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Alaska Department of Fish and Game
Division of Wildlife Conservation

Federal Aid in Wildlife Restoration
Annual Performance Report of
Survey-Inventory Activities
1 July 1995- 30 June 1996

DEER

Mary V Hicks, Editor

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STATE OF ALASKA
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DEPARTMENT OF FISH AND GAME
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DIVISION OF WILDLIFE CONSERVATION
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Project Title: **Southeast Alaska Deer Population Management**

Overview: Deer are widely distributed in Southeast Alaska. Deer numbers are lowest on the mainland and highest on the Pacific Coast side of Baranof and Chichagof islands. Harvests have declined since the 1987 estimate of nearly 20,000 because of reduced hunter effort and some declining populations. Most deer populations peaked at or near all time highs in northern Southeastern in the late 1980s. Populations subsequently decreased in northern Southeast and seem to have stabilized but are slowly increasing on Kuiu, Kupreanof, and adjacent islands. Southern Southeast populations are stable.

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

The greatest threat to deer in Southeast Alaska is large scale logging of prime habitats on US Forest Service (USFS) and private lands. Attempting to reduce these losses, Wildlife Conservation division staff spend much time working with timber managers. 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 Unit 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 5 Value Comparison Units (VCUs) in Subunit 1A and 3 VCUs in Unit 2. We estimated deer harvest from regional questionnaires mailed to a random sample of deer hunters.

Progress Meeting Project Objectives: Pellet group data indicated the 45 deer/mi^2 density objective was met in 2 of 8 sampled VCUs (VCU 561, Warm Chuck, and VCU 999, Gravina Island). Our lowest observed densities were at Duke Island (VCU 767), Alava Bay (VCU 769), and Sarheen Bay (VCU 549) where estimates ranged from 2-32 deer/mi^2. Of the 8 VCUs sampled

during 1996, 4 were higher than when last sampled (VCUs 532, 748, 765, and 769), 3 were lower (VCUs 549, 561, and 999), and 1 was sampled for the first time during 1996 (VCU 767). Overall, deer densities in Unit 1A have increased slightly during the past year, while densities in Unit 2 have remained stable.

Project Location: Unit 1B (3,000 mi^2)
Southeast Mainland from Cape Fanshaw to Lemesurier Point

Unit 3 (3,000 mi^2)
All islands west of Unit 1B, north of Unit 2, south of the centerline of Frederick Sound, and east of the centerline of Chatham Strait

Project Objectives and Activities: 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: Spring pellet group surveys were conducted at Conclusion Island and Woewodski, resulting in values of 1.45 and 2.25 pellet groups/plot, respectively.

Harvest data for Unit 3 and Unit 1B were estimated from a regional questionnaire mailed to a random sample of deer harvest ticket holders.

Progress Meeting Project Objectives: Both deer pellet surveys met project objectives and suggest an increase in deer densities. The Conclusion Island count more than doubled from the 1991 survey of .71 pellet group/plots. The Woewodski survey area was the highest ever recorded. Observations made while in the field on the Zarembo Island road system indicate deer are abundant and twinning is common.

From preliminary results of the 1995-96 hunter questionnaire, we estimate hunters harvested 75 deer in Unit 1B for a 33% success rate and 866 deer in Unit 3 for a success rate of 58%.

Project Location: Unit 1C (7,600 mi^2)
The 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 as reflected by a mean pellet density of 2.00 pellet groups per plot.
- Monitor harvest through the use of an annual hunter questionnaire.
- Participate in public planning meetings.
- Participate in annual deer pellet survey.

Work Accomplished During the Project Segment Period: From preliminary harvest data from the hunter questionnaire, we estimated that 311 deer were taken within the unit; 67.5% of these were bucks. Hunter success from 1994 decreased from 36.4% to 21.2%, and hunters spent an average of 4.8 days to harvest each deer. Early season weather conditions limited hunter accessibility to the field, and low snowfall allowed deer to remain at higher elevations throughout the hunting season. Snowfall remained low throughout the winter and probably contributed to good winter survival. As a result, deer populations in the subunit probably increased.

We completed pellet group surveys at Pt. Hilda and North Douglas on Douglas Island. At North Douglas 323 plots were measured in 3 transects with a mean of 0.97 pellet groups per plot. We examined 240 plots in 3 transects at Pt. Hilda; mean pellet density was 1.68 pellet groups per plot. Surveys were not made on Shelter and Lincoln islands. No planning meetings were held during the report period.

Progress Meeting Project Objectives: This year's pellet group densities were higher than in the previous year. The lower pellet group density at North Douglas versus the Pt. Hilda area is consistent with historical surveys and may relate to habitat quality and/or increased hunter accessibility to the former area. Although densities increased over last year, these figures are below the objective of 2.00 pellet groups per plot. It is impossible to assess whether objectives are being met on Shelter or Lincoln islands since no plots were examined.

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 1 deer killed per 4 days hunting, and a male deer harvest which is 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: Population trends were measured by pellet group count analysis. A survey questionnaire was mailed to a sample of harvest ticket holders to obtain deer hunter effort and success information. Hunters were asked to indicate hunting locations by harvest areas.

Progress Meeting Project Objectives: According to the results of the 1995-96 hunter survey, all3 management objectives were achieved. The average kill was 1.9 deer per hunter (down from 2.5 deer in 1994-95) with a hunting effort of 2.7 days per deer, an increase from 2.0. Males composed 71.6% of the harvest compared with 68.1% in the previous season. Thirteen deer mortality transects were surveyed, and we located an average of 1.2 winter kill carcasses per mile of beach.

Project Location: Unit 5 (5,800 mi^2)
Cape Fairweather to Icy Bay, eastern Gulf of Alaska 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 by the regional mail questionnaire, which reported a hunter success rate of 30.0% and a kill of 7 bucks. Hunters spent an average of 2.3 days to harvest each deer.

Pellet group surveys conducted on Knight Island and another group of small islands by the USFS indicated lower densities than the previous year. Mean pellet density on 379 plots was 0.60 pellet groups per plot on the smaller islands. No pellet groups were counted in 153 plots on Knight Island.

Anecdotal evidence indicates wolves may be affecting deer numbers on the islands in Yakutat Bay. Since these are the only relatively snow-free habitats in the area, heavy predation pressure on the islands may well cause a significant decline in this introduced deer population.

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

Segment Period Project Costs:

	Personnel	Operating	Total
Planned	52.5	67.4	119.9
Actual	52.5	67.4	119.9
Difference	0.0	0.0	0.0

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 Objectives: 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 1726, with males composing 71% of the harvest. Success rate was 56%, and successful hunters harvested an average of 2.5 deer. Montague Island provided 44% of the take, while Hawkins and Hinchinbrook islands produced 17% and 16%, respectively.

We conducted pellet group surveys from 28 May through 6 June on Montague, Hinchinbrook, and Hawkins islands. Analysis of these data has not been completed.

Progress Meeting Project 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%. All objectives were met.

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

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

Work Accomplished During the Project Segment Period: We monitored hunting activities and harvest by a mail questionnaire. Preliminary results indicated the 1995 harvest was 7132 deer, with 81% males. Hunter success was 73%. Twenty-two percent of the harvest was from Afognak, Raspberry, and Shuyak islands; 68% of the harvest was from Kodiak and small adjacent islands.

We surveyed winter mortality at 2 sites on Kodiak Island and at 1 site on Afognak Island. We found 37 carcasses in 15.5 miles of coastline (2.4 carcasses/mi), with 92% fawns. Additional surveys by US Fish and Wildlife Service indicated winter loss was light over most of Kodiak Island. Sea lion researchers stationed on Marmot Island reported finding 14 dead deer in February and March. Persistent snowfall was nearly absent until February and March, and deer were in above average condition all winter. Winter loss was the lightest in the past several years.

Progress Meeting Project Objectives: Preliminary results from the hunter questionnaires indicated the harvest declined from 10,401 deer in 1994 to 7312 deer in 1995. Although the deer population trend was upward, the harvest declined to a level below the 8000 deer harvest objective.

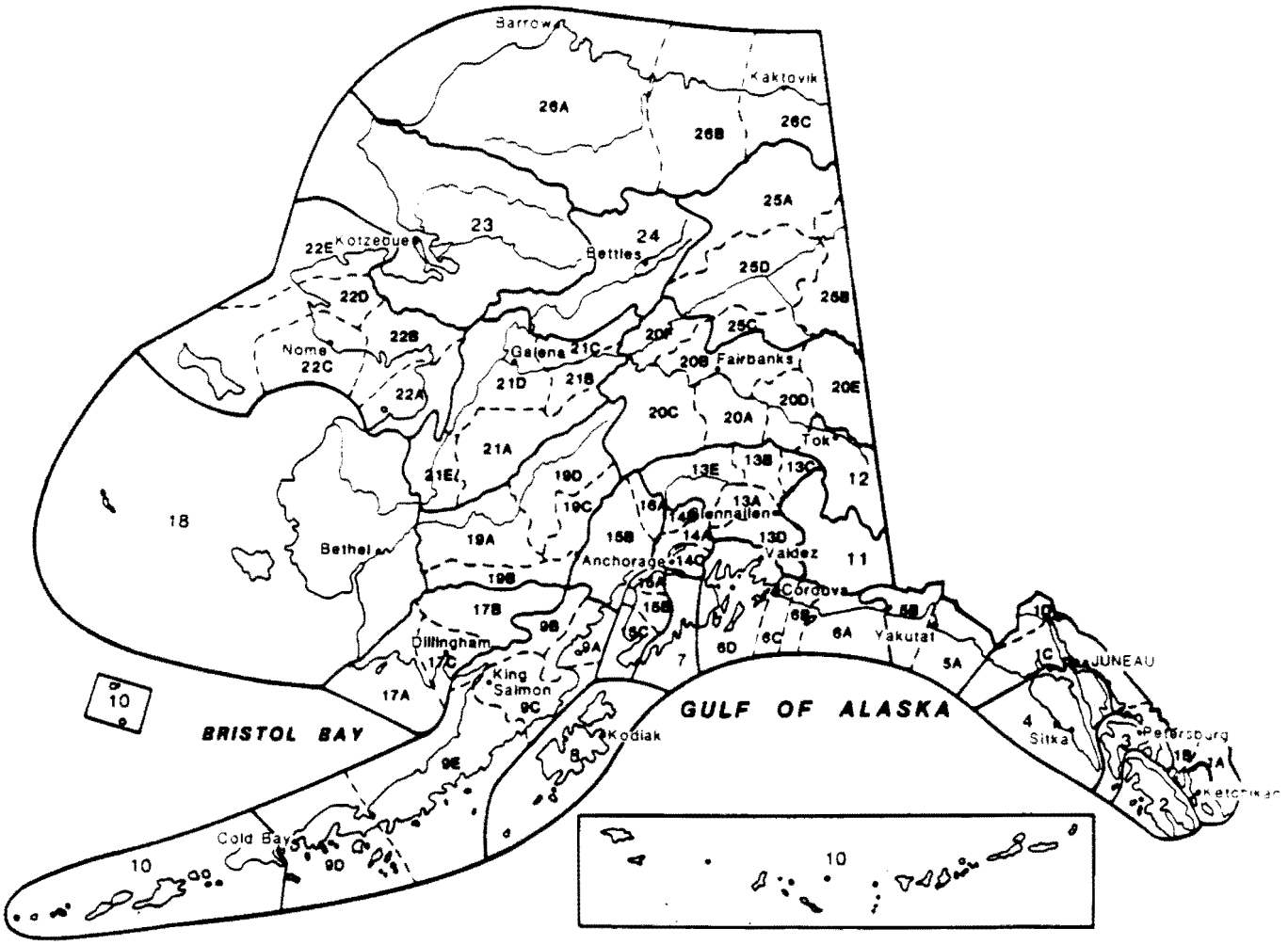
Segment Period Project Costs:

	Personnel	Operating	Total
Planned	29.1	14.5	43.6
Actual	29.1	14.5	43.6
Difference	0.0	0.0	0.0

Submitted by:

Michael G. McDonald
Assistant Management Coordinator

Alaska's Game Management Units



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 allots funds back to states through a formula based on each state's geographic area and number of paid hunting license holders. Alaska receives a maximum 5% of revenues collected each year. The Alaska Department of Fish and Game uses federal aid funds to help restore, conserve, and manage wild birds and mammals to benefit the public. These funds are also used to educate hunters to develop the skills, knowledge, and attitudes for responsible hunting. Seventy-five percent of the funds for this report are from Federal Aid.

PAT COSTELLO