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US FISH & WILDLIFE SERVICE--ALASKA

**Alaska Department of Fish and Game
Division of Wildlife Conservation
Federal Aid in Wildlife Restoration
Annual Performance Report of
Survey-Inventory Activities
1 July 1990 - 30 June 1991**

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1990-91

**Susan M. Abbott, Editor
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Project Title: Southeast Elk Population Management

Overview: Although elk were transplanted to southeast Alaska several times in the 20th century, none were successful before 1987. Two groups of Rocky Mountain and Roosevelt elk totaling 50 animals were introduced to Etolin Island in central Southeast in 1987. Initial mortalities were high, but declined abruptly in 1988. Currently the population is estimated at 50 or more and increasing.

Project Location: Unit 3 (3,000 mi²)
Islands of the Petersburg, Kake, and Wrangell area

Work Accomplished During the Project Segment Period: Several aerial surveys of the Etolin Island elk population were done this report period. All radio-collared animals alive at the beginning of the report period were alive at the end of the period. No carcasses were found or examined. The last reported mortality of a radio-equipped elk was in May 1988.

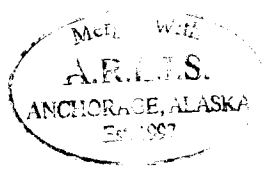
Progress Towards Meeting Project Objectives: The Etolin Island population appears to be slowly growing. Indications from aerial surveys of radio-collared animals, photographs from the public, reports from loggers and fishermen, and other sources suggested that recruitment is taking place in the population. Some emigration has occurred; 2 radio-collared elk, accompanied by 3 others, are established on Zarembo Island, just north of Etolin, and 2 other elk were seen on Deer Island, southeast of Etolin. We expect additional emigration as the population increases.

Segment Period Project Costs:

	<u>Personnel</u>	<u>Operating</u>	<u>Total</u>
Planned	\$4.8	\$1.9	\$6.7
Actual	\$4.8	\$1.9	\$6.7
Difference	0	0	0

Submitted by:

Bruce Dinneford
Management Coordinator



Project Title: Southcentral Alaska Elk Management

Project Location: Unit 8 (5,100 mi²)
Kodiak, Afognak, and adjacent islands

Project Objectives: Maintain a minimum population of at least 1,000 elk for use by all user groups. Maintain harvests within sustainable-yield levels of the elk population. Develop population objectives for each major subherd.

Work Accomplished During the Project Segment Period: Aerial surveys were conducted in August, September, December, May and June. Four-hundred-and-ninety-three elk were classified: 26 bulls (5%), 330 cows (67%), 137 calves (28%). The population was estimated at a minimum of 1,200 elk.

Seven flights were made to locate radio-collared elk. At the end of the report period, 11 elk in 4 herds had functioning radio collars. Point locations of radio-collared elk collected since 1986 were digitized for subsequent analysis.

Hunting activity was monitored with a field check station at Malina Lake and by occasional flights and boat patrols. Mandatory permit reports returned by hunters were used to compile statistics on hunting effort and harvest. Of the 1,335 permits issued, 672 permittees reported hunting. Hunters killed 201 elk (84 males, 115 females, and 2 unknown sex) for a 33% success rate. The harvest by individual permit hunt was as follows: Raspberry Island drawing hunt, 4 males, 7 females; southwestern Afognak drawing hunt, 26 males, 20 females; southwestern Afognak registration hunt, 11 males, 29 females; eastern Afognak registration hunt, 15 males, 13 females, 1 unknown sex; and northwestern Afognak registration hunt, 28 males, 45 females, 1 unknown sex.

The harvest in the southwestern Afognak hunt was nearly equally distributed between the drawing permit hunt (46 elk) and the registration hunt (40 elk). The registration hunt was closed by Emergency Order on 25 October 1990, only 11 days after the 15 October opening.

Progress Towards Meeting Project Objectives: The preseason estimate of 1,200 exceeded the population objective of 1,000 elk. There were a minimum of 8 herds on Afognak and 1 herd on Raspberry Island. Estimated sizes of the individual herds ranged from 25 to 400 elk. Hunting was administered by 5 permit hunts with differing seasons and permit conditions. The continued development of logging roads has rapidly improved hunter access. Five of the 8 herds on Afognak are now accessible by road. More conservative regulations will probably be required as logging roads proliferate. Management objectives should be developed for individual herds which recognize differences in access, carrying capacity and habitat characteristics in each herd's range.

The Raspberry Island herd remained below its recommended preseason population level of 200 elk. The herd appeared to be recovering, responding to conservative harvest. The herd was estimated at a minimum of 150 elk, 54 calves were observed, and only 11 elk were harvested in 1990. The herd had an estimated 220-230 elk in 1987. Emigration to Afognak Island in fall 1987 possibly explains the decline.

Sex composition of the total elk harvest shifted from 61% males in 1989 to 42% males in 1990. The 1990 harvest of 201 elk compared closely to the 206 elk harvested in 1989.

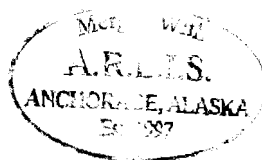
Segment Period Project Costs:

	Personnel	Operating	Total
Planned	12.9	6.7	19.6
Actual	12.9	3.8	16.7
Difference	0	-2.9	-2.9

Explanation: Planned hunt monitoring was reduced because of an Emergency Order closure in the southwestern Afognak hunt and radio-tracking flights were done less frequently than planned.

Submitted by:

John N. Trent
Management Coordinator



Alaska Game Management Units



Funded by Federal Aid in Wildlife Restoration