

Alaska Department of Fish and Game
Division of Wildlife Conservation

Federal Aid in Wildlife Restoration
Annual Performance Report of
Survey-Inventory Activities
1 July 1992 - 30 June 1993

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Susan M. Abbott, Editor

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Project Title: Southeast Elk Population Management

Overview: Although elk transplants were made to Southeast Alaska several times in the 20th century, none were successful before 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 the rate of mortality declined abruptly in 1988. The current population is estimated to be about 100.

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

Work Accomplished During the Project Segment Period: Staff flew 5 aerial surveys to locate elk through radio telemetry. All flights were successful in that one or more radios were located. We attribute the failure to locate some radiocollars to outdated radio batteries. The last survey on 11 May 1993 located 4 functioning radios on Etolin Island. No search was made for the one radio presumed to be functioning on Zarembo Island. During spring 1993 deer pellet group surveys we saw 8 elk on southeast Etolin Island. Staff collected elk and deer fecal samples for food habit analysis.

Progress Towards Meeting Project Objectives: The Etolin Island elk population appeared to be slowly growing. Aerial surveys of radio-collared animals, photographs from the public, reports from loggers and fishermen, and other sources all suggested that recruitment is occurring in the population. Some emigration has occurred and a small herd is established on Zarembo Island. A poacher killed a cow from this herd in December 1992. We expect additional emigration as the population increases. Members of the public have reported seeing elk on Wrangell, Mitkof, and Kashevarof islands.

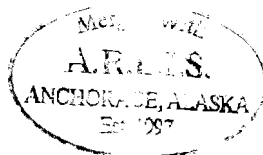
Segment Period Project Costs:

	<u>Personnel</u>	<u>Operating</u>	<u>Total</u>
Planned	\$5.1	\$1.9	\$7.0
Actual	\$15.3	\$1.9	\$17.2
Difference	\$10.2	0	\$10.2

Explanation: The large difference between planned and actual expenses was because of additional staff time spent preparing for an elk transplant proposed by the legislature.

Submitted by:

Bruce Dinneford
Management Coordinator



Project Title: Southcentral Alaska Elk Management

Project Location: Unit 8 (5,100 mi²)
Kodiak 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: We conducted aerial surveys during July, August, and September. We classified 633 elk: 15 bulls (2%), 451 cows (71%), 167 calves (26%). The population estimate was 700-850 elk. An additional 14 cow elk from 7 herds were radio-collared in July. At the end of the report period 18 elk in 7 herds had functioning radiocollars.

We used mandatory permit reports returned by hunters to compile statistics on hunting effort and harvest. For the 848 permits issued, 384 permittees reported hunting. Hunters killed 67 elk (29 males, 37 females and 1 unknown sex) for a 17% success rate. The harvest by permit hunt was as follows:

Raspberry Island drawing hunt, 2 males, 2 females;
Southwestern Afognak drawing hunt, 5 males, 14 females;
Eastern Afognak registration hunt, 12 males, 15 females, 1 unknown sex;
Northwestern Afognak registration hunt, 10 males, 6 females.

We issued an emergency order cancelling the Southwestern Afognak registration permit hunt and shortened the season in that part of Afognak Island enclosing the ranges of the Duck Mountain, Marka Lake and Portage Lake elk herds. We cancelled the Southwestern Afognak registration hunt when it appeared that the allowable kill would be taken during the drawing permit hunt. A rapid harvest rate resulting from improved hunter access via an expanding logging road system and the general decline in elk numbers were factors in the early closures on eastern Afognak Island.

Progress Towards Meeting Project Objectives: The decline in the elk population was reflected in a declining trend in hunter success. Hunter success declined from 33% in 1990 to 17% in 1992, and the 1992 harvest was the lowest since 1980. Composition counts indicated that the bull segment continued to decline reaching 3.3 bulls:100 cows in 1992. The calf:cow ratio remained at 37:100, indicating the number of bulls was adequate for breeding. Hunters' observations confirmed that mature, branch-antlered bulls were scarce in 1992. The number of males killed declined from 36 in 1991 (36%) to 29

in 1992 (44%). We suspect winter mortality and hunter selectivity were factors in the decline in bulls.

The preseason estimate of 700-850 was below the population objective of 1,000 elk. The elk population was estimated at 1,200-1,500 during 2 population peaks that occurred in the late 1960s and mid-1980s. The estimated average elk density during those peaks was about 2 elk/mi², with densities exceeding 3 elk/mi² in individual herds. Declines in elk population that occurred after both peaks were correlated with increased winter severity, possibly exacerbated by excessive range utilization. I recommend that the average pre-hunt elk density be maintained at < 2.0 elk/mi². Densities exceeding 3 elk/mi² are probably above long-term carrying capacity. Population objectives for individual herds should be developed based on historical population trends and objective assessment of habitat.

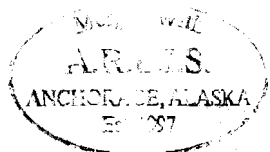
The Board of Game adopted a staff proposal changing the hunting season opening date from 1 September to 10 October. The later opening date should optimize the participation of mature bulls in the rut and decrease their vulnerability to hunting. The board adopted a recommended change in the hunting season closing date from 15 December to 25 November. The board also changed most of Afognak Island from a registration permit hunt with unlimited permits to a drawing permit hunt with limited permits, to be followed by a registration permit hunt if enough of the allowable harvest quota remains. This system should provide optimum flexibility in responding to annual increase or declines in the individual elk herds.

Segment Period Project Costs:

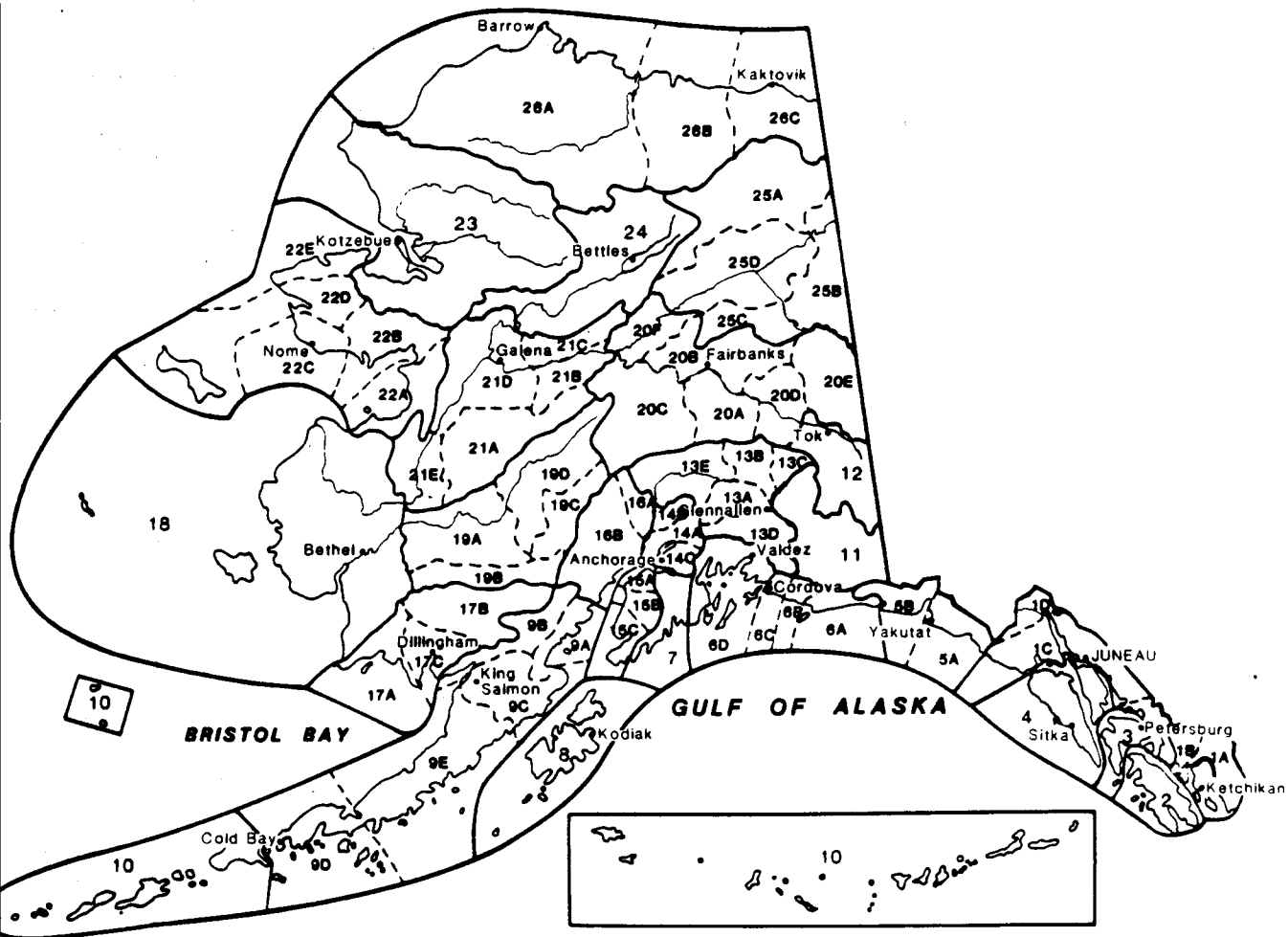
	<u>Personnel</u>	<u>Operating</u>	<u>Total</u>
Planned	6.9	17.0	23.9
Actual	6.9	17.0	23.9
Difference	0	0	0

Submitted by:

Jeff Hughes
Wildlife Biologist



Alaska's Game Management Units



Federal Aid in Wildlife Restoration

The Federal Aid in Wildlife Restoration Program consists of funds from a 10% to 11% manufacturer's excise tax collected from the sales of handguns, sporting rifles, shotguns, ammunition, and archery equipment. The Federal Aid program then allots the funds back to states through a for-

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ment of Fish and Game uses the funds to help restore, conserve, manage, and enhance wild birds and mammals for the public benefit. These funds are also used to educate hunters to develop the skills, knowledge, and attitudes necessary to be reponsible hunters. Seventy-five percent of the funds for this project are from Federal Aid.



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