Summary of 2024 and 2025 field work carried out under Wildlife Research Permit WL501238 – "Boreal Caribou and Wolf Monitoring Program for the Tłı̨chǫ All-Season Road Project 2024-27"

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This report provides a brief summary of field work conducted in 2024 and 2025 under Wildlife Research Permit WL501238 (active from January 31, 2024 to February 28, 2027). The report focuses on the results of boreal caribou collar deployments, composition surveys and mortality investigations for the Tłı̨chǫ All-Season Road (TASR; now referred to as the Tłı̨chǫ Highway) study area (see Figure 1); however, the WRP also covers the deployment of a small number (up to 3 per year) boreal caribou collars in the North Slave administrative region portion of the Mackenzie boreal caribou study area. The boreal caribou monitoring program in the Mackenzie study area is managed by the ECC South Slave region office. Reports summarizing results of boreal caribou collar deployments and composition surveys for the Mackenzie study area are produced by the South Slave region and are not included here. No further GPS collars were deployed on wolves in 2024 or 2025 under WRP WL501238.

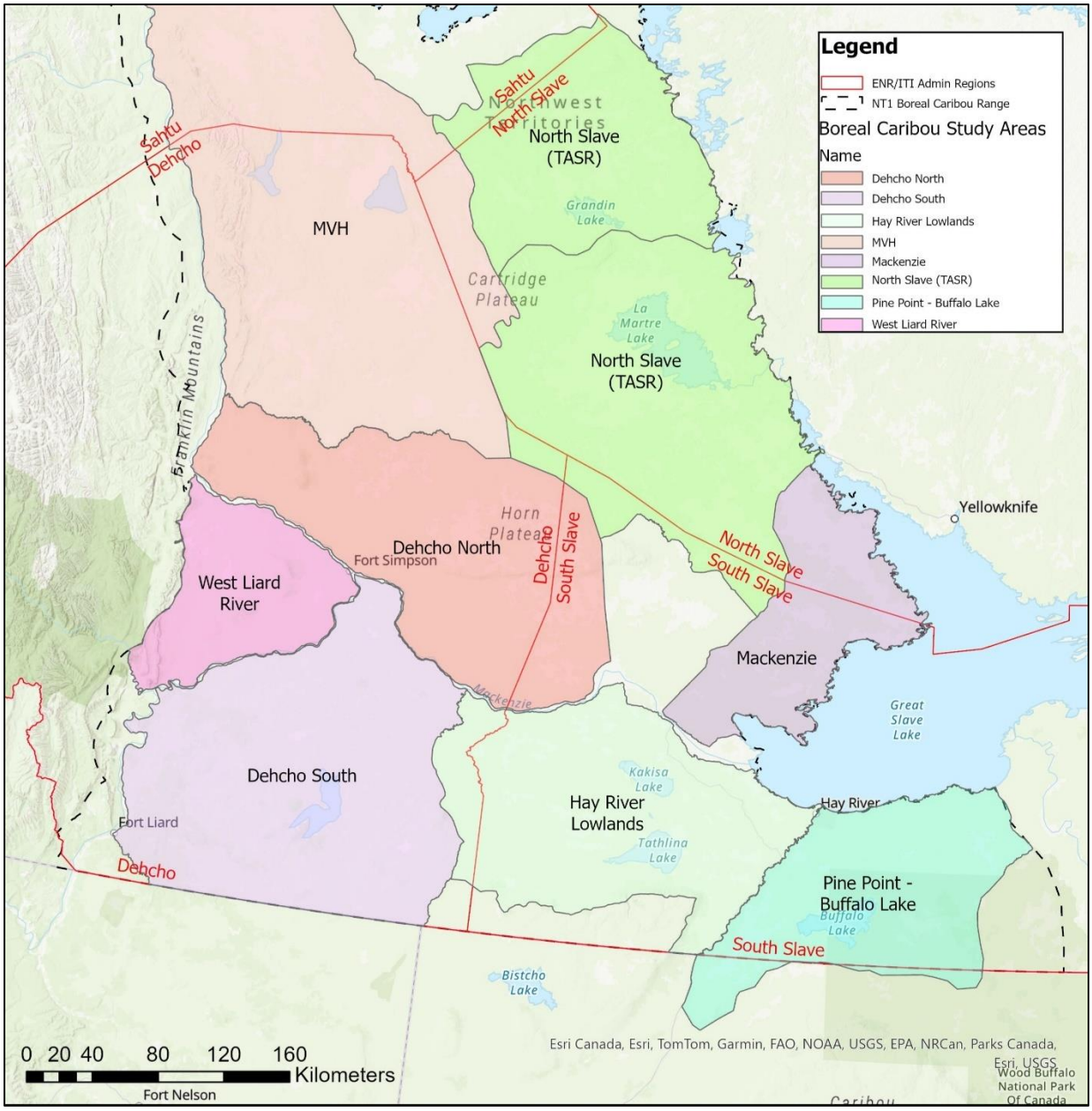

Figure 1. Current NWT boreal caribou monitoring study areas.

Boreal Caribou Collar Deployments

Since February 2024, ECC has deployed 15 GPS collars on female boreal caribou in the North Slave Region, Tłı̨chǫ All-Season Road (TASR) study area. Ten collars were deployed between February 11-17, 2024, and 5 collars were deployed on Feb 15, 2025. In 2024, five collars were deployed next to and north of Lac La Martre, and in both years the remaining collars were deployed around the Tłı̨chǫ Highway (Figure 2). Collars were also deployed in the northern portion of the Mackenzie study area, two

in 2024 and three in 2025. These deployments are reported on by the South Slave regional office and will not be addressed in this document.

These collars are Telonics model TGW-4677-4 GPS Iridium collars, weigh ~1100 grams, and are programmed with a geofence 10km on either side of the Tłı̨chǫ Highway and Highway 3. The collars are programmed to collect a location every four hours outside the geofence and every one hour inside the geofenced area, and are scheduled to release 4.5 years after deployment. At the start of April 2024 there were 43 collared adult female caribou in the North Slave Region study area, and as of December 31, 2025, there were 24 collared adult females in this area. Details of collars dropped, and animals lost from mortalities are discussed in the next sections.

For both years, all boreal caribou were captured with a net-gun fired from a helicopter using methods approved by the NWT Wildlife Care Committee (approvals NWTWCC 2023-014, and 2024-14). Each animal was initially examined to assess its condition and to check for any capture-related injuries. Samples collected from each animal included approximately 15 mL of blood (from the cephalic vein in the foreleg), approximately 50 g of feces (either from the ground after defecation, or from the rectum), and a sample of hair (with roots; taken from the rump). Any winter tick related hair loss was documented and associated ticks collected. Body condition scores for the shoulder, ribs, and hips, and an overall score, were recorded. A portable ultrasound was used to measure rump fat layer and loin muscle/fat thickness. The following was also recorded for each capture event: age class based on tooth wear, struggle index, body condition score, capture location, chase and handling times, presence of a calf, lactation status, chest girth, average snow depths and snow condition and pertinent information pertaining to observations of the health (signs of disease, previous injury, etc.) or welfare of other members of the herd from which the caribou is captured. No immobilization drugs were used during the capture program.

All collars were fitted snugly around the neck, allowing for an open-palmed hand to move freely between the neck and the collar material. Blood collected will be analyzed for genetic microsatellites and serum is used to investigate stress and general health. Fecal matter will be analyzed for parasites. Pregnancy rates were determined from blood serum from collared cows. The crew was able to obtain blood samples from all 10 females in 2024 and all five females in 2025. All 10 females in 2024, and all 5 in 2025 tested positive for pregnancy. Seven caribou in 2024 were found with ticks, and five caribou showed hair loss associated with winter tick (including the 4 that had ticks present). In 2025, tick related hair loss was observed in 1 of the 5 boreal caribou handled.

In 2024 the helicopter capture crew consisted of 4 people: Chuck Grandy as helicopter pilot (Great Slave Helicopters), Brett Hodges as net gunner (Trinity Tactical Consulting Ltd.), James Hodson as handler (GNWT-ECC; Feb 11), Colin Modeste-Burgin as handler (GNWT-ECC; Feb 12-17), and John Cook as the nutritional ecologist taking body condition measurements (National Council for Air and Stream Improvement). An A-Star B2 helicopter (GFHN; Great Slave Helicopters) was used with a sliding door and skids to enable caribou capture. Chase times ranged from between 1 second to 50 seconds, with an average of 13 seconds. Handling times ranged between 16 minutes to 21 minutes, with an average of 19

minutes and 42 seconds. Temperatures ranged between 0°C and -15°C with an average of -11°C. No capture-related injuries or mortalities occurred during collar deployments.

In 2025 the helicopter capture crew consisted of 4 people: Jeurgen Krieger (Feb. 10-13)/Chuck Grandy (Feb. 15) as helicopter pilots (Canadian Helicopters Ltd. (Acasta)), Chris Ellswoth (Feb. 10-13)/Ian Ellsworth (Feb.15) as net gunners (Trinity Tactical Consulting Ltd.), James Hodson (Feb. 10-13)/Colin Modeste-Burgin (Feb. 15) as handlers (GNWT-ECC), and John Cook as the nutritional ecologist taking body condition measurements (National Council for Air and Stream Improvement). An A-Star B2 helicopter (GBTB; Canadian Helicopters Ltd. (Acasta)) was used with a sliding door and skids to enable caribou capture. Chase times ranged from between 8 seconds to 63 seconds, with an average of 25 seconds. Handling times for animals collared in the TASR study area ranged between 12 minutes to 18 minutes, with an average of 16 minutes. Temperatures ranged between -17°C and -20°C with an average of -19°C. No capture-related injuries or mortalities occurred during collar deployments.

Collared animals were monitored daily for the first month after deployment to detect if a collar became stationary. One animal was harvested a week after being captured, but no other animals died within a month of capture. Seven of the 10 animals collared in 2024, and all the animals collared in 2025, are still alive as of December 31, 2025.

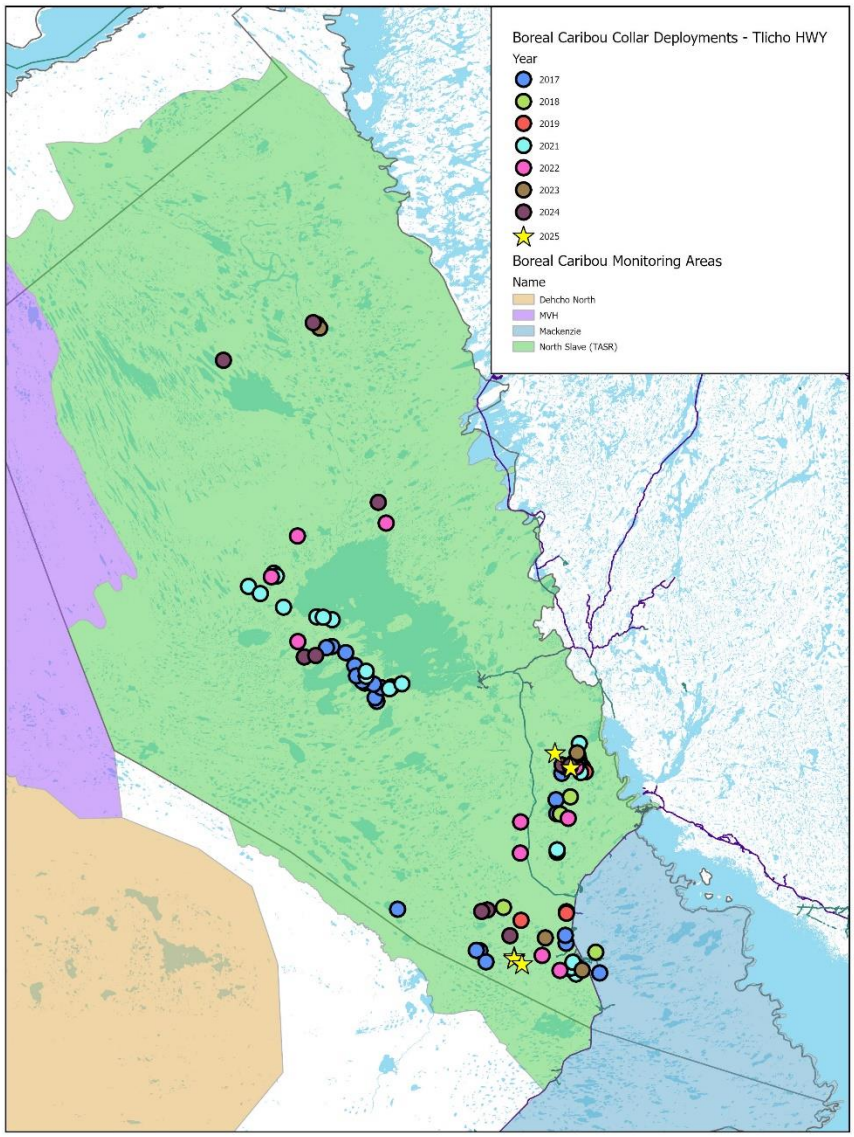

Figure 2. Boreal caribou collars deployed in the North Slave (TASR) study area from 2017-2025. Collars deployed in 2024 are displayed in dark brown circles and collars deployed in 2025 are displayed as yellow stars.

Collar Releases and Retrievals

Of the 24 females that were collared in March 2021, 17 were still alive as of April 01, 2025, when they were scheduled to release. Sixteen of the 17 collars were released on the scheduled date, but one release mechanism malfunctioned and the collar did not drop as scheduled (BWCA21612). Collars are retrieved from the field when feasible; Eleven of the sixteen released caribou collars have been successfully retrieved as of December 31, 2025. On May 12, 2025, the collar for BWCA21612 started sending a mortality signal. On May 31, a mortality investigation was conducted by helicopter. Details of this investigation are addressed in the following section.

Since January 31, 2024, only one collar has prematurely dropped before the scheduled date. The collar for caribou BWCA22602 dropped on October 10, 2025. This caribou was collared in 2022, and the collar was scheduled to drop April 1, 2026.

Boreal Caribou Mortality (Fate) Investigations

Caribou BWCA24605 died on February 20, 2024. This caribou was harvested near the northwest end of Lac La Martre, four days after being collared. The mortality site was visited on February 24 where the collar was found buried under the snow with snowmobile tracks nearby.

Caribou BWCA24602 died on April 16, 2024, from bear predation approximately 13 km from the TASR. This collar was deployed in February 2024. The mortality site was visited on April 22 and samples from the remaining carcass were collected.

Caribou BWCA24608 died on May 17, 2024, from bear predation. This collar was deployed in February 2024. When a crew went to investigate on May 23, a large bear was seen from the air burying the carcass. Two more bears were seen at the site when the crew returned later that day to investigate. For safety reasons, the crew delayed collar retrieval and successfully returned to the site on October 15, 2025.

Caribou BWCA21603 died on May 22, 2024. This collar was deployed in 2021. The mortality site was visited on May 23 where the carcass was found fully intact with flies and magots in the oral cavity, and the body was covered in ticks. The hip muscles were sunken, and an unborn fetus was present in the uterus. There were no signs of struggle or scavenging.

Caribou BWCA23606 died on October 9, 2024. This collar was deployed in 2023. The mortality site was visited on October 10 where the carcass was found fully intact lying on its side with its neck twisted and antlers stuck into moss and noted to be extremely emaciated.

Caribou BWCA22609 died on May 7, 2025. This collar was deployed in 2022. The mortality site was visited on May 15 where the carcass was found to have a high tick load, and nasal bots present in the nose and trachea. A fetus was present in the womb. Body condition was noted to be good with no signs of emaciation.

Caribou BWCA21612 died on May 12, 2025. This collar was deployed in 2021. The mortality site was visited on May 31 and the crew discovered that this female may have died due to predation by wolf. Wolf scat was found at the site, tufts of caribou hair were present, and the caribou had been dragged and heavily scavenged. The caribou also had signs of slipper foot and contained a high tick load.

On August 12, 2025, collar BWCA22608 went stationary. This collar was deployed in 2022. At the time of writing this report, this site has not yet been investigated. Records will be updated once a mortality investigation is conducted.

Boreal Caribou Composition Survey

Boreal caribou composition surveys are conducted to classify caribou into age and sex classes and count the number of calves per 100 cows observed. Because caribou mortality is highest during the first year of life, calves that survive until the time of survey (when calves are approximately 10 months old) are assumed to be "recruited" into the adult population with an associated higher survival rate. The ratio of female calves to total females is used together with the adult female survival to estimate the annual population trend.

For this survey, a helicopter is used to locate and classify observed caribou into cows, calves, bulls, and yearlings. The survey is planned by using the last known location of collared females present in the study area. Once the helicopter is within ~5 km of each location, radio telemetry is used to locate the group with the collared female. Additional groups of caribou that are encountered but do not contain a collared female are also classified. Boreal caribou were classified into calves (9-10 months old), yearlings (21-22 months old), females (≥ 32 months old) and males (≥ 32 months old), based upon antler size and shape, animal size, and presence of a black vulva patch. The survey crew also assesses and records whether the collared cow has a calf at heel (that is assumed to be her 9-month-old calf, i.e. a calf that follows closely at heel and remains or rejoins with that cow given the opportunity to regroup and/or rejoin within a small group of caribou.)

2024

Classification surveys were flown on February 26-28, 2024 (Figure 3). Weather was clear skies with high haze on the last day, and temperatures averaged around -30.3°C. An A-Star B-2 (G-CHH) helicopter was used to conduct the surveys. The survey crew consisted of Nathan Shute as helicopter pilot (Canadian Helicopters Ltd. (Acasta)), Allicia Kelly as navigator/telemetry operator/classifier (GNWT-ECC), Amanda Weltman as spotter/telemetry operator (GNWT-ECC; Feb 26-28). Co-management partners from Tłı̨chǫ Government (TG), Wek'èezhìı Renewable Resources Board (WRRB) and North Slave Métis Alliance (NSMA) were invited to participate in the classification survey as spotters. Peter Nitsiza from TG joined on Feb 26, Laura Meinert from WRRB joined Feb 27, and Orna Phelan from NSMA joined on Feb 28.

Within the TASR study area (Figure 1), a total of 58 bulls, 147 cows, 5 yearlings, 52 calves and 8 individuals of unknown sex were observed in 62 groups on the survey, for a total of 270 boreal caribou classified (Appendix A - Table 2). Group sizes of boreal caribou varied between 1 and 17 individuals. Individuals of unknown sex and yearlings were split 50/50 amongst adult males/females to calculate calf:cow ratios. The calf:cow ratio was 0.342 (34 calves per 100 cows). The calf:cow ratio, along with adult female survival rates for the 2023-24 year, were used to calculate the annual finite population growth rate (lambda, ʎ) which is shown in Table 1. A lambda value of 1.0 indicates a stable population; a value of less than 1 indicates a declining growth rate; values higher than 1 indicate an increasing growth rate.

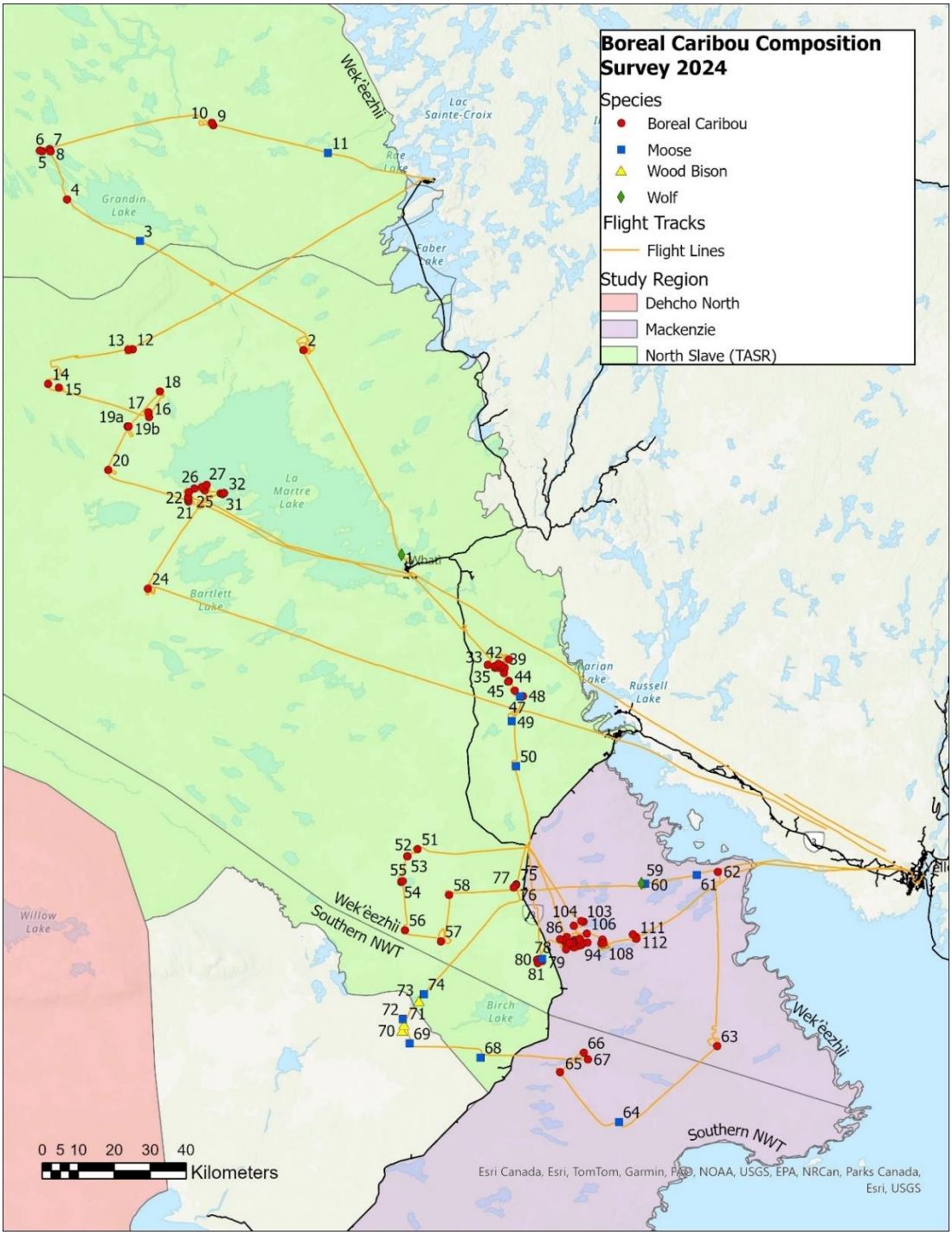

Figure 3. Location of boreal caribou groups classified during an aerial composition survey conducted on February 26-28, 2024. The composition of each of the groups classified is described in Appendix A - Table 2.

Within the North Slave region portion of the Mackenzie study area, 154 boreal caribou in 36 groups were classified. A total of 84 cows, 30 bulls, 2 yearlings and 38 calves were counted (Appendix A - Table 2). Group sizes of boreal caribou varied between 1 and 10 individuals. These classification results were added to those of the South Slave region portion of the Mackenzie study area to calculate calf:cow ratios for that study area.

Incidental sightings during the classification survey included 39 bison in 4 groups, 15 moose in 13 groups and 10 wolves in 2 groups (Appendix A - Table 2). Collared female moose were also relocated during flights for the TASR and Mackenzie composition surveys to determine calf-at-heel status (WRP 501134). Results from these observations have been included in Appendix A - Table 2 but will be reported on separately.

2025

Classification surveys were flown on March 5-9, 2025 (Figure 4). Weather for the surveys ranged from clear and sunny to cloudy with ice fog, and temperatures averaged around -25°C. An A-Star B-2 helicopter was used to conduct the surveys. The survey crew consisted of Ciaran as helicopter pilot Nolan (Great Slave Helicopters), James Hodson as navigator/telemetry operator (GNWT-ECC), Stefan Goodman as classifier (GNWT-ECC), Nick Wilson as spotter (GNWT-ECC; March 5), and Amanda Weltman as spotter (WRRB; March 6).

Within the TASR study area (Figure 1), a total of 103 bulls, 201 cows, 2 yearlings, 48 calves and 2 individuals of unknown sex were observed in 73 groups on the survey, for a total of 356 boreal caribou classified (Appendix A - Table 3). Group sizes of boreal caribou varied between 1 and 13 individuals. Individuals of unknown sex and yearlings were split 50/50 amongst adult males/females to calculate calf:cow ratios. The calf:cow ratio was 0.237 (24 calves per 100 cows). The calf:cow ratio, along with adult female survival rates for the 2024-25 year were used to calculate the annual finite population growth rate (lambda, λ) which is shown in Table 1. A lambda value of 1.0 indicates a stable population; a value of less than 1 indicates a declining growth rate; values higher than 1 indicate an increasing growth rate.

Table 1. Adult female survival and calf:cow ratios, which are used together to estimate the annual population growth rate (lambda, ʎ) of boreal caribou within the TASR study area from 2017-2025.

Year (April 1 – March 31)	Adult Female Survival	Calf:cow Ratio	Population Trend (lambda [λ])
2017-18	0.95	32.6 : 100	1.10
2018-19	1.00	37.2 : 100	1.19
2019-20	0.97	26.2 : 100	1.09
2020-21	0.96	30.9 : 100	1.11
2021-22	0.89	27.3 : 100	1.01
2022-23	0.92	33.1 : 100	1.07
2023-24	0.92	34.2 : 100	1.07
2024-25	0.91	23.7 : 100	1.01

Within the North Slave region portion of the Mackenzie study area, 221 boreal caribou in 43 groups were classified. A total of 129 cows, 59 bulls, 5 yearlings and 28 calves were counted (Appendix A - Table 3). Group sizes of boreal caribou varied between 1 and 17 individuals. These classification results will be added to those of the South Slave region portion of the Mackenzie study area to calculate calf:cow ratios for that study area.

Incidental sightings during the classification survey included 44 bison in 10 groups, 58 moose in 31 groups and 6 wolves in 2 groups (Table 3). Collared female moose were also relocated during flights for the TASR and Mackenzie composition surveys to determine calf-at-heel status (WRP 501134). Results from these observations have been included in Table 2 but will be reported on separately.

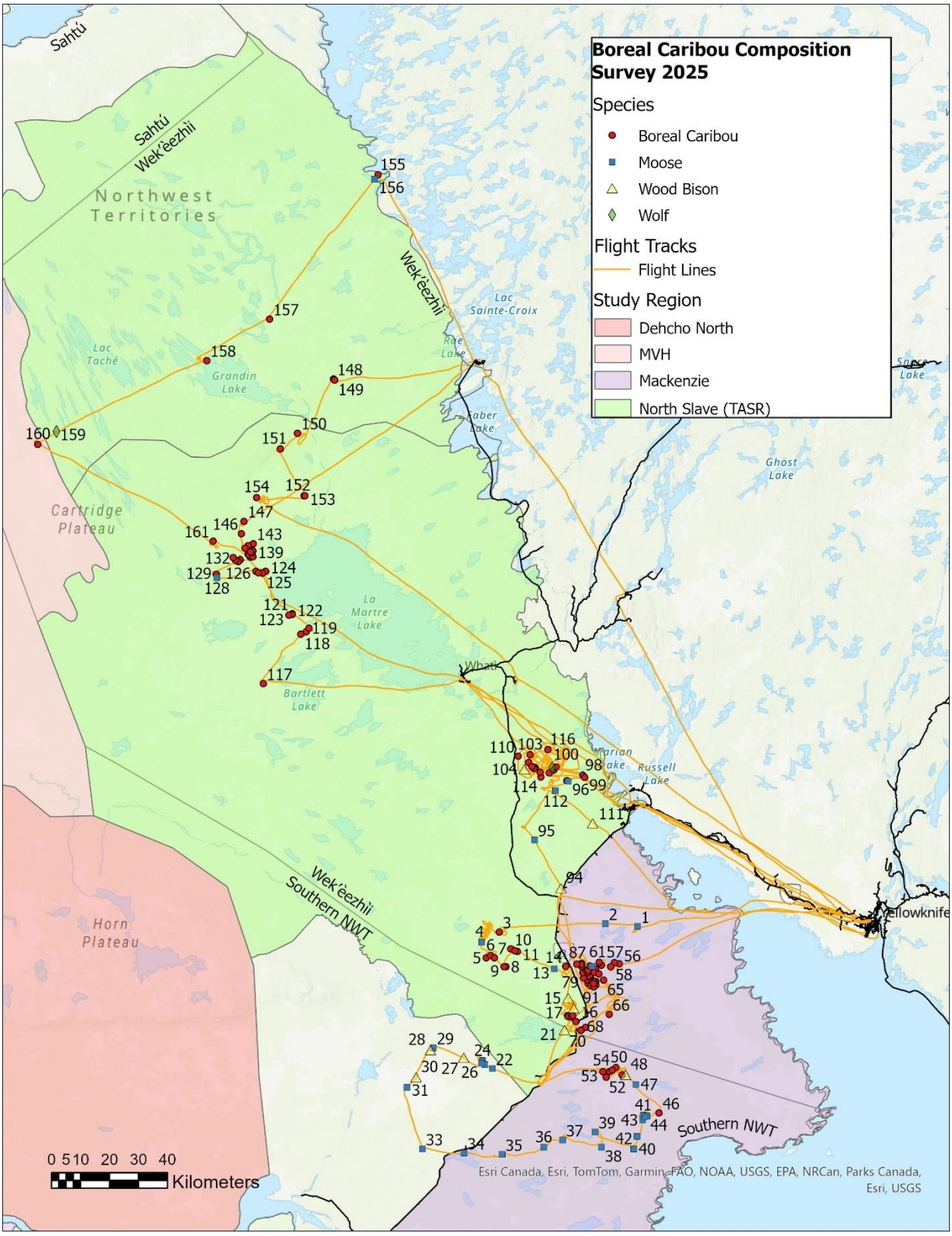

Figure 4. Location of boreal caribou groups classified during an aerial composition survey conducted on March 5-9, 2025. The composition of each of the groups classified is described in Appendix A - Table 3.

Wolves

At the beginning of 2024, there were two collared boreal wolves active in the study area. Both wolves were collared in the same pack east of the junction of Highway 3 and the Tłı̨chǫ Highway in March 2023, and used a range that broadly encompassed that area and up to the area west of Marion Lake. One collar released on schedule on June 1, 2024, close to Highway 3, and was retrieved. The other collar failed to release as scheduled on June 1, 2024 and continued to transmit daily locations until June 2025. This wolf was trapped in late 2025 and the collar was returned to ECC in January 2026.

Appendix A – Boreal Caribou Composition and Other Wildlife Sightings During Aerial Surveys in 2024 and 2025.

Table 2. Composition of boreal caribou groups and other incidental sightings classified during aerial composition surveys conducted Feb 26-28, 2024.

Waypoint #	Study Area	Species	Date Observed	Cow	Bull	Calf	Yearling	Unknown	Total	Animal ID of collared caribou in group	Calf with collared female?
1	TASR	Wolf	2/26/2024					4	4		
2	TASR	Boreal Caribou	2/26/2024	3	1				4	BWCA21616 BWCA24607	No No
3	TASR	Moose	2/26/2024					1	1		
4	TASR	Boreal Caribou	2/26/2024	1	1				2	BWCA23605	No
5	TASR	Boreal Caribou	2/26/2024		2				2		
6	TASR	Boreal Caribou	2/26/2024	3		1			4		
7	TASR	Boreal Caribou	2/26/2024	1		1			2		
8	TASR	Boreal Caribou	2/26/2024	1					1	BWCA24604	No
9	TASR	Boreal Caribou	2/26/2024	1	1	1			3	BWCA23604	Yes
10	TASR	Boreal Caribou	2/26/2024	1					1	BWCA24606	No
11	TASR	Moose	2/26/2024					1	1		
12	TASR	Boreal Caribou	2/26/2024	10	2	5			17		
13	TASR	Boreal Caribou	2/26/2024	1		1	1	1	4	BWCA21614	Yes
14	TASR	Boreal Caribou	2/26/2024	7					7		
15	TASR	Boreal Caribou	2/26/2024	4	2	1			7	BWCA22610	Unknown
16	TASR	Boreal Caribou	2/26/2024	3					3		
17	TASR	Boreal Caribou	2/26/2024	2					2	BWCA22606	No

Waypoint #	Study Area	Species	Date Observed	Cow	Bull	Calf	Yearling	Unknown	Total	Animal ID of collared caribou in group	Calf with collared female?
18	TASR	Boreal Caribou	2/26/2024	1		1	1		3		
19a	TASR	Boreal Caribou	2/26/2024	9	1	3			13	BWCA22608	No
19b	TASR	Boreal Caribou	2/26/2024	6	4			1	11	BWCA21609	No
20	TASR	Boreal Caribou	2/26/2024	2	1	1			4	BWCA21617	No
21	TASR	Boreal Caribou	2/26/2024	2		1			3		
22	TASR	Boreal Caribou	2/26/2024	3	1				4	BWCA21622	No
23	TASR	Boreal Caribou	2/26/2024	2	1				3	BWCA21620	No
24	TASR	Boreal Caribou	2/27/2024	4		3		1	8	BWCA21621	Unknown
25	TASR	Boreal Caribou	2/27/2024	5	2	2		1	10		
26	TASR	Boreal Caribou	2/27/2024	3		1			4		
27	TASR	Boreal Caribou	2/27/2024	1					1	BWCA24609	No
28	TASR	Boreal Caribou	2/27/2024	2		1		1	4		
29	TASR	Boreal Caribou	2/27/2024	9	4	2			15	BWCA21608	Unknown
30	TASR	Boreal Caribou	2/27/2024	2		1			3		
31	TASR	Boreal Caribou	2/27/2024	3	1				4		
32	TASR	Boreal Caribou	2/27/2024	2	1	1			4	BWCA22609	Unknown
33	TASR	Boreal Caribou	2/27/2024		3				3		
34	TASR	Boreal Caribou	2/27/2024	2					2		
35	TASR	Boreal Caribou	2/27/2024	1		1			2		
36	TASR	Boreal Caribou	2/27/2024	3		1			4	BWCA22603	Unknown
37	TASR	Boreal Caribou	2/27/2024		3				3		
38	TASR	Boreal Caribou	2/27/2024	1					1	BWCA22602	No
39	TASR	Boreal Caribou	2/27/2024	1	1	1			3		
40	TASR	Boreal Caribou	2/27/2024	2	4			1	7	BWCA23601	No
41	TASR	Boreal Caribou	2/27/2024	1		1			2	BWCA21607	Yes
42	TASR	Boreal Caribou	2/27/2024	2		1			3		

Waypoint #	Study Area	Species	Date Observed	Cow	Bull	Calf	Yearling	Unknown	Total	Animal ID of collared caribou in group	Calf with collared female?
43	TASR	Boreal Caribou	2/27/2024	2					2	BWCA24610	No
44	TASR	Boreal Caribou	2/27/2024	2		1			3		
45	TASR	Boreal Caribou	2/27/2024	1		1			2	BWCA23603	Yes
46	TASR	Boreal Caribou	2/27/2024	1		1	1		3	BWCA21604	Yes
47	TASR	Moose	2/27/2024					1	1		
48	TASR	Boreal Caribou	2/27/2024	1	3				4	BWCA21606	No
49	TASR	Moose	2/27/2024	1					1	MOOS23104	No
50	TASR	Moose	2/27/2024	1					1	MOOS23105	No
51	TASR	Boreal Caribou	2/27/2024	4	6	2	1		13	BWCA24603	Yes
52	TASR	Boreal Caribou	2/27/2024	1		1		1	3	BWCA24601	Yes
53	TASR	Boreal Caribou	2/27/2024	2	1				3	BWCA24608	No
54	TASR	Boreal Caribou	2/27/2024	2	1	1			4		
55	TASR	Boreal Caribou	2/27/2024	5	6	2		1	14	BWCA22604 BWCA23602	Yes No
56	TASR	Boreal Caribou	2/27/2024	4		2	1		7	BWCA21602	No
57	TASR	Boreal Caribou	2/27/2024		2				2		
58	TASR	Boreal Caribou	2/27/2024	2	1	1			4	BWCA23607	No
59	Mackenzie	Wolf	2/27/2024					6	6		
60	Mackenzie	Moose	2/27/2024	1					1	MOOS23103	No
61	Mackenzie	Moose	2/27/2024					1	1		
62	Mackenzie	Boreal Caribou	2/28/2024	1	1	1	1		4	BWCA-WL-22-13	Yes
63	Mackenzie	Boreal Caribou	2/28/2024	2		2			4	BWCA-WL-21-17	Yes
64	Mackenzie	Moose	2/28/2024	1					1	MOOS23118	No
65	Mackenzie	Boreal Caribou	2/28/2024	2		1			3	BWCA-WL-19-19	Yes
66	Mackenzie	Boreal Caribou	2/28/2024	1		1			2		
67	Mackenzie	Boreal Caribou	2/28/2024	6		4			10	BWCA-WL-20-02	Yes

Waypoint #	Study Area	Species	Date Observed	Cow	Bull	Calf	Yearling	Unknown	Total	Animal ID of collared caribou in group	Calf with collared female?
68	TASR	Moose	2/28/2024	1		1			2	MOOS23102	Yes
69	TASR	Moose	2/28/2024	1					1	MOOS23111	No
70	TASR	Bison	2/28/2024					22	22		
71	TASR	Bison	2/28/2024					15	15		
72	TASR	Moose	2/28/2024	1					1	MOOS23107	No
73	TASR	Bison	2/28/2024					1	1		
74	TASR	Moose	2/28/2024					1	1		
75	TASR	Boreal Caribou	2/28/2024	1	1	1			3		
76	TASR	Boreal Caribou	2/28/2024	4		1			5	BWCA21605 BWCA22601	Yes No
77	TASR	Boreal Caribou	2/28/2024	1		1			2	BWCA21600	Yes
78	TASR	Moose	2/28/2024	1		1			2		
79	TASR	Boreal Caribou	2/28/2024	1		1			2	BWCA23606	Yes
80	TASR	Boreal Caribou	2/28/2024	2		1			3		
81	TASR	Boreal Caribou	2/28/2024	4	1	3			8	BWCA21610	Yes
82	Mackenzie	Boreal Caribou	2/28/2024	1	7	1			9		
83	Mackenzie	Boreal Caribou	2/28/2024	1		1			2		
84	Mackenzie	Boreal Caribou	2/28/2024	1	2				3		
85	Mackenzie	Boreal Caribou	2/28/2024	1		1			2	BWCA-WL-21-15	Yes
86	Mackenzie	Boreal Caribou	2/28/2024	4		4			8		
87	Mackenzie	Boreal Caribou	2/28/2024	4	1	4			9	BWCA-WL-20-21	Yes
88	Mackenzie	Boreal Caribou	2/28/2024	4	1	2			7	BWCA-WL-19-02	No
89	Mackenzie	Boreal Caribou	2/28/2024	3					3		
90	Mackenzie	Boreal Caribou	2/28/2024	3		1			4		
91	Mackenzie	Boreal Caribou	2/28/2024	1		2			3		
92	Mackenzie	Boreal Caribou	2/28/2024	1		1			2		

Waypoint #	Study Area	Species	Date Observed	Cow	Bull	Calf	Yearling	Unknown	Total	Animal ID of collared caribou in group	Calf with collared female?
93	Mackenzie	Boreal Caribou	2/28/2024	5					5		
94	Mackenzie	Boreal Caribou	2/28/2024	3	3	1			7		
95	Mackenzie	Boreal Caribou	2/28/2024	1		1			2		
96	Mackenzie	Boreal Caribou	2/28/2024	1					1	BWCA-WL-23-12	No
97	Mackenzie	Boreal Caribou	2/28/2024	2					2		
98	Mackenzie	Boreal Caribou	2/28/2024	3		1		1	5	BWCA-WL-20-23	Yes
99	Mackenzie	Boreal Caribou	2/28/2024	1	2	1			4		
100	Mackenzie	Boreal Caribou	2/28/2024	3	2				5		
101	Mackenzie	Boreal Caribou	2/28/2024	3	2				5		
102	Mackenzie	Boreal Caribou	2/28/2024	1					1	BWCA-WL-22-24	No
103	Mackenzie	Boreal Caribou	2/28/2024	4	1	2	1		8		
104	Mackenzie	Boreal Caribou	2/28/2024	1					1	BWCA-WL-20-10	No
105	Mackenzie	Boreal Caribou	2/28/2024	1		1			2	BWCA22605	Yes
106	Mackenzie	Boreal Caribou	2/28/2024	1		3			4		
107	Mackenzie	Boreal Caribou	2/28/2024	7	2				9	BWCA-WL-20-09	No
108	Mackenzie	Bison	2/28/2024					1	1		
109	Mackenzie	Boreal Caribou	2/28/2024	3	2				5	BWCA-WL-24-04	No
110	Mackenzie	Boreal Caribou	2/28/2024	2	1				3	BWCA-WL-20-06	No
111	Mackenzie	Boreal Caribou	2/28/2024	2		2			4	BWCA-WL-20-04	Yes
112	Mackenzie	Boreal Caribou	2/28/2024	1	3				4	BWCA-WL-24-03	No
113	Mackenzie	Boreal Caribou	2/28/2024	3					3	BWCA21603	No

Table 3. Composition of boreal caribou groups and other incidental sightings classified during aerial composition surveys conducted March 5-9, 2025.

Waypoint #	Study Area	Species	Date Observed	Cow	Bull	Calf	Yearling	Unknown	Total	Animal ID of collared caribou in group	Calf with collared female?
1	Mackenzie	Moose	3/5/2025	1		1			2	MOOS23103	Yes
2	Mackenzie	Moose	3/5/2025					1	1		
3	TASR	Boreal Caribou	3/5/2025	2		3			5	BWCA22601	Yes
4	TASR	Moose	3/5/2025	1		1			2	MOOS23106	Yes
5	TASR	Boreal Caribou	3/5/2025	2		2			4	BWCA24601	Yes
6	TASR	Boreal Caribou	3/5/2025	2		2	1		5		
7	TASR	Boreal Caribou	3/5/2025		3				3		
8	TASR	Boreal Caribou	3/5/2025	2	2	1			5		
9	TASR	Boreal Caribou	3/5/2025	2		1			3	BWCA25604	No
10	TASR	Boreal Caribou	3/5/2025	3		2			5		
11	TASR	Boreal Caribou	3/5/2025	5	1	2			8	BWCA22604	Yes
12	TASR	Boreal Caribou	3/5/2025	7	2	4			13	BWCA21602	No
13	TASR	Moose	3/5/2025					1	1		
14	TASR	Boreal Caribou	3/5/2025	2		2			4	BWCA24610	Yes
15	TASR	Wood Bison	3/5/2025		1				1		
16	TASR	Wood Bison	3/5/2025		1				1		
17	TASR	Boreal Caribou	3/5/2025	5	3	2			10	BWCA25603	No
18	TASR	Boreal Caribou	3/5/2025	1	2				3		
19	TASR	Boreal Caribou	3/5/2025		2				2		
20	TASR	Boreal Caribou	3/5/2025		2				2		
21	TASR	Wood Bison	3/5/2025					2	2		
22	NA	Moose	3/5/2025					2	2		
23	NA	Moose	3/5/2025	1					1	MOOS23111	No
24	NA	Moose	3/5/2025	1	1		1		3		

Waypoint #	Study Area	Species	Date Observed	Cow	Bull	Calf	Yearling	Unknown	Total	Animal ID of collared caribou in group	Calf with collared female?
25	NA	Moose	3/5/2025		1				1		
26	NA	Moose	3/5/2025	1					1	MOOS23102	No
27	NA	Wood Bison	3/5/2025					10	10		
28	NA	Wood Bison	3/5/2025					10	10		
29	NA	Moose	3/5/2025	1		1			2	MOOS23108	Yes
30	NA	Wood Bison	3/5/2025					14	14		
31	NA	Moose	3/5/2025	2					2	MOOS23107	No
32	Mackenzie	Moose	3/5/2025	1		1			2		
33	NA	Moose	3/5/2025	1		1			2	MOOS23110	Yes
34	Mackenzie	Moose	3/5/2025	1	1				2		
35	Mackenzie	Moose	3/5/2025	5		1			6		
36	Mackenzie	Moose	3/5/2025					2	2		
37	Mackenzie	Moose	3/5/2025	1		1			2	MOOS23117	Yes
38	Mackenzie	Moose	3/5/2025	1		1			2	MOOS23119	Yes
39	Mackenzie	Moose	3/5/2025	1		1			2	MOOS23120	Yes
40	Mackenzie	Moose	3/5/2025	1		1			2	MOOS23112	Yes
41	Mackenzie	Moose	3/5/2025		1				1		
42	Mackenzie	Moose	3/5/2025		1				1		
43	Mackenzie	Moose	3/5/2025	1		1			2		
44	Mackenzie	Moose	3/5/2025		2				2		
45	Mackenzie	Moose	3/5/2025	1			1		2	MOOS23118	Yes
46	Mackenzie	Boreal Caribou	3/5/2025	1	1				2	BWCA-WL-20-04	No
47	Mackenzie	Moose	3/5/2025					1	1		
48	Mackenzie	Wood Bison	3/5/2025					1	1		
50	Mackenzie	Boreal Caribou	3/5/2025	3	2	1			6	BWCA-WL-25-10	No
51	Mackenzie	Boreal Caribou	3/5/2025	3		2			5	BWCA-WL-24-08	Yes
52	Mackenzie	Boreal Caribou	3/5/2025	2	3				5	BWCA-WL-25-08	No

Waypoint #	Study Area	Species	Date Observed	Cow	Bull	Calf	Yearling	Unknown	Total	Animal ID of collared caribou in group	Calf with collared female?
53	Mackenzie	Boreal Caribou	3/5/2025	12	2	3			17	BWCA-WL-15-15	No
54	Mackenzie	Boreal Caribou	3/5/2025	3	1				4	BWCA-WL-20-06	No
49	Mackenzie	Boreal Caribou	3/5/2025	2	1	2	1		6	BWCA-WL-20-20	Yes
56	Mackenzie	Boreal Caribou	3/6/2025	2	1	1			4	BWCA-WL-24-03	Yes
57	Mackenzie	Boreal Caribou	3/6/2025	1					1		
58	Mackenzie	Boreal Caribou	3/6/2025	3			1		4	BWCA22609	No
59	Mackenzie	Boreal Caribou	3/6/2025	3		2			5		
60	Mackenzie	Boreal Caribou	3/6/2025			2			2		
61	Mackenzie	Boreal Caribou	3/6/2025	1		1			2	BWCA-WL-20-10	Yes
62	Mackenzie	Boreal Caribou	3/6/2025	2					2		
63	Mackenzie	Boreal Caribou	3/6/2025	4	1		1		6		
64	Mackenzie	Boreal Caribou	3/6/2025	2	1				3	BWCA21610	No
65	Mackenzie	Boreal Caribou	3/6/2025	3		3			6	BWCA-WL-20-09	Yes
66	Mackenzie	Boreal Caribou	3/6/2025	8	4				12	BWCA-WL-24-04	No
67	TASR	Boreal Caribou	3/6/2025	1	5				6	BWCA25605	No
68	Mackenzie	Boreal Caribou	3/6/2025	2	2	1			5		
69	Mackenzie	Boreal Caribou	3/6/2025		8				8		
70	Mackenzie	Boreal Caribou	3/6/2025	7	3	2	1		13	BWCA-WL-20-25	No
71	Mackenzie	Boreal Caribou	3/6/2025	3		1			4	BWCA-WL-21-15	Unknown
72	Mackenzie	Boreal Caribou	3/6/2025	5	5	1			11	BWCA-WL-20-21	No
73	Mackenzie	Boreal Caribou	3/6/2025	2	3	1			6		
74	Mackenzie	Boreal Caribou	3/6/2025	3					3		
75	Mackenzie	Boreal Caribou	3/6/2025		2				2		
76	Mackenzie	Boreal Caribou	3/6/2025	3	1				4		
77	Mackenzie	Boreal Caribou	3/6/2025				1		1		
78	Mackenzie	Boreal Caribou	3/6/2025	1	2				3	BWCA-WL-23-12	No
79	Mackenzie	Boreal Caribou	3/6/2025	3					3		

Waypoint #	Study Area	Species	Date Observed	Cow	Bull	Calf	Yearling	Unknown	Total	Animal ID of collared caribou in group	Calf with collared female?
80	Mackenzie	Boreal Caribou	3/6/2025	4	3	2			9		
81	Mackenzie	Boreal Caribou	3/6/2025	3	3				6		
82	Mackenzie	Boreal Caribou	3/6/2025	1	1	1			3		
83	Mackenzie	Boreal Caribou	3/6/2025	2					2		
84	Mackenzie	Boreal Caribou	3/6/2025	2					2	BWCA-WL-22-24	No
85	Mackenzie	Boreal Caribou	3/6/2025	9		2			11		
86	Mackenzie	Moose	3/6/2025	1		1			2		
87	Mackenzie	Boreal Caribou	3/6/2025	2	1				3	BWCA-WL-25-03	No
88	Mackenzie	Boreal Caribou	3/6/2025	5	2				7	BWCA-WL-25-02	No
89	Mackenzie	Boreal Caribou	3/6/2025	7	1				8		
90	Mackenzie	Boreal Caribou	3/6/2025	2	1				3		
91	Mackenzie	Boreal Caribou	3/6/2025	5	3				8		
92	Mackenzie	Boreal Caribou	3/6/2025	2					2	BWCA22605	No
93	Mackenzie	Boreal Caribou	3/6/2025	1	1				2	BWCA21600	No
94	TASR	Wood Bison	3/6/2025					1	1		
95	TASR	Moose	3/6/2025	1		1			2	MOOS23105	Yes
96	TASR	Moose	3/6/2025					1	1		
97	TASR	Boreal Caribou	3/6/2025	8	1				9	BWCA21604	No
98	TASR	Boreal Caribou	3/6/2025	2	4	2			8	BWCA25602	No
99	TASR	Boreal Caribou	3/6/2025		2				2		
100	TASR	Wolf	3/6/2025					3	3		
101	TASR	Boreal Caribou	3/6/2025	2					2	BWCA21605	No
102	TASR	Boreal Caribou	3/6/2025		11				11		
103	TASR	Boreal Caribou	3/6/2025	2					2	BWCA25601	No
104	TASR	Wood Bison	3/6/2025					1	1		
105	TASR	Boreal Caribou	3/6/2025	5					5	BWCA22603	No
106	TASR	Boreal Caribou	3/7/2025	2	1				3	BWCA23603	No

Waypoint #	Study Area	Species	Date Observed	Cow	Bull	Calf	Yearling	Unknown	Total	Animal ID of collared caribou in group	Calf with collared female?
107	TASR	Boreal Caribou	3/7/2025	1					1	BWCA23602	No
108	TASR	Boreal Caribou	3/7/2025	2		1			3	BWCA23607	Unknown
109	TASR	Boreal Caribou	3/7/2025	1	1				2		
110	TASR	Boreal Caribou	3/7/2025	5	2				7		
111	TASR	Wood Bison	3/8/2025					3	3		
112	TASR	Moose	3/8/2025	1					1	MOOS23104	No
113	TASR	Boreal Caribou	3/8/2025	3	1	2			6	BWCA22602	No
114	TASR	Boreal Caribou	3/8/2025	3					3		
115	TASR	Boreal Caribou	3/8/2025	2					2	BWCA21606	No
116	TASR	Boreal Caribou	3/8/2025	2					2	BWCA23601	No
117	TASR	Boreal Caribou	3/8/2025	6	1	2			9	BWCA21621	Yes
118	TASR	Boreal Caribou	3/8/2025	3					3		
119	TASR	Boreal Caribou	3/8/2025	2		2			4		
120	TASR	Boreal Caribou	3/8/2025	1		1			2	BWCA22606	Yes
121	TASR	Boreal Caribou	3/8/2025	2		1			3		
122	TASR	Boreal Caribou	3/8/2025	2	1				3	BWCA21614	No
123	TASR	Boreal Caribou	3/8/2025	1	1	1			3		
124	TASR	Boreal Caribou	3/8/2025	5		1			6		
125	TASR	Boreal Caribou	3/8/2025	8		3			11		
126	TASR	Boreal Caribou	3/8/2025	4	3				7		
127	TASR	Boreal Caribou	3/8/2025	2					2	BWCA21609	No
128	TASR	Moose	3/8/2025	1		1			2		
129	TASR	Boreal Caribou	3/8/2025	5	3	2			10	BWCA21617	Yes
130	TASR	Boreal Caribou	3/8/2025	2	1	1			4		
131	TASR	Boreal Caribou	3/8/2025	1	1				2		
132	TASR	Boreal Caribou	3/8/2025	3	5	1			9		
133	TASR	Boreal Caribou	3/8/2025	5					5		

Waypoint #	Study Area	Species	Date Observed	Cow	Bull	Calf	Yearling	Unknown	Total	Animal ID of collared caribou in group	Calf with collared female?
134	TASR	Boreal Caribou	3/8/2025	6	1				7		
135	TASR	Boreal Caribou	3/8/2025		3				3		
136	TASR	Boreal Caribou	3/8/2025	1	2				3		
137	TASR	Boreal Caribou	3/8/2025	5	3	1			9		
138	TASR	Boreal Caribou	3/8/2025	1	1	1	1		4		
139	TASR	Boreal Caribou	3/8/2025	3	1				4		
140	TASR	Boreal Caribou	3/8/2025	4	3				7		
141	TASR	Boreal Caribou	3/8/2025		4				4		
142	TASR	Boreal Caribou	3/8/2025	1	2				3	BWCA21622	No
143	TASR	Boreal Caribou	3/8/2025	2					2		
144	TASR	Boreal Caribou	3/8/2025		3				3		
145	TASR	Boreal Caribou	3/8/2025	11	2				13		
146	TASR	Boreal Caribou	3/8/2025	7	2				9	BWCA25601	No
147	TASR	Boreal Caribou	3/8/2025	1	2				3	BWCA21620	No
148	TASR	Boreal Caribou	3/8/2025	3					3		
149	TASR	Boreal Caribou	3/8/2025	6					6	BWCA24606	No
150	TASR	Boreal Caribou	3/8/2025	1	1	1		1	4	BWCA21616	Yes
151	TASR	Boreal Caribou	3/8/2025	5	2			1	8	BWCA22609	No
152	TASR	Boreal Caribou	3/8/2025	2	1	1			4		
153	TASR	Boreal Caribou	3/8/2025	1	1	1			3	BWCA24609	Yes
154	TASR	Boreal Caribou	3/8/2025	4					4	BWCA21608	No
155	TASR	Boreal Caribou	3/9/2025	1		1			2	BWCA22608	Yes
156	TASR	Moose	3/9/2025					1	1		
157	TASR	Boreal Caribou	3/9/2025	1		1			2	BWCA23604	Yes
158	TASR	Boreal Caribou	3/9/2025	4	3				7	BWCA24604	No
159	TASR	Wolf	3/9/2025					3	3		
160	TASR	Boreal Caribou	3/9/2025	2	3				5	BWCA23605	No

Waypoint #	Study Area	Species	Date Observed	Cow	Bull	Calf	Yearling	Unknown	Total	Animal ID of collared caribou in group	Calf with collared female?
161	TASR	Boreal Caribou	3/9/2025	3	2				5	BWCA22610	No