Alaska Department of Fish & Game
Division of Wildlife Conservation

Federal Aid in Wildlife Restoration
Annual Performance Report of
Survey-Inventory Activities
1 July 1993 - 30 June 1994

DEER

Mary V. Hicks, Editor

Grant W-24-2
Study 2.0
December 1994

STATE OF ALASKA
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DEPARTMENT OF FISH AND GAME
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Project Title: **Southeast Deer Population Management**

Overview: Deer are throughout the Southeast Alaska region. Deer numbers are lowest on the mainland and highest on the Pacific Coast side of Baranof and Chichagof islands. Since the 1987 estimate of nearly 20,000, harvests are lower due to reduced hunter effort and declining populations. Most deer populations peaked at or near all-time highs in northern Southeast in the late 1980s. Populations subsequently decreased in northern Southeast and have stabilized, slowly increasing on Kuiu, Kupreanof, and adjacent islands. Southern southeastern populations seem stable.

Southeast Alaska deer management is primarily oriented toward providing deer for subsistence and personal use. Trophy hunting makes up only a small fraction of total deer hunting effort. Viewing deer is of great interest to nonhunters and hunters alike, and this use is accommodated by maintaining healthy populations.

The greatest threat to deer in Southeast Alaska is continued large-scale logging of prime habitats on U.S. Forest Service (USFS) and private lands. Wildlife Conservation Division staff spend much of their time working with timber managers to reduce losses. Nevertheless, existing habitat losses and scheduled cutting will inevitably result in smaller, less resilient deer populations.

Project Location: Unit 1A (5,000 mi^2)
Ketchikan area including mainland areas draining into Behm and Portland Canals

Unit 2 (3,900 mi^2)
Prince of Wales Island and adjacent islands south of Sumner Strait and west of Kashevarof Passage and Clarence Strait

Project Objectives and Activities:

- Maintain deer populations in excess of 45 deer per mi^2 of winter range (1.4 pellet-groups per plot) in Subunit 1A and Unit 2.
- Monitor deer densities using pellet-group surveys.

Work Accomplished During the Project Segment Period: We completed deer pellet-group surveys in five Value Comparison Units (VCUs) within Unit 1A and five VCUs within Unit 2. Using fixed-wing aircraft, we completed 11 alpine surveys over discrete portions of Unit 1A and Unit 2. We estimated deer harvest from regional questionnaires mailed to a random sample of deer hunters.

Progress Meeting Project Objectives: No harvest data were available at the time of this report. Nonetheless, feedback from hunters suggests deer were relatively abundant and available throughout Unit 1A and Unit 2 during the past season. Several hunters indicated they had no problem finding and harvesting deer.

Pellet-group data indicated the 45 deer/mi^2 density objective was met in two of 10 sampled VCUs (VCU 635 Port Refugio and VCU 999, Helm Bay). We observed the highest deer density at Port Refugio (VCU 635) where we estimated 59 deer/mi^2. The lowest observed densities were at Carroll Point (VCU 758), Thorne Lake (VCU 575), Red Bay (VCU 532), and Alava Bay (VCU 769) where estimates ranged from 22 to 25 deer/mi^2. Of the 10 VCUs sampled during 1994, 7 were higher than when last sampled (VCUs 532, 621, 635, 748, 758, 759, 999), and VCUs 554, 575, and 769 were lower than when last sampled. Overall, deer densities in southern Southeast have increased slightly during the past year.

Project Location: Subunit 1B (3,000 mi^2)
Southeast Mainland from Cape Fanshaw to Lemesurier Point
Unit 3 (3,000 mi^2)
Islands of the Petersburg and Wrangell areas

Project Objectives: Increase populations on deer winter range (<1,500 ft elevation) to 32 deer/mi^2, measured by a mean pellet density of 1.0 pellet-group/20 m^2 plot.

Work Accomplished During the Project Segment: We collected harvest data and are analyzing data. No winter-killed deer were located during spring pellet-group surveys in Unit 3.

Progress Meeting Project Objectives: Deer pellet surveys indicate deer populations have risen slightly in most of Unit 3. The hunter survey shows harvest increased slightly from previous years. Hunter harvest for Unit 1B and Unit 3, excluding the permit area, will be estimated from the annual hunter survey.

All of Unit 3 was opened to hunting in 1993. The Lindenberg Peninsula of Kupreanof Island was added to the Mitkof Island registration permit hunt area. For the registration permit hunt area, we issued 701 permits; 562 hunters reported hunting. The reported kill, 154 bucks, was down from previous years. Hunters reported a total of 1916 days in the field. Similar to 1991 and 1992, we will reconcile the 1993 survey data with the 1993 permit reports.

Project Location: Unit 1C (7,600 mi^2)
Southeast Alaska mainland and the islands of Lynn Canal and Stephens Passage lying between Cape Fanshaw and the latitude of Eldred Rock, including Sullivan Island and the drainages of Berners Bay

Project Objectives and Activities:

- Maintain population densities on Douglas, Lincoln, and Shelter islands at high levels, indicated by a mean pellet density of 2.0 pellet groups per plot.

- Monitor the deer harvest, participate in public planning meetings, and partake in annual deer pellet survey.

Work Accomplished During the Project Segment Period: Preliminary harvest data from the annual deer hunter questionnaire indicated 589 deer were taken in the unit. Hunter success has rebounded to 33.6%. A mild winter with little snow accumulation until January allowed deer to survive in high numbers, continuing the recovery from the effects of severe winter weather in 1991-92.

Pellet-group surveys were attempted at Point Hilda on Douglas Island but terminated because of deep snow. We surveyed at North Douglas and near Point Sherman (Kensington) on the east side of Lynn Canal. At North Douglas we measured 315 plots in three transects for an average density of .91 pellet-groups per plot. At Kensington two transects were counted; no pellet-groups were found in 180 plots.

No planning meetings were held during the report period.

Progress Meeting Project Objectives: The average of .91 pellet-groups per plot for the North Douglas transects was an improvement from the previous year's average of .74. Although these figures fall well below the objective of 2.0 pellet-groups per plot, the increase is reflective of an upwards trend in deer numbers. We were unable to gather data at Point Hilda and cannot correlate results from these two areas on Douglas Island.

Project Location: Unit 4 (5,800 mi^2)
Admiralty, Baranof, Chichagof, and adjacent islands

Project Objectives and Activities:

- Maintain a population density capable of sustaining an average hunter kill of at least 1.5 deer, a minimum success rate of one deer killed per 4 days hunting, and a male deer harvest at 60% of the total kill.

- Collect population data through fecal pellet surveys, use the hunter survey to determine harvest and effort information, and conduct deer mortality transects in key areas as needed.

Work Accomplished During the Project Segment Period: We measured population trends by pellet-group count analysis. We mailed a survey questionnaire to a sample of harvest ticket holders to compile hunter effort and success information. Hunters were asked to indicate hunting locations by harvest areas.

Progress Meeting Project Objectives: According to the preliminary results of the 1993-94 hunter survey, we achieved all 3 management objectives. The average kill was 2.1 deer per hunter (up from 1.8 deer in 1992/93) with a hunting effort of 2.7 days per deer (a decrease from 2.9). Males made up 70.2% of the harvest, compared to 71.1% the previous season.

Project Location: Unit 5 (5,800 mi^2)
Cape Fairweather to Icy Bay, eastern gulf coast

Project Objectives and Activities: No management objectives have been established for deer within Unit 5.

Work Accomplished During the Project Segment Period: We monitored harvest through the annual hunter questionnaire, which indicated 3 bucks were killed in Unit 5A.

Progress Meeting Project Objectives: In the absence of objectives, no specific tasks were accomplished.

Segment Period Project Costs:

	Personnel	Operating	Total
Planned	74.6	33.2	107.8
Actual	65.9	35.6	101.5
Difference	8.7	-2.4	6.3

Explanation: Although personnel time was shifted from this project to work on Unit 4 brown bear harvest assessment, we accomplished additional pellet counts.

Submitted by:

Bruce Dinneford
Management Coordinator

Project Title: **Southcentral Alaska Deer Management**

Project Location: Game Management Unit 6 (10,140 mi^2)
Prince William Sound, north Gulf Coast

Project Objective: Maintain a deer population in Unit 6 that will sustain an annual harvest of 1500 deer, with a minimum annual harvest of 60% males and minimum hunter success rate of 50%.

Work Accomplished during the Project Segment period: We monitored hunting activities and harvest by a mail questionnaire. Preliminary results indicated the harvest was 1259, with males composing 66% of the harvest. Success rate was 51% and successful hunters harvested an average of 1.3 deer. Montague Island provided 28% of the take, while Hawkins and Hinchinbrook Islands produced 24% and 30%, respectively.

I did not complete scheduled aerial composition surveys. Normal concentrations of deer on beaches, where they could be observed during late winter, did not occur because of mild conditions. Natural winter mortality was low.

We conducted pellet group surveys from 16 through 29 May on Montague, Hinchinbrook, Hawkins, and Naked islands. Analysis of these data has not been completed.

Progress Meeting Objectives: We achieved all objectives. The population was able to sustain a harvest of 1500 and the proportion of males in the harvest exceeded 60%. The success rate was greater than 50%.

Project Location: Unit 8 (8,750 mi^2)
Kodiak, and adjacent islands

Project Objective and Activities: Maintain a deer population that will sustain an annual harvest of at least 8000 deer.

Work Accomplished in Project Segment Period: We monitored hunting activities and harvest by a mail questionnaire. The estimated harvest was 6254 deer. Males composed 82% of the harvest, and hunter success was 70%. An estimated 2946 hunters went afield.

We monitored hunting activity by regular contacts with air taxi and charter boat operators and occasional field interviews. Kodiak National Wildlife Refuge and State Division of Fish and Wildlife Protection personnel monitored hunters by periodic aircraft and boat patrols.

We completed winter mortality surveys in April 1994, over a 2-mile transect on Afognak Island and a 6-mile transect at Chief Cove on western Kodiak Island. We found 29 carcasses, including 12 fawns (41%), 8 yearlings (28%) and 9 adults (31%). Sex composition of the carcasses was 17 males, 2 females and 10 deer with sex undetermined. Little snow accumulation occurred until late February and March in coastal areas. We rated winter survival good throughout Unit 8. Additional winter mortality surveys and ground composition counts by Kodiak National Wildlife Refuge personnel further support this conclusion.

Progress Towards Meeting Objectives: The harvest of 6254 deer was below the 8000 deer harvest objective. Although hunter success increased from 60% in 1992-93, to 70% in 1993-94, the hunting effort declined from 4119 to 2946 hunters afield. Overwinter survival has been good for the past 2 years, and hunting should be much improved in 1994.

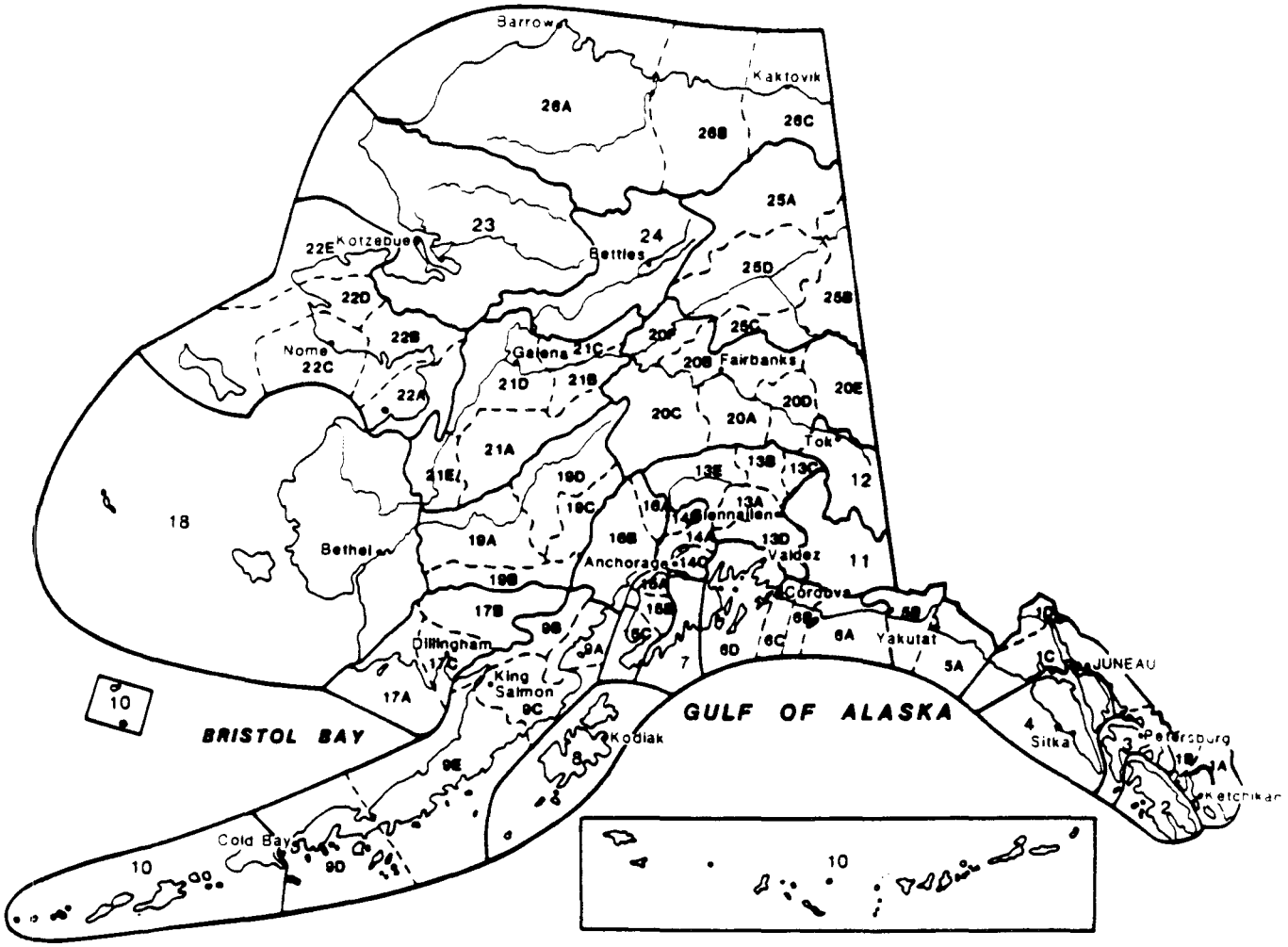
Segment Period Project Costs:

	Personnel	Operating	Total
Planned	24.1	23.7	47.8
Actual	24.1	22.4	46.5
Difference	0.0	+1.3	+1.3

Submitted by:

Jeff Hughes
Wildlife Biologist

Alaska's Game Management Units



The Federal Aid in Wildlife Restoration Program consists of funds from a 10% to 11% manfacturer's excise tax collected from the sales of handguns, sporting rifles, shotguns, ammunition, and archery equipment. The Federal Aid program distributes funds to states using a formula based on each state's geographic area and number of paid hunting license holders. Alaska receives a maximum of 5% of revenues collected each year. The Alaska Department of Fish and Game uses its funds to help restore, conserve, and manage wild birds and mammals. These funds are also used to educate hunters to develop skills and attitudes for responsible hunting. Federal Aid funds paid for 75% of this study.