slowly moving northeast along the eastern shore of Ek'atì. Bears were observed on four occasions, and no other wildlife was observed during the monitoring period.

Table 10: Summary of all wildlife observations at Ek'atì, September 2025

		Animals Observed										
ENK Camp	Field Team	Caribou*	Muskox	Moose	Wolf	Grizzly Bear	Wolverine	Fox	Eagle	Bald Eagle	Golden Eagle	Hawk
Ekati	E	282	0	0	0	4	0	0	3	0	0	0

		Groups Observed										
ENK Camp	Field Team	Caribou	Muskox	Moose	Wolf	Grizzly Bear	Wolverine	Fox	Eagle	Bald Eagle	Golden Eagle	Hawk
Ekati	E	29	0	0	0	3	0	0	1	0	0	0

*Includes animals counted and estimated (Caribou: 222, 60)
*Includes groups counted and estimated (Caribou: 26, 3)

When we arrived on September 12th, there was no caribou collars located around Ek'atì, and we thought we would not see any caribou around the lake. However, we saw small caribou herds everywhere as we walked on the land around the lakes. All the small herds were slowly migrating to the east. It was unclear to the team where all the caribou groups were coming from, as all the Beverly collars were further east and north, while no collars were south of Lac de Gras. We saw the same movement by Beverly caribou during fall 2024, with numerous caribou over the landscape while there were few collars around. This presence of numerous Beverly caribou around the lakes shows that although there are no collars visible on the map, there can still be numerous Beverly herds on the land.



Photo 27: the new camp at Ek'atì, located on the northeast side of Lac de Savage.



Photo 28: the team at Ek'atì: Petter Jacobsen Adrain Migwi, Bobby Migwi, Terrence Whane, Russell Drybones.

From September 13 to 25th, we saw a total of 282 caribou in 29 groups. Caribou were observed every day and we saw mostly small groups of bulls scattered all over the land. A mix of many young and some older bulls. In general, the herds were small and ranged from 1 to 30 animals. During September, the Beverly collars were far to the northeast, and no collared caribou were around Ekati. However, we see groups of 20-30 caribou every day, even when there were no collars around. The team had the same experience during September 2024, and we saw numerous caribou around the lake although no caribou collars were in the area. This observation, over two seasons, shows that although there are no collars there can still be lots of Beverly caribou on the landscape.

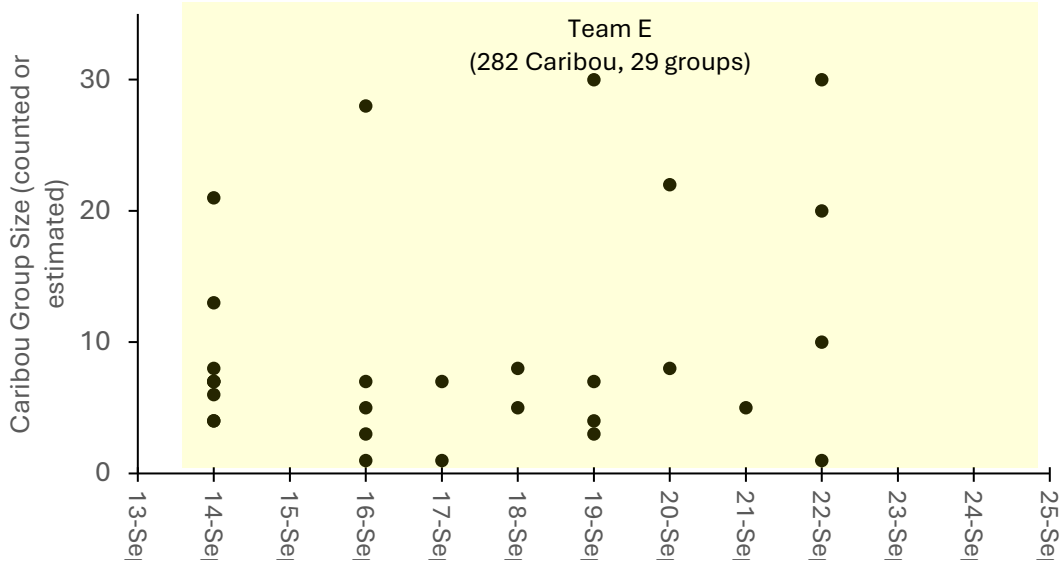


Figure 8: Caribou groups observed, September 2025

Tsia – Calves

In September, we observed a total of 29 ekwǫ̀ groups; 6 of those groups had at least one cow and these groups were used to estimate an overall late summer calf:cow ratio. The 6 groups included a total of 10 cows and 4 calves and resulted in an estimate of ~ 39 calves per 100 cows (i.e., 0.388 ± 0.136 SE).

This ratio would be good if most calves survived the coming winter[1]. However, the observed calf to cow ratio was based on a small sample size, and results are likely not representative of the Beverly, as the large herds with cows were further east of us. The calves had grown large bodies and look healthy. But we saw few calves, even in the herds with cows.

"The calves look pretty healthy…But we don't see much calves" Bobby Migwi



Photo 29: Woza; cow with calf, Ek'atì September (Petter Jacobsen).

[1] In general, a caribou herd's trend would be stable if late winter calf recruitment was 35 calves per 100 cows in combination with an average adult female survival rate of 85%.

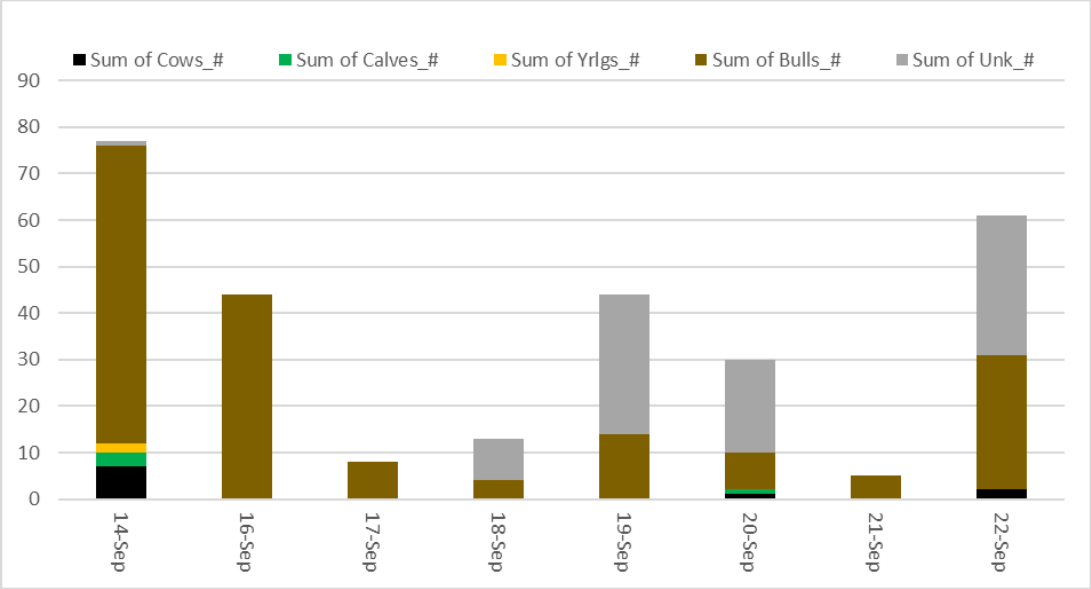


Figure 9: Daily composition of ekwò groups observed, September 2025

Body Condition and Health

During September, the bulls observed were very healthy with fat layers on the back and rump. The bulls appeared very peaceful and each day we saw them in the same behavioral pattern of feeding, bedded down and resting, or slowly walking. During September, they were not disturbed by hunters, wolves or insects, and some of the bulls have large bellies from feeding throughout the day.

During the 2025 monitoring period at Ek'atì, the monitoring team assessed the body condition of 105 bulls, five cows, and one calf. Overall, body condition was excellent. Of the 105 bulls observed, 97% were classified as fat and the remaining 3% were in good condition. All five cows observed were in good condition, and no thin caribou were recorded. The single calf observed was healthy, in good body condition, and had reached a large body size by mid-September. These observations indicate that the Beverly caribou occupying the Ek'atì area were in excellent nutritional condition during the fall monitoring period.

Table 11: Summary of body condition score around Ek'atì

Bulls

Groups	Individuals			
	Fat	Good	Thin	Total
15	102	3	0	105
	97%	3%	0%	100%

Cows

Groups	Individuals			
	Fat	Good	Thin	Total
3	0	5	0	5
	0%	100%	0%	100%

Calves

Groups	Individuals			
	Fat	Good	Thin	Total
1	0	1	0	1
	0%	100%	0%	100%




Photo 30: Healthy and young Beverly caribou, Ek'atì, September (Petter Jacobsen).

Injuries

In September, most of the Beverly caribou had migrated northeast, moving a considerable distance away from Ek'atì. As the larger herds migrate across the landscape, injured or weakened caribou that were unable to maintain the pace of the herd were left behind. We observed four caribou using lake shorelines and peninsulas as resting areas, where they could lie down and recover. Staying close to the water provide as escape route, as caribou can easily enter the water and swim away if approached by a predator. Once the injured caribou recovered sufficiently, it could resume moving and potentially rejoin the larger herd.

Of the 282 caribou observed during September 2025, monitors assessed 142 caribou (50.4%) across 29 groups for visible signs of injury or abnormal movement. A total of four injured caribou were observed, including three bulls and one cow.

- On September 16, the team observed a lone bull east of Lac du Sauvage with a noticeable limp in its left hind leg. The bull had a swollen ankle with visible bumps on the upper portion of the ankle. Despite the apparent injury, the bull appeared fat and otherwise healthy. It was bedded down on a point along the shoreline of a lake.
- On September 14, an injured cow was observed within a group of 13 caribou southeast of Lac de Gras. The cow was in good body condition but had an apparent injury to a hind leg and was observed walking at the rear of the group.
- On September 17, monitors observed a bull near the winter-road portage entering Lac de Gras. The bull appeared fat but had injuries affecting both its front and hind legs on the right side. An elder suggested that the animal may have been injured on a mining road. Monitors noted that the collared caribou and larger groups had already migrated east, leaving some injured or slower-moving animals behind. Despite its injuries, the bull was still capable of moving quickly when startled.
- On September 22, a bull with an apparent leg injury was observed. The bull was in fat body condition but limped when walking. It remained standing along a lake shoreline and did not appear to be alarmed by the monitors. The monitors believed that the bull would enter the water and swim away if it became frightened.



Photo 31: Bull caribou with injured back leg, resting on a peninsula. September 16th, 2025. (Petter Jacobsen).



Photo 32: Injured bull caribou. Resting by shoreline of Lac de Sauvage. September 22nd, 2025 (Petter Jacobsen)

These observations provide examples of injured caribou remaining in the landscape after larger groups had migrated east. In several cases, injured animals were observed alone or at the rear of groups and were using lake shorelines as resting areas. The field observations and elder knowledge suggest that shoreline areas may provide important resting locations for injured caribou and may also provide an escape route into the water if the animals are approached by predators. This behaviour shows that shorelines and peninsulas provide important temporary refuge for injured or weakened caribou during periods of herd migration.

Predators

During the 14-day monitoring period at Ek'atì, four grizzly bears were observed. The bears were observed individually walking across the landscape and were primarily feeding on berries. No dìga (wolves) were directly observed during the monitoring period, although several fresh wolf tracks were documented. The absence of direct observations may indicate that most wolves had moved with the larger caribou herds as they migrated farther northeast from the Ek'atì area.

No direct bear or wolf activity was observed in association with the caribou groups monitored during the period. Overall, predator observations around Ek'atì were limited, and there was no observed predator–caribou interactions during the monitoring period.

Habitat

Overall, vegetation and caribou forage conditions around the lakes were in good condition during the September 2025 monitoring period. The ground remained moist and wet due to frequent rainfall and overnight moisture and fog that regularly covered the low-lying areas during the mornings. By mid-

September, most dwarf birch leaves had fallen, and caribou were no longer observed feeding on dwarf birch. Instead, caribou were observed feeding on lichen, cranberry leaves, and grasses growing among the shrubs. During the final week of monitoring, the lichen appeared to be in good condition, with abundant, fluffy growth observed across the landscape. Caribou were observed feeding extensively on lichen during this period. The observations suggest that caribou were actively increasing their forage intake during late September, potentially taking advantage of accessible and high-quality forage before the onset of snow in October. This period may therefore represent an important seasonal feeding period as caribou prepare for winter conditions.

The landscape surrounding Ekati provides high-quality caribou habitat, characterized by gently rolling terrain and wide long eskers supporting extensive areas of lichen and willow. We consistently observed caribou using this area, showing that it provides important seasonal forage habitat for the herds. One Tłı̨chǫ Elder Bobby Migwi described the area as having particularly favourable vegetation and forage conditions for caribou:

> “Nice vegetation for them here, that’s why they all hang around here… food is good all over.”

The Elder also described changes in caribou habitat use associated with changes to the surrounding landscape, particularly the loss of forest habitat through burning:

> “All the habitat is burned in the forest, now they live in the tundra. Before it wasn’t like that.”

These observations highlight the importance of the land around Ekati as a seasonal landscape for caribou both during summer/fall and during winter, as large areas of the southern forest has been burned.



Photo 33: Fields of lichen; north of Lac de Sauvage. September 2025 (Petter Jacobsen)



Photo 34: Bull caribou feeding on willows; west of Lac de Gras, September 2025 (Petter Jacobsen)

Mining Disturbance

The new Ek’atì Point Lake Pit is located on the tataa between Lac de Gras and Lac du Sauvage. During the 2025 monitoring period, mining operations at the Point Lake Pit were suspended, and no active mining activity was observed at the site. This contrasted markedly with observations from September 2024, when monitors walked closer to the Point Lake Pit and experienced high levels of noise associated with ongoing mining operations. On September 20, 2024, the monitoring team described the noise level as comparable

to being near an active construction site in a city. As the team moved up onto the esker closer to the mining operations, the noise became noticeably louder and was described as very high. High levels of helicopter activity were also observed in the area at that time. The difference in conditions between the two monitoring periods was pronounced. In 2024, active mining operations and helicopter activity generated substantial levels of industrial noise that were clearly detectable from the surrounding landscape. In contrast, no active mining operations were observed at the Point Lake Pit during the 2025 monitoring period, resulting in substantially quieter conditions.

The new waste-rock pile at the Point Lake Pit was observed to have steep-sided walls and to be constructed as a prominent feature above the surrounding landscape. This differs from recommendations previously made by the Tłı̨chǫ Government that waste-rock piles should be designed and restored to better conform to the natural landscape.

The mining road leading to Lac du Sauvage has been constructed directly to the shoreline, with high rock berms along both sides of the road. From the perspective of monitors and knowledge holders, these structures restrict caribou movement through the tataa and interfere with the natural movement of caribou between the lakes. The road and associated berms therefore represent a barrier to caribou movement within an area identified as important caribou habitat.

A Tłı̨chǫ Elder described changes in caribou abundance and distribution associated with the development of the area:

> “In the old days, before the mines, there was lots of caribou here, but not anymore.”

The observations and Tłı̨chǫ knowledge documented during the monitoring period highlight concerns about how mine infrastructure, including waste-rock piles, roads, berms, and associated disturbance, may alter caribou movement and use of the landscape. These observations are particularly relevant because the landscape around Ekati is recognized by monitors and knowledge holders as important caribou habitat and an area where caribou historically migrated to.



Photo 35: Construction of the new Ekati mine Point Lake pit (Petter Jacobsen)



Photo 36: The new waste rock pile at Point Lake pit is built with steep walls and not built into the landscape (Petter Jacobsen)

Methodology

“We Watch Everything” - Traditional Knowledge Framework

Ekwǫ̀ Nàxoèhdee K’è is an applied interdisciplinary research project that bridges observations on biological indicators with the cultural knowledge of local hunters. We use this “biocultural approach” to emphasize the Tłı̨chǫ traditional knowledge of the ecosystem we live in. Biocultural approaches explore the link between biological and cultural diversity, and their interdependency with one another (Pretty et al., 2009; Pilgrim and Pretty, 2010). Our framework of research is based on two methodologies developed over the course of the program, named, respectively, “We Watch Everything” and “Do as Hunters Do.”

“We Watch Everything” is a theoretical framework of Traditional Knowledge research founded upon participatory ethnographic research and a set of theoretical concepts shaping the way information is collected, analyzed and interpreted. The use of language, indigenous ontology and perspectives on nature form the pillars of the framework.

Language of Nature

Knowledge of nature is culturally situated and derives from the environmental adaptations of the culture that gave it meaning. Our human experiences of nature are thus tied to their cultural interpretations. Seen through different cultural lenses, a single process in a physical environment may have two (or more) quite different meanings. Furthermore, a person’s response towards environmental processes will depend on his or her pre-existing ideas and values within their culture. Thus, the beliefs one holds of the environment direct one’s actions towards nature (Ingold 2000; Sharp and Sharp 2015).

Developing a traditional knowledge environmental monitoring framework requires that we recognize and adapt the values and ideas within an indigenous perspective on nature. Using cultural practices related to ekwǫ̀ to direct the monitoring, and indigenous perspectives on nature permeate as a framework, we can glimpse into a different worldview of interactions with the land—one that is as ancient as the people who first hunted ekwǫ̀ in the landscapes of Kokètì, Ek'atì and Deèzàatì.

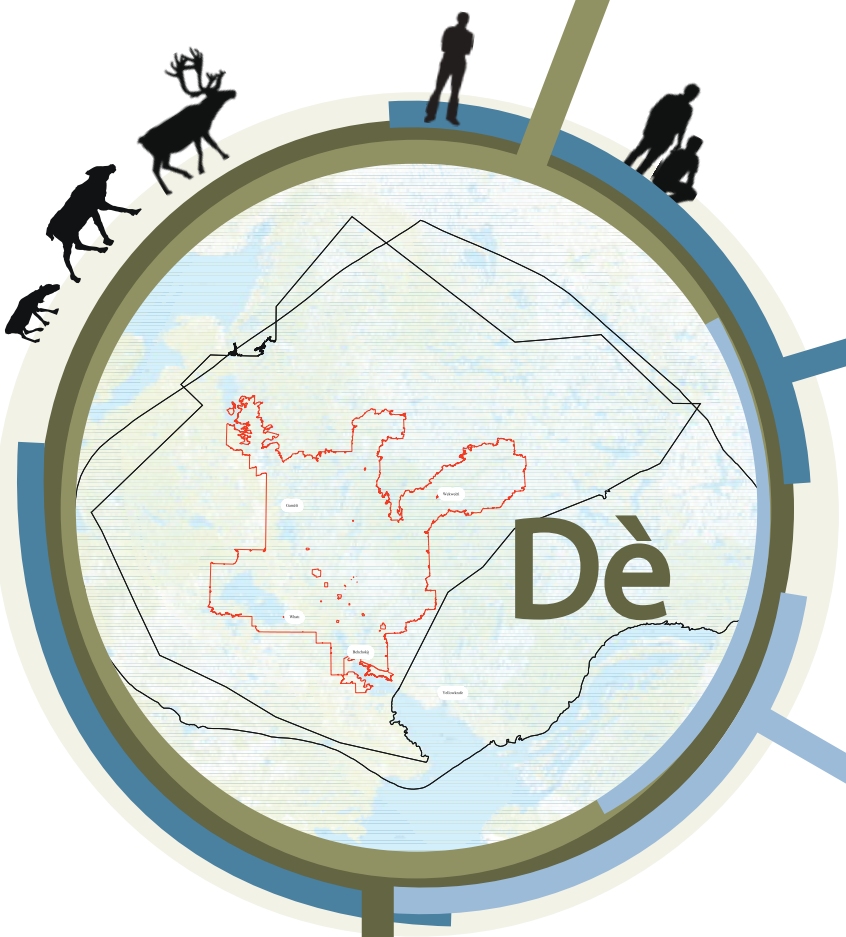
Land-based Theoretical Concepts

To achieve an indigenous perspective, the program employs Tłı̨chǫ words and cultural perspectives deeply ingrained in Tłı̨chǫ ontology. While such theoretical concepts are abstract, they have a very concrete physical practice in the day-to-day thinking of Tłı̨chǫ harvesters. An example is the concept of dè. 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. As Allice Legat explains, “dè includes everything because all entities are in the state of existing and have spirit” (2012: 79). Surrounding the concept of dè we defined four key theoretical concepts underlying the program’s traditional knowledge framework. These are **sentience, interdependence, communication**, and **time immemorial** (see Figure 13).

TRADITIONAL KNOWLEDGE FRAMEWORK

SENTIENCE

We acknowledge diverse forms of communication between beings in dè, which may be unfamiliar to Western perspectives. Spiritual communication is legitimate knowledge that informs of the presence and abilities of animals and natural elements. We accept that knowledge revealed through spiritual communication is valid and can be used as hunters have always used it.



TIME IMMEMORIAL

We recognize that we engage with an ancient land. Since time immemorial, the people have focused their attention on knowing the seasonal rhythms of sentient animals and geographical and climatic details throughout their land. We recognize that we follow an ancient tradition of walking the same trails, watching the same caribou herd and using the same hunting locations as people have always done.

RESPECT

We recognize all beings, such as caribou, fish and birds, as sentient, intelligent beings capable of communication, memory and personal agency. Furthermore, inanimate beings, such as the wind, are also sentient and can act on choices and influence other beings. We engage in a social relationship with animals and the elements (living and nonliving) when we travel on the land. By respecting the land and water when we camp or travel, through small acts such as paying the water, we follow the elders' teachings and engage with dè as hunters have done since time immemorial.

INTERDEPENDENCE

Humans, caribou and living and nonliving elements of the land live in a dynamic interdependent relationship. For the Tłı̨chǫ, dè is not separated into the biological, social or supernatural spheres, as it is in Western concepts. We recognize the interdependent relationships of all beings and elements of the land.

Acting upon the principles of sentience, interdependence, communication and time immemorial, team members perform individual and collective rituals. One of the simplest and yet most powerful of these is “pay the land.” Paying the land is done to neutralize our passage and become aware of our dependence on nature as human beings. This ritual involves simple acts of placing tobacco, or other valuable objects, in the water upon one’s first arrival to a place. Other rituals are propitiatory in nature and performed to ask for safety. “Feeding” the fire is a ritual performed collectively to mitigate ones’ presence and ask for safe passage and for harmony to be maintained (photos on page 33). Through such actions, the team communicates and engages with the land on a social level; “the land, then, is a living entity with powers that should be respected if harmony is to be maintained” (Legat 2008: 37). During such engagement, the land is comparable to ones’ parents, who provide everything for a person’s sustenance. Tłı̨chǫ use the word Dè Gogha Nàeɔı̨ (“the land shows favour to us”) to understand how the land feels about our presence

Field Methods: “Do as Hunters Do”

“Do as Hunters Do” is the practical implementation of the “We Watch Everything” framework. “Do as Hunters Do” is a useful memetic English phrase that helps to emphasize that our research methodology emulates traditional indigenous ekwǫ̀ hunting in the barrenlands, although no real hunting occurs during the program. Using a participatory action research (PAR) approach, members of the “hunting party” travel to specific locations on the barrenlands to find ekwǫ̀ together, collectively participating, experiencing, and sharing knowledge. Using a PAR approach, the researchers become part of the “hunting team” under the direction of the Elders and the local harvesters, as traditionally done in Tłı̨chǫ culture. This form of PAR research can be defined as a process of self-investigation shaped by collective decision-making among the team members.

The essence of “Do as Hunters Do” is the recognition that a TK monitoring program does not need to develop new methods; rather, it should learn from and adapt to the cultural practices developed, since time immemorial, by experienced indigenous harvesters to sustain their communities in the Arctic environment. In order to comfortably live in the Arctic, Tłı̨chǫ and Inuit hunters developed sophisticated ways of looking at the landscapes surrounding them and locating animals as well as other food sources. Thus, the program uses hunting locations as places of observations, and hunting techniques as the method of observation.



Photo 37: Team positioned on *what’àa* (esker) next to a well used animal trail (Pat Kane).

Hunting Locations as Places of Observation

The “Do as Hunters Do” field methods unfold through a set of techniques and concepts that are specifically related to the landscapes of the barrenlands. These were incorporated as effective tools within our research framework.

Observations at Nǫɔokè

Nǫɔokè (watercrossings) are the closest points of contact between land across waterbodies, used by ekwǫ̀ to cross the numerous large lakes dotting the tundra. Nǫɔokè is a Tłı̨chǫ term for water crossings; it literally means “swim across”, and a nǫɔokè can be any place that ekwǫ̀ or any other animal use to swim across. Tłı̨chǫ also use the more specific term naɔoke to refer to a place where ekwǫ̀ always cross, such as the crossing between Kokètì and Kwìdlìachı̨̀. As part of our methodology, waiting at these crossings allows the researchers to “Do as Hunters Do.”

Nǫɔokè refers to the interface between water, land, and ekwǫ̀ movement. When the herds travel over the vast land, they need to walk around large waterbodies on their migration routes. But at times they prefer to swim across water bodies rather than walk the long way around. In those circumstances, they often enter the water at the point of shortest distance to the other side; although the presence of large boulders or perceived hazards, may influence where the herds decide to cross.

Observations from Daka

Daka (high points) across the landscape such as hozìı shìa (hills on barrenland) and what’àa (eskers) are extensively used by the team to monitor ekwǫ̀, locate features such as favourable habitats, track the progression of predators and other species, and as points of observation with limited insect harassment.

Observations at Tataa

Tataa is an important word to understand ekwǫ̀ migration. It refers to movement patterns of ekwǫ̀ over land formations relative to water bodies, and literally means “in the midst of waters” (Whaèhdôö Nàowoò Kö 2002:21). The large lakes and numerous water bodies encountered on the migration routes create obstacles that the herds must travel around. A tataa is a channel of land between lakes—a land corridor that allows ekwǫ̀ to move between lakes along their migration routes. The concept of tataa is also used by the Elders to refer to a migration route (Whaèhdôö Nàowoò Kö 2002:21).

Hunting Techniques as Methods of Observation

The location of our main camp, close to the naɔokè (water crossing) between Kokètì and Kwìdlìachı̨̀ in Northwest Territories, was located at the northernmost range of Tłı̨chǫ land use. In the past, people travelled by birch bark canoes and later with canvas canoes along the waterways from their settlements south of the treeline to this location purely for ekwǫ̀ hunting. They followed shorelines by boat, then beached at known ekwǫ̀ water crossings. Families set their camps short distances from the crossings, so as not to disturb the potential movement of ekwǫ̀. From camp, hunters walked to hill tops or eskers, where they waited and watched for any movement on the land surrounding the crossing.

The Ekwǫ̀ Nàxoèhdee K'è program has sought to revive ancient traditions and trails by applying similar techniques and concepts. Observations from the daka (hilltops) such as hozìı shìa (hills on barrenland) and what'àa (eskers) are the main tools applied by the team to locate ekwǫ̀. Advised by local hunters, our main camp was established approximately two kilometres north of the main naɔokè. This location has been used for centuries by Tłı̨chǫ and Inuit. One kilometre west of the main campsite, there is a long, tall esker, stretching in a north-south direction, where we did as hunters have always done; wait and watch the land for animal movement surrounding the naɔokè.

Waiting

The "Do as Hunters Do" methodology is based on walking the land and waiting at strategic places, such as at higher elevations with a viewpoint or known nǫɔokè; places where ekwǫ̀ are expected to migrate. As ekwǫ̀ herds are constantly moving, it is necessary to meet them on their travels, and hunters have identified the best locations to meet them. They regularly travelled to these locations and simply waited.

Waiting also provided an opportunity to feel and become acquainted with the land. Every day, the team sat on the high esker west of the camp for hours, watching, listening, and feeling the weather. Sitting on the esker between two and eight hours each day, in morning, midday and evenings, we had the opportunity to experience weather systems moving over us. Living in close contact with the land fosters a connection with elements of dè that goes beyond ordinary observations.

Waiting is therefore intended as a vigilant watch—a state of mind in which the team members engage personally with the landscape. Such prolonged personal engagement with the daily weather conditions, physical movement over various terrains and close encounters with local animals, shapes the mental state of each team member, and thus the overall team's ability to monitor ekwǫ̀.

Time

The "Do as Hunters Do" methodology requires ample time due to its ground-based approach. Time is required, for example, to adjust to the daily and seasonal weather patterns. Weather decides everything on the barrenlands; the wind and waves direct all movements and actions; thus, plans get delayed and remade constantly. The most appropriate tool we can employ is time, implemented by waiting and watching. A long-term approach is necessary to get more than momentary observations, and to fully understand the life of ekwǫ̀ on the land. Long-term monitoring, defined over years of repeated research periods, allows the researcher and the hunters to discern ecological patterns.

Walking

Walking is simultaneously the slowest form of transportation and the most intimate form of movement over any landscape. As a research method, walking provides the team with the time necessary to watch for details and identify clues of presence left behind by animals. The teams walked between five and 20 kilometres per day. After 73 days of field work at Kokètì, we had covered 3572 kilometres by foot and boat. The long walks into the surrounding landscape were made from daka (high point) to daka, from one high point to the next, often following eskers. As we reached a daka, such as an esker or hilltop, we sit, watch over the surrounding landscape, and wait. If no animal movements were seen for one to three

hours, we proceeded to the next daka and continued watching. This is the same method as hunters use when hunting for ekwǫ̀ on the barrenlands in the fall.

Monitoring Indicators: “We Watch Everything”

Monitoring is based on the periodic assessment of key indicators, which were developed using an interdisciplinary approach. Based on the holistic Tłı̨chǫ concept of “We Watch Everything,” the elders highlighted several related indicators to be included for an analysis of ekwǫ̀ and habitat assessment. The resulting list of monitoring indicators include: (1) habitat; (2) ekwǫ̀; (3) predators, and (4) industrial development.

Indicator 1: Habitat

- Daily weather pattern (temperature, wind direction, humidity, barometric pressure)
    a. Ekwǫ̀ behaviour in response to weather
    b. Daily insect activity in response to weather
- Ekwǫ̀ and predator behaviour in response to weather/ insect activity
- Conditions of vegetation and ekwǫ̀ forage
- Effects of environmental changes on habitat and ekwǫ̀

Indicator 2: Ekwǫ̀

Ekwǫ̀ health
- Unhealthy: skinny; bony; fatigued
- Healthy: normal conditions. No bones visible on rump and back. Layer of fat shows on the neck and back, and back to rump. Look at tail: if it’s short, then the animal is fat and healthy

Hide colour
- Unhealthy: discoloured; patchy
- Healthy: nice colour; no patches. In July: white-coloured hide (shed winter coat in June-July); August: darker more uniform color and shorter hair (new winter coat is coming)

Walking posture
- Unhealthy: limping, or walking with lagging head
- Healthy: prancing, or normal posture; head straight or slightly down when walking

Injured animals
- Number of ekwǫ̀ injured in the herd
- Types of injuries
- Signs of disease

Calves
- Calf-to-cow ratio
- Number of cows without calves
- Number of twins: sign of a healthy herd, as the cow is healthy enough to support two calves—demonstrates cows have not been under stress, and good habitat quality

Indicator 3: Predators

- Number, signs of and location of ekwǫ̀ predators
- Relationship between ekwǫ̀ and predators

Indicator 4: Industrial Development

- Ekwǫ̀ behaviour and movement affected by visible presence, noise, scent from industrial infrastructure and activities

Finding Ekwǫ̀

The main challenge for monitoring ekwǫ̀ is finding ekwǫ̀. In general, Kokètì ekwǫ̀ migrate southwest, from their calving grounds west of Bathurst Inlet, in late June/early July, toward the general area of Kokètì and Kwìidlìachǫ̨̀, and remain in that area throughout July and August, and into September. However, at a finer scale, the herd's movements are very unpredictable. In our field program, the knowledge of the team's harvesters and scientific radio collar data received every two days allowed us to locate the herds and position ourselves in the right location.

Collar Data

Collar information provides a specific geographic location of male and female ekwǫ̀. Every second day, GNWT-ECC biologists provide collar information to the TG's GIS technician, who plots the info onto a grid map of our monitoring area. The info from the grid map is communicated to the team researcher, over satellite phone or as a text message using a Garmin Inreach device, who plots the collar data on a grid map either while on the land (photo 32) or in camp (photo 33). The collar information provides the location of collared ekwǫ̀ at a specific time approximately every second day. The challenge for the program is knowing where the herds are throughout the days in between.

Local Knowledge

Since herds can move long distances each day, local knowledge was necessary to identify where to best position ourselves to intercept ekwǫ̀ before they moved to areas inaccessible by our transportation methods; boating and walking. Building camp near frequently used nǫʔokè and waiting is the traditional and most efficient way to ensure meeting ekwǫ̀. Local knowledge identified which locations would be best suited to have a semi-permanent camp. John Franklin and Mercie Koadloak, who have lived most of their lives on Kokètì, pointed out the best camp locations, and where to go by boat and foot to meet the herds. Their detailed local knowledge of geography and topography, by land and water, was vital for our team's ability to best position itself.

We learned that the success of the program is dependent on doing, as close as possible, what local harvesters and Elders have always done on the lake: travel similar routes; set camp at the same historical campsites and walk the same trails. The task of monitoring is an act of trying to position oneself at places where one anticipates ekwǫ̀ will move through. In Tłı̨chǫ, Kokètì means empty campsite lake, and refers to the many old campsites that have been made at the lake over time. These campsites were chosen for a purpose; namely, for protection from wind or proximity to hunting locations. The program used the same sites for the same reasons.

Field Notes Protocols

Field notes protocols were created to provide consistency between the researchers' observations. Table 12 outlines information collected during each wildlife observation. The templates provide consistency to the daily observations and experience of each team. The template systemizes the direct wildlife recording, while the notes of Elders' explanations are flexible and open-ended, to allow for different durations of each observation and adjusting to the Elders' descriptions. The field books are printed in Rite-in-the-Rain™ waterproof paper.

Table 12: Template for wildlife observations

Date (DD/MM/YYYY): _____ Obs. #: _____

Species: Caribou Wolf Muskox Other: _____

Obs. start time: ____ : ____ (24:00) Obs. end time: ____ : ____ (24:00)

Total obs. time (hours mins): _____

Distance from observer (circle): 0-500m 500m-1km 1-2km 2-3km Other: ____

Waypoint #: _____ Placename (Descr.): _____

Total group size: _____ (circle): Count Estimate

Classification

No. animals classified: Confidence of observation (circle): No Yes

Bulls	Cows	Calves	Yearlings	Unknown	Total

Calf: cow ratio: _____ _____ _____ _____ _____
(0-10 score) _____ _____ _____ _____ _____

Animal Health

Animal health observed (circle): No Yes (sample counts below)

Body condition:	Fat	Good	Skinny	Total
Bulls				
Cows				
Calves				

Ask Elders if Caribou look healthy and why?: _____

Injuries:	Number and description of injured or sick animals
Bulls	
Cows	
Calves	

More details of observation at back: Yes No

Fecal samples collected (circle): Yes No ID number _____

Ask Elders about Caribou injuries: _____

20 WILDLIFE OBSERVATION – FIELD BOOK ONE

Behaviour

Movement (coming from/going to): _____

Behaviour (circle): Feeding Bedded – Ruminating Swimming

Walking Running – due to Insects or Predators or _____

Effect on Behaviour

Are weather/insects affecting behaviour and ability to feed? (circle): No Yes

Insect activity (circle): None Low Medium High

Ask Elders how insects are affecting Caribou.: _____

Can you see what they are eating? (circle): No – too far Yes

Description: _____

Caribou Food

Condition of food:	None	Poor growth	Avg. growth	Good growth
Grasses/sedges				
Shrubs				
Lichens				
Mushrooms				
All vegetation				

Ask Elders what Caribou are eating. Does food look healthy? Is food dry or moist?: _____

Effect on Behaviour

Ask Elders to explain the overall observation: _____

Tłı̨chǫ words/concepts: _____

Additional info in field journal (circle): No Yes (use obs. # for reference)

GPS – Latitude: _____ Longitude: _____

WILDLIFE OBSERVATION – FIELD BOOK ONE 21

Summary

The 2025 Ekwǫ̀ Nàxoèhdee K'è (ENK) monitoring season continued the Tłı̨chǫ Government's long-term monitoring of ekwǫ̀ (barren-ground caribou), their habitat, predators, and the cumulative effects of environmental and industrial change across the barrenlands. Five teams were on the land between July 31 and September 25, contributing to 679 person-days of fieldwork at Kokètì, Deèzàatì, and Ek'atì. Grounded in Tłı̨chǫ knowledge and the using our methodology *We Watch Everything*, the program brings Elders, harvesters, Guardians, and youth onto the land to observe ekwǫ̀ directly, follow traditional travel routes, teach younger generations, and maintain cultural relationships with caribou and the land. Across all monitoring areas, 4,183 ekwǫ̀ were observed in 125 groups. Kokètì, Deèzàatì, and Ek'atì continue to represent key seasonal habitat for Kokètì ekwǫ̀ (Bathurst), Sahtì ekwǫ̀ (Bluenose East), and Beverly caribou. Group sizes were generally small and dispersed, reflecting changing herd distribution across the landscape, including the increasing presence of Beverly caribou around Ek'atì.

A key concern in 2025 remains low calf recruitment. Both Kokètì and Deèzàatì showed late-summer calf ratios of approximately 18 calves per 100 cows. Although Deèzàatì estimates are based on a smaller sample and should be interpreted cautiously, both results indicate limited recruitment, particularly for the Kokètì ekwǫ̀ herd. At Ek'atì, Beverly caribou showed a higher observed calf ratio of approximately 39 calves per 100 cows (±0.136 SE), though this estimate is based on limited sampling and does not represent the full herd, which was largely east of the study area. In contrast, the calves observed were generally healthy and in good body condition, suggesting that poor nutritional condition was not a reason for low calf survival. As one harvester noted:

"The calves look pretty healthy… but we don't see many calves." — Bobby Migwi

The long-term status of the Kokètì ekwǫ̀ remains critical. The herd has declined from approximately 480,000 animals in the 1980s to about 6,851 adults in 2022 and approximately 3,609 adults in 2025. This extreme decline, combined with low calf recruitment, indicates that the herd remains highly vulnerable and requires continued focused monitoring and stewardship.

Caribou body condition across all monitoring areas was generally good to excellent. Most bulls and cows at Kokètì and Deèzàatì were in good or fat condition, and all calves assessed at Kokètì were healthy. Beverly caribou at Ek'atì were in particularly strong condition, with 97% of bulls classified as fat. These findings suggest that forage conditions during summer and early fall 2025 were sufficient to support strong body condition across the landscape. However, good body condition does not diminish concerns about low calf recruitment and long-term population decline.

Habitat conditions were generally favourable. Kokètì remained relatively dry but habitat has improved compared to previous drought years, with abundant berries, healthy vegetation, and more mushrooms. Caribou were observed feeding on willows, mushrooms, and lichen. Deèzàatì also provided strong late-summer forage, including berries, mushrooms, and healthy lichen. These observations highlight the importance of tracking habitat conditions alongside caribou health to understand year-to-year variation in the ecosystem.

Injured caribou were observed at both Kokètì and Ek'atì, including animals with noticeable limps that were still able to travel with groups or remain near shorelines and peninsulas. These observations reinforce the

importance of direct, on-the-ground monitoring, which captures health and behaviour patterns not always visible through aerial surveys or collar data.

Industrial development remains a significant cumulative-impact concern. Although mining activity at the Ekati Point Lake Pit was suspended during 2025, infrastructure remains on the landscape, including a road extending to the shoreline of Lac du Sauvage and the newly constructed waste-rock pile with steep waste rock piles. From a Tłı̨chǫ perspective, such developments across the tata, which is a historically important caribou migration route, interferes with ekwǫ̀ movement and contributes to habitat fragmentation. The contrast between active industrial noise in 2024 and reduced activity in 2025 highlights how quickly disturbance conditions can change.

Overall, the 2025 season presents a mixed picture. Habitat conditions and caribou body conditions were generally strong, however, low calf recruitment, continued population decline of the Kokètì ekwǫ̀, observed injuries, and ongoing industrial pressures remain serious concerns. The strength of our guardian program lies in its continuity and grounding in Tłı̨chǫ culture, language and traditional way of life on the barrenlands. By returning year after year to the same lakes, trails, and ekwǫ̀ crossings, Tłı̨chǫ Guardians can observe change over time while maintaining cultural connection to the land. The program also supports the transmission of language, knowledge, and land-based skills to younger generations, ensuring that Tłı̨chǫ culture remains active and living on the barrenlands.

In the coming year, the program will continue to focus on:

- Caribou health and population trends
- Calf recruitment and survival
- Habitat quality and forage conditions
- Climate change impacts on land and animal behaviour
- Relationships between ekwǫ̀, dìga (wolves), and Tłı̨chǫ harvesters
- Cumulative impacts of industrial development
- Training more Tłı̨chǫ Guardians and youth in land-based monitoring, observation, and research methods

Caribou Monitoring as Cultural Practice

The caribou monitoring is also a cultural practice. It provides opportunities for Tłı̨chǫ people to live closely with ekwǫ̀, experience the land directly, and pass knowledge between generations. At the same time, it reflects the emotional reality of caribou decline. While seeing ekwǫ̀ on the land brings joy, it also brings concern and sadness as numbers remain low and traditional harvesting opportunities decline. As Elder Joe Zoe expressed, the reality of caribou decline is deeply felt within communities:

> “How can I be happy [to see ekwǫ̀], when my wife and kids back home are hungry.”

This statement reflects the broader significance of ekwǫ̀ in Tłı̨chǫ life; not only as wildlife, but as culture, food, identity, and responsibility. Continued monitoring is therefore essential, not only for research and management, but for sustaining Tłı̨chǫ culture, language, and connection to the barrenlands for future generations.

References

Adamczewski, J., J. Boulanger, J. Williams, D. Cluff, and K. Clark.
2023 June 2022 calving ground surveys: Bathurst and Bluenose-East barren-ground caribou herds. Manuscript Report No. 308, Department of Environment and Climate Change, Government of the Northwest Territories, Yellowknife, Northwest Territories.

Adamczewski, J. Z., J. Boulanger, J. Williams, D. Cluff, K. Clark, J. Nishi, S. Goodman, K. Chan, and R. Abernathy.

2022. Estimates of breeding females and adult herd size and analyses of demographics for the Bathurst herd of barren-ground caribou: 2021 calving ground photographic survey. Manuscript Report No. 326, Department of Environment and Natural Resources, Government of the Northwest Territories, Yellowknife, NT. 82 pp + Appendices

Andrews, T.D.
2011 “There will be many stories” museum anthropology, collaboration, and the Tłı̨chǫ. PhD thesis, University of Dundee.

Andrews, T. D., J. B. Zoe, and A. Herter
1998 On Yamozhah's Trail: Dogrib sacred sites and the anthropology of travel. Pages 305-320 in J. Oakes, R. Riewe, and K. Kinew, editors. In Sacred Lands: Aboriginal World Views, Claims, and Conflicts. Canadian Circumpolar Institute, University of Alberta, Edmonton, AB.

Boulanger, J., J. Z. Adamczewski, J. S. Nishi, H. D. Cluff, J. Williams, H. Sayine-Crawford, and L.-M. Leclerc. 2019. Estimates of breeding females and adult herd size and analyses of demographics for the Bluenose-East herd of barren-ground caribou: 2018 calving ground photographic survey. Manuscript Report No. 278, Department of Environment and Natural Resources, Government of the Northwest Territories, Yellowknife, NT.

Boulanger, J., J. Z. Adamczewski, J. Williams, D. Cluff, K. Clark, S. Goodman, K. Chan, and R. Abernathy. 2022. Estimates of breeding females and adult herd size and analyses of demographics for the Bluenose-East herd of barren-ground caribou: 2021 calving ground photographic survey. Manuscript Report No. 325, Department of Environment and Natural Resources, Government of the Northwest Territories, Yellowknife, NT.

Coulombe-Pontbriand, M., R. Reid, and F. Jackson.
1998 Coppermine River - Overview of the hydrology and water quality. Water Resources Division, Department of Indian and Northern Affairs Canada, Yellowknife, Northwest Territories.

DeCesare, N. J., M. Hebblewhite, M. Bradley, K. G. Smith, D. Hervieux, and L. Neufeld.
2012 Estimating ungulate recruitment and growth rates using age ratios. Journal of Wildlife Management 76(1):144-153. doi: 10.1002/jwmg.244

Denryter, K. A., R. C. Cook, J. G. Cook, and K. L. Parker
2017. Straight from the caribou's (*Rangifer tarandus*) mouth: detailed observations of tame caribou reveal new insights into summer–autumn diets. Canadian Journal of Zoology 95:81-94.

Government of the Northwest Territories and Tłı̨chǫ Government
2020 Government of the Northwest Territories and Tłı̨chǫ Government Joint Proposal on Management Actions for the Bathurst Ekwǫ̀ (Barren-ground caribou) Herd: 2019 – 2021 https://www.wrrb.ca/sites/default/files/TG%20ENR%20Joint%20Management%20Proposal%20for%20BATH%202019.pdf

Government of the Northwest Territories.
2019 Bathurst Caribou Range Plan. Environment and Natural Resources, Government of the Northwest Territories, Yellowknife, NT. 86 + iii pp. https://www.enr.gov.nt.ca/sites/enr/files/resources/bathurst_caribou_range_plan_2019_-_plan_pour_laire_de_repartition_des_caribous_de_bathurst_2019.pdf

Goulet, Jean-Guy
1998 Ways of Knowing: Towards a Narrative Ethnography of Experience Amongst the Denè Tha. Journal of Anthropological Research 50(2): 113- 139.

Helm, June
1994 Prophecy and Power among the Dogrib Indians. Lincoln: University of Nebraska Press.

Jacobsen, Petter
2011 Tłı̨chǫ Traditional Knowledge of Climate Change and Impacts for Caribou Hunting: Implications for Traditional Knowledge Research. MA Thesis. University of Northern British Columbia.

Launchbaugh, K. L., and P. J. Urness.
1992 Mushroom consumption (mycophagy) by North American cervids. Great Basin Naturalist 52:321-327.

Legat, Allice
2008 Walking Stories; Leaving Footprints. In Ingold, Tim and Jo Lee Vergunst, eds: Ways of Walking; Ethnography and Practice on Foot. Ashgate Publishing Company, Burlington.

Legat, Alice
2012 Walking the Land, Feeding the Fire: Knowledge and Stewardship Among the Tåîchô Dene. The University of Arizona Press. Tucson, Arizona.

Legat, A., G. Chocolate, M. Chocolate, and S. A. Zoe.
2014A Habitat of Dogrib Traditional Territory: Place names as indicators of biogeographical knowledge. Final Report Submitted by Whàehdǫǫ Nàowo Kǫ Dogrib Treaty 11 Council to the West Kitikmeot Slave Study Society, March 2001. Tłı̨chǫ Traditional Knowledge Reports: Series 2. Tłı̨chǫ Research and Training Institute, Behchokò, NT.

Legat, A., G. Chocolate, B. Gon, S. A. Zoe, and M. Chocolate.
2014b Caribou migration and the state of their habitat: Tłı̨chǫ knowledge and perspectives on ekwò¸(barrenland caribou). Final Report Submitted by Whàehdǫǫ Nàowo Kǫ Dogrib Treaty 11 Council to the West Kitikmeot Slave Study Society, March 2001. Tłı̨chǫ Traditional Knowledge Reports: Series 2. Tłı̨chǫ Research and Training Institute, Behchokò, NT.

Legat, Zoe and Chocolate
1995 Tłı̨chǫ Nde: The Importance of Knowing in Environmental Impact Assessment Statement: BHP Diamonds Inc.

Pretty, Jules; Bill, Adams; Fikret, Berkes; Simone Ferreira de Athayde, Nigel Dudley, Eugene Hunn, Luisa Maf, Kay Milton, David Rapport, Paul Robbins, Eleanor Sterling, Sue Stolton, Anna Tsing, Erin Vintinner and Sarah Pilgrim
2009 The Intersections of Biological Diversity and Cultural Diversity: Towards Integration. *Conservation and Society* 7(2): 100-112.

Pilgrim, Sarah and Jules Pretty
2010 Nature and Culture: Rebuilding Lost Connections. Published by Earthscan. London, England.

Species at Risk Committee (SARC).
2017 Species Status Report for Porcupine Caribou and Barren-ground Caribou (Tuktoyaktuk Peninsula, Cape Bathurst, Bluenose-West, Bluenose-East, Bathurst, Beverly, Ahiak, and Qamanirjuaq herds) (Rangifer tarandus groenlandicus) in the Northwest Territories. Species at Risk Committee, Yellowknife, NT. https://www.nwtspeciesatrisk.ca/sites/enr-species-at-risk/files/bgc_and_pch_status_report_and_assessment_final_apr1117.pdf

Species at Risk Committee (SARC).
2018 Conference of Management Authorities. Consensus Agreement on Listing Barren-Ground Caribou. https://www.nwtspeciesatrisk.ca/sites/enr-species-at-risk/files/consensus_agreement_on_listing_barren-ground_ekwǫ̀_signed_apr1118_0.pdf

Sharp, Henry S, and Karyn Sharp
2016 Hunting Caribou: Subsistence Hunting along the Northern Edge of the Boreal Forest. University of Nebraska

Tłı̨chǫ Government
2014a Placenames as Indicators of Biogeographical Knowledge. Tłı̨chǫ Research and Training Institute (TRTI). Tłı̨chǫ Traditional Knowledge Reports; Series 2.

Tłı̨chǫ Government
2014b Caribou Migration and the State of their Habitat: Tłı̨chǫ Knowledge and Perspectives on ekwǫ̀ (Barrenland Caribou). Tłı̨chǫ Research and Training Institute (TRTI). Tłı̨chǫ Traditional Knowledge Reports; Series 2.

Tłı̨chǫ Research and Training Institute (TRTI)
2020 Results Report, Boots on the Ground caribou monitoring program. Tłı̨chǫ Traditional Knowledge Research Reports. Tłı̨chǫ Government. https://research.Tłı̨chǫ.ca/sites/default/files/2020_results_ekwǫ̀_naxoede_ke_1.pdf

Tłı̨chǫ Research and Training Institute (TRTI)
2016 We Live Here for Caribou: Cumulative Impacts Study on the Bathurst Caribou. Tłı̨chǫ Government. https://research.Tłı̨chǫ.ca/sites/default/files/ekwǫ̀_zo_gha_dzo_natsede_tk_study.pdf

Tłı̨chǫ Research and Training Institute (TRTI)
2012 Tłı̨chǫ Use and Knowledge of Ewaànıt'ıtı. Tłı̨chǫ Government.

Thomas, D. C. 1969. Population estimates and distribution of barren-ground caribou in Mackenzie District, N.W.T., Saskatchewan, and Alberta-March to May, 1967. Canadian Wildlife Service, Ottawa, Ontario.

Wek'èezhìı Renewable Resources Board (WRRB).
2019 Report on a Public Hearing Held by the Wek'èezhìı Renewable Resources Board 9-11 April 2019 Behchokǫ̀ , NT & Reasons for Decisions Related to a Joint Proposal for the Management of the Sahtì Ekwǫ̀ (Bluenose-East Caribou) Herd Wek'èezhìı Renewable Resources Board Yellowknife, NT.

Whaèhdôö Nàowoò Kö
2002 Dogrib Knowledge on Placenames, Caribou and Habitat. Dogrib Treaty 11 Council: submitted to the West Kitikmeot Slave Study Society, Yellowknife, NWT.

Zoe, John. B.
2012a. Ekwǫ̀ and Tłı̨chǫ Nàowo / Caribou and Tłı̨chǫ language, culture and way of life: An evolving relationship and shared history. Rangifer Special Issue No. 20:69-74.

Zoe, John. B.
2012b. The story that was in danger of being left behind: Restorying Tłı̨chǫ culture with land claims and self-government a conversation with John B. Zoe. Pimatisiwin: A Journal of Aboriginal and Indigenous Community Health 10:147-150.



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