SUMMARY OF 1997 LATE WINTER ALSEK MOOSE SURVEY RESULTS

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Summary of 1997 Late Winter Alsek Moose Survey Results

We surveyed approximately 6725 Km2 along the Haines Road corridor in late February and early March, 1997. The survey area ran from Haines Junction to the Canada - United States border and from the 5,000 foot topographic contour east of the Haines Road, west to include Kathleen and Bates Lakes and the Tatshenshini River Drainage. Approximately 5720 Km2 within the overall survey area was suitable summer and fall moose habitat. The remainder of the area was either alpine tundra, glaciers or large lakes.

All areas of summer/fall moose habitat were initially searched using fixed wing aircraft to identify general moose distribution and concentration areas. However, approximately 950 Km2 of this area was found to have deep snow accumulation making it unsuitable for late winter moose habitat. This area was eliminated from the helicopter moose count portion of the survey. About 1945 Km2 of the survey area was in British Columbia and the remainder was in Yukon.

We estimated that there were approximately 1430+285 (90% C.I.) moose in the entire survey area.

Only portions of this area have been surveyed previously so it is not possible to compare our current estimate of moose numbers with what was there in the past. It is possible, however, to compare moose densities (the average number of moose in each 1000 Km2) observed during this survey with those observed in portions of the area that have been previously surveyed and with those seen in other parts of the Yukon.

Our estimate of 1430 moose in the area gives us a density of 250 moose per 1000 Km2 of summer moose habitat or about 300 per 1000 Km2 of winter moose habitat. These densities are high by Yukon standards. A 1990 survey of the Dezadeash Range, in and adjacent to the northeastern corner of this survey area, resulted in a density of only 223 moose for every 1000 Km2 of moose habitat. Similarly, the average density observed in all areas surveyed to date throughout the Yukon is only about 185 moose in each 1000 Km2. In contrast, the average moose density in the Chilkat River drainage in Alaska, just south of our survey area, is much higher at about 575 to 620 moose for each 1000 Km2. However, there are only about 520 to 650 Km2 of summer moose habitat in this area of Alaska for a total estimated population of about 300 to 400 moose.

Overall, moose were somewhat more abundant in the Yukon than in the B.C. portion of the area. There were an estimated 970 moose in the Yukon portion for an average density of about 315 moose in each 1000 Km2. In the smaller B.C. portion there were an estimated 565 moose for an average density of about 290 moose in each 1000 Km2.

The composition (number of calves, cows and bulls in the population) suggested that the Alsek moose population was stable. Calves made up 17% of the moose population (Table 1). In order to maintain a stable moose population, the number of calves surviving to adulthood must equal the number of adults dying. On average 10% to 20% of adults in Yukon moose populations die each year so the 17% calves coming into the Alsek area moose population should be enough to compensate for adult losses in most years. It must be remembered, however, that the number of calves surviving to join the adult population can vary greatly from year to year and we must

therefore be cautious about making predictions about long term population trends based on the success of one year's calf crop.

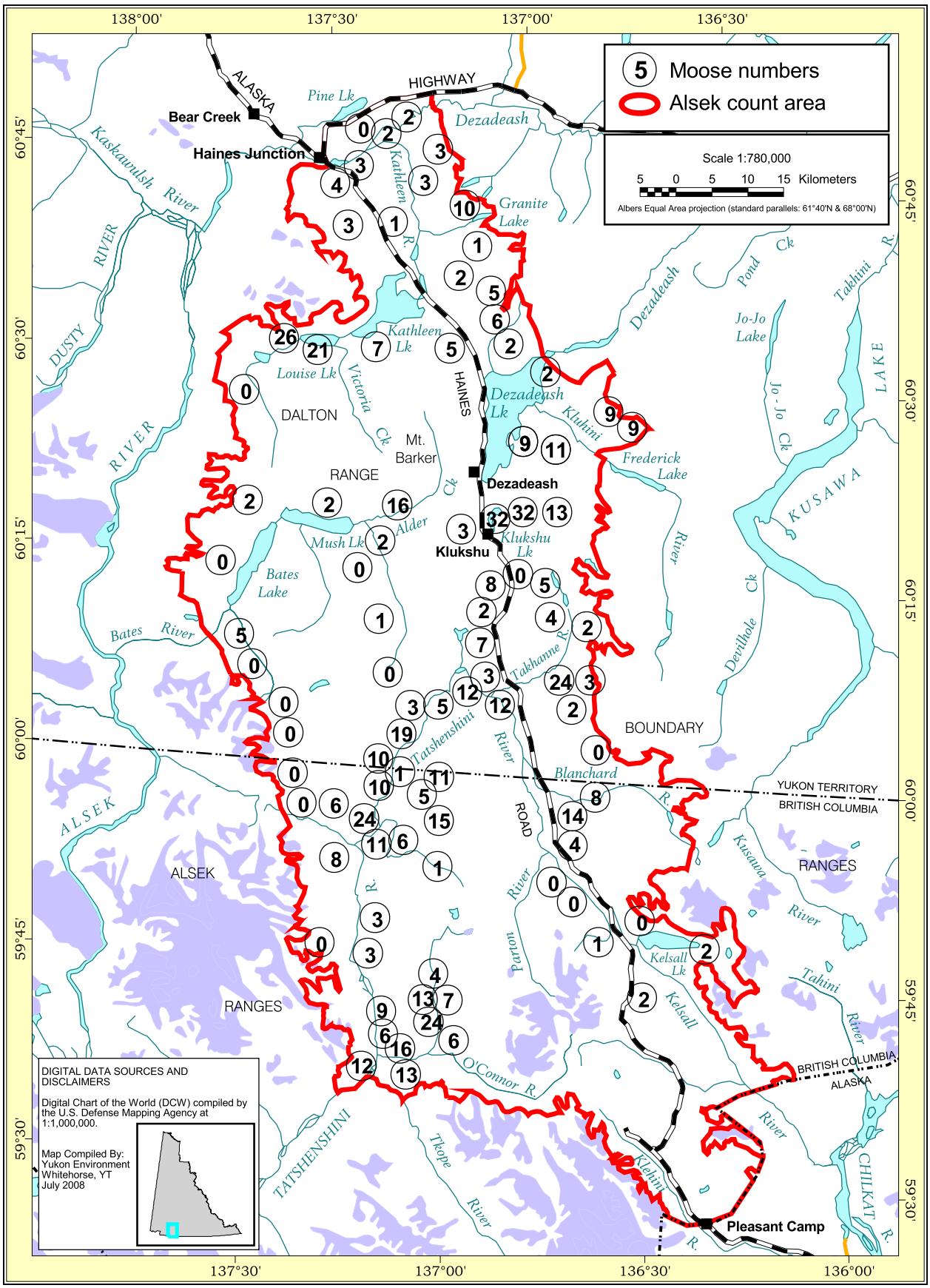
A relatively high number of twins were also seen during the Alsek survey. Thirteen percent of cows observed with calves had twins.

The proportions of bulls and cows in the Alsek area moose population also appeared healthy. There were about 62 for every 100 cows in the population (Table 1). This within the range normally seen in stable moose populations throughout Yukon. Studies in Yukon, Alaska and northern British Columbia have shown that 30 bulls for every 100 cows is sufficient to ensure that all of the cows get bred.

Table 1. Summary of 1997 Alsek late winter moose survey information

	Total Survey Area	**Yukon Portion** (Values approx. due to overlap)	**B.C. Portion** (Values approx. due to overlap)
Total Area (Km^2)	6725.8	3867.3	3111.1
Summer Moose Habitat (Km^2)	5718.9	3361.8	2609.7
Winter Moose Habitat (Km^2)	4776.2	3085.7	1943.1
Estimated Number of Moose	1431±286	968 (± 274 moose)	565 (± 135 moose)
Calves for every 100 Cows	39	37	40
Calves for every 100 moose (% calves)	17	15	19
Bulls for every 100 Cows	62	65	61
Twinning rate	13%	9%	20%

Moose distribution throughout the survey area changed substantially from that observed during the late fall surveys conducted by the Champagne-Aishihik First Nation and Parks Canada. At that time moose were concentrated at higher elevations in the subalpine willow zone. In contrast, during this late winter survey moose had generally moved out of higher elevations in response to deep snow accumulations and were concentrated at lower elevations. These lower elevation concentration areas were either in snow shadow areas, such as east of Klukshu village and along the lower reaches of the Tatshenshini River , or in areas of relatively dense conifer cover, such as adjacent to the Klukshu and Village Creeks.



Map 1. Location of moose groups, Alsek Count Area - February 1997