

ALASKA DEPARTMENT OF FISH AND GAME

JUNEAU, ALASKA

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ANNUAL REPORT OF  
SURVEY-INVENTORY ACTIVITIES

PART III. ELK

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## STATEWIDE HARVEST AND POPULATION STATUS

Elk are found in Alaska only in Unit 8, the result of a transplant from the Pacific northwest to Afognak Island. The elk herd continues to exist at a high level (1,100 elk preseason), but may be declining on eastern Afognak Island, due to increased harvest with a relatively high take of females.

The harvest of 271 animals is a record high harvest, reflecting good weather and increased access because of road development. Future harvest will have to be closely controlled to avoid overharvest.

Robert A. Hinman  
Deputy Director

## ELK

### SURVEY-INVENTORY PROGRESS REPORT

GAME MANAGEMENT UNIT: 8

GEOGRAPHICAL DESCRIPTION: Kodiak and Adjacent Islands

PERIOD COVERED: 1 July 1984-30 June 1985

#### Season and Bag Limit

See Hunting Regulations No. 25

#### Population Status and Trend

The pre-hunting season population on Afognak and Raspberry Islands was estimated at 1,100 elk. Herds on Raspberry Island and western Afognak Island were stable to slightly increasing in size. A declining trend was indicated in the herds on eastern Afognak Island.

#### Population Composition

Sex and age composition surveys were flown in August and 761 elk were classified in 13.3 hours of survey time. Results of these counts are presented in Table 1.

#### Mortality

Hunters killed 271 elk, including 151 males (57%), 113 females (43%) and 7 elk of unknown sex. Eight hundred forty-eight permittees reported hunting and 32% were successful. Residency of the hunters was as follows: Kodiak Island, 370 (44%); mainland Alaska, 444 (53%); nonresident, 27 (3%).

On northern and eastern Afognak Island (Registration Hunt No. 750), 681 hunters reported killing 172 elk, including 98 males (57%) and 74 females (43%). Hunter success was 25%. That part of Afognak Island east of a line from Delphin Point to Kazakof Bay was closed by Emergency Order on 14 December because of suspected excessive take of females in areas accessible by road. The harvest was predominantly male from August through October, but in November and December the female kill exceeded the male kill by more than a 3:2 ratio.

On southwest Afognak Island (Registration Hunt 751), 75 hunters reported killing 37 elk, including 26 males (70%) and 11 females (30%). Hunter success was 49%. This hunt was closed by

Emergency Order on 10 October, when the harvest quota of 35 elk was reached.

On Raspberry Island (Registration Hunt No. 702), 92 hunters reported killing 62 elk, including 27 males (49%), 28 females (51%), and 7 elk of unknown sex. Hunter success was 67%. Three dead elk, believed to be wounding losses, were found and reported by hunters. The season was closed by Emergency Order on 2 October after 12 days of hunting. The harvest quota of 35 elk was exceeded by 27 animals.

#### Management Summary and Recommendations

The total reported kill of 271 elk was the highest on record, representing approximately 25% of the estimated population. Although the number of hunters declined slightly from 867 in 1983 to 848 in 1984, the overall hunter success of 32% was well above the previous 10-year average of 19%. This increase in overall success was attributed to very high hunter success in the Raspberry Island hunt, increased use of logging roads for access on Afognak Island, and good weather for most of the hunting season.

Raspberry Island was managed on a registration permit basis for the 1st time since 1967. The season was closed from 1968 through 1975 and was reopened on a drawing permit basis in 1976. In an attempt to distribute hunting pressure between Raspberry Island and the southwestern Afognak area, both hunts were opened on 20 September. Hunters chose to concentrate on Raspberry Island, which resulted in a higher than anticipated harvest. A preseason population of 200 elk has been recommended for Raspberry Island. The estimated preseason population for this year was 225 elk. The 62 elk killed represented 28% of that estimate. If average recruitment occurs in 1985 the herd should closely approach the desired size. I recommend that this hunt be regulated by a series of 1-2 day openings, each followed by a 5-day closure, to keep the kill within the harvest quota.

The fact that more female elk are entering the harvest and that fewer elk were observed during composition counts suggest the elk herds on eastern Afognak Island are declining. Increased access to the Kazakof Bay, Perenosa Bay and Izhut Bay drainages, via the expanding logging road system, resulted in increased harvests in 1983 and 1984. At least 3 elk herds are accessible from the road system. The logging of several hundred acres of mature Sitka spruce in the area since 1975 represents another possible detrimental impact on elk populations.

Locating elk herds by air in the more heavily timbered parts of central and eastern Afognak Island is difficult and seems to have become increasingly so since the mid-1970's. Increased disturbance from aircraft and logging road traffic seems to correlate with declining numbers of elk observed in alpine areas during late summer, when aerial composition counts have traditionally been done. Because hunters continued to harvest elk and have reported seeing sizable herds in the Duck Mountain and Izhut Bay areas, it was assumed that the elk population was relatively stable. Better techniques for determining population status should be developed. Techniques which should be considered include foot surveys and frequent monitoring of elk movement by radiotelemetry.

If elk surveys in 1985 do not produce increased sample sizes in the central and eastern part of Afognak Island, I recommend the season in that area be closed by 1 November.

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Table 1. Elk composition counts in Game Management Unit 8, Raspberry and Afognak Islands, Alaska, 1984.

Hunt Area	Males	Females	Calves	Calves/ 100 cows	Total
Raspberry Island Hunt No. 702	27	103	46	45	176
SW Afognak Island Hunt No. 751	19	111	48	43	178
N&E Afognak Island Hunt No. 750	24	292	91	31	407
Totals	70	506	185	37	761