



United States Department of the Interior

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WRANGELL-ST. ELIAS NATIONAL PARK AND PRESERVE WILDLIFE REPORT

Fall 2021

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Chisana Caribou Herd

The Yukon Department of Environment deployed 10 GPS/Iridium and 15 VHF radiocollars, February 17-19, 2021. Fifty-one radiocollars (21 GSP/Iridium, 30 VHF) have been deployed in the herd in 2020-2021. The Chisana caribou herd working group plans to conduct a population census of the herd in October 2021.

Mentasta Caribou Herd

WRST and ADF&G completed the Mentasta caribou post-calving census on June 23, 2021. We counted 276 total caribou during the census compared to 405 caribou in 2020, and 249 caribou in 2019. The higher numbers observed in 2020 are likely due in part to Nelchina caribou returning late from their winter range that year. Some of these late returning caribou may have failed to migrate back to their traditional calving grounds, remaining in WRST. This theory is supported by the presence of 3 radiocollared Nelchina caribou in the Mentasta caribou calving/summer range in 2020. Additionally, small groups of caribou could have moved in from other areas such as the Tonsina Controlled Use Area.

A sightability model, based on the number of radiocollared caribou missed during the current and previous surveys is used to derive the estimated number of June cows (Table 1). We use the fall calf:cow and bull:cow ratios relative to the estimated number of June cows to determine the estimated fall calves and bulls. The observed number of caribou during the fall composition count is presented in Table 2. Caution should be used when interpreting the 2020 Mentasta population estimate, particularly to alter caribou harvest regulations in GMU 11. We should determine whether this is a one year phenomenon or part of a longer term trend. We plan to re-deploy 6 GPS/Iridium collars that were recovered and refurbished from caribou mortalities. 2021 results will be presented at the fall SRC meeting.

Table 1. Fall population estimates for the Mentasta caribou herd based on the June post-calving census and fall sex and age composition count.

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

¹May include Nelchina caribou

Table 2. Mentasta caribou herd fall sex and age composition counts.

Year	Cow	Calf	Bull	Total	Calves: 100 Cows	Bulls: 100 Cows
2017	91	18	79	188	20	87
2018	72	16	66	154	22	92
2019	113	29	107	249	26	95
2020	98	18	75	191	18	77
2021						

Dall Sheep

WRST conducted minimum count Dall sheep surveys in Count Areas (CA) 10 and 14 in GMU 11 during July 2021 (Figure 1). CA's 10 and 14 were last surveyed in 2002 and 2013, respectively (Table 3). The total number of sheep in CA 14 (Crystalline Hills) has increased since 1994 and is similar to surveys conducted from 1973-1993 averaging 157 sheep. Although there were few surveys, sheep in CA 10 appear to be increasing from low counts conducted in 2001 and 2002.

Table 3. Dall sheep minimum count surveys conducted in Count Areas 10 and 14, Wrangell-St. Elias National Park & Preserve, July 29-30, 2021.

Count Area	Year	Ewe ¹	Lamb	Unknown	< Full Curl Ram	≥ Full Curl Ram	Unknown Rams	Total Ram	Total Sheep	Lambs: 100 Ewes	Rams: 100 Ewes
10	1973	150	23	0			0		208	15	23
	1980	107	59	0	31	4	0	35	201	55	33
	1990 ²	111	25	0	-	-	0	11	273	23	10
	2001	65	13	0	20	11	0	30	109	20	46
	2002	53	13	0	13	8	0	21	87	25	40
	2021	105	22	0	31	6	0	37	164	21	35
14	1999	57	19	0	10	5	0	15	91	33	26
	2001	43	6	0	10	1	0	11	60	13	26
	2002	39	11	0	0	0	0	0	50	20	0
	2004	52	11	0	7	3	0	10	73	17	19
	2006	65	25	0	24	7	0	31	121	38	48
	2013	64	5	0	25	0	0	25	94	8	39
	2021	65	26	0	50	10	1	61	152	40	94

¹ Ewe classification also includes yearlings of both sexes and rams of ¼ curl or less.

²Based on double sampling 54% of survey unit. Total sheep is a corrected estimate based on sightability modelling.

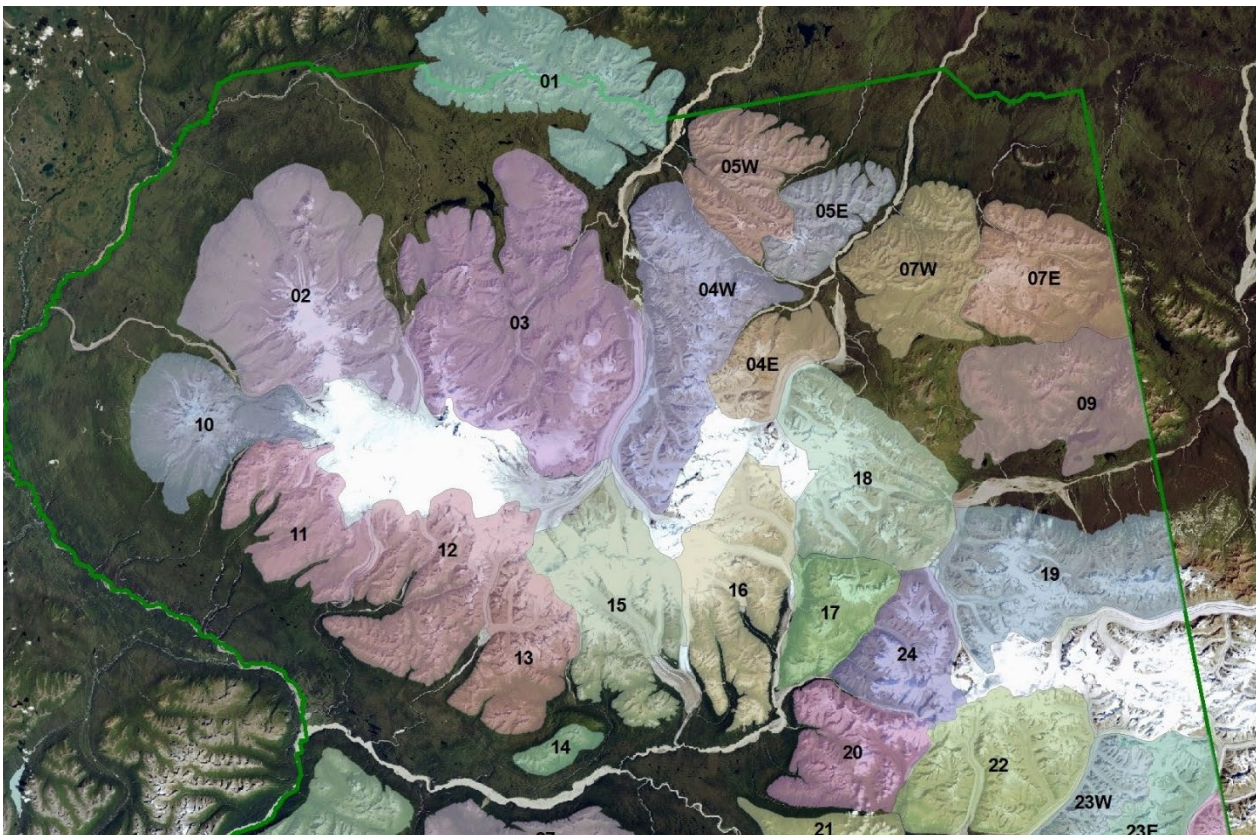


Figure 1. Dall sheep count areas, Wrangell-St. Elias National Park and Preserve, Alaska.