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STATE OF ALASKA

DEPARTMENT OF FISH AND GAME

DIVISION OF WILDLIFE CONSERVATION

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MEMORANDUM

TO: David James
Management Coordinator
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DATE: December 4, 1999

THRU:

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FROM: Craig Gardner
Area Biologist
Division of Wildlife Conservation
Tok

SUBJECT:

On 1 October 1999 Rod Boertje, Bob Hayes (Yukon Department of Renewable Resources) and I completed the Chisana caribou herd composition and radiocollared 8 5-month female calves. Rod and Bob located 15/16 active collars. Collar distribution was entirely in Alaska. Rod and Bob high graded the Yukon portion of the herd's range and found tracks of 5-6 caribou but observed none. We located 14 groups and compositioned 318 caribou. Group size ranged from 8-54 caribou ($\bar{x}=22.7$, $s.d.=15.67$).

The calf:cow ratio 7.0:100 cows. The Chisana herd has suffered from poor calf recruitment since 1989. The bull:cow ratio was 17.2:100. The bull:cow ratio has declined from 41:100 in 1991. Between 28 September 1998 and 1 October 1999, 3 of 19 radiocollared cows (2 adults and 1 yearling) died (15.8%). Using composition and modeling data, the bull mortality rate was estimated to be 27%. Using Patrick's model, the fall 1999 estimated herd size was 365 caribou down from about 1,900 in fall 1989 (81% decline).

Similar to last year, the few remaining calves in late September-early October were very healthy. We compositioned 18 calves of which 10 were females. We captured 8 of these to radiocollar and to weigh. The average condition index was 4.3 on a scale of 1 to 5 (5 being the highest rank) and the average weight was 139.9 pounds ($s.e.=3.38$).

Between the Yukon Dept. of Renewable Resources and the National Park Service, the herd will be monitored 4-5 times over the winter. I will again conduct surveys during calving and postcalving to document pregnancy and birth rates and early calf mortality.

2004
~~157~~
 611039
 1414140

Caribou Composition Form ①, 1955

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Herd: Chishune

Hel. Pilot: B. G. G. G.

Observer: Craig Gardner / Don't know
Hager in Sec 1

Spotter Plane:

Survey Conditions: good, 1100' ceiling, fair 0.451
no spotty snow + carbon in snow ~~at~~ difficult to see

Group	L Bull	M Bull	S Bull	Total Bull	Cows	Calves	Total	Area
1	1	0	0	1	6	0	7	Nok - 62099
2	0	1	0	1	12	1	14	w Truck 62050
3	1	1	1	3	23	0	26	Tra. 1 Ck 6154
4	0	0	1	1	7	1 ²	9	S/L Ck 615300
5	1	2	0	3	32	2 ² 4	45	A.L. 18 C-6
6	1	0	2	3	26	4	30	S/L Ck C-2
7	1	0	1	2	9	1	12	S/L Ck C-8
8	0	1	1	2	6	0	8	S/L Flt.
9	0	1	1	2	21	0	23	Alm S/L C-10
10	1	0	1	2	14	0	16	F.W. Ck
11	1	0	5	6	35	3 ² 5	46	O.L. Ck C-11
12	2	0	0	2	15	1 ² 3	20	O.L. Ck C-12
13	2	1	5	8	44	1 ² 2	54	Brown Ck C-13
14	1	0	1	2	6	0	8	dred w Flt Ck C-14
	12	7	25	44	256	18	318	
								L.H./C = 17.2
								calves/mo = 7.0
								% c. ft = 6
								% cows = 81
								% h.h. = 14
								% milk = 52
								% wool = 14
								% legs = 27
Totals								

only group
w. more than
1 radio.

3 radios

1451
1430
0740

0748
 1 tracks at
 base in hills 6.1)
 after rain 6.2)
 lake 6.3)

620992	1422114
420505	1421578
415437	1420002

~~615306~~ 1415030
 615306 1414930
 ✓ 601
 605 615451 1413221