



WRANGELL-ST. ELIAS NATIONAL PARK AND PRESERVE WILDLIFE REPORT UPDATE

Spring 2025

Kyle Cutting, Wildlife Biologist, kyle_cutting@nps.gov

- **Mentasta Caribou Herd**

- A total of 189 (90% CI: 148-278) adult caribou were estimated during a survey on June 26 and July 3, 2024, which is the lowest estimate since 2017 (Table 1).
- From a composition survey conducted on September 3rd, 2024, the calf to 100 cow ratio was similar to the previous 4 surveys since 2017 (4-year survey average = 21 calves vs. 2024 = 26 calves). The bull to 100 cow ratio was lower in 2024 (i.e., 33 bulls) than previous 4-surveys (average = 74 bulls).
- Currently, a total of 28 GPS collars exists on Mentasta caribou captured on the Mentasta herds' range. Wintering Mentasta caribou are currently scattered across a large geographic area showing little congregation patterns on winter habitats.
- A project will start in 2026 to evaluate changes in herd overlap among the Mentasta, Nelchina, and Chisana caribou herds. As these three herds co-occur in time, space, or both within Wrangell-St. Elias, significant concern exists for incidental take and overharvest of the smaller Mentasta and Chisana caribou herds when the larger Nelchina caribou herd is present and being harvested in an easily accessible area. The Federal hunt on Nelchina caribou is currently closed, so this actionable science will impact future management decisions. The study will begin in fall-2025 and will conclude in fall-2027.

Table 1. Survey results for the Mentasta caribou herd, Wrangell-St. Elias National Park & Preserve.

Year	Estimated Adults (90% CI)	Calf:Cow Ratio	Bull:Cow Ratio
2017	285 (237-385)	20	87
2018	349 (289-475)	22	92
2019	335 (277-459)	28	95
2020	642 (545-833)	-	-
2021	470 (388-629)	12	20
2023	258 (203-374)	-	-
2024	189 (148-278)	26	33

- **Chisana Caribou Herd**

- A composition survey was conducted by Yukon Environment on October 13, 2024, and ADF&G on October 11, 2024, in conjunction with Wrangell-St. Elias. Survey results from fall-2024 indicate both high calf production (32 calves per 100 cows) and survival of bulls (44 bulls per 100 cows). The current 3-year (2022-2024) average during fall for both calves

(3-year average = 26) and bulls (3-year average = 44) is higher than the herd goals of 15 for calf:100-cow and 35 for bull:100-cow ratios.

- 15 GPS collars were deployed in the Chisana herd in October of 2024, bringing the total number of GPS collared animals to 32.
- A composition survey will be conducted in October 2025.
- Additional collars will be deployed on the Chisana herd in fall 2025.

- **Moose**

- The previous moose survey occurred across a 2.5-million-acre landscape within Wrangell-St. Elias including Unit 11 and portions of Unit 12 during fall-2023.
- The estimated population of moose observed in 2023 was at a record low (Table 2), a nearly 40% decline from the previous 2013 survey, and slightly lower than the 2007 and 2010 estimates (Table 2).
- Changes in the spatial distribution of total moose as determine through a spatial model indicates a sharp decline on the north side of the Wrangell Mountains since 2013. Moose on the west and south side of the Wrangell Mountains have showed less of a population decline.
- We are currently exploring the role of record snow amounts (defined as snow water equivalent, kg/m^2) on moose declines across the survey area using satellite data on snow.
- During 2025, analyses are underway to explore the influence of recent record snow amounts on recent declines of moose across the survey area

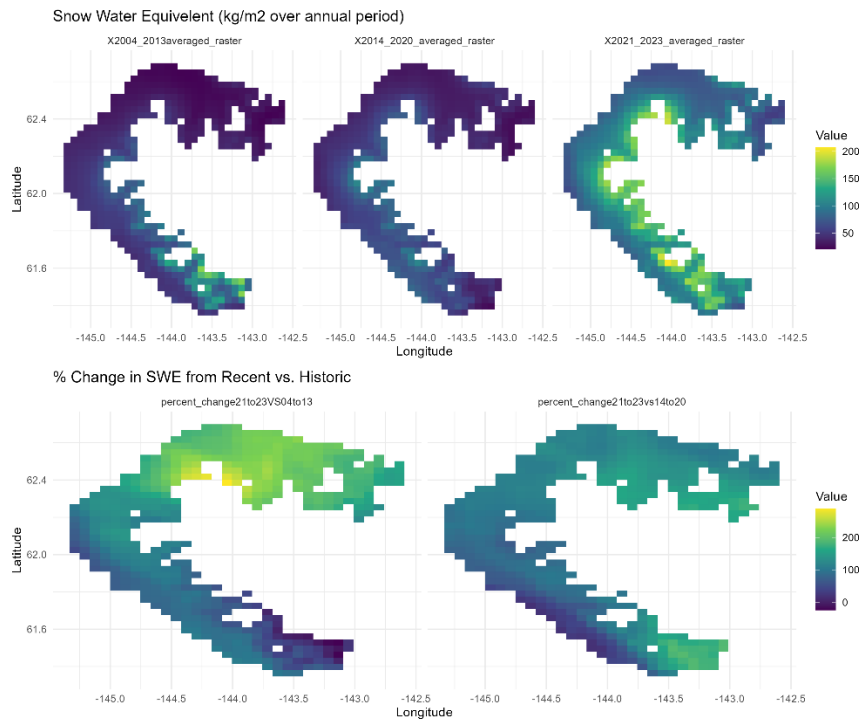


Figure 1. Snow water equivalent (SWE; kg/m^2 , Daymet data) for the 2.5-million-acre moose survey area, Wrangell-St. Elias National Park & Preserve. Top panel of figures include average SWE across the following time periods: 2004-2013 (top left panel), 2014-2020 (top middle), and 2021-2023 (top right).

Bottom panels include percent change in SWE from the high snow years of 2021-2023 vs. 2004-2013 (bottom left) and 2021-2023 vs. 2014-2020 (bottom right).

Table 2. Survey results from four moose population surveys, Unit 11 and 12, Wrangell-St. Elias National Park & Preserve, Alaska.

Year	Population Count (90% CrI)	Calf:100 Cow	Bull:100 Cow
2007	1650 (1479-1820)	19	53
2010	1533 (1422-1670)	17	51
2013	2199 (1969-2451)	18	64
2023	1330 (1229-1442)	8	44

- **Dall's Sheep**

- Sheep surveys were conducted across a 2.5-million-acre landscape on the northern Wrangell Mountains including the Nabesna area, and Mentasta and Nutzotin mountain ranges.
- A total of 148 individual 10-mile long transects were flown by two aircraft across 6 days for a total of 48 hours of survey time. Sheep groups including age and gender were recorded.
- Survey results indicate a slowing in the decline of adult sheep while lamb production increased slightly over the record low of 2023.
- A project will start in fall-2025 to fall-2027 to evaluate factors contributing to the recent sheep decline at Wrangell-St. Elias. This project will occur across all occupied sheep habitats within the Wrangell-St. Elias starting in summers of 2026 and 2027. The project will use a strong south-to-north snow gradient across WRST to ask whether Dall's sheep declines are occurring park-wide at the same rate compared to a historic baseline, and to identify factors influencing sheep abundance in repeat surveys since 2011.
- In 2025, NPS will resurvey the long-term monitoring area to evaluate recovery in that area, along with expand surveys into the southern side of the Wrangell Mountains.

Table 3. Survey results for Dall's sheep population surveys, northern Wrangell Mountains, Wrangell-St. Elias National Park and Preserve, Alaska.

Year	Adult Count (95% CrI)	Lamb Count (95% CrI)
2010	2414 (1976-3038)	549 (425-724)
2016	2962 (2344-3841)	620 (454-869)
2018	2074 (1803-2416)	131 (93-192)
2019	2281 (1993-2645)	727 (597-898)
2020	2620 (2297-3097)	580 (455-762)
2023	1221 (1040-1465)	19 (12-49)
2024	943 (783-1182)	153 (100-238)