

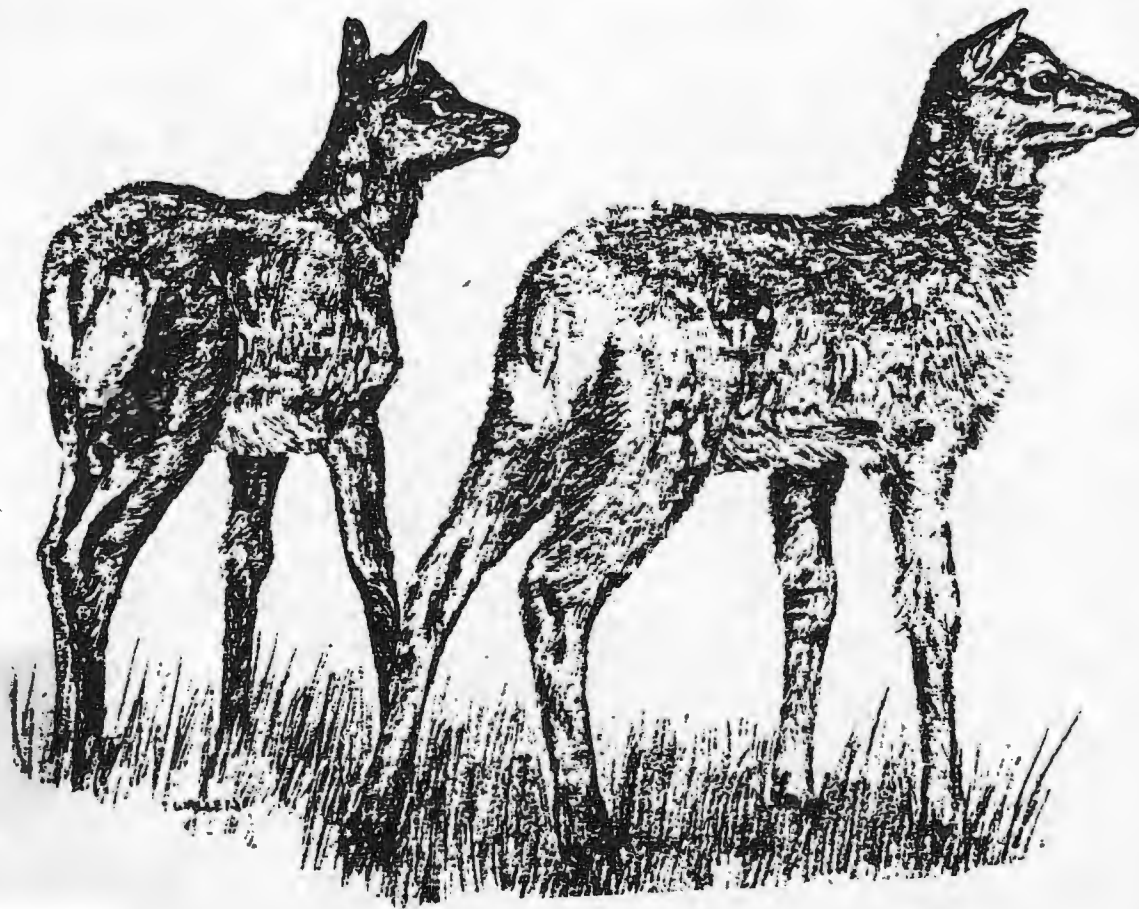
Alaska Department of Fish and Game
Division of Wildlife Conservation

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US FISH & WILDLIFE SERVICE--ALASKA

Federal Aid in Wildlife Restoration
Annual Performance Report of
Survey-Inventory Activities
1 July 1991 - 30 June 1992

ELK

Susan M. Abbott, Editor



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DEPARTMENT OF FISH AND GAME
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DIVISION OF WILDLIFE CONSERVATION
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Project Title: Southeast Elk Population Management

Overview: Although elk were transplanted to southeast Alaska several times in the twentieth century, none were successful prior to 1987. Two groups of Rocky Mountain and Roosevelt elk totalling 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 to be 75 or more.

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

Work Accomplished During the Project Segment Period: Three aerial surveys of the Etolin Island elk population were accomplished during the report period. All radio-collared animals alive at the beginning of the report period were presumed alive at the end of the period because no carcasses were documented. Two transmitters apparently failed but 7 were still transmitting at the last check in March 1992. The design life of the radios was 3 years and some are still operating at 5 years. The last reported mortality of a radio-equipped elk was in May 1988.

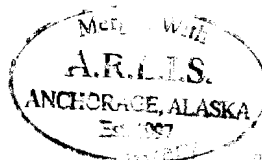
Progress Towards Meeting Project Objectives: The Etolin Island elk population appeared to be slowly growing. Indications from aerial surveys of radio-collared animals, photographs from the public, reports from loggers and fishermen, and other sources suggested that recruitment is taking place in the population. Some emigration has occurred; 2 radio-collared elk, accompanied by 3 unmarked elk, have been seen on Zarembo Island, just north of Etolin. One cow with a calf of the year and perhaps a yearling were seen by a local resident at Baht Harbor in June, 1992. We expect additional emigration as the population increases.

Segment Period Project Costs:

	<u>Personnel</u>	<u>Operating</u>	<u>Total</u>
Planned	\$5.2	\$1.9	\$7.1
Actual	\$5.2	\$1.9	\$7.1
Difference	0	0	0

Submitted by:

W. Bruce Dinneford
Management Coordinator



Library & Wildlife Service
U.S. Fish & Wildlife Service
1011 E. Tudor Road
Anchorage, Alaska 99503

Alaska Resource **ARLIS** Library & Information Services 1
Library Building, Suite 111
3211 Providence Drive
Anchorage, AK 99508-4614

Project Title: Southcentral Alaska Elk Management

Project Location: Unit 8 (5,100 mi²)

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 and September. Five-hundred-and forty-three elk were classified: 17 bulls (3%), 378 cows (70%), 148 calves (27%). The population was estimated at 700-1,000 elk.

Five flights were made to locate radio-collared elk. At the end of the report period, 7 elk in 3 herds had functioning radio collars. Four collars were recovered from elk that died during the 1990-91 winter.

Hunting activity was monitored with a field check station at Afognak Lake and by occasional aircraft patrols by the Division of Fish and Wildlife Protection. Mandatory permit reports returned by hunters were used to compile statistics on hunting effort and harvest. Of the 1,135 permits that were issued, 554 permittees reported hunting. Hunters killed 101 elk (36 males and 65 females) for a 19% success rate. The harvest by permit hunt was as follows: Raspberry Island drawing hunt, 5 males, 12 females; southwestern Afognak drawing hunt, 3 males, 8 females; southwestern Afognak registration hunt, 2 females; eastern Afognak registration hunt, 13 males, 22 females; and northwestern Afognak registration hunt, 15 males, 21 females.

Two registration hunts were closed by emergency orders. The season dates for southwestern Afognak registration hunt were changed before the hunt opened from 15 October-15 December to 15-16 October. This action was prompted by a decline in the herd and the risk of overharvesting. A portion of the eastern Afognak permit hunt was closed by emergency order on 23 October, 3 weeks prior to the scheduled closure on 15 November. Improved hunter access resulted in a higher than expected harvest rate in the Duck Mountain herd.

Progress Towards Meeting Project Objectives: The preseason estimate of 700-1,000 was at or below the population objective of 1,000 elk. The estimated sizes of the 8 herds on Afognak Island ranged from 15 to 250 elk. A declining trend in all the elk herds was suspected. Hunter success declined from 33% in 1990 to 19% in 1991, and the total harvest declined from 201 elk in 1990 to 101 elk the following year. Aerial composition counts and the loss of 4 radio-collared animals during the winter provided further evidence of a population decline during the reporting period. Composition counts and the sex ratio of the harvest also indicated a decline in the number of bulls. Bulls accounted for 61%, 42%, and 36% of the harvest in 1989, 1990, and 1991, respectively. Only 3%

of the 543 elk classified during aerial surveys were bulls, compared to 8% in 1989 and 5% the following year. Winter mortality and continued hunter selectivity have reduced the observed bull:cow ratio to 4.5 bulls:100 cows. Calf:cow ratios have remained stable, indicating the number of bulls was adequate for breeding. Any further decline in the number of bulls may require implementing specified sex permits or postrut hunting seasons to assure enough bulls survive for breeding.

A decline in the southwestern Afognak elk herd was confirmed by a decline in hunter success (drawing hunts #708-710) from 66% in 1990 to 19% in 1991. Reduced to a 2-day season by emergency order, the registration hunt had only 33 hunters afield, with 2 elk killed. Total harvest from the drawing and registration hunts was 13 elk. This herd was below the 300 elk preseason population objective.

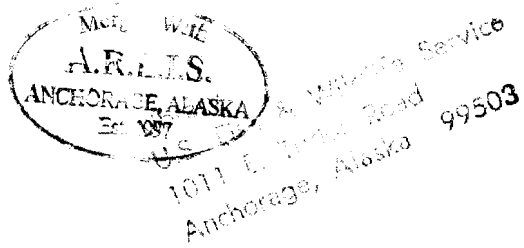
At least 22 elk were harvested from the Duck Mountain herd. This hunt was closed by emergency order on 23 October when it became apparent elk were being harvested rapidly from new logging roads into the Izhut Bay drainage. The harvest quota was 15 elk and it is anticipated this hunt will require another early closure in 1992 given the expanded access and additional cutting units.

Segment Period Project Costs:

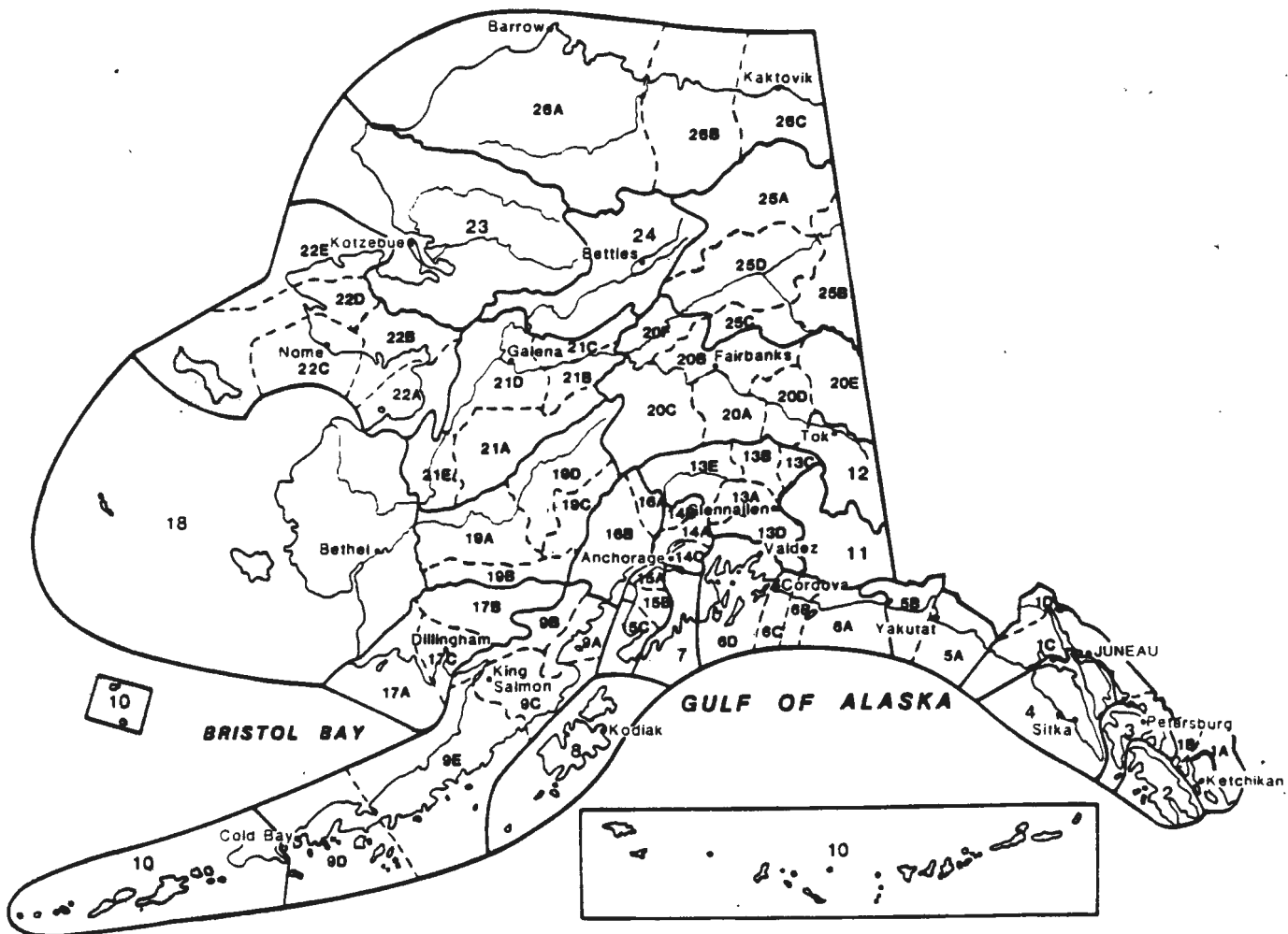
	<u>Personnel</u>	<u>Operating</u>	<u>Total</u>
Planned	13.3	7.5	20.8
Actual	13.3	8.0	21.3
Difference	0	-0.5	-0.5

Submitted by:

John N. Trent
Management Coordinator



Alaska's Game Management Units



Project funded by Federal Aid in Wildlife Restoration