

**AN OVERVIEW OF SUBSISTENCE USES OF  
THE NORTHERN ALASKA PENINSULA CARIBOU HERD BY  
COMMUNITIES OF GAME MANAGEMENT UNITS 9C AND 9E**

by

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## ABSTRACT

This report provides background information on subsistence uses of the Northern Alaska Peninsula Caribou Herd, particularly focusing on communities of Game Management Unit 9E. The herd numbers about 20,000 animals and its population is stable. In recent years, the southward migration of this herd has been delayed. Consequently, communities such as Pilot Point, Ugashik, and Port Heiden in GMU 9E have been unable to harvest caribou in adequate numbers for subsistence use before the March 31 season closure. In April 1992, in response to petitions from Pilot Point and Port Heiden, the Alaska Board of Game authorized a four-day emergency opening for caribou hunting in a portion of the subunit. During that time, 94 caribou were harvested by four communities (Pilot Point, Ugashik, Port Heiden, and Chignik Lake). An emergency opening in April 1988 around Port Heiden had also been authorized by the Board for similar reasons. To address these problems caused by the late migration of the herd, the Alaska Department of Fish and Game submitted a proposal to the Board for consideration during its November 1992 meeting to extend the resident caribou hunting season in GMU 9E through April 30.

The report summarizes the available data on subsistence harvest levels of the herd, based largely on Division of Subsistence research. The data demonstrate that the communities of the Northern Alaska Peninsula are highly dependent upon subsistence harvests of caribou. These harvests are relatively large compared to most other areas of the state. Estimates of the annual subsistence harvests of Northern Alaska Peninsula caribou by local communities range from about 900 to about 1,250 animals. At Port Heiden in 1986/87, the caribou harvest of 244.7 pounds of caribou per person (1.63 caribou per person) made up 60.0 percent of the annual take of subsistence foods. Annual per capita harvests of caribou in the other local communities in the 1980s were 73.9 pounds in King Salmon, 54.6 pounds in Naknek, 147.5 pounds in South Naknek, 232.8 pounds in Egegik, 238.3 pounds in Pilot Point/Ugashik, 15.3 pounds in Chignik, 14.6 pounds in Chignik Lagoon, 171.2 pounds in Chignik Lake, 107.8 pounds in Ivanof Bay, and 28.2 pounds in Perryville. Also, caribou are thoroughly utilized for food and are very widely shared within and between communities.

The division conducted interviews with caribou hunters from Pilot Point, Ugashik, and Port Heiden to document caribou harvests during the 1991/92 regulatory year, including the special opening. Data from comprehensive household surveys are also available for Chignik Lake and Chignik. These data suggest that the emergency opening was successful in providing subsistence hunting opportunities to meet the communities' needs. Pilot Point/Ugashik hunters took 135 caribou in 1991/92, including 24 (17.8 percent) in the April opening. The per capita harvest of caribou for the whole year (260.7 pounds, 1.74 caribou) was very similar to that of 1986/87, the most recent other year for which data are available. At Port Heiden, 174 caribou were harvested in 1991/92. Of these, 69 (39.7 percent) were taken in April. With the additional hunting opportunity provided by the emergency opening, Port Heiden hunters were able to achieve a harvest of 227.0 pounds of caribou meat per person (1.51 caribou per person), very similar to the harvest reported for 1986/87. Without the special opening, the 1991/92 harvest would have been about 44 percent below that of 1986/87.

There was unanimous consent among interviewed hunters who participated in the April hunt that it was welcome, necessary, and a success. Enough caribou were harvested to meet harvest goals and share throughout the communities. However, the short four-day duration of the hunt created some problems, according to these hunters. At Pilot Point, caribou were available earlier in April, when travel conditions were good; conditions improved again on the last day of the hunt. At Port Heiden, little hunting occurred for the first two days of the emergency opening due to very poor weather and few caribou in the area. On the last day, the weather improved and caribou were present. Although an adequate harvest was achieved, there were many hunters in the field, creating a crowded, potentially dangerous situation. The interviewed hunters from Pilot Point, Ugashik, and Port Heiden said that an April hunting season as proposed by the Department would likely solve the problems created by the changing migration pattern of the Northern Alaska Peninsula Herd. As noted in the postscript, in November 1992 the Board of Game adopted the season change proposed by the department.

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## INTRODUCTION: PURPOSES AND OBJECTIVES

In April 1992, the Alaska Board of Game authorized the adoption of an emergency regulation allowing an additional four-day season for caribou hunting in a portion of Game Management Unit 9E. This action was in response to petitions from the communities of Port Heiden and Pilot Point. Because of the late southward migration of the Northern Alaska Peninsula Herd, residents of several communities within GMU 9E had been unable to harvest caribou in sufficient numbers before the season closed on March 31. By emergency order, the special four-day season ran from April 18 through April 21. During that time, about 49 hunters from four communities (Pilot Point, Ugashik, Port Heiden, and Chignik Lake) harvested approximately 94 caribou. In April 1988, under very similar circumstances, Port Heiden hunters took 40 caribou in a two-day emergency opening. (See Appendix A for the 1992 finding of emergency, emergency regulation, and emergency order.)

During its meeting in Fairbanks in November 1992, the Board of Game will consider Proposal Number 9, submitted by the Alaska Department of Fish and Game.<sup>1</sup> If adopted, the new regulation would change the closing date for the resident hunting season for the Northern Alaska Peninsula Caribou Herd in GMU 9E from March 31 to April 30 (Appendix B). By adding an additional month of harvest opportunity, the proposal addresses the problems caused for local communities by the delayed spring migration of the herd. The herd numbers about 20,000 animals and its population is stable.

This report provides information on subsistence uses of caribou by the residents of communities within the range of the Northern Alaska Peninsula Herd. The information can be used as background for the Board's consideration of the proposal. Emphasis is placed on communities of GMU 9E because their hunting areas, timing of harvests, harvest levels, and patterns of use have been most affected by the herd's changing migration patterns

Table 1 lists the communities of GMUs 9C and 9E along with their 1990 populations as reported by the U.S. Census. Figure 1 shows the locations of these communities. The three communities of GMU 9C,

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<sup>1</sup> The proposal was passed by the Alaska Board of Game during its November 1992 meeting. See the postscript, below.

King Salmon, Naknek, and South Naknek, are all part of the Bristol Bay Borough and have a combined population of 1,143. The nine communities of GMU 9E are within the Lake and Peninsula Borough, and, from north to south, consist of Egegik (population 122 in 1990), Pilot Point (53), Ugashik (7), Port Heiden (119), Chignik Lake (133), Chignik Lagoon (53), Chignik (160), Perryville (108), and Ivanof Bay (35). In 1990, the total population of the two combined subunits was 1,933 people living in 655 households. Of the total population in 1990, 54.3 percent was Alaska Native.

The cash sector of the local economies of the communities of the northern Alaska Peninsula is heavily tied to commercial fishing. Monetary employment is very seasonal and cash incomes vary greatly from year to year. The Bristol Bay Borough serves as a regional center for the Alaska Peninsula and, to a more limited extent, the Iliamna Lake area. In summer, it is also the location of fish processors and other commercial fishing support facilities. Consequently, services and the cash economy are more developed there than in the smaller communities (Morris 1985). Fish processors also operate through much of the year at Chignik, bringing some support facilities and a larger non-Alaska Native population to this community than are found in the other small communities of the region (Morris 1987).

Based on household surveys conducted by the Division of Subsistence (Scott et al 1992), levels of subsistence uses of fish and wildlife in Alaska Peninsula communities are relatively high. Annual harvests in the Bristol Bay Borough and in Chignik and Chignik Lagoon average around 200 pounds per person per year. Subsistence harvests in the remaining communities average about 400 pounds per person or more per year. Subsistence harvests by communities on the Pacific side of the Alaska Peninsula are among the most diverse in the state. Those of the Bristol Bay communities are less so, primarily because of more limited access to marine invertebrates and marine fish (Scott et al. 1992).

## DATA SOURCES

Prior to 1992, the Division of Subsistence had conducted comprehensive household harvest surveys for at least one study year in all of the communities of GMUs 9C and 9E. Research had also been conducted on hunting areas, seasonal rounds of harvest activities, and other patterns of subsistence uses

of caribou in this area. The findings from this research are provided in reports in the division's Technical Paper Series (Morris 1985; Morris 1987; Fall and Morris 1987; Fall, Hutchinson-Scarborough, and Coiley, forthcoming). Harvest and use data are also contained in the Community Profile Database (Scott, Paige, Jennings, and Brown 1992). Harvest area maps appear in the department's Habitat Management Guide Reference Atlas (ADF&G 1985b).

In April 1992, households in Chignik Lake and Chignik were interviewed as part of a division study funded in part through a cooperative agreement with the U.S. Department of the Interior, Minerals Management Service. Overall, 24 households (72.7 percent) were interviewed in Chignik Lake and 30 households (68.2 percent) were interviewed in Chignik. Data pertaining to caribou harvests and uses for the 12-month period from April 1, 1991 through March 31, 1992 were summarized for this report.

For Pilot Point, Ugashik, and Port Heiden, fieldwork was conducted to collect information about caribou harvests during the 1991/92 regulatory year, including the emergency opening in April 1992. A short (two page) survey form was designed to be administered in person with representatives of each community's households (Appendix C). In May 1992, a division researcher (Janet Schichnes) traveled to Pilot Point. With the assistance of village officials, a list of 23 year-round households in Pilot Point and Ugashik was developed. Interviews were completed with 18 of these households (78.3 percent).

In September 1992, a division researcher (James Fall) traveled to Port Heiden, where 28 of 40 year-round households were interviewed about caribou harvests and uses during the 1991-92 regulatory year (70.0 percent). With the assistance of several knowledgeable village residents, households were classified into two strata, caribou hunting households (30) and non-hunting households (10). Effort was concentrated on interviewing as many of the hunting households as possible. The final sample contained 24 hunting households (80.0 percent of all hunting households) and four non-hunting households (40 percent). Caribou harvests reported by the sampled households were expanded to include the remaining hunting households only; in other words, it was assumed that the non-hunters took no caribou.

## SUBSISTENCE HARVESTS AND USES OF CARIBOU

### Prehistoric and Historical Uses

Archaeological evidence has demonstrated that the human inhabitants of the Alaska Peninsula have used caribou for about 9,000 years (Dumond 1977:40). At the time of the arrival of European and American explorers and traders to Alaska in the late 18th and 19th centuries, most of the northern Alaska Peninsula above Port Moller was occupied by small communities of people speaking the Alutiiq language. Caribou, along with salmon and other fish and marine mammals, were important subsistence resources during this period (Clark 1984:189). Tuten (1977) and Morris (1985,1987) summarize the limited available information on the history of this area in the Russian and early American periods.

### Contemporary Levels of Participation in Subsistence Use of Caribou

Caribou are today among the most important subsistence resources for northern Alaska Peninsula communities. As reported in Table 2, virtually every household in South Naknek, Egegik, Pilot Point, Ugashik, Port Heiden, and Chignik Lake used caribou meat in the 1980s. Levels of use were high in the remaining communities as well. In addition, a very large percentage of households in these communities hunt caribou, including the majority in King Salmon, South Naknek, Egegik, Pilot Point, Ugashik, Port Heiden, Chignik Lake, and Ivanof Bay, and more than 25 percent in the other communities.

As shown in Table 2, it is commonplace in these communities for successful caribou hunters to share their harvests with others. Hunters share meat with relatives, the elderly, and the disabled. In most communities, there is a core of very active hunters who supply many of the other households in their villages with caribou meat. These hunters account for a large percentage of each community's annual take of caribou. For example, in 1986/87, 21 percent of the hunters in Port Heiden produced about 50 percent of the caribou harvest. In the same year, 51 percent of the caribou taken in Pilot Point were harvested by 18 percent of the hunters.

### Contemporary Harvest Areas

In 1981 and 1982, Division of Subsistence researchers mapped community caribou hunting areas with representatives of each northern Alaska Peninsula community. Figures 2 - 6 depict caribou harvest areas for selected communities. The maps show that each community or groups of communities in the same general area use fairly distinct areas for caribou hunting. The three Bristol Bay Borough communities hunt caribou in the Naknek River drainage and portions of the Egegik River drainage, such as the King Salmon River and lower Becharof Lake (Fig. 2). Egegik residents hunt caribou exclusively in the Egegik River drainage. Hunters from Pilot Point and Ugashik mostly use the Ugashik River drainage and the portion of the Alaska Peninsula to the south as far as the Cinder River (Fig. 3). Port Heiden's caribou hunting area begins around the Cinder River and extends south to Cape Seniavin (Fig. 3). Of the five the Pacific drainage villages, Chignik Lake has the most extensive harvest area (Fig. 4). This includes coastal areas from Chignik Bay north to Amber Bay which are shared with Chignik Lagoon, Chignik Bay, and Perryville. Areas used much more frequently by Chignik Lake include Black Lake and portions of the Bristol Bay drainage south of Port Heiden. These latter areas are used to some extent by hunters from Chignik and Chignik Lagoon as well (Fig. 5). Perryville uses much of Pacific side of the Mount Veniaminof watershed (Fig. 6). In recent years, some Perryville hunters have traveled to Port Heiden to hunt caribou. Ivanof Bay's hunting area is largely confined to the Ivanof Bay and Stepovak Bay areas near the village.

### Hunting Patterns and Harvest Timing in the 1980s and 1990s

The typical caribou hunting party in the northern Alaska Peninsula communities consists of two or more men. Virtually all the caribou hunters in these communities are male. Means of access to hunting areas varies by season and community. In the fall, the most common methods are commercial fishing boats, skiffs, and all-terrain vehicles. After freeze-up and depending upon snow conditions, snowmachines and ATVs are used. These are also used in early spring, before the season closure. Highway vehicles are used along the Bristol Bay Borough road system (Morris 1983:85). In a few communities, limited use of private aircraft occurs to transport hunters to hunting areas and camps. Some hunters in Perryville now

take advantage of commercial flights to travel to Port Heiden in the fall and spring to hunt because of the scarcity of caribou near their village during the open season.

Although caribou hunting may occur at any time throughout the season, there are distinct periods throughout the year when hunting efforts concentrate on caribou. These for the most part depend upon the seasonal migration patterns of the Northern Alaska Peninsula Herd (ADF&G 1985a), as well as regulatory seasons (see Appendix D). Consequently, the timing of caribou harvest varies considerably between communities. Those in the central and southern portions of GMU 9E have most hunting opportunities in the late summer and early fall as the herd migrates from the calving grounds south of Port Heiden northward (August and September), and again in the late winter and early spring (March and April) when the herd passes south. In contrast, Egegik in the northern portion of GMU 9E and communities of GMU 9C have access to caribou in the winter months as the herd winters in the Naknek and Egegik river drainages. Small subherds do not follow this broad seasonal migration pattern and remain more locally available to communities south of the Ugashik River in the winter.

At Port Heiden, caribou hunting begins in August (Fig. 7). Some hunters use their commercial fishing boats to travel south to hunt in the Unangashak River and Ilnik areas. More intensive hunting occurs near the community as the herd passes by, usually in September. This is when most of the winter supply of meat is harvested, distributed, and processed. Hunting stops as the preferred bull caribou enter the rut by the end of September. Over the winter, occasional hunting takes place, especially in years of good snow cover. However, in most years, the major late winter/early spring hunt takes place in March as the herd passes south to the calving grounds. Enough caribou are taken to refill freezers for the summer meat supply. If caribou are available, hunting in March has generally been preferred over April, primarily because the caribou are needed in March and travel conditions may deteriorate rapidly in April. A similar hunting pattern is followed at Pilot Point and Ugashik; at these two communities, caribou are generally available slightly later in the fall, and earlier in the spring, than at Port Heiden (Fall and Morris 1987:108).

In the Pacific drainage communities, caribou hunting along the coast takes place in the late summer between commercial fishing openings (Morris 1987:88-89). In the past, when July hunting seasons were available, bull caribou were taken near Ivanof Bay and Perryville prior to their northward

movement.<sup>2</sup> In August and September, some hunters also travel by plane to Ilnik or the Port Heiden area to hunt caribou and waterfowl. Winter caribou hunting is important at Chignik Lake, especially following freeze-up when snowmachines can be used to access hunting areas such as Black Lake. This hunting continues into the spring when preparations for salmon fishing resume (Morris 1987:91-92).

The late winter/early spring hunt is particularly important for the communities of GMU 9E for several economic and cultural reasons. These were expressed as follows by a health aid in one community.

We mainly eat caribou and fish. . . For most of the winter, people haven't had anything that is fresh. In spring time, you get hungry for fresh caribou. Everyone's out of meat. That's usually when our freezers are cleaned out [i.e. empty]. Salmon don't arrive until the end of May or even June, like last year [1992]; there was no fish until June. . . People get paid in September [after commercial fishing] and then they don't get paid again until fishing starts. So spring is a stressful time. They need to hunt for fresh caribou. They need to see the promise that new stuff is coming. By the middle to the end of January, everybody is waiting for fresh caribou. It's like having a new lease on life. . .

These observations probably pertain to other villages as well.

#### Other Use Patterns

Respondents in Port Heiden and Chignik Lake report that a large variety of edible parts of caribou are regularly used. In addition to the meat, parts of the animal that are regularly used include the ribs, liver, heart, kidneys, portions of the intestine, and stomach fat. Animals taken near the village are brought back to the community with the heads intact. After the antlers are removed, the head is commonly skinned, then boiled. Portions used for food include the head meat, the tongue, the eyes, and the brain. If caribou are harvested more distant from the community, the head is left in the field after the tongue is removed. The latter is a particularly desirable part of the animal and is always used. Stomach fat is salvaged for use in making ground meat or sausage. Slabs of fat are wrapped around roasts.

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<sup>2</sup> The communities of Ivanof Bay and Perryville, and the Chignik Fish and Game Advisory Committee, submitted a proposal to the Alaska Board of Game for consideration during its spring 1993 meeting to open a portion of GMU 9E to caribou hunting beginning July 1. An amended version of this proposal was adopted by the Board. See the postscript, below.

Similarly, a Chignik Lake resident described contemporary uses of caribou as follows:

With caribou . . . we take even the insides and clean them up. They are sort of like a delicacy. We take and clean the whole insides out and certain parts, like the tripe . . . we take and use it. . . To me when I get a caribou, I have to save everything, the tongue and everything, . . . [and] the liver, the heart, the tongue, and part of the digestive track. . . Then there's what they call the "football."<sup>3</sup> It is like a bag that is surrounded by fat and you just take and wash that out and turn everything over. And there's the main artery that goes from the heart to the brain. We save that and that is really good stuff. . . We boil it up with ribs and put certain seasonings in it. The heart is really good. You fix it up and use it for snack later on. You boil it up. You add vinegar and garlic powder, bay leaves. And you eat it cold. You slice it up like salami or something. It is really good. . . The kidneys too. That's my daughter's favorite. The liver too. . . We don't keep the hide, but a long time ago they did. They used them for mattresses, and were real warm.

At Port Heiden, after the caribou is butchered and the meat hung outside for several days, most meat is frozen. A few households produce some dry meat using purchased dehydrating machines. Caribou is prepared and served in a variety of forms, including steaks, roasts, soups, and stews. Similar patterns of use occur in the other communities.

#### Harvest Levels, 1970s - 1990s

The range of reported harvests of the Northern Alaska Peninsula Caribou Herd, based on returned harvest tickets for the years 1977 - 1991, is about 600 to 1,000 animals, as summarized in Table 3. Virtually all of this reported harvest is from non-Alaska residents and non-local Alaska resident hunters. These reported harvests suggest a stable level of take over this time period by this group of hunters. This is only a partial count of the annual harvest, however. Annual harvests by local residents, estimated at about 900 animals in Table 3, are not adequately counted by harvest ticket returns. In addition, about 250 - 400 unreported caribou are taken by non-local hunters.

Caribou harvest data for the communities of the northern Alaska Peninsula are available for particular years from Division of Subsistence household surveys. These data are summarized in Tables 2, 4, 5, and 6. Caribou takes supply a large percentage of the total annual subsistence harvest in several

<sup>3</sup> Identification of this and other internal organs is tentatively as follows. The "football" is perhaps the pancreas. Other local terms for portions of the caribou which are used for food, which may vary by community, include "the accordion" (the intestines), the "army cap" (the stomach), and "the hose" (perhaps the pulmonary artery) (Orville Lind, Port Heiden, personal communication, 1992).

communities (Table 7, Fig. 8). In all communities in this area, caribou are the most widely used big game species, with moose usually a distant second. Most households express a preference for caribou over moose as well. Some people explain this preference by pointing out that moose were quite scarce in this area until the mid 20th century, while just about everyone in these communities grew up eating caribou.

Only one year's comprehensive household survey data area available for the communities of GMU 9C, the Bristol Bay Borough. In 1983, caribou harvests per person were significant, with 0.37 caribou per person harvested by Naknek households, 0.49 at King Salmon, and 0.98 at South Naknek. If 1983 represents a typical pattern that still pertains in the early 1990s, residents of the Bristol Bay Borough probably harvest about 500 to 550 caribou annually.

The largest harvests of caribou, as measured by the number of harvested per person, occur in the Bristol Bay drainage communities of GMU 9E -- Egegik, Pilot Point/Ugashik,<sup>4</sup> and Port Heiden (Fig. 9). The available data suggest very similar harvest levels for these three communities of about 1.5 caribou per person per year, which make up 50 - 60 percent of the total subsistence take. Total annual caribou harvests for these communities at present probably range between 450 to 500 animals.

Annual caribou harvests for the Pacific drainage communities of GMU 9E are generally lower than those of the Bristol Bay side. The lowest annual takes occur at Chignik Lagoon and Chignik at about 0.1 caribou per person per year. Perryville and Ivanof Bay show higher annual levels at about 0.2 animals at the former community and about 0.6 at the latter. Probably because of the ready access to salmon, other fish, marine invertebrates, marine mammals, and birds, as well as more limited access to caribou, caribou make up a lower percentage of the total subsistence take in these Pacific drainage communities than on the Bristol Bay side, although overall subsistence harvest levels are very similar. The annual take of caribou by these four villages is about 60 - 75 animals.

Finally, the community of Chignik Lake appears to share characteristics of both Bristol Bay and Pacific drainage communities. Caribou harvests per person are relatively high, ranging from 0.5 to 1.1 for the three years for which data are available, but are below those for Port Heiden, Pilot Point, and Egegik.

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<sup>4</sup> Combined harvest data for Pilot Point and Ugashik are used in this report. This is partly because of Ugashik's very small size. Also, although physically separate, in many ways these villages function as a single community, with many kinship and economic ties.

Like the other Pacific drainage villages, Chignik Lake's overall subsistence harvest is very diverse, and contains many resources that are not as obtainable on the Bristol Bay side. Currently, caribou harvests at Chignik Lake average about 100 - 125 animals per year.

Table 7 provides an estimate of current (1990) subsistence harvests of Northern Alaska Peninsula caribou by communities of GMUs 9C and 9E. If harvests per person as documented by division studies in the 1980s remained constant, the estimated total harvest in 1990 was 1,248 animals (about 0.647 caribou per person). This includes 554 caribou in GMU 9C by Bristol Bay Borough communities and 694 caribou by communities in GMU 9E. It is probable that year to year variation occurs, especially for particular communities. Inadequate data are available, however, to estimate the dimensions of these possible annual variations in harvest levels.

As shown in Table 8, the communities of the northern Alaska Peninsula rank among the top communities in the state in terms of per capita annual caribou harvests. Indeed, for communities for which data are available, four communities of GMU 9E, Port Heiden, Pilot Point/Ugashik, Egegik, and Chignik Lake, rank second, third, fourth, and eighth respectively in number of caribou harvested per person per year. As also shown in Table 8, a relatively large percentage of the total annual subsistence harvest in these villages is composed of caribou (more than 50 percent in Port Heiden, Pilot Point/Ugashik, and Egegik, and better than a third in Chignik Lake). These are, clearly, among the communities in Alaska most dependent upon caribou for subsistence use.

#### THE 1991-92 HUNTING YEAR IN GMU 9E

Table 6 summarizes the available data concerning caribou harvests by communities of GMU 9E in the 1991/92 regulatory year. Based on systematic household interviews conducted by the division, data are available for five communities: Pilot Point and Ugashik (combined), Port Heiden, Chignik Lake, and Chignik. In addition, harvest data by season are available for the first three communities.

As noted above, Chignik Bay takes fewer caribou than most other Alaska Peninsula communities. The estimated harvest of 13 caribou in 1991/92 virtually matched that of 1989, when 12 caribou were

harvested by Chignik hunters. There was no known participation by these hunters in the special April opening. By then, most Chignik households are busy preparing for the new commercial and subsistence fishing seasons and limited time is available for other activities.

Household survey results for Chignik Lake suggest a slightly lower caribou harvest in the August 1991 to March 1992 season of 105 animals (0.8 per person) compared to 129 caribou (1.14 per person) in 1989, the most recent previous year for which data are available. Hunters reported that caribou numbers were down compared to other recent years; in contrast, subsistence salmon harvests were up in 1991. As with Chignik, there was limited participation in the April caribou hunt, with two hunters taking one caribou. Limited participation occurred probably because the main herd had still not reached areas near Chignik Lake by the season closure, weather was poor for travel during the short opening, and because preparations for commercial and subsistence salmon fishing were underway by this time of year. With access during the winter to the caribou near Black Lake, it may be that while harvests were lower than desirable, they were not so low as to cause the same kind of food shortage as was occurring at Port Heiden.

As noted above, there are two distinct caribou harvest periods at Port Heiden and Pilot Point, fall and spring, which correspond with the seasonal movements of the Northern Alaska Peninsula Herd. The "fall" season occurs from August to mid to late September, after which the meat of bull caribou is not considered edible. If caribou are available and travel conditions permit, some "winter" hunting begins again in December and lasts intermittently until the bulk of the herd passes south again, usually in March, when large scale hunting resumes.

In the "fall" of 1991, hunters from Pilot Point and Ugashik harvested 52 caribou (38.5 percent of the total estimated take for the year) (Fig. 10). Over the winter months, 59 more animals were harvested. A small group of hunters participated in an unusually large kill of 15 animals in January, when meat supplies had run quite low. However, few caribou were available near the communities before the season closed on March 31. During the special four day opening, 14 hunters supplied these communities with a harvest of 24 caribou, for 17.8 percent of the total year's take.

In total, the estimated harvest by Pilot Point and Ugashik in 1991/92 was 135 caribou, or 1.74 caribou per person. The per capita harvest was 260.7 pounds. This compares to 1.58 caribou per person and 238.3 pounds per person in 1986/87, the only other recent year for which comprehensive data are available. At the close of the regular season, the harvest was 111 caribou, or 213.9 pounds per person, about 10 percent below 1986/87. With the additional April hunting opportunity and take, the total 1991/92 harvest in pounds per person was about 9 percent above that of 1986/87 (Fig. 9).

In 1991-92, Port Heiden hunters harvested 79 caribou in the fall, 45.4 percent of the take for the whole year (Fig. 10). Of 30 hunting households in the community, 24 hunted and harvested caribou in the fall. Over the winter, a relatively small take of 26 animals (14.9 percent of the year's harvest) took place. By March, when the herd would normally again be available to the community, the herd was still far to the north and very little "spring" hunting had occurred when the season closed on March 31. Also, few caribou were available during the first two days of the special opening, April 11-14, when the weather was particularly bad, with heavy wet snow and strong winds. However, on the final day, April 14, the caribou were available in adequate numbers. About 33 Port Heiden hunters took to the field. Altogether, they took 69 caribou during this emergency opening, for 39.7 percent of their annual harvest.<sup>5</sup>

In total, an estimated 174 caribou were harvested by Port Heiden hunters in 1991-92, for a take of 4.35 animals per household and 1.51 animals per person. This harvest was virtually identical to that of 1986-87, the only other recent year for which comprehensive data are available. In 1986/87, 168 caribou were taken, for 4.54 per household and 1.63 per person. In useable pounds, the per capita harvest in 1991/92 was 227.0, just 7.2 percent below that of 1986/87 (244.7 pounds per person). As of March 31, only 105 caribou had been taken, a per capita harvest of 137.0 pounds, 44.0 percent below that of 1986/87. Thus, it appears that the emergency opening in April enabled Port Heiden hunters to achieve a harvest similar to that of 1986-87 (Fig. 9). Without the opening, the harvest would have fallen short by about 44 percent compared to 1986/87.

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<sup>5</sup> Port Heiden resident Orville Lind, a Resource Information Technician for the U.S. Fish and Wildlife Service, conducted an informal harvest survey of Port Heiden hunters soon after the emergency opening in April. The results showed a reported harvest of 63 animals. Mr. Lind's sample included all but three hunting households. The results of the hunter survey conducted by the Division of Subsistence in September are very consistent with Mr. Lind's findings.

In both Pilot Point and Port Heiden, there was general agreement among interviewed hunters that the emergency opening in April had addressed a critical need in the communities for fresh meat. When asked to assess the special opening, comments such as "It helped a lot" and "We needed it. . . It was something to pull us through the summer" and "I'm glad we got it" were typical. On the other hand, most hunters also commented critically on the timing and duration of the special opening. At Pilot Point, some hunters reported difficult travel conditions with break-up underway. Caribou had been available earlier than the April 11 opening day, and these hunters would have preferred an earlier hunting opportunity. A hard freeze on the last day of the four-day period improved travel conditions, leading several hunters to remark that the season should have been longer.

At Port Heiden, there was unanimous consent that a longer April season is needed. An absence of caribou and poor weather discouraged hunting until the last day of the four-day emergency period, when caribou arrived in some numbers. Although a successful harvest then took place, over 30 hunters were in the field. According to most hunters interviewed, this created a crowded, potentially dangerous situation, with everyone anxious to take caribou before the season closed again. It would have been better, these hunters said, to allow more time for the hunters to apportion out the hunting opportunities. One hunter summarized it as follows:

The caribou weren't moving until the last day. So everybody got theirs then. Everyone was firing. Everyone knew it was the last day. It gets spooky when there's lots of people out there. . . It's a good idea to have a span (of time) so people will take turns and not be all out at once.

Another hunter summarized the views of virtually everyone in Port Heiden concerning a potential extension of the season through April 30, when he said that, "There's no doubt in my mind that it would solve a big problem."

## SUMMARY

All the available data demonstrate that caribou are a primary subsistence resource in communities of the Northern Alaska Peninsula. Caribou are harvested in large quantities, are thoroughly used, and are widely shared. For most communities of GMU 9E, there are two prime opportunities for harvesting caribou, the fall and the spring as the herd passes on its seasonal migration to and from calving areas and wintering grounds. In recent years, because of the delayed southward migration of the herd, several communities in GMU 9E have failed to harvest adequate numbers of caribou before the March 31 season closure. The four-day emergency opening authorized by the Alaska Board of Game for April 1992 provided an opportunity for these communities to harvest 94 caribou. For Pilot Point and Ugashik, 17.8 percent of the year's harvest of caribou occurred in the April opening; for Port Heiden, the April harvest was 39.7 percent of the community's total caribou harvest in 1991/92. For all three communities, the additional hunting opportunity in April enabled hunters to achieve a harvest very similar to that of 1986/87, the most recent other year for which comprehensive data are available. This suggests that a finite number of caribou are needed in each local community. Hunting effort ceases when these harvest goals are met. It is therefore unlikely that a season extension into April will result in harvests by local communities above historic levels.

Proposal Number 9, submitted by the Department of Fish and Game, addresses the problems caused by the delayed southward migration of the herd by proposing to extend the season to April 30 each spring. The proposal has widespread support among local hunters, for two reasons. First, it would allow hunting in the spring when the herd is present near the communities. Second, it would provide enough time to spread out the spring hunting effort and avoid the crowded, potentially dangerous situation which occurred in 1992 when, because of the limited four day opening, delayed caribou movements, and poor weather, most hunting took place in a contracted two-day period.

## POSTSCRIPT

During its meeting in Fairbanks in November 1992, the Board of Game adopted the season change as proposed in the Department of Fish and Game's Proposal No. 9. By this action, the Alaska resident hunting season for caribou in Game Management Unit 9E was extended through April 30. During its meeting in Anchorage in March 1993, the board adopted an amended version of Proposal No. 117, submitted by the communities of Ivanof Bay and Perryville and the Chignik Fish and Game Advisory Committee. The regulatory change adopted by the board opened the resident hunting season on July 1 in the Pacific Ocean drainage portions of GMU 9E south of Seal Cape. In April, 1993, the Federal Subsistence Board made changes to federal subsistence regulations governing seasons for caribou hunting in GMU 9E that matched these two modifications made earlier by the Alaska Board of Game.

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TABLE 1. POPULATION OF COMMUNITIES OF GAME MANAGEMENT UNITS 9C AND 9E, 1990

<u>Community</u>	<u>1990 Population</u>	<u>Number of Households</u>	<u>Percent Alaska Native<sup>b</sup></u>
<i>Game Management Unit 9C</i>			
King Salmon <sup>a</sup>	429	158	25.2%
Naknek	575	208	41.0%
South Naknek	136	39	79.4%
Remainder, Bristol Bay Borough	3	2	100.0%
Subtotal	1,143	407	39.8%
<i>Game Management Unit 9E</i>			
Chignik <sup>a</sup>	160	46	53.1%
Chignik Lagoon	53	17	56.6%
Chignik Lake	133	34	91.7%
Egegik	122	48	70.5%
Ivanof Bay	35	9	94.3%
Perryville	108	31	94.4%
Pilot Point	53	17	84.9%
Port Heiden	119	42	72.3%
Ugashik	7	4	85.7%
Subtotal	790	248	75.3%
Grand Total	1,933	655	54.3%

<sup>a</sup> Excludes 267 in group quarters in King Salmon and 28 in group quarters in Chignik.

<sup>b</sup> Assumes no Alaska Natives living in group quarters in King Salmon and Chignik.

Source: Alaska Department of Labor 1991

TABLE 2. LEVELS OF PARTICIPATION IN USES OF CARIBOU AND CARIBOU HARVESTS (IN POUNDS USEABLE WEIGHT PER PERSON), ALASKA PENINSULA COMMUNITIES, 1980s AND 1990s

Community	Year	Percentage of Households that:						Harvests, Pounds		Caribou as Percentage of Total
		Used		Harvested Received		Gave		Useable Weight per Person	Caribou	
		Caribou	Caribou	Caribou	Caribou	Caribou	Caribou			
Game Management Unit 9C										
King Salmon	1983	74.4	53.5	44.2	34.9	NA	NA	220.3	73.9	33.5%
Maknek	1983	73.1	48.1	36.5	51.9	NA	NA	188.2	54.6	29.0%
South Naknek	1983	90.5	71.4	57.1	52.4	NA	NA	267.9	147.5	55.1%
Game Management Unit 9E: Bristol Bay Drainage										
Egegik	1984	96.0	80.0	72.0	60.0	64.0	64.0	384.3	232.8	60.6%
Pilot Point/Ugashik	1986/7	90.9	81.8	77.3	45.5	59.1	59.1	441.5	238.3	53.9%
Pilot Point/Ugashik	1991/2	100.0	83.3	83.3	72.2	50.0	50.0	NA	260.7	NA
Port Heiden	1986/7	100.0	70.3	67.6	62.2	51.4	51.4	407.6	244.7	60.0%
Port Heiden	1991/2	100.0	75.0	72.5	75.0	80.0	80.0	NA	227.0	NA
Game Management Unit 9E: Pacific Ocean Drainage										
Chignik	1984	68.4	31.6	21.1	63.2	36.8	36.8	187.9	7.3	3.9%
Chignik	1989	77.1	45.7	22.9	65.7	14.3	14.3	208.6	15.3	7.3%
Chignik	1991/2	86.7	30.0	16.7	80.0	33.3	33.3	353.4	15.3	4.3%
Chignik Lagoon	1984	76.5	29.4	17.6	64.7	29.4	29.4	220.2	10.5	4.8%
Chignik Lagoon	1989	73.3	33.3	20.0	53.3	26.7	26.7	211.4	14.6	6.9%
Chignik Lake	1984	100.0	73.9	73.9	91.3	69.6	69.6	279.0	78.9	28.3%
Chignik Lake	1989	95.2	66.7	57.1	85.7	61.9	61.9	447.6	171.2	38.2%
Chignik Lake <sup>a</sup>	1991/2	100.0	58.3	58.3	79.2	58.3	58.3	442.3	120.0	27.1%
Ivanof Bay	1984	100.0	66.7	66.7	83.3	66.7	66.7	455.6	81.8	18.0%
Ivanof Bay	1989	100.0	85.7	85.7	85.7	57.1	57.1	489.8	107.8	22.0%
Perryville	1984	100.0	40.0	35.0	95.0	50.0	50.0	391.2	38.8	9.9%
Perryville	1989	66.7	37.0	22.2	59.3	25.9	25.9	394.3	28.2	7.2%

<sup>a</sup> Totals for Chignik Lake do not include 1 caribou taken in April 1992 special opening.

Table 3. Historic Harvest of Northern Alaska Peninsula Caribou Herd, 1977-1991.

Year	Reported			Estimated unreported			Total
	Males	Females	Unk. sex	"Sport" <sup>a</sup>	Subsistence <sup>b</sup>	Total	
1977	683	150	21	342	900	2096	
1978	442	123	4	228	900	1697	
1979				245	900	1757	
1980	504	144	0	259	900	1807	
1981	565	129	12	282	900	1888	
1982	402	154	38	238	900	1732	
1983	493	128	18	256	900	1795	
1984	574	167	3	298	900	1942	
1985	612	133	18	297	900	1940	
1986	602	118	31	300	900	1951	
1987	841	158	4	401	900	2304	
1988	841	147	1	396	900	2285	
1989	766	137	0	361	900	2164	
1990	679	110	2	316	900	2007	
1991	688	115	3	322	800	1928	

a Unreported "sport" harvest is estimated at 40 percent of reported harvest based on hunter interviews. This is harvest by non-Alaska residents and state residents who do not live in local communities.

b Subsistence harvest is a "ball park" estimate, and for 1991/92 includes the 63 caribou known to have been killed during the April emergency opening. This is harvest by residents of local communities.

Source: Sellers 1992

TABLE 4. CARIBOU HARVEST ESTIMATES, COMMUNITIES OF GAME MANAGEMENT UNITS 9C AND 9E

<u>Community</u>	<u>Number of Caribou<sup>a</sup></u>								
	<u>1983</u>	<u>1984</u>	<u>1985</u>	<u>1986</u>	<u>1987</u>	<u>1988</u>	<u>1989</u>	<u>1990</u>	<u>1991</u>
<i>Game Management Unit 9C</i>									
King Salmon	182								
Naknek	140								
South Naknek	135								
<i>Game Management Unit 9E: Bristol Bay Drainage</i>									
Egegik		151							
Pilot Point/Ugashik				118					135
Port Heiden				168					174
<i>Game Management Unit 9E: Pacific Ocean Drainage</i>									
Chignik		6					12		13
Chignik Lagoon		5					4		
Chignik Lake		82					129		106
Ivanof Bay		20					23		
Perryville		30					22		

<sup>a</sup> Expanded totals; years are calendar years except 1986 and 1991, which for caribou harvests correspond to the 1986/87 and 1991/92 regulatory years. The 1991/92 data include animals harvested in the special April opening.

Sources: Scott et al. 1992; Division of Subsistence Data files for 1991/92

TABLE 5. HARVESTS OF CARIBOU BY COMMUNITIES OF GAME MANAGEMENT UNITS 9C AND 9E PER COMMUNITY, PER HOUSEHOLD, PER PERSON, AND PER SUCCESSFUL HUNTER

<u>Community</u>	<u>Year</u>	<u>Total</u>	<u>Number of Caribou</u>		
			<u>Per Household</u>	<u>Per Person</u>	<u>Per Successful Hunter</u>
<i>Game Management Unit 9C</i>					
King Salmon	1983	182	1.49	0.49	1.88
Naknek	1983	140	1.14	0.37	2.11
South Naknek	1983	135	2.76	0.98	3.63
<i>Game Management Unit 9E, Bristol Bay Drainage</i>					
Egegik	1984	151	3.60	1.55	4.50
Pilot Point/ Ugashik	1986/7	118	5.13	1.58	3.77
Pilot Point/ Ugashik	1991/2	135	5.89	1.74	5.56
Port Heiden	1986/7	168	4.54	1.63	4.00
Port Heiden	1991/2	174	4.35	1.51	5.15
<i>Game Management Unit 9E, Pacific Ocean Drainage</i>					
Chignik	1984	6	0.21	0.05	1.00
Chignik	1989	12	0.31	0.10	1.11
Chignik	1991/2	13	0.30	0.10	1.50
Chignik Lagoon	1984	5	0.23	0.07	1.33
Chignik Lagoon	1989	4	0.27	0.10	1.00
Chignik Lake	1984	82	2.65	0.52	2.65
Chignik Lake	1989	129	4.61	1.14	4.62
Chignik Lake <sup>a</sup>	1991/2	105	3.18	0.80	2.81
Ivanof Bay	1984	20	2.00	0.55	3.00
Ivanof Bay	1989	23	3.29	0.72	2.09
Perryville	1984	30	1.11	0.26	3.14
Perryville	1989	22	0.71	0.19	2.38

<sup>a</sup> Harvest totals for Chignik Lake do not include 1 animal killed during special April opening.

Source: Scott et al. 1992; Data files, Division of Subsistence for 1991/92

TABLE 6. CARIBOU HARVESTS BY GAME MANAGEMENT UNIT 9E COMMUNITIES IN THE 1991-92 REGULATORY YEAR

<u>Community</u>	<u>Fall Season</u> (August-September)		<u>Winter Season</u> (October-March)		<u>Emergency Opening</u> (April 11 - 14)		<u>Entire Year</u>	
	<u>Hunters</u>	<u>Caribou</u>	<u>Hunters</u>	<u>Caribou</u>	<u>Hunters</u>	<u>Caribou</u>	<u>Hunters</u>	<u>Caribou</u>
Pilot Point <sup>a</sup>	18	52	18	59	14	24	24	135
Port Heiden	29	79	13	26	33	69	35	174
Chignik	NA	NA	NA	NA	0	0	23	13
Chignik Lake <sup>b</sup>	NA	NA	NA	NA	2	1	37	106
Ivanof Bay	No information							
Perryville	No information							
Chignik Lagoon	No information							
Egegik	No information							
TOTAL	NA	NA	NA	NA	49	94	NA	NA

<sup>a</sup> Includes Ugashik

<sup>b</sup> Approximately 37 Chignik Lake residents hunted caribou during the August - March season; their estimated harvest was 105 caribou.

TABLE 7. ESTIMATE OF CURRENT (1990) SUBSISTENCE HARVEST OF NORTHERN ALASKA PENINSULA CARIBOU BY COMMUNITIES OF GMU 9C AND 9E

<u>Community</u>	<u>Year</u>	<u>Total Caribou</u>	<u>Caribou Per Person</u>	<u>1990 Population</u>	<u>Estimated Total Harvest, 1990</u>
<i>Game Management Unit 9C</i>					
King Salmon	1983	182	0.493	429	211
Naknek	1983	140	0.365	575	210
South Naknek	1983	135	0.981	136	133
Subtotal				1,140	554 (0.486/person)
<i>Game Management Unit 9E</i>					
Chignik	1989	12	0.100	160	16
Chignik Lagoon	1989	4	0.098	53	5
Chignik Lake	1989	129	1.138	133	151
Egegik	1984	151	1.550	122	189
Ivanof Bay	1989	23	0.719	35	25
Perryville	1989	22	0.190	108	20
Pilot Point	1986	98	1.517	53	80
Port Heiden	1986	168	1.631	119	194
Ugashik	1986	20	2.000	7	14
Subtotal				790	694 (0.878/person)
Grand Total				1,930	1,248 (0.647/person)

Note: populations for Chignik and King Salmon omit those living in "group quarters."

Source: Scott et al. 1992

TABLE 8. SUBSISTENCE CARIBOU HARVESTS IN ALASKA COMMUNITIES<sup>1</sup>

Note: Communities of Game Management Units 9C and 9E are printed in **bold type**.

	<u>Community</u>	<u>Year</u>	<u>Number of Caribou per Person</u>	<u>Caribou as Percentage of Total Annual Harvest</u>
1.	Anaktuvik Pass	1990/91	2.477	NA
2.	<b>Port Heiden</b>	<b>1986/87</b>	<b>1.631</b>	<b>60.0%</b>
3.	<b>Pilot Point/Ugashik</b>	<b>1986/87</b>	<b>1.582</b>	<b>53.9%</b>
4.	<b>Egegik</b>	<b>1984</b>	<b>1.550</b>	<b>60.6%</b>
5.	Point Lay	1987	1.302	17.2%
6.	Kivalina	1982/83	1.281	22.9%
7.	Nuiqsut	1985	1.280	37.5%
8.	<b>Chignik Lake</b>	<b>1989</b>	<b>1.138</b>	<b>38.2%</b>
9.	Koiliganeq	1987	0.998	18.1%
10.	<b>South Naknek</b>	<b>1983</b>	<b>0.981</b>	<b>55.1%</b>
11.	Kaktovik	1986/87	0.917	25.2%
12.	Nelson Lagoon	1986/87	0.797	46.1%
13.	Levelock	1987/88	0.791	9.4%
14.	Nondalton	1983	0.724	9.3%
15.	<b>Ivanof Bay</b>	<b>1989</b>	<b>0.719</b>	<b>22.0%</b>
16.	New Stuyahok	1987/88	0.716	15.4%
17.	Kotzebue	1986	0.715	24.4%
18.	Ekwok	1987/88	0.533	10.1%
19.	Siana Homestead North	1988	0.506	37.4%
20.	<b>King Salmon</b>	<b>1983</b>	<b>0.493</b>	<b>33.5%</b>
21.	False Pass	1988	0.491	17.2%

Source: Scott et al. 1992; Sverre Pedersen, Division of Subsistence, ADF&G, Fairbanks, personal communication re. Anaktuvik Pass.

<sup>1</sup> This list is mostly limited to communities which appear in the Division of Subsistence Community Profile Database. For the most part, these are communities in which the division has conducted systematic household harvest surveys. Although about 175 communities are included in the database, information is not available for some communities in Interior and Arctic Alaska that harvest substantial numbers of caribou for subsistence use, such as Arctic Village, Venetie, and communities of the Kobuk and Noatak rivers. The data for Anaktuvik Pass are based on household survey data collected by the Division of Subsistence and the North Slope Borough; these data should be considered preliminary.





**KING SALMON  
Subsistence Use Areas**

 Caribou
  Waterfowl

**SOURCES**

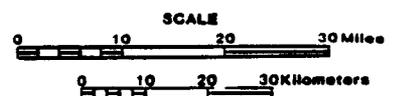
Judith Morris, field research 1982 and 1983. See Division of Subsistence Technical Paper #114, "Bristol Bay Regional Subsistence Profile" (1985) for description of methodology and further information.

ADF&G 1986, Alaska Habitat Management Guides Reference Atlas, Southwest Region, Volume 4.

**METHODOLOGY**

Data were collected through interviews with 20 King Salmon residents. Data represent contemporary resource use areas, defined as areas used over the 1963 to 1983 time period.

Data depicted on this map are based on research conducted in 1982 and 1983. Other areas may also be used for resource harvesting. Consult with local communities for definitive information.



Produced by the  
State of Alaska, Department of Fish and Game,  
Division of Subsistence,  
May 1988

Figure 2  
26

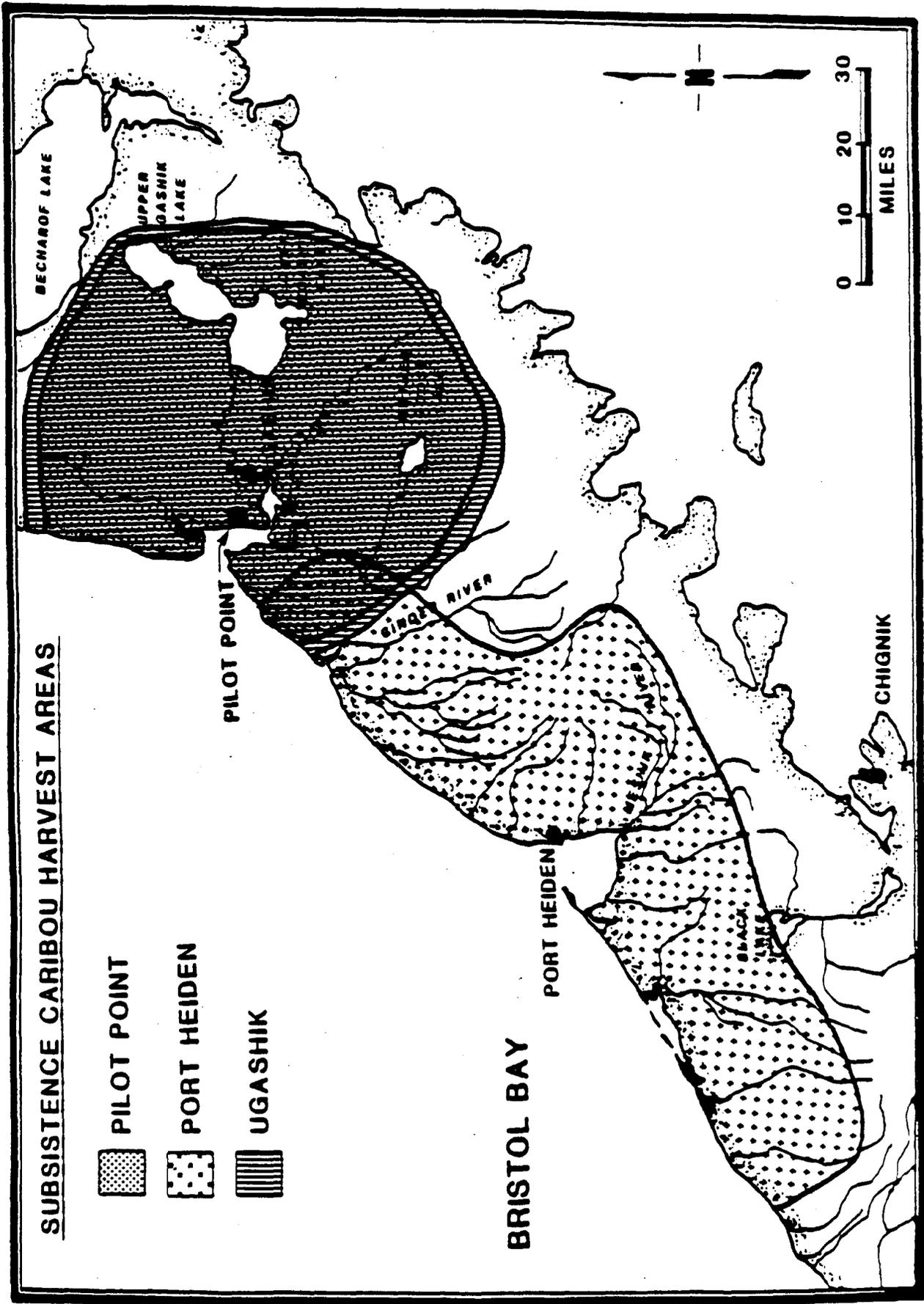
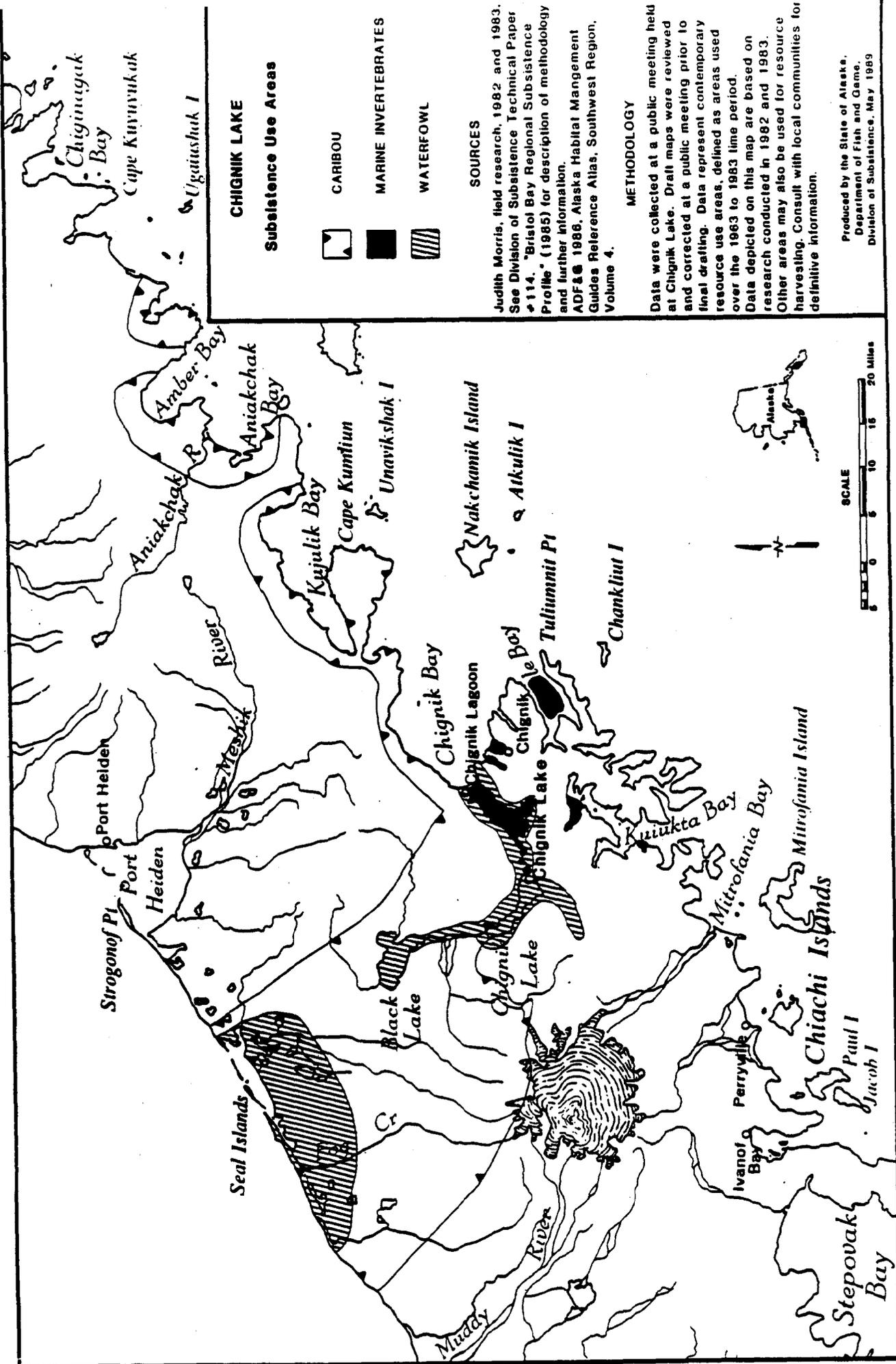


Figure 3 Harvest Areas, Caribou, Pilot Point, Ugashik, and Port Heiden, 1963 - 1983.



**CHIGNIK LAKE**

**Subistence Use Areas**

- CARIBOU
- MARINE INVERTEBRATES
- WATERFOWL

**SOURCES**

Judith Morris, field research, 1982 and 1983. See Division of Subsistence Technical Paper # 114, "Bristol Bay Regional Subsistence Profile" (1985) for description of methodology and further information. ADF&G 1986, Alaska Habitat Management Guides Reference Atlas, Southwest Region, Volume 4.

**METHODOLOGY**

Data were collected at a public meeting held at Chignik Lake. Draft maps were reviewed and corrected at a public meeting prior to final drafting. Data represent contemporary resource use areas, defined as areas used over the 1963 to 1983 time period. Data depicted on this map are based on research conducted in 1982 and 1983. Other areas may also be used for resource harvesting. Consult with local communities for definitive information.

Produced by the State of Alaska,  
Department of Fish and Game,  
Division of Subsistence, May 1989

Figure 4

**CHIGNIK**

**Subsistence Use Areas**

-  CARBOU AND MOOSE
-  CLAMS

**SOURCES**

Judith Morris, field research 1982 and 1983. See Division of Subsistence Technical Paper #114, "Bristol Bay Regional Subsistence Profile" (1985) for description of methodology and further information.

ADFG 1986, Alaska Habitat Management Guides Reference Atlas, Southwest Region, Volume 4.

**METHODOLOGY**

Data were collected through interviews with four local resource experts in Chignik. Draft maps were reviewed and corrected at a public meeting prior to final drafting. Data represent contemporary resource use areas, defined as areas used over the 1963 to 1983 time period.

Data depicted on this map are based on research conducted in 1982 and 1983. Other areas may also be used for resource harvesting. Consult with local communities for definitive information.



Produced By the  
State of Alaska, Department of Fish and Game  
Subsistence Division  
May 1988

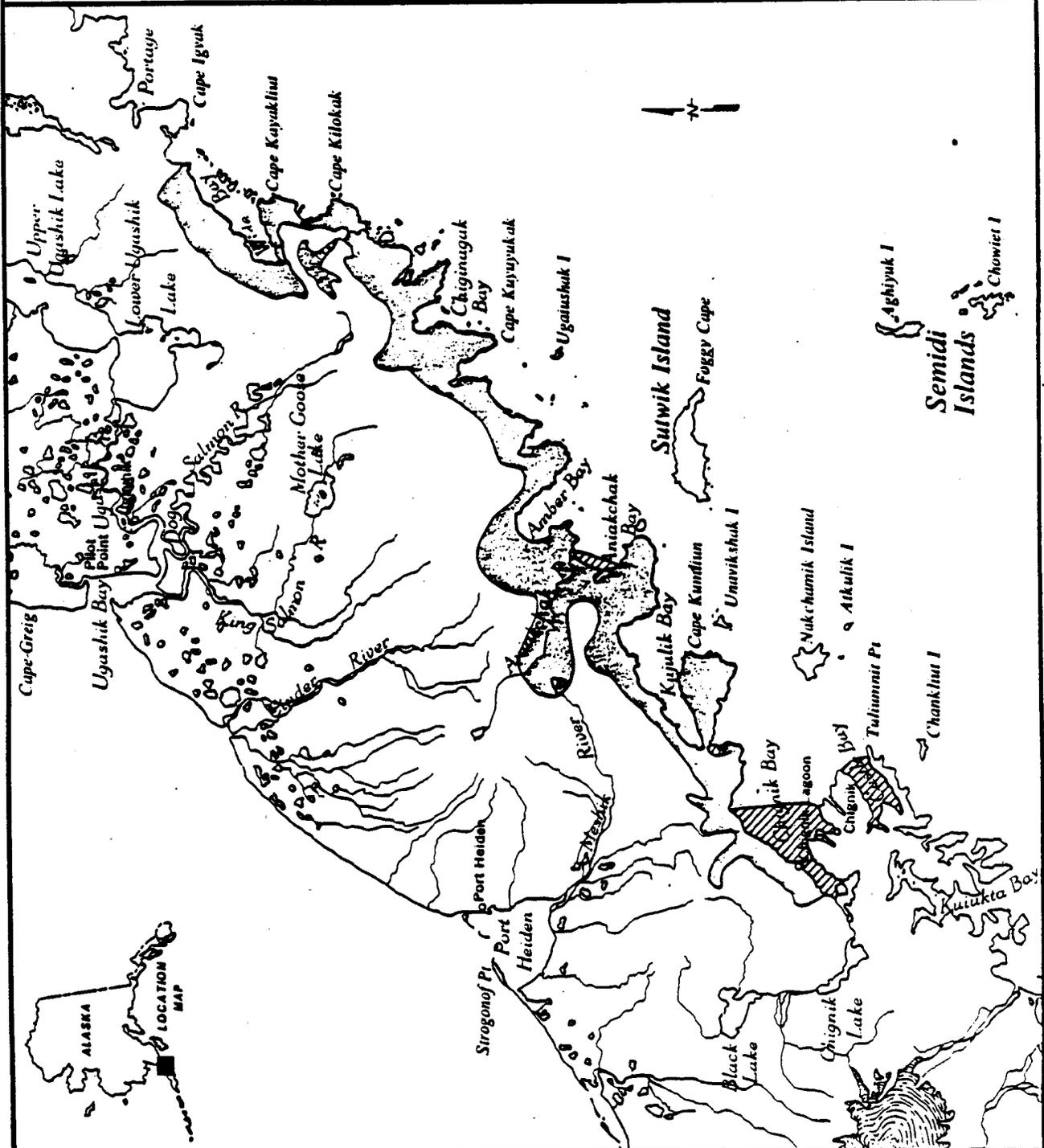


Figure 6



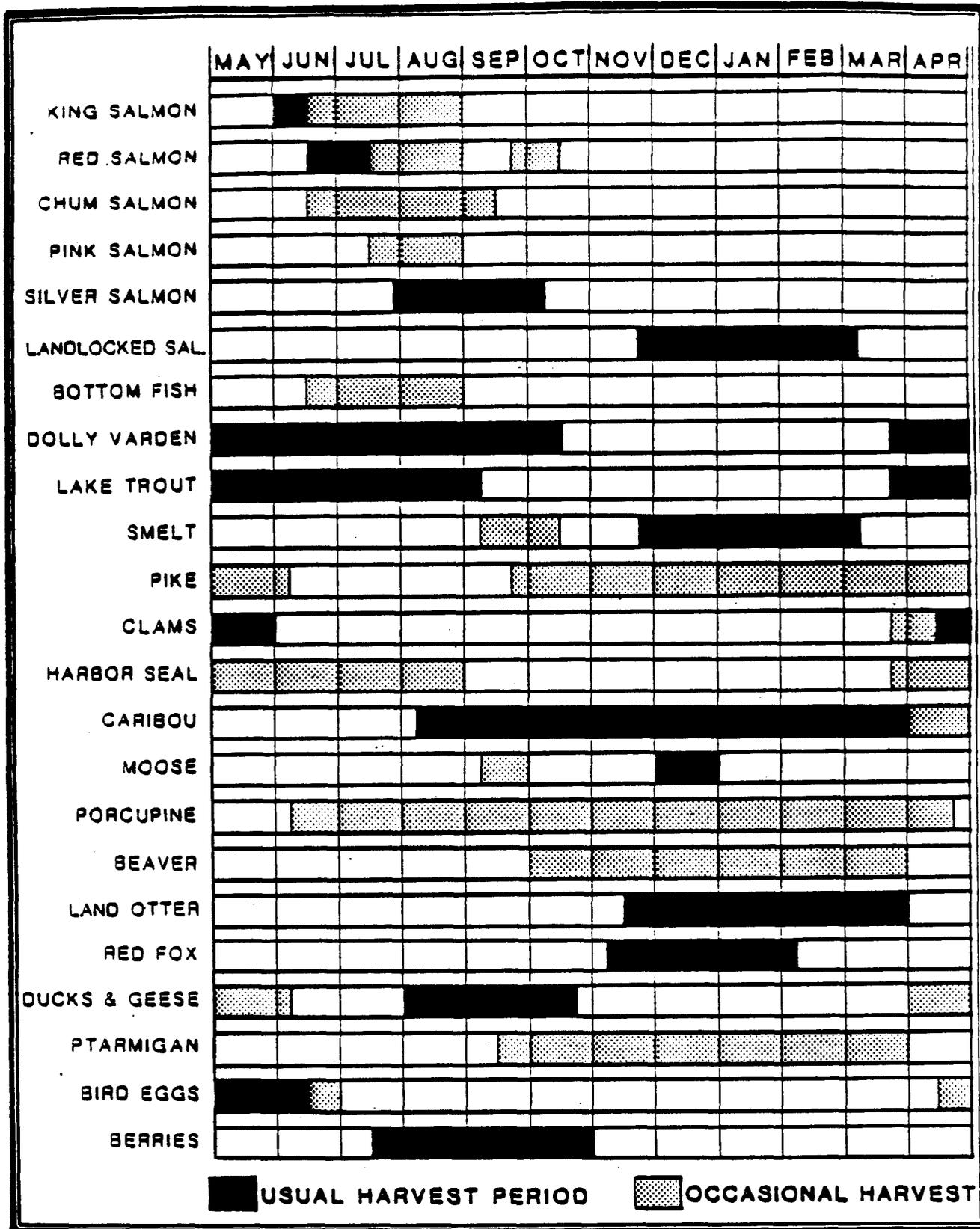


Figure 7. Seasonal Round of Resource Harvesting Activities, Pilot Point, Ugashik, and Port Heiden.

**Figure 8. Caribou Harvests As Percentage of Total Harvest**

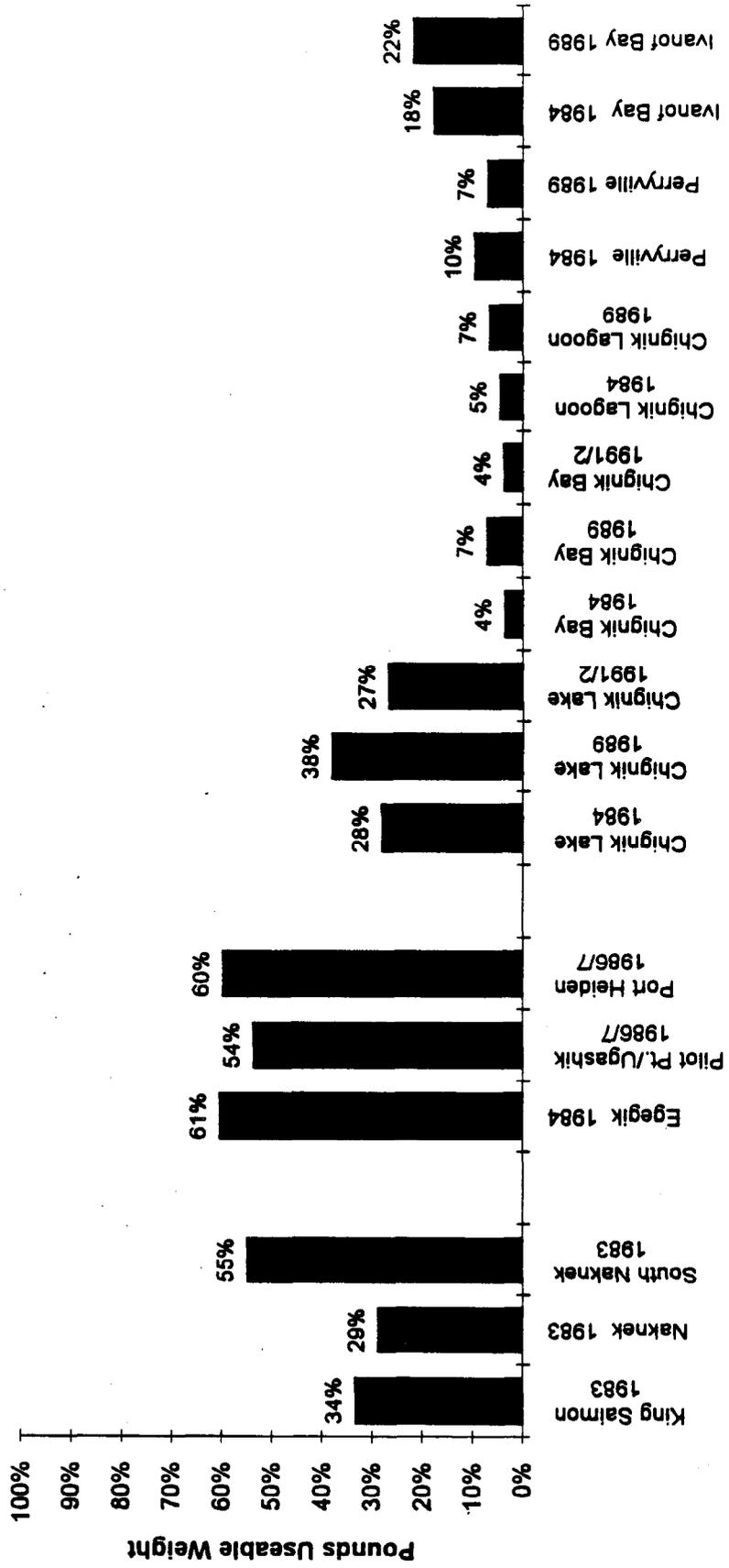


Figure 9. Per Capita Caribou Harvests

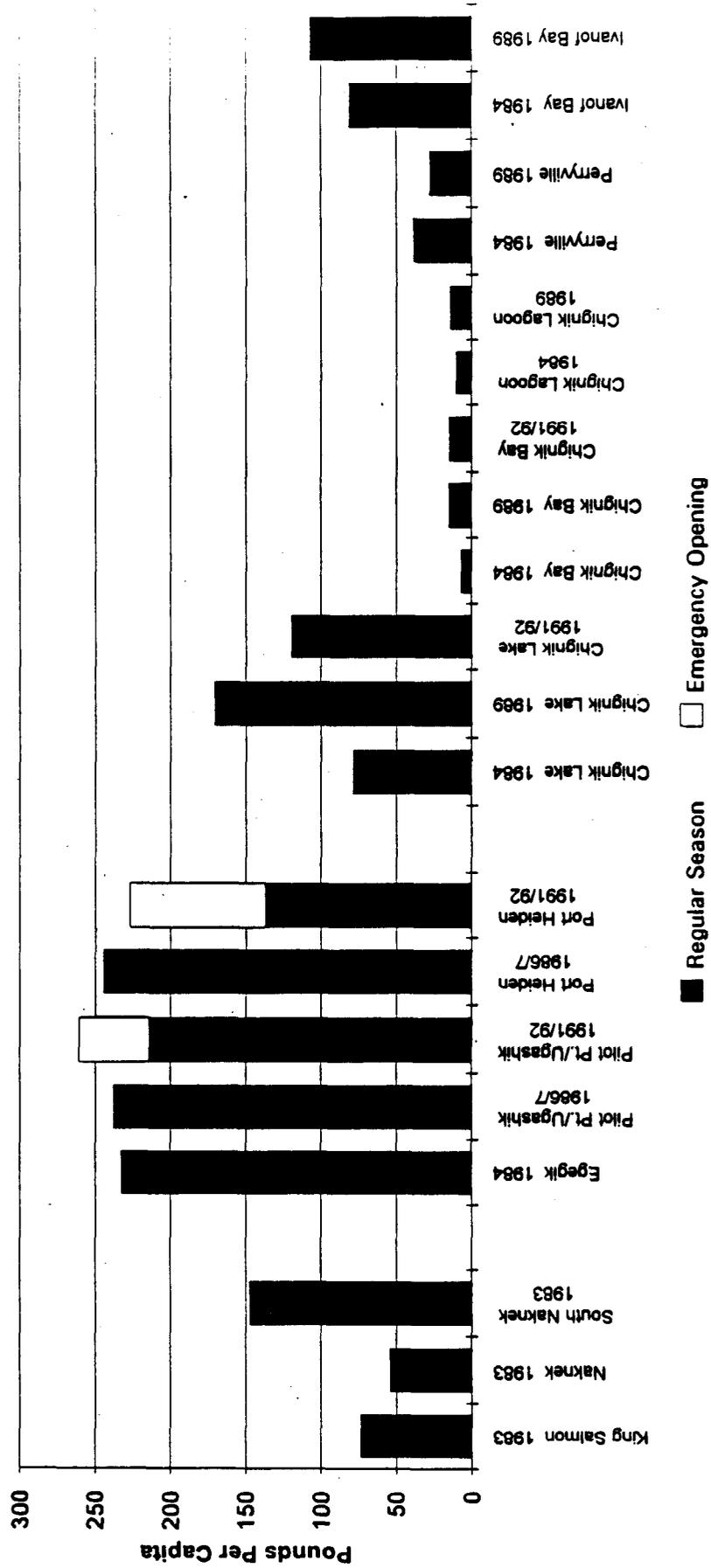
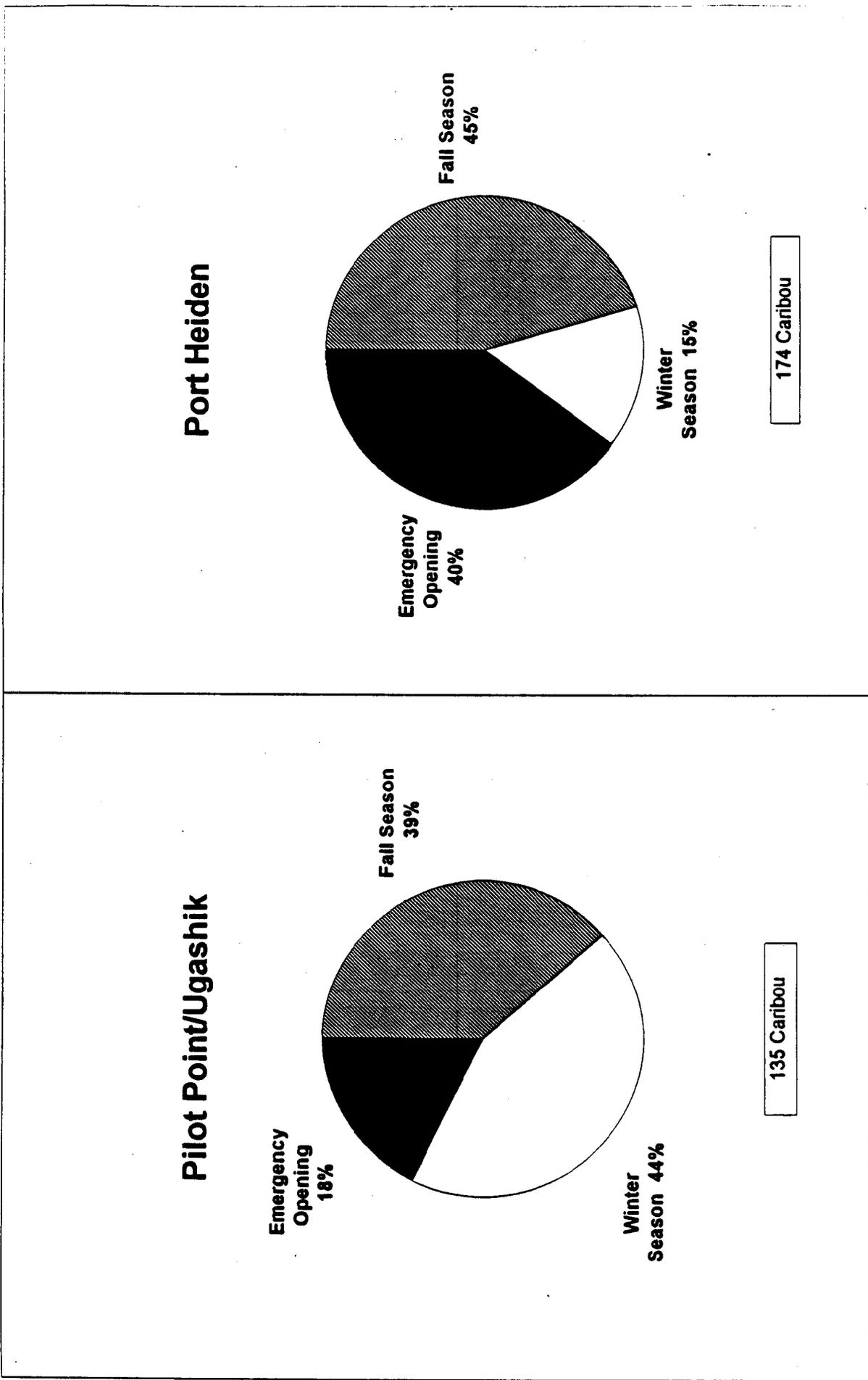


Figure 10. Caribou Harvests by Game Management Unit 9E Communities in the 1991-92 Regulatory Year



SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Caribou Survey, 1992.

APPENDIX A  
FINDING OF EMERGENCY

The Alaska Department of Fish and Game finds that an emergency exists and that the attached amendment is necessary for the immediate preservation of the public general welfare. A statement of the facts constituting the emergency is:

1. The general and subsistence caribou hunt in Unit 9(E) closed on March 31 as specified in 5 AAC 85.025(3).
2. In the last decade at least, caribou have normally been available in significant numbers near Port Heiden by mid-March, and have been harvested by residents of southern Alaska Peninsula communities, including Port Heiden and Pilot Point. Residents of these communities customarily and traditionally harvest significant numbers of caribou (for example, in April 1988 residents of Port Heiden took 40 caribou during a two day hunt).
3. This year unusual weather conditions on the southern Alaska Peninsula delayed movement of significant numbers of caribou south to the Port Heiden area by approximately one month, and residents of these communities have taken significantly fewer caribou than usual.
4. An additional limited harvest of bulls this spring can be allowed without significant long-term adverse effects to the Alaska Peninsula caribou herd.
5. Allowing an additional four day season in April for the taking of up to 75 antlerless caribou to be opened by emergency order of the Commissioner will provide residents of communities in Southern Unit 9(E) a reasonable opportunity to harvest caribou in customary areas this spring and is necessary for the general public welfare.

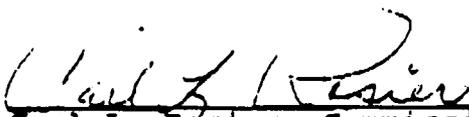
ADOPTION ORDER

Under authority of AS 16.05.255, AS 16.05.258, and AS 16.05.270, and by delegation of authority from the Board of Game, the attached amendments are therefore adopted as emergency regulation to take effect immediately upon filing by the Lieutenant Governor, as provided in AS 44.62.180(3).

This action is not expected to require an increased appropriation.

DATE:

4/14/92  
Juneau, Alaska

  
\_\_\_\_\_  
Carl L. Rosier, Commissioner  
Alaska Department of Fish and Game

PART 3. GAME

CHAPTER 85. HUNTING SEASONS AND BAG LIMITS

ARTICLE 2. Seasons and Bag Limits

5 AAC 85.025(a)(3) is amended to read:

5 AAC 85.025. HUNTING SEASONS AND BAG LIMITS FOR CARIBOU.  
(a) . . .

	<b>Resident</b>	
	<b>Open Season</b>	
	<b>(Subsistence and</b>	<b>Nonresident</b>
<b>Units and Bag limits</b>	<b>General Hunts)</b>	<b>Open Season</b>

(3)

Units 9(A), 9(B),  
9(C), 9(E), 17(B),  
and that portion of  
17(C) east of the  
Nushagak River

RESIDENT HUNTERS: Aug. 10--Mar. 31  
4 caribou; however,  
no more than 2 caribou  
may be taken Aug, 10--  
Aug. 31 and no more than  
1 caribou may be taken  
Sept. 1--Nov. 30.

NONRESIDENT HUNTERS:  
1 Caribou Aug. 10--Mar. 31

Register , 1992

EMERGENCY REGULATIONS  
FISH AND GAME

Unit 9(E), that  
portion south of  
and including the  
Ugashik drainage  
and including the  
drainage of Dago Creek

RESIDENT HUNTERS:  
1 antlerless caribou  
during a 4 day April  
season to be announced  
by Emergency Order;  
up to 75 caribou may  
be taken.

April season to be  
announced.

NONRESIDENT HUNTERS:

No open season.

(Eff. 8/20/89, Register 111; am 8/9/90, Register 115; am 8/10/90,  
Register 115; am 12/27/90, Register 116; em am 12/17/90--4/15/91,  
Register 117; am 6/16/91, Register 118; am 8/10/91, Register 119;  
em am 8/21/91--12/18/91, Register 119; am / /92, Register )

**AUTHORITY:** AS 16,05.255

AS 16.05.258

# HUNTING-TRAPPING

## Emergency Order

ALASKA DEPARTMENT  
OF FISH AND GAME

Under Authority of AS 16.05.060

Emergency Order No. 02-02-92

Issued at King Salmon, Alaska  
April 17, 1992

Effective Date: 12:01 a.m.  
April 18, 1992

Expiration Date: June 30, 1992  
unless superseded by  
subsequent emergency order

### EXPLANATION:

This emergency order implements an emergency regulation adopted by delegation of authority from the Board of Game and under the Commissioner's authority in AS 16.05.255, AS 16.05.258 and AS 16.05.270 to establish a resident/subsistence open season from April 18 to April 21 for caribou in that portion of Subunit 9(E) south of and including the Ugashik drainage and including the drainage of Dago Creek with a bag limit of 1 antlerless caribou.

### REGULATION:

Therefore 5 AAC 85.025(a)(3) is amended to read:

5 AAC 85.025. HUNTING SEASONS AND BAG LIMITS FOR CARIBOU.

(a) ...

Units and Bag limits	Resident Open Season (Subsistence and General Hunts)	Nonresident Open Season
----------------------	---	----------------------------

(3)

Units 9(A), 9(B), 9(C),  
9(E), 17(B), and that  
portion of 17(c) east of  
the Nushagak River

<p>RESIDENT HUNTERS: 4 caribou; however, no more than 2 caribou may be taken Aug. 10-- Aug. 31 and no more than 1 caribou may be taken Sept. 1--Nov. 30.</p>	<p>Aug. 10--Mar. 31</p>
--	-------------------------

April 17, 1992

NONRESIDENT HUNTERS:  
1 caribou.

Aug. 10--Mar. 31

Unit 9(E), that portion south  
of and including the Ugashik  
drainage and including the  
drainage of Dago Creek

RESIDENT HUNTERS:  
1 antlerless caribou,  
up to 75 caribou may be  
taken.

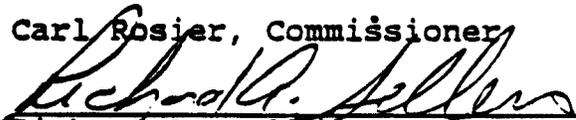
April 18--April 21

NONRESIDENT HUNTERS:

No open season.

Carl Rosier, Commissioner

By delegation to:

  
Richard A. Sellers  
Wildlife Biologist

JUSTIFICATION:

Due to late migration of caribou towards their calving grounds this spring, residents in southern 9(E) did not have an opportunity to hunt during the traditional late winter season which closed on March 31. An additional limited harvest primarily of bulls during April will not adversely affect the Northern Alaska Peninsula caribou herd. It is anticipated that the harvest under this emergency season will not exceed 75 caribou.

DISTRIBUTION:

This emergency order is distributed to the recipients listed below. Copies are available from Department of Fish and Game offices in King Salmon, Anchorage and Juneau.

Lt. Governor's Office  
Atty. General's Office, Anchorage  
Commissioner, Department of Fish and Game  
Division of Wildlife Conservation  
    Director  
    Deputy Director  
    Regional Supervisors  
    Region II Area Biologists  
Division of Boards  
    Director  
    Dillingham Office  
Division of Subsistence

Anchorage Office  
Dillingham Office  
Public Communication Section, Juneau  
Department of Public Safety, Fish and Wildlife Protection Div.  
King Salmon Office  
Kodiak Detachment  
U.S. Fish and Wildlife Service  
Regional Director, Anchorage  
Refuge Manager, Becharof/Alaska Peninsula NWR  
U.S. National Park Service  
Regional Director, Anchorage  
Superintendent, Katmai and Aniakchak  
Chairperson, Lower Bristol Bay Advisory Committee  
Bristol Bay Native Association  
Pilot Point Village Council  
Port Heiden Village Council  
Chignik Lake Village Council  
Chignik Lagoon Village Council  
Chignik Bay Village Council  
Perryville Village Council  
Ivanof Bay Village Council  
KDLG Radio Station

BOARD OF GAME PROPOSAL NO. 9. NOVEMBER 1992

CARIBOU HUNTING SEASON IN GMU 9E

The following proposal will be discussed by the Alaska Board of Game in Fairbanks starting November 9. If passed, the caribou season in GMU 9E will be extended for a month, through April 30. The present regulation is printed first, then the proposed changed regulation is printed, with the changed parts underlined. The Board may pass the proposal, amend it, or reject it. Comments can be sent to:

ATTN: BOG COMMENTS  
Alaska Department of Fish and Game  
Division of Boards  
P.O. Box 25526  
Juneau, Alaska 99802-5526

For more information, contact the Division of Subsistence in Anchorage (267-2353; ask for Jim Fall or Lisa Scarbrough) or Dillingham (842-5925; ask for Pippa Coiley or Molly Chythlook), or the Division of Wildlife Conservation in King Salmon (246-3340; ask for Dick Sellers).

.....

**PROPOSAL 9 - 5 AAC 85.025.(a)(3). HUNTING SEASONS AND BAG LIMITS FOR CARIBOU.** Extend open season in Unit 9(E) to April 30.

**NOTE:** The Board of Game is taking up the topic of this proposal out of sequence with the schedule of sections to open for proposed change at the request of the Department. The board concurred with this change to its schedule at the Spring 1992 meeting and requested the Department to submit this proposal for consideration at the Fall 1992 meeting.

Units and Bag Limits	Resident Open Season (Subsistence and General Hunts)	Nonresident Open Season
(3) Units 9(A), 9(B), 9(C), [9(E).], 17(B), and that portion of 17(C) east of the Nushagak River	Aug. 10--Mar. 31	
RESIDENT HUNTERS: 4 caribou; however, no more than 2 caribou may be taken Aug. 10--Aug. 31 and no more than 1 caribou may be taken Sept. 1-- Nov. 30		
NONRESIDENT HUNTERS: 1 caribou		Aug. 10--Mar. 31

(over please)

Unit 9(E)

RESIDENT HUNTERS: 4  
caribou; however, no more  
than 2 caribou may be  
taken Aug. 10--Aug. 31 and  
no more than 1 caribou  
may be taken Sept. 1--Nov.  
30, and no more than 2  
caribou may be taken  
April 1--April 30

Aug. 10--Apr. 30

NONRESIDENT HUNTERS:  
1 caribou

Aug. 10--Mar.  
31

**PROBLEM:** Delayed spring migration by Northern Alaska Peninsula (NAP) caribou has reduced hunting opportunity for residents of Subunit 9(E). The Board of Game has issued 3 Emergency Regulations to allow short hunts in April, 1988 and 1992. One other request was not acted upon. Hunting opportunity to meet local demand can be provided in April without jeopardizing the health of the herd through adoption of this proposal.

**WHAT WILL HAPPEN IF NOTHING IS DONE?** Local needs of villages in 9(E) on occasion will not be met under existing regulations and more petitions will be sent to the Board for emergency openings. If the Mulchatna caribou herd continues to increase and become more popular with urban hunters, there may be surplus harvests available from the NAP herd. At this time it is desirable for more female caribou to be harvested to keep the NAP herd stable, and late winter/early spring hunting results in a larger proportion of females in the harvest.

**WHO IS LIKELY TO BENEFIT?** This change will primarily benefit local residents of 9(E). Other Alaskans would, under current subsistence regulations, still be able to participate. However, aircraft access in April normally is quite limited because of spring breakup, and participation by nonlocal hunters is expected to be low.

**WHO IS LIKELY TO SUFFER?** No one.

**OTHER SOLUTIONS CONSIDERED?** A smaller bag limit and less than full month of additional hunting were considered, but were not selected because of information from the 1991/92 harvest and 1992 photo census. The reported harvests for 1990/91 and 1991/92 were down slightly (average = 800) compared to an average of 965 for the 3 previous seasons. Preliminary estimates from the 1992 photo census for the NAP herd at the upper range of its population objective (i.e. near 20,000). This proposed regulation will not result in a substantial increase in harvest; rather it will accommodate what is considered a small traditional harvest by residents of 9(E). If harvests do increase under this proposal, this should contribute to the management objective of keeping the herd NAP stable.

**PROPOSED BY:** The Alaska Department of Fish and Game (HQ-93-G-21)  
.....

APPENDIX C

DIVISION OF SUBSISTENCE, ALASKA DEPARTMENT OF FISH AND GAME  
 NORTHERN ALASKA PENINSULA CARIBOU HARVEST SUMMARY FORM, 1991-92

The purpose of this form is to record harvest and use information about the Northern Alaska Peninsula caribou herd. Hunting regulations for this herd will be a topic of discussions at the Alaska Board of Game in November 1992. This information will assist local communities, advisory committees, and the department in these discussions. Specific responses to these questions will remain strictly confidential.

COMMUNITY NAME: \_\_\_\_\_

HOUSEHOLD ID #: \_\_\_\_\_ (included so we don't get duplicate responses)

DATE: \_\_\_\_\_

INTERVIEWER: \_\_\_\_\_

HOUSEHOLD SIZE: \_\_\_\_\_

DID THIS HOUSEHOLD USE CARIBOU BETWEEN  
 AUGUST 1, 1991 AND APRIL 30, 1992?      Yes \_\_\_\_\_ No \_\_\_\_\_

DID ANYONE FROM THIS HOUSEHOLD HUNT CARIBOU  
 AT ANY TIME WITHIN THIS PERIOD?      Yes \_\_\_\_\_ No \_\_\_\_\_

HOW MANY PERSONS IN THIS HOUSEHOLD HUNTED  
 CARIBOU AT ANY TIME DURING THIS PERIOD? \_\_\_\_\_

HARVEST QUANTITIES BY SEASON AND SEX FOR 1991 - 1992

Please include all animals shot and killed by all caribou hunters in the household in the 1991-92 regulatory year. Include animals household members killed and gave away. Do not include animals that others gave to you.

	Hunted?	Number of Animals Harvested			Total
	Yes/No	Bulls	Cows	Unknown	
August 1 - August 31	_____	_____	_____	_____	_____
September 1 - November 30	_____	_____	_____	_____	_____
December 1 - March 31	_____	_____	_____	_____	_____
April 1 - April 30	_____	_____	_____	_____	_____
TOTALS	_____	_____	_____	_____	_____

HOW DID THESE HARVEST TOTALS COMPARE TO OTHER RECENT YEARS? \_\_\_\_\_

CARIBOU HARVEST SUMMARY, continued.

DID THIS HOUSEHOLD RECEIVE CARIBOU MEAT  
DURING THE SPECIAL OPENING IN APRIL 1992?      Yes \_\_\_\_\_      No \_\_\_\_\_

DID THIS HOUSEHOLD RECEIVE CARIBOU MEAT DURING  
ANY OTHER TIME BETWEEN AUGUST 1991 AND MARCH 1992?      Yes \_\_\_\_\_      No \_\_\_\_\_

IF YES, FROM WHICH COMMUNITIES? \_\_\_\_\_

DID THIS HOUSEHOLD GIVE AWAY CARIBOU MEAT DURING  
THE SPECIAL OPENING IN APRIL 1992?      Yes \_\_\_\_\_      No \_\_\_\_\_

DID THIS HOUSEHOLD GIVE AWAY CARIBOU MEAT DURING  
ANY OTHER TIME BETWEEN AUGUST 1991 AND MARCH 1992?      Yes \_\_\_\_\_      No \_\_\_\_\_

IF YES, TO WHICH COMMUNITIES? \_\_\_\_\_

NORMALLY, HOW MANY CARIBOU DOES  
THIS HOUSEHOLD USE DURING A YEAR? \_\_\_\_\_

IF YOU HUNTED DURING THE SPECIAL OPENING, DO YOU HAVE ANY COMMENTS?

WHAT SEASON DATES FOR CARIBOU HUNTING WOULD YOU PREFER?

DO YOU HAVE ANY COMMENTS OR SUGGESTIONS ABOUT THE CARIBOU SEASONS OR BAG  
LIMITS?

**APPENDIX D: CARIBOU HUNTING REGULATIONS 1960 - 1992, GAME MANAGEMENT UNIT 9E**

<b>Regulatory Year</b>	<b>Seasons</b>	<b>Total Days</b>	<b>Bag Limits, Areas, Conditions</b>
<b>1960</b>	Jan. 1 - March 31 Aug. 20 - Dec. 31	224	3 caribou; GMU 9.
<b>1961-63</b>	Aug. 20 - Mar. 31	224	3 caribou; GMU 9.
<b>1963-64</b>	Aug. 10 - Mar. 31	235	3 caribou; GMU 9.
<b>1964-65</b>	Aug. 10 - Mar. 31	234	4 caribou; GMU 9.
<b>1965-67</b>	Aug. 10 - Mar. 31	234	3 caribou; GMU 9.
<b>1967-68</b>	Aug. 10 - Mar. 31	235	3 caribou; GMU 9.
<b>1968-71</b>	Aug. 10 - Mar. 31	234	3 caribou; GMU 9.
<b>1971-72</b>	Aug. 10 - Mar. 31	235	3 caribou; GMU 9.
<b>1972-73</b>	Jul. 1 - Jun. 30	365	3 caribou; GMU 9.
<b>1973-75</b>	Jul. 1 - Jun. 30	365	5 caribou; GMU 9, provided that not more than 3 caribou be taken from Aug. 10 - Nov. 30.
<b>1975-76</b>	Jul. 1 - Jun. 30	366	5 caribou; GMU 9, provided that not more than 3 caribou be taken from Aug. 10 - Nov. 30.
<b>1976-77</b>	Aug. 10 - Oct. 15 Dec. 1 - Mar. 31	188	3 antlered caribou; GMU 9, provided that not more than 1 caribou may be taken Aug. 10 - Oct. 15.
<b>1977-78</b>	Aug. 10 - Mar. 31	234	4 antlered caribou; GMU 9, provided that not more 1 caribou may be taken from Aug. 10 - Oct. 31.
<b>— Subunits within GMU 9 created in 1978-79 —</b>			
<b>1978-79</b>	Aug. 10 - Mar. 31	234	4 antlered caribou; GMU 9E, provided that not more than 1 caribou may be taken from Aug. 10 - Oct. 31.
<b>1979-80</b>	Aug. 10 - Mar. 31	235	4 antlered caribou; GMU 9E, provided that not more than 1 caribou may be taken from Aug. 10 - Oct. 31.
<b>1980-83</b>	Aug. 10 - Mar. 31	234	4 caribou; GMU 9E, however not more than 1 caribou may be taken from Aug. 10 - Oct. 31.
<b>1983-84</b>	Aug. 10 - Mar. 31	235	4 caribou; GMU 9E, however not more than 1 caribou may be taken from Aug. 10 - Oct. 31.
<b>1984-85</b>	Aug. 10 - Mar. 31	234	4 caribou; GMU 9E, however not more than 1 caribou may be taken from Sept. 1 - Oct. 31.
<b>1985-86</b>	Aug. 10 - Mar. 31	234	4 caribou; GMU 9E, however not more than 2 caribou may be taken from Aug. 10 - Aug. 31 and not more than 1 caribou may be taken from Sept. 1 - Oct. 31.

CARIBOU - GMU 9E

Regulatory Year	Seasons	Total Days	Bag Limits, Areas, Conditions
1986-87	Aug. 10 - Mar. 31	234	4 caribou for residents and 2 caribou for nonresidents; as of Aug. 14 the bag limit became 1 caribou per emergency order; GMU 9E.
1987-88	Aug. 10 - Mar. 31	235	4 caribou for residents and 2 caribou for nonresidents; GMU 9E, however not more than 2 caribou may be taken from Aug. 10 - Aug. 31 and not more than 1 caribou may be taken from Sept. 1 - Oct. 31.
	April 11 - April 12	2	1 antlered caribou; GMU 9E, south of the Cinder and Aniakchak River drainages [emergency regulation].
<b>1988-90</b>			
Resident/Nonresident Hunt	Aug. 10 - Mar. 31	234	4 caribou for residents and 1 caribou for nonresidents; GMU 9E, however not more than 2 caribou may be taken from Aug. 10 - Aug. 31 and not more than 1 caribou may be taken from Sept. 1 - Nov. 30.
Subsistence Hunt	Aug. 10 - Mar. 31	234	4 caribou; GMU 9E.
<b>1990-91</b>			
Resident/Nonresident Hunt	Aug. 10 - Mar. 31	234	4 caribou for residents and 1 caribou for nonresidents; GMU 9E, however not more than 2 caribou may be taken from Aug. 10 - Aug. 31, and not more than 1 caribou may be taken from Sept. 1 - Nov. 30.
<b>1991-92</b>			
Resident/Nonresident Hunt	Aug. 10 - Mar. 31	235	4 caribou for residents and 1 caribou for nonresidents; GMU 9E, however not more than 2 caribou may be taken from Aug. 10 - Aug. 31 and not more than 1 caribou may be taken from Sept. 1 - Nov. 30.
Resident Only Hunt	April 18 - 21	4	1 caribou; GMU 9E, that portion south of and including the Ugashik River drainage and including the drainage of Dago Creek [Emergency Order 02-02-91].