

**USE OF CARIBOU AND REINDEER
IN THE ANDREAFSKY MOUNTAINS**

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Technical Paper Number 98

**Alaska Department of Fish and Game
Division of Subsistence
Bethel, Alaska
March 1984**

ABSTRACT

The Andreafsky Mountains historically have been used by residents of Norton Sound and Yukon River communities for trapping, hunting, and reindeer herding. A proposal is under consideration by the Alaska Board of Game at the March 1984 meeting which closes the caribou season in the Andreafsky Mountains in Game Management Unit 18. This report presents information on harvest levels, hunting methods, seasonality, and hunting areas in the Andreafsky Mountains by a 20 percent sample of households in six communities of the Yukon River delta area (Alakanuk, Emmonak, Kotlik, Mountain Village, Sheldon Point, and Stebbins). Findings show that the Andreafsky Mountains are visited during January and February by small groups of men on multi-purpose trips for trapping furbearers and hunting moose and caribou/reindeer. Relatively small numbers of caribou/reindeer are taken. In the winter of 1980-81, a sample of 88 households took only four caribou/reindeer. The sample comprised households relatively active in subsistence hunting and fishing. Caribou/reindeer are taken near the headwaters of the Andreafsky River by "Needle Mountain," in an area overlapping a traditional reindeer grazing area of the community of Stebbins. At least part of the animals in the Andreafsky Mountains are considered by Stebbins residents to be privately-owned stock managed by the Stebbins IRA Council. Reportedly, some reindeer are killed by hunters from other communities. It is not known what portion of the animals in the Andreafsky Mountains are privately-owned reindeer, feral reindeer, mixed caribou-reindeer, or caribou.

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INTRODUCTION

The Andreafsky Mountain range bordering southern Norton Sound is an area historically used for hunting caribou and herding reindeer by residents of Norton Sound and Yukon River communities. Currently, the Andreafsky Mountains are used for trapping, hunting, and reindeer herding by local residents. A proposal which closes the caribou season in the Andreafsky Mountains in Game Management Unit 18 has been submitted to the Alaska Board of Game for consideration at the March 1984 meetings (Proposal 132, 5 AAC 81.320)). This report provides information on resource use in the Andreafsky Mountains useful for considering that proposal. The animals hunted in the Andreafsky Mountains are referred to as "caribou/reindeer" in the report because some animals are considered part of a current domestic reindeer herd by some residents.

PURPOSE

This report describes the use of caribou/reindeer in the Andreafsky Mountains from January through March 1981 by residents of six communities in the Yukon River delta area (Alakanuk, Emmonak, Kotlik, Mountain Village, Sheldon Point, and Stebbins). Information is presented on seasonality, hunting methods, areas hunted, and harvest levels. In addition, the report describes the grazing range of the domestic reindeer herds owned by the Stebbins IRA Council. This range is compared with the areas reported as hunted by local residents for caribou/reindeer.

METHODOLOGY

Information on caribou/reindeer use was obtained from a sample of 88 households in six communities of the Yukon River delta area -- Alakanuk, Emmonak, Kotlik, Mountain Village, Sheldon Point, and Stebbins. Data were collected as part of a comprehensive study of the subsistence-based economies of Yukon Delta communities during the summer of 1981 (Wolfe 1981). Households were interviewed about their fishing, hunting, trapping, and gathering activities conducted during the previous year, June 1980 through May 1981. Information on hunting and trapping in the Andreafsky Mountains was obtained as part of that interview. Estimates of caribou/reindeer harvests are derived from retrospective recall of household hunters, and pertain to the period, January through March 1981. The households comprise a 20 percent sample of all households in the six communities. The sample includes a disproportionately large number of households actively involved in fishing, hunting, and trapping in comparison with all households in the communities. Consequently, if a sampling bias exists in the data, it is toward over-estimating the average household use of resources or degree of household participation in harvesting activities (see Wolfe 1981 for a more complete description of study methodology). Information on the reindeer herds owned by the community of Stebbins derived from an interview with their Chief Herder in 1984.

FINDINGS

Origins of the Andraefsky Caribou/Reindeer Herds

From an historic perspective, the animals in the Andraefsky Mountains may derive in part from historic Norton Sound caribou herds and from domesticated reindeer stock. Historic caribou populations reached a peak along southern Norton Sound in the late 1860s, when large numbers were hunted in the Andraefsky Mountains by local residents from February to May and August to September (Wolfe 1979:111-116). In the early 1870s, the caribou herds suffered a dramatic collapse and only small groups roamed the Andraefsky Mountains by the 1890s (Wolfe 1979:108). Domestic reindeer were introduced into the Andraefsky Mountains at the turn of the century. Reindeer herds were started at Unalakleet in 1897, Mountain Village in 1908, and Holy Cross in 1911 (Wolfe 1979:104; Koutsky 1982:67). The Klikitarik River became a central location for reindeer operations in the southern Norton Sound district (Koutsky 1982:70; Sheppard 1983:83-86). Norton Sound reindeer populations reached their greatest extent in the 1920s and 1930s, then declined substantially (Koutsky 1982:72). Currently, the Stebbins IRA Council manages a reindeer herd for the community of Stebbins in the southern Norton Sound district which is directly descended from the historic reindeer herds.

Communities Hunting Caribou/Reindeer

Residents of five of the six sampled communities reported hunting or trapping in the Andraefsky Mountains in 1981, according to the survey of 88 households. Residents from Alakanuk, Emmonak, Kotlik, Sheldon Point,

and Stebbins entered the Andrafsky Mountains in the study year, May 1980 to June 1981, for trapping and hunting. Of a sample of 16 Mountain Village households, none reported hunting in this area during the same period. The sample directed their trapping and hunting efforts to areas south of the Yukon River. According to reports of hunters, residents of St. Michael and Yukon River communities upriver from Mountain Village may also hunt in the Andrafsky Mountains; however, the extent of the hunting is not known at present.

Seasons and Multi-purpose Trips

Caribou/reindeer harvests of residents of Alakanuk, Emmonak, Kotlik, and Sheldon Point take place on multi-purpose trapping and hunting trips usually conducted during January and February. Small parties of men travel together on from two to about five snowmachines. Tent camps are established from which trapping takes place for marten, beaver, and wolverine. While checking sets, moose and caribou/reindeer are tracked and hunted when signs are encountered. From harvest records, it appears that furbearers are the most reliable species taken on these trips, followed by moose, with caribou/reindeer last. That is, winter hunting groups can count on procuring furbearers on these trips; taking caribou/reindeer is a more exceptional event. As one hunter put it, the caribou/reindeer are "very difficult" to hunt.

Geographic Area Hunted

The Andraefsky River flows along a narrow canyon surrounded by steeply ascending hills and mountains with peaks up to 2,900 feet. It is only near the headwaters of the Andraefsky River that the land opens up into a relatively flat, high plateau about 1,000-1,400 feet in elevation. Caribou are usually taken within this relatively delimited area of flat uplands near the headwaters of the Andraefsky River, East Fork of the Andraefsky, and Otter Creek (Fig. 1). It is near the base of "Needle Mountain." Hunters from the different villages hunt in the same area: their descriptions correspond closely, and Stebbins hunters report seeing hunters from the other villages in the headwaters region.

Access to the uplands is along a converging network of rivers which are historic travel routes for hunting and trading between Norton Sound and the Yukon River (Wolfe 1979; Michael 1967, Ray 1975, Koutsky 1982). Emmonak, Alakanuk, and Sheldon Point hunters enter the area from the west: over a pass above Fish Village on the Yukon River, down Allen Creek to the Andraefsky River, and up the Andraefsky River to its headwaters. This is a considerable distance, about 120 miles from Alakanuk one way. There are recognized seasonal camping sites along the Andraefsky River used by Alakanuk and Emmonak hunters.

Kotlik hunters enter the headwaters of the Andraefsky River from the northwest, commonly via the Pikmiktalik River with a short "portage" to the Andraefsky River. The area is about 80 miles from Kotlik.

Stebbins hunters enter the Andraefsky River headwaters from the north via several routes: the Pikmiktalik (Petmigtalek) River, Nunakogok (Nunaqaaq) River, and Golsovia River. They report hunting these drainages

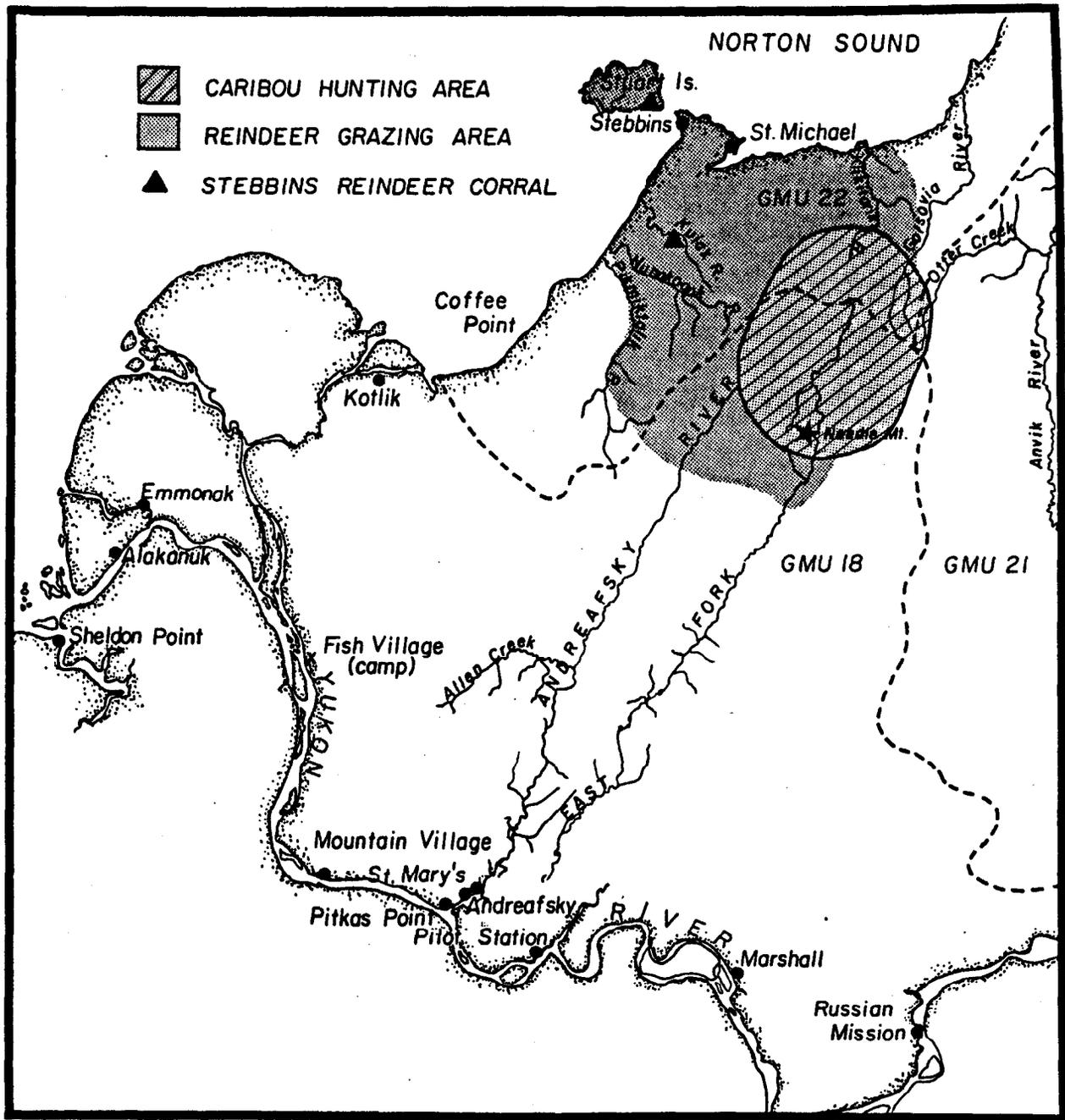


Fig. 1. Caribou Hunting and Reindeer Grazing Areas in the Vicinity of the Andreafsky River Drainage

as well as Otter Creek which empties into the Anvik River. The headwaters of the Andreafsky River are relatively close to Stebbins, about 40 miles distant. There is strong historic evidence that these mountains were the traditional caribou hunting areas of the villages of southern Norton Sound (Ray 1975, Wolfe 1979, Koutsky 1982, Sheppard 1983).

Hunters from other Yukon River communities upriver from Mt. Village probably reach the area from the south via the Andreafsky River or the East Fork of the Andreafsky River, but there are no data confirming this. The headwaters are about 70 miles from St. Mary's.

Hunting Pressure

There were very few hunters from the sampled Yukon River communities taking caribou in the Andreafsky River drainage in the winter of 1980-81. Of a sample of 88 households in six lower Yukon River area communities (Alakanuk, Emmonak, Kotlik, Mt. Village, Sheldon Point, Stebbins), only two (2.3 percent) harvested caribou/reindeer in the Andreafsky River drainage the study year. They took four caribou/reindeer total (see Table 1). In Stebbins, none of the 12 sampled households reported harvesting caribou. As previously noted, the Yukon River sample includes a high proportion of households actively involved in subsistence fishing and hunting from each community. Indications are that few parties from the five Yukon delta communities travel to the Andreafsky Mountains to hunt each year. Many of those that do hunt the Andreafsky Mountains return without caribou/reindeer. The relatively low caribou/reindeer harvests can be compared with moose harvests for this same sample in Table 1. Of the 88 households, 23 harvested moose. Most of the moose were

TABLE 1. CARIBOU AND MOOSE HARVESTS BY SIX COMMUNITIES
IN THE YUKON DELTA VICINITY, JUNE 1980 - MAY 1981

Community	Households Interviewed	Households Taking Caribou	Number Caribou Harvested
Mountain Village	16	0 (0.0%)	0
Kotlik	14	1 (7.2%)	2
Sheldon Point	7	1 (14.3%)	2
Alakanuk	21	0 (0.0%)	0
Emmonak	18	0 (0.0%)	0
Stebbins	12	0 (0.0%)	0
	<u>88</u>	<u>2 (2.3%)</u>	<u>4</u>

Community	Households Interviewed	Households Taking Moose	Number Moose Harvested
Mountain Village	16	7 (43.8%)	8
Kotlik	14	3 (21.4%)	4
Sheldon Point	7	3 (42.9%)	2
Alakanuk	21	6 (28.6%)	8
Emmonak	18	3 (16.7%)	5
Stebbins	12	1 (8.3%)	1
	<u>88</u>	<u>23 (26.1%)</u>	<u>28</u>

taken during the September season along the Yukon River. There are no data on caribou/reindeer harvests in Yukon River villages upriver from Mt. Village.

According to respondents, caribou/reindeer are difficult to take because they roam in relatively small, mobile groups which are difficult to approach by snowmachine. If several hunters are traveling together, they attempt to herd the groups of caribou/reindeer with snowmachines to locations where shots may be taken, as up a cul-de-sac or toward a heavy brush line. The high speed chase is a relatively risky, dare-devil technique. If a hunter is alone, he attempts to approach animals by stealth on foot, trying a shot from high, concealed vantage points. In either method, commonly the caribou/reindeer scatter before many are taken. Occasionally several caribou/reindeer are taken by the hunting group. The convention is for the animals to be split among the hunting party in the field. Upon return to the village, the harvest is further distributed among several households following kinship lines. Thus, even though a single hunter may take several animals, in actuality he is hunting for a wider network of households and does not keep the kill for himself.

Caribou or Reindeer?

It is important to note that there is disagreement among local hunters as to whether the herds at the headwaters of the Andrafsky River are caribou, mixed caribou-reindeer, feral reindeer, or domestic reindeer which are part of the reindeer stock belonging to the community of Stebbins. Stebbins residents assert that at least part of the animals in the hills south of Stebbins are privately-owned reindeer. The reindeer

herd is owned by the Stebbins community and managed by the IRA Council. As of February 1984, the Stebbins community herd consisted of about 400 reindeer with approximately 350 animals on the mainland and 50 on Stuart Island (T. Katcheak, pers. comm. 1984).

Grazing areas for the herd primarily comprised Stuart Island and the area between Stebbins and Pikmiktalik River (Fig. 1). The latter includes the north-facing slopes of the Andrafsky Hills with the Kuiuak (Quuyaq), Nunakogok, and Pikmiktalik rivers serving as access routes for reindeer herders when the deer are in these areas. As recent as twenty years ago, the grazing range commonly included areas between Stuart Island and Golsovia River on the north and Coffee Point and "Needle Mountain" on the south (T. Katcheak, pers. comm. 1984). Currently, some of the herd uses the "Needle Mountain" area, especially portions of the Stuart Island herd which cross from the island to the mainland and enter the headwaters area of the Andrafsky Mountains to graze. Consequently, some of the domesticated reindeer use the same areas as the feral reindeer and/or caribou in the "Needle Mountain" area (T. Katcheak, pers. comm. 1984).

Individual animals from the mainland and Stuart Island herds are mistaken for caribou by hunters from other communities, according to certain Stebbins residents. For instance, in 1983, St. Michael hunters took five animals from areas to the southeast of St. Michael; two had ear marks demonstrating to Stebbins residents that they were part of the Stebbins herd. It is important to note that none of the 12 surveyed households in Stebbins reported taking caribou the year of the study despite their hunting in the Andrafsky drainage. This is in part due to

their belief that the animals in the hills south of the community are domesticated reindeer which may be taken only by permission from the village IRA Council.

Stebbins utilizes about 20 reindeer a year as payment to herders and as donations for special community feasts, such as the annual Christmas party. Most of these reindeer are taken during annual round-ups. The Stuart Island round-up occurs in the fall and the mainland herd is rounded up in mid-winter, when snow machine travel is most feasible. Corrals have been built and are maintained annually at a bay on the southern shore of Stuart Island and near the headwaters of the Kuiuak River (Fig. 1).

Hunters from Yukon River communities report other opinions about the animals they hunt in the Andreafsky River uplands. One hunter reported that there are both caribou and reindeer in the area which run in separate herds. He hunted the caribou herd and not the reindeer herd. Another hunter reported a caribou herd and a mixed caribou-reindeer herd in the area. Another hunter reported that there was a mixed, caribou-reindeer herd having some animals with small antlers and some with large. Another hunter just reported caribou in the area. Thus, there is a substantial difference of opinions among the small number of hunters surveyed.

SUMMARY AND DISCUSSION

According to the 1980-81 survey, there is a relatively low harvest of caribou/reindeer in the Andreafsky Mountains by residents of lower Yukon River communities. Only four caribou/reindeer were taken from the Andreafsky Mountains in winter 1980-81 by a 20 percent sample of households

in six communities (Alakanuk, Emmonak, Kotlik, Mountain Village, Sheldon Point, and Stebbins). Residents report that parties enter the Andraefsky Mountains each year for trapping and hunting. Whereas fur trapping is relatively productive, caribou hunting is successful less frequently. Factors which keep the number of parties and caribou harvest levels low include long travel distances, difficult terrain, and small, widely dispersed groups of animals.

The hunting effort of residents of St. Michael and communities upriver from Mountain Village (St. Mary's, Pitkas Point, Pilot Station, Marshall, and Russian Mission) is not known. Some residents of these communities also probably trap and hunt in the Andraefsky Mountains. There is no evidence to suggest their level of effort is different from the sampled communities.

The areas reported used by Stebbins for grazing domestic reindeer overlap the areas reported hunted by Yukon River residents. Stebbins IRA Council considers at least part of the animals in the Andraefsky Mountains to be their privately-owned reindeer. Some Yukon River hunters report there are caribou or mixed caribou-reindeer groups as well as non-feral reindeer in the Andraefsky Mountains. Historic sources indicate that both caribou and domestic reindeer have been together in the Andraefsky Mountains for about 80 years.

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APPENDIX

Game Proposal 132, 5 AAC 81.320. (5). CARIBOU. pg. 41. Close season in northern portion of Unit 18.

Unit 18, that portion
south of the Yukon
River

Feb. 1-Feb. 28

One caribou

Remainder of Unit 18

No open season
[FEB. 1-MAR.31]

[ONE CARIBOU]

Justification: Aerial surveys conducted during early April of 1983 indicated that hunting pressure was unusually severe on the Andreafsky Mountain Caribou herd. Snow machine tracks were found in virtually all drainages except in the most rugged portions of the range. Intensive surveys conducted in April indicated that the herd contained approximately 200 animals. Although we do not have accurate harvest estimates, we believe the take exceeds 50 caribou per season. At the present time, we do not believe that any harvest is biologically justifiable.

Proposed by: Staff