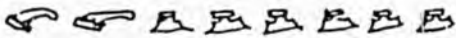


HB

594



KAWERAK, INC.



P.O. BOX 948 • NOME, ALASKA 99762



(907) 443-5231

Mr. Caleb Pungowiyi
President
Kawerak, Inc.

Dear Caleb:

Attached is a proposal in which we requested to study the Reindeer/
Caribou conflict. We talked this over with the Reindeer Sub-Committee
of the Alaska Land Use Council, The RHA, Alaska Department of Fish
and Game, University of Alaska and some of the Area hunters.

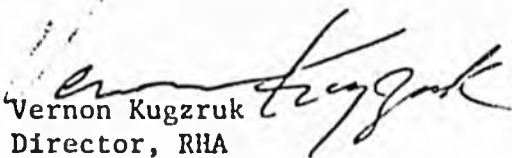
All agreed that this should be done as soon as possible. The process
took about 18 months to develop, from discussion to the Proposal.

Would you present this to the State Legislatures so it can be included
in this years Legislative action.

My suggestion is for Direct Appropriation from the Legislature.

Thank you,

Sincerely,


Vernon Kugzruk
Director, RHA

January, 30, 1983

STATE OF ALASKA

BILL SHEFFIELD, GOVERNOR

DEPARTMENT OF FISH AND GAME

P.O. BOX 1148
NOME, ALASKA 99762-1148

January 26, 1984

Mr. Vernon Kugzruk, Director
Reindeer Herders' Association
P.O. Box 948
Nome, Alaska 99762

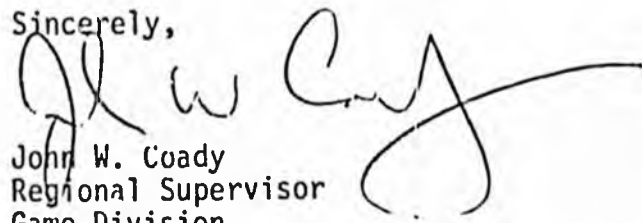
Dear Vernon:

Enclosed is a proposal which the Reindeer Herder's Association (RHA) asked the Department of Fish and Game to prepare. As you know, I discussed this work with the RHA Executive Committee in mid-December 1983, and you reviewed two earlier drafts of the proposal in January 1984. I believe the project would yield information requested by the Committee to help reduce losses of reindeer to caribou. Intensive work such as this should provide a basis for developing long-term solutions to the caribou - reindeer problem.

I must emphasize that the expected Game Division budget is fully committed to other priority projects for the next few years. Therefore, if this study were conducted, funds in addition to our normal Game Division budget would be required. The proposal contains estimated salary funds for a new project position (1 permanent/seasonal Game Technician III) plus operating money for equipment, air charter, and commodities. The work would take place during a 3-year period beginning in FY-85. The Game Technician III would be recruited locally. Should the proposal not be funded, my staff will continue conducting occasional reconnaissance flights as in the past two years.

If I can answer questions or explain any aspect of the proposal, please do not hesitate to contact me.

Sincerely,


John W. Coady
Regional Supervisor
Game Division

cc: L. Pamplin, Director
Game Division

DISTRIBUTION AND MOVEMENTS OF CARIBOU NEAR REINDEER
HERDS ON THE SEWARD PENINSULA

Principal Investigators:

David A. Anderson, Game Biologist
Alaska Department of Fish and Game,
Nome

Tim E. Smith, Game Biologist
Alaska Department of Fish and Game,
Nome

Submitted by invitation
to the Reindeer Herders'
Association by:

John W. Coady, Regional Supervisor
Game Division,
Alaska Department of Fish and Game
P.O. Box 1148
Nome, Alaska 99762
Ph.: 443-2825

23 January 1984

Introduction and Statement of Problem

Western Arctic Herd (WAH) caribou (Rangifer tarandus) are one of the most important wildlife resources in northwestern Alaska. An estimated 10,000 caribou are harvested annually, most of which are taken by subsistence hunters living within the range of the herd. The herd rapidly declined from an estimated 240,000 caribou in 1970 to 75,000 in 1976. Since that time, largely because of close cooperation between the Department of Fish and Game and user groups, the herd has steadily increased in size. In summer 1983 the WAH was estimated to number 190,000 caribou, and a census planned for summer of 1984 is expected to reveal over 200,000 animals.

Although most of the WAH migrates to the foothills of the western North Slope to calve during summer, it disperses widely both north and south of the Brooks Range during winter. The size of the range used by caribou during winter increases or decreases as the size of the herd increases or decreases. Historically, when the herd was large, caribou were widely distributed and available to hunters in more villages than when the herd was small. Recent public comment and Fish and Game Advisory Committee recommendations from throughout the range of the WAH have strongly favored allowing the herd to continue increasing in size to promote a wider distribution of caribou.

Although continued growth of the WAH is viewed favorably by most members of the public, it has caused serious problems for the reindeer industry on the Seward Peninsula. Reindeer and caribou are members of the same

species, are both gregarious herd animals and have identical habitat requirements. Consequently, during caribou migrations reindeer tend to join passing caribou bands and become separated and lost from domestic herds. During the past 3 winters WAH caribou have migrated onto the Seward Peninsula and associated with reindeer in increasing numbers. In 1981-82 several thousand caribou wintered south and southwest of Candle, and a smaller but unknown number wintered south of Deering. In 1982-83 several thousand caribou again inhabited the same area. In mid-January 1983 approximately 10,000 caribou were observed in the Kugruk River drainage south of Deering. Survey flights in November 1983 revealed as many as 20,000 caribou on the eastern Seward Peninsula. The industry reported losses of 3,000 reindeer in 1981-82 and at least 1,500 in 1982-83. In December 1983 Department biologists observed 1,500-2,000 reindeer south of Candle which were incorporated into a band of migrating caribou. As the WAH continues to grow it will probably continue to migrate further west and move in increasing numbers onto the Seward Peninsula during winter. Therefore, intermingling and loss of reindeer to caribou are likely to continue and perhaps intensify.

Although these conflicts cannot be eliminated at this time, they can be minimized. In particular, the Department has conducted periodic reconnaissance flights on the eastern Seward Peninsula during winter 1982-83 and 1983-84. A member of the Reindeer Herders' Association (RHA) usually accompanies the flights as observer. The purpose of the flights is to search for caribou in the vicinity of reindeer herds, and to notify herd owners of impending conflict. The frequency and coverage of these flights are inadequate to detect many approaching caribou

bands. However, the RHA reported that on several occasions observations during flights allowed reindeer to be moved or more closely herded in anticipation of approaching caribou. The RHA reported that these occasional flights helped minimize losses of reindeer to caribou.

Both the RHA and the Department of Fish and Game believe that more frequent and comprehensive flights to provide timely and complete information on the distribution and movement patterns of caribou on and adjacent to the Seward Peninsula would reduce losses of reindeer to caribou bands. Because of the wide distribution and continually changing movement patterns of caribou, the only feasible method to improve the effectiveness of monitoring animals is by using radio telemetry.

OBJECTIVES

- 1) To determine distribution and movement patterns of caribou wintering on the Seward Peninsula, and to inform reindeer herders and the RHA of developing conflicts between caribou and reindeer.
- 2) To determine the timing of caribou movements to and from the Seward Peninsula.
- 3) To determine the fidelity of individual caribou to Seward Peninsula winter ranges.

- 4) To estimate the total number of caribou wintering on the Seward Peninsula.
- 5) To recommend methods which would further minimize loss of reindeer to caribou on the Seward Peninsula.

BACKGROUND

The WAH returns each spring to its traditional calving ground on the western North Slope. However, winter distribution is less predictable. During the past several years large concentrations of caribou have wintered in the Selawik Hills and Buckland River lowlands, in the Central Brooks Range, on the Arctic Coastal Plain, and on the Seward Peninsula. Radio-telemetry data gathered during the past 8 years (Valkenburg et al. 1983) indicate that individual caribou do not necessarily return to the same winter range in successive years. It appears, however, that 25-50% of the animals captured at a given winter location will return to that location the following winter. Virtually all caribou instrumented with radio collars in early winter on the Seward Peninsula will continue to provide useful data during that winter; up to one-half of the radio-collared animals will probably return to the Seward Peninsula and provide essential information the following year.

The Department is currently monitoring approximately 40 radio-collared caribou throughout the range of the herd, none of which were collared on the Seward Peninsula. These animals are routinely and effectively used

for locating bands of caribou during calving ground surveys, for rapidly locating large post-calving aggregations when the herd is counted in July, and for determining winter distribution of the herd. Additional caribou (radio-collared on the Seward Peninsula) will be useful in the conduct of these routine operations. To date only 2 collared animals have occupied the Seward Peninsula. This has not provided a sufficient sample for monitoring caribou movements on the Peninsula. Collaring caribou when they first arrive on the Seward Peninsula in early winter will greatly assist in monitoring distribution and movement patterns of caribou near reindeer herds.

A small number of reindeer will also be radio collared to help readily locate reindeer herds and to help determine the time and extent to which reindeer intermingle with caribou. The greatest loss of reindeer to caribou has occurred from the NANA Regional Corporation herd on the northeastern Seward Peninsula. Therefore, if acceptable to NANA, most radio collars will be allocated to that herd.

METHODS

Fifty adult caribou on the eastern Seward Peninsula will be captured in late October or November 1984 using standard helicopter-darting techniques. Twenty-five adult caribou will be similarly captured in 1985. Up to 10 NANA herd reindeer will be instrumented with radio collars (presently available and surplus to previous Department projects) during routine handling in May and June 1984. Caribou will be selected from all major bands known from reconnaissance flights to be

present on the Peninsula. The number of animals captured from each band will be proportional to its size. Caribou will be instrumented with the same type of radio collar successfully used in caribou studies by the Department for the past 10 years. Because each radio collar transmits on a different frequency, individual collared caribou can be electronically identified. Numbered canvas collars will also be placed on captured caribou so that individuals can be visually identified from the air or from the ground.

All instrumented caribou will be located weekly while on or near the Seward Peninsula using standard homing techniques from a fixed-wing aircraft. The process of locating radio-collared caribou will be especially useful to provide distribution and movement data on all other caribou associated with collared individuals. Other areas, especially those near reindeer herds, without radio-collared caribou will be visually searched during flights to insure that major caribou bands are detected.

Timely information about potential conflicts will be provided by landing at reindeer herders' field camps if possible or calling herd owners immediately upon returning to Nome or Kotzebue. A narrative summary and map showing caribou observations will be prepared following each flight, and a copy provided to the RHA. A member of the RHA will be invited to accompany flights as an observer.

LITERATURE CITED

Valkenburg, P., J. L. Davis, and R. D. Boertje. 1983. Social organization and seasonal range fidelity of Alaska's Western Arctic caribou -- preliminary findings. Proc. 3rd Int. Reindeer/Caribou Symp., Helsinki, Finland. Acta. Zool. Fennica. 175:125-126.

SCHEDULE

FY-84

May-June Radio collar 10 reindeer

FY-85

July - Sept. Purchase equipment; prepare for work

Oct. Hire G/T III

Oct. - Dec. Radio collar 50 caribou

Oct. - Feb. Conduct radio-locating and reconnaissance
flights

31 March Annual report due

FY-86

July - Sept. Purchase equipment; prepare for work

Oct. Hire G/T III

Oct. - Dec. Radio collar 25 caribou

Oct. - Feb. Conduct radio-locating and reconnaissance
flights

31 March Annual report due

FY-87

Oct. Hire G/T III

Oct. - Feb. Conduct radio-locating and reconnaissance
flights

31 May Final report due

MAN-MONTHS

FY-85

Permanent Game Division Staff	3 months
Game Technician III (P/S Project position)	6 months

FY-86

Permanent Game Division Staff	3 months
Game Technician III (P/S Project position)	6 months

FY-87

Permanent Game Division Staff	3 months
Game Technician III (P/S Project position)	8 months

BUDGET

<u>Capture</u>	<u>FY-85</u>	<u>FY-86</u>	<u>FY-87</u>
a) 50 radios @ \$325.	\$16,250	\$ 8,125 (25 radios)	-
b) Receiver, Scanner, Antennas	3,000	-	-
c) Helicopter - 35 hrs. @ \$625	21,875	12,500 (20 hrs)	-
d) PA-12 50 hrs. @ \$20	1,000	500 (25 hrs)	-
e) C-185 20 hrs. @ \$130	2,600	2,600 (20 hrs)	-
f) Immobilizing Drugs	<u>2,000</u>	<u>1,000</u>	-
Subtotal	\$46,725	\$24,725	-
 <u>Location</u>			
a) C-185 99 hrs @ \$130 [18 flights btwn 15 Oct.- 28 Feb.; 5.5 hrs./flight]	\$12,870	\$12,870	\$12,870
b) Maps, misc. commodities	<u>1,000</u>	<u>1,000</u>	<u>1,000</u>
Subtotal	\$13,870	\$13,870	\$13,870
 <u>Assistant</u>			
a) Game Tech 3 @ \$3300/mo.	<u>\$19,800(6 mos.)</u>	<u>\$19,800(6 mos.)</u>	<u>\$26,400(8 mos.)</u>
Total	\$80,395	\$58,395	\$40,270
7% Annual inflation factor	-	\$ 4,088	\$ 5,835
Grand Total	<u>\$80,395</u>	<u>\$62,483</u>	<u>\$46,105</u>