

SUMMARY OF MENTASTA CARIBOU HERD COUNT, 21 JUNE 1999 WRANGELL-ST. ELIAS NATIONAL PARK AND PRESERVE, ALASKA

On 18 June 1999 H. McMahan flew a reconnaissance flight to listen for radiocollars and determine relative distribution of the Mentasta Caribou Herd, in preparation for the annual June count. He located 24 radios believed to be in the area, including one new mortality signal. One frequency (150.705) was in mortality mode, and subsequently determined to be an old collar that was off the air, but somehow reactivated. Therefore the current 150.705 was not listened for or located during this flight. (The old collar was recovered on 22 June 1999).

On 21 June 1999, NPS and ADF&G biologists conducted a count of the Mentasta Caribou Herd in Wrangell-St. Elias NP/P. We used three fixed-wing aircraft, each with a pilot and observer. Two aircraft were equipped with radio-telemetry receivers and antennas to radiotrack collared cows. One aircraft (Cub with L. Ellis and B. Tobey) flew the area from the Sanford River south to just north of the Chetaslina River. Another plane (Arctic Tern with J. Hannah and B. Scotton) surveyed the area between the Sanford River and Boulder Creek. The third plane (H. McMahan and C. Mitchell) flew the region between Boulder Creek and the Upper Copper River (Black Mountain).

Conditions were generally good, with skies varying from completely overcast to completely clear. Winds were light and variable. Temperature ranged from 30-35°F.

Caribou were widely scattered, and generally in small groups. Mean group size was 8.1 animals, and ranged from 1-48. Most were located between 3800 and 5000 feet elevation, and few were on ice or snow. Caribou were therefore relatively hard to see.

We located only 18 of the 24 radios found on 18 June. One of those was on mortality mode and not listened for. Another was confused with a mortality signal from a collar that was thought to be lost, but started transmitting again. We did not search for this cow either thinking she was dead. The other four were not in the areas searched (one on Goat creek above Tanada Lake, two on the Chetaslina River and one on the Chesnina River). Therefore, only one of 24 (4.1%) collars were heard previously but not during the survey flight.

We counted a total of 324 caribou; 218 cows, 30 calves and 76 bulls. Since the herd is so small, and so scattered, we feel justified in adding other known animals not observed during the count proper, but known to be in the area from the pre-count distribution flight. If we add the animals associated with the known collars outside the area searched, and the one missed inside the search area, we arrive at 337 caribou; 230 cows, 31 calves and 76 bulls. The observed bull:cow:calf ratio for the counted animals is therefore 33.0:100:13.5. Calculated percentages are: 68.2% cows, 22.6% bulls and 9.2% calves. A more accurate sex and age ratio will be available from the composition count, conducted 22 June 1999 by NPS and USGS-BRD.

In 1997 we found 600 caribou, and in 1998 we counted 416 caribou, a 30.6% decline. The 1999 count is down 19% from 1998.

We should consider attempting a more formal density estimation, using mark-recapture methods, in 2000. The small number of collars present may make that technique questionable statistically, but it should still yield better results than the current “minimum count”. At the very least, all aircraft should have receivers to use to assist in locating caribou. As the Mentasta Caribou Herd continues to decline, and especially when they are scattered over such a wide area, counts will become more and more difficult and less accurate.

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