



United States Department of the Interior

NATIONAL PARK SERVICE

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WRANGELL-ST. ELIAS NATIONAL PARK AND PRESERVE WILDLIFE REPORT

Fall 2023

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SUMMARY OF KEY UPDATES

• **Mentasta Caribou Herd**

- 25 new GPS collars will be deployed on Mentasta caribou from September 6 to 10, 2023, by wildlife biologists from National Park Service (Figure 1).
- A composition count will also be conducted during that time.
- Data from GPS collared caribou will be used to estimate population size and evaluate movement, habitat use, and adult survival patterns to inform in-season management of hunts targeting neighboring caribou herds when those seasons are open.

• **Chisana Caribou Herd**

- A population survey was conducted in fall 2022 for the Chisana caribou herd (Figure 1). A resulting estimate of a total population size was 582 (90% Confidence Interval: = 557–706) caribou in 2022, compared with the estimate of 701 (90% Confidence Interval: = 639–763) caribou in 2013.
- Fourteen GPS collared and 18 VHF collared individuals are currently marked in the Chisana caribou herd.
- A composition survey will be conducted in October 2023, that will be used to set in-season management of hunts.
- An international working group is working on an update to the Chisana Caribou Herd Management Plan (see separate handout).

• **Dall's Sheep in northern Wrangell and eastern Mentasta Mountains**

- A distance-sampling population survey was conducted by NPS, while a minimum count survey was conducted in collaboration between NPS and Alaska Dept. Fish & Game.
 - Results from a minimum count survey from the eastern Mentasta Mountains (Figure 2A) indicate a substantial decline in total sheep numbers (56%) from the previous survey in 2018 (Table 2).
 - Results from the distance sampling survey are still being analyzed, but based on raw numbers, preliminary observations indicate a steep decline compared to the previous survey of 2020.
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Mentasta Caribou Herd

- Of the 12 GPS collared female caribou present in fall-2022, five currently remain within Wrangell-St. Elias, four died, and three are with the Nelchina herd.
- Based on raw numbers from the June post-calving survey, preliminary observations indicate a steep decline (~50%) in total number of caribou and number of calves compared to the previous 2021 survey.
- A fall composition count will occur in September 2023.

Table 1. Fall population estimates for the Mentasta caribou herd. Population estimate was derived using the June post-calving census and fall sex and age composition count. Results for 2023 are based on planned fieldwork in September and will be presented at fall meeting.

Year	Estimated June Cows	Estimated Fall Calves	Estimated Fall Bulls	Estimated Fall Population
2017	263	47	79	389
2018	323	51	96	470
2019	302	77	100	479
2020	590 ¹	106	454	1150 ¹
2021	350 ¹	49	273	672
2023	_____	_____	_____	_____

¹May include Nelchina caribou.

Chisana Caribou Herd

- A fall composition count of bulls, cows, and calves will be performed in October 2023.
- Three of the currently 14 GPS collared caribou are located in Yukon, Canada, the remaining are in Wrangell-St. Elias.
- The 3-year rolling average of calf recruitment is 16.7 calves per 100 cows and the 3-year average adult sex ratio is 46.3 bulls per 100 cows, above the goals outlined in the Chisana Caribou Herd Management Plan for allowing harvest.

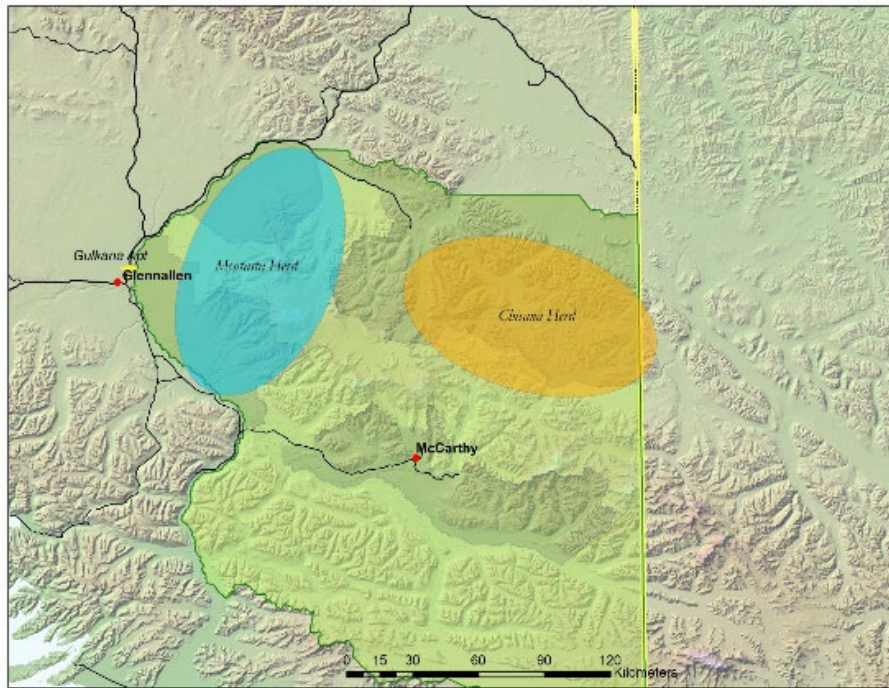


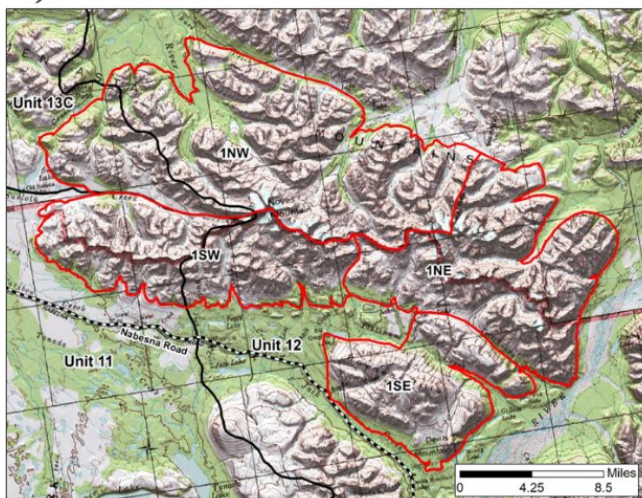
Figure 1. Distribution of Mentasta and Chisana caribou herds, within Wrangell-St. Elias National Park and Preserve. This map does not show their ranges outside of the park.

Dall's Sheep Surveys

Minimum Count

- Sheep surveys were completed in July 2023 in the eastern Mentasta Mountains (Figure 2A).
- 10 full curl rams were observed during the survey, a decrease of 43% from the previous survey in 2018 (Figure 2B).
- 194 ewe-like sheep and 26 lambs were observed during the survey, a decrease of 61% and 48%, respectively, from the previous survey in 2018.

A)



B)

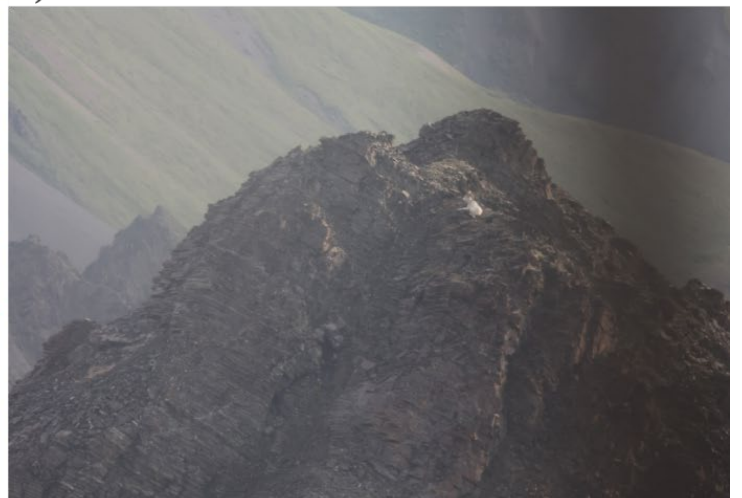


Figure 2. Dall Sheep Count Area 1 is located in the eastern Mentasta Mountains, north of Nabesna, and west of Nabesna River (A). Dall sheep ram atop a mountain peak within Count Area 1 (B).

Table 2. Summer counts for Dall’s Sheep in Count Area 1, eastern Mentasta Mountains, AK. Counts were derived from a minimum count survey method.

Count area	Year	Legal rams ^a	Sublegal rams ^b	Total rams	Ewes ^c	Lambs	Total other sheep	Total sheep
1	2002	46	270	316	575	123	701	1,017
	2012	60	321	381	664	167	831	1,212
	2014	45	279	324	360	81	441	765
	2016	54	228	282	555	123	678	973
	2018	37	205	242	492	50	542	784
	2023	10	117	127	194	26	321	347

^a Full curl or larger

^b Greater than ¼ curl but less than full-curl

^c Ewe classification also includes yearlings of both sexes and rams of ¼ curls or less

Distance Sampling Survey

- Dall’s sheep transects were surveyed in the Nabesna area on the north side of the Wrangell Mountains (Figure 3).
- A total of 58 15-km long transects were surveyed in sheep habitat across different elevations.
- In 2024 and 2025, NPS will survey sheep using updated distance sampling techniques.



Figure 3. Survey area for the distance-sampling methodology for Dall’s sheep, Wrangell-St. Elias National Park and Preserve, Alaska.

Other Wildlife Reports:

- Moose population surveys will occur along the Nabesna Road in GMU12, and near Mt. Drum in GMU11 in fall 2023. Results will be shared at the spring meeting.