

ANNUAL REPORT ON CARIBOU MANAGEMENT ON ADAK ISLAND, ALASKA

1991-1992

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Naval community on Adak. Adak is an expensive facility to operate and maintain; plus, its location is no longer of the strategic importance it once was. "Scale-down" is underway; the questions are "how far?" and "how fast?". Indications are that reductions in personnel will occur gradually over the next several years with the possibility that assignments to Adak may become unaccompanied after 1995 or 1996. Should unaccompanied tours become a reality, there would be a dramatic impact on management of the Adak caribou herd. The number of potential hunters would decline significantly and with limited ways of utilizing the meat, interest in sport hunting would likely decline as well. Some trophy hunting would undoubtedly continue, but annual production would almost certainly exceed annual harvest.

We have been concerned for some time that the herd may have already exceeded the hunters' capacity to control its growth. However, harvest and survey data this year were somewhat reassuring; these data indicate that the pre-hunt population (August 1991) was approximately 450 (Table 1). It is our recommendation and intent to continue to maximize the caribou harvest on Adak. It seems only prudent, in light of a probable reduction in hunters, to forestall any expansion of the herd as long as possible. Some thought should also be given to the possibility that population control or total removal may be required sometime in the not too distant future.

## Background

Caribou (Rangifer tarandus) were introduced to Adak Island in 1958 and 1959 as a ready source of food in event that a national emergency cut off the regular food supply to the military and to provide sport hunting opportunities for local residents. A Caribou Management Cooperative Agreement was developed by the U.S. Navy (Adak), U.S. Fish and Wildlife Service, and Alaska Department of Fish and Game. It was recognized from the outset that the absence of natural predators, the abundance of apparently excellent habitat, and the mild climate created conditions favorable for the herd to increase beyond the capacity of local hunters to control. The first hunting season (August 15-25) was conducted in 1964. The initial population objective was to maintain a herd of 200-250 with an annual harvest of 50 animals. Over the years both the herd and the harvest have increased beyond the original objective. At present, the pre-hunting season population is between 450-550 and the annual harvest about 200 (Table 1).

## Population

No aircraft suitable for aerial surveys are based at Adak, however U.S. Coast Guard helicopters and agency aircraft do pass through occasionally. These aircraft are used on an opportunistic basis to survey the population. Census data from a February 1991 flight combined with known harvest information indicated the population

Table 1. Recent data on the Adak caribou population.

Season	Pre-hunt Population (August)	Harvest	Pre-calving Population (April)	Multiplier <sup>a</sup>
1989-90	480-513 (497) <sup>b</sup>	212	268-301 (285)	1.88
1990-91	513-556 (535)	201	312-355 (334)	1.31
1991-92	437	198	239	

<sup>a</sup>Rate of increase necessary to explain the increase of the caribou population from 285 to 535 over the summer of 1990 and from 334 to 437 over the summer of 1991.

<sup>b</sup>Mid-point of range.

may have contained over 550 animals just prior to the hunting season in 1990 (Table 1). A post hunting season flight on April 30, 1992 in a 'Twin Otter' resulted in a census of 239 animals (see Fig. 1 for distribution); this combined with a harvest of 198 indicates a pre-season population of at least 437. The 'Twin Otter' proved to be a better survey aircraft than expected; it was equipped with bubble windows for two observers and a table for a data recorder. Weather and visibility were good for the entire flight; over-lapping, parallel transects were flown over all areas where caribou would be expected. Coverage of the island was thorough and it seems unlikely that a large number of animals went undetected.

#### 1991-1992 Harvest Statistics

During the 1991-92 hunting season (September 1991 - March, 1992),

198 caribou were harvested; 93 (47%) bulls and 105 (53%) cows (Table 2). Interest in caribou hunting continues to increase with a record 403 permits issued; 350 (87%) were returned. Resident hunters out numbered non-resident hunters 4:1. Hunter success was 48%, based on the number of hunters that actually hunted and returned their permit; 62 hunters killed two caribou and 74 killed one. There was little difference this year in time spent afield by successful hunters (5.7 days) compared to unsuccessful hunters (5.6 days). The harvest was even more concentrated in the September-November period than in past years with over 84% of the kill during this period.

#### Harvest Trends

The 1991-92 harvest of 198 caribou was the third highest on record and only three animals less than the 1990-91 harvest (Fig. 2). Harvests for the past three years (1989-90, 90-91 & 91-92) have averaged 204; however, it seems unlikely that harvests can be sustained at this level if recent survey flights have been at all accurate.

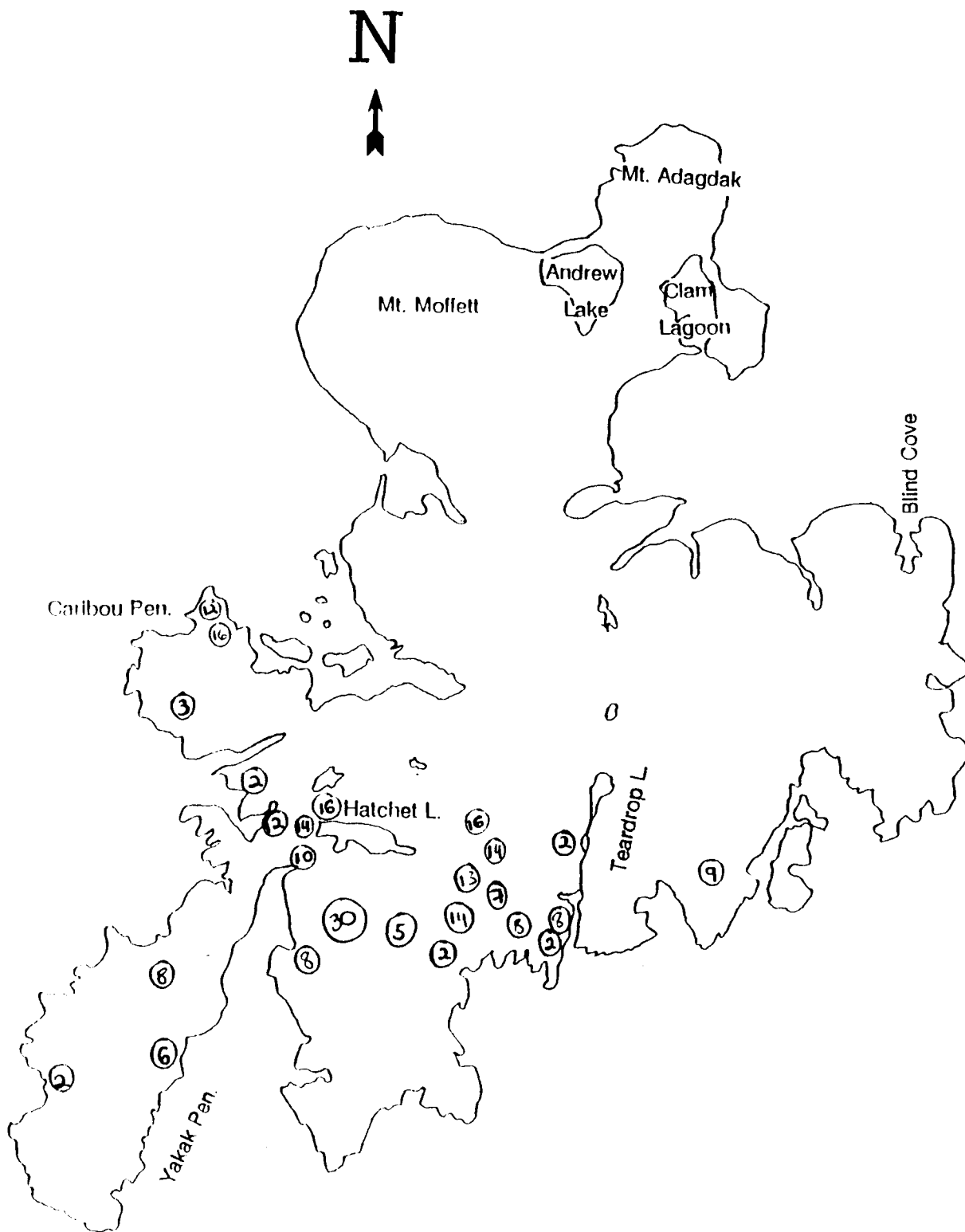


Figure 1. Distribution of caribou herds on Adak Island, Alaska from aerial survey conducted April 30, 1992. Numbers in circles are individuals in herds.

Table 2. Summary of caribou harvest data for Adak in 1991-1992.

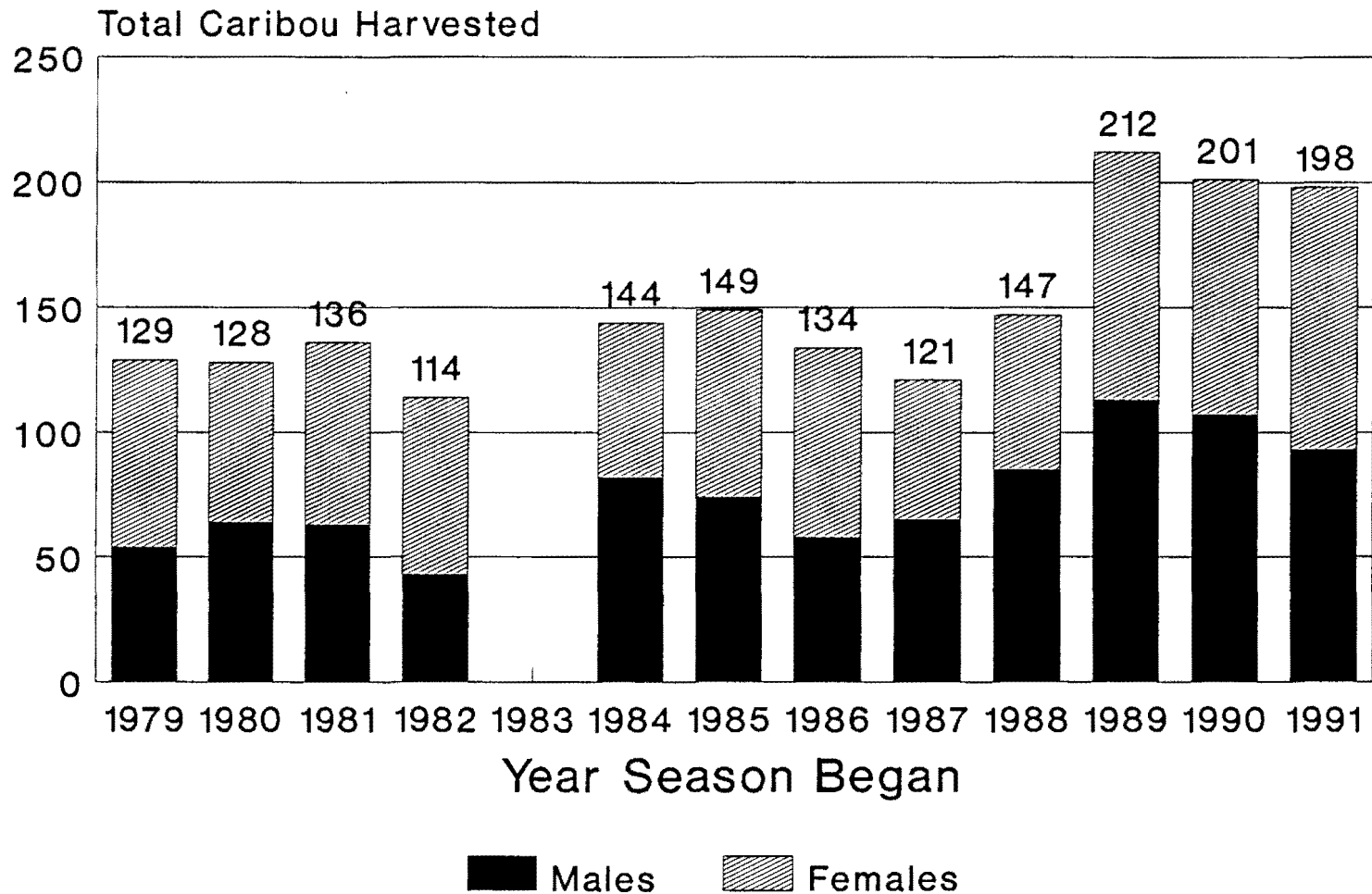
	<u>Number</u>	<u>Proportion</u>
Total permits issued	403	
Resident	324	.80
Non-resident <sup>a</sup>	79	.20
Total permits returned	350	.87
	(As of 5/05/91)	
Total that actually hunted <sup>b</sup>	284	.81
Resident	232	.82
Non-resident	52	.18
Total harvest	198	
Bulls	93	.47
Cows	105	.53
Successful hunters that killed two	62	.46
Successful hunters that killed one	74	.54
Total successful hunters	136	.48
Resident	124	.91
Non-resident	12	.09
Total days hunted	1,610	
Days hunted (successful hunters)	780	
Days hunted/successful hunter	5.7	
Days hunted (unsuccessful hunters)	830	
Days hunted/unsuccessful hunter	5.6	
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<u>Harvest by Month</u>	<u>%taken</u>	<u>Actual Number</u>
September	34	68
October	30	60
November	20	39
December	0	0
January	2	4
February	6	11
March	8	16

<sup>a</sup>Mostly active duty military personnel.

<sup>b</sup>This and subsequent proportions based on returned permits only, not total issued.

# Caribou Harvest at Adak

Figure 2. Caribou harvest by sex on Adak Island, Alaska 1979-1991.



Closed Season 1983



## Access/Transportation

Access for hunters to the caribou is of vital importance to the management program. Early in the season, caribou are widely distributed over the southern 2/3 of the island. As fall progresses into winter and snow begins to accumulate, the caribou are forced to feed on the wind swept ridges and beaches of the extreme southern portion of the island. Access to this area during the winter on foot is very difficult; thus, transportation becomes important. The Navy currently has two tug boats assigned to Adak. One of these tugs has been available during the hunting season to transport hunters (military personnel) to the south end of the island. Weekly trips have been made throughout the season except during the inclement months of December and January. This season, due to maintenance on one of the tugs, regular trips for hunters did not begin until the last week in September. The Navy morale, welfare, and recreation program also operates a small charter vessel which is available to all island residents for approximately \$300/day. In addition, a small number of private boats transport hunters to areas of the island where caribou are most commonly found.

## Discussion

Recent changes in the world power structure and the resulting reductions in national defense expenditures are being felt by the

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