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Division of Wildlife Conservation

Federal Aid in Wildlife Restoration  
Annual Performance Report  
Survey-Inventory Activities  
1 July 1996- 30 June 1997

# DEER

Mary V Hicks, Editor



Pat Costello

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Study 2.0  
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**Tony Knowles, Governor**

**DEPARTMENT OF FISH AND GAME**  
**Frank Rue, Commissioner**

**DIVISION OF WILDLIFE CONSERVATION**  
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**Project Title:** Southeast Alaska Deer Population Management

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

Unit 2 (3,900 mi<sup>2</sup>)  
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<sup>2</sup> 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 6 Value Comparison Units (VCUs) within Subunit 1A and 17 VCUs within 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<sup>2</sup> density objective was met in 4 of the 23 sampled VCUs (574, Snakey Lakes; 584, Little Ratz; 621, 12-mile; and 999, Gravina Island). Estimated densities in these areas ranged from 45-62 deer/mi<sup>2</sup>. Our lowest observed densities were at Baker Island (VCU 569), Kitkun Bay (VCU 679), Spacious Bay (VCU 722), and Margaret Lake (VCU 738) where estimates ranged from 4-18 deer/mi<sup>2</sup>. Of the 23 VCUs sampled during 1997, 7 were higher than when last sampled (VCUs 539, 569, 578, 584, 621, 752, and 999), 10 were lower than when last sampled (VCUs 528, 532, 554, 561, 575, 625, 635, 716, 719, and 738), 4 were the same as previously observed (VCUs 549, 587, 679, and 722), and 2 were sampled for the first time during 1997 (VCUs 527 and 628). Overall, deer densities in Subunit 1A have declined slightly during the past year, while densities in Unit 2 have remained stable.

**Project Location:** Unit 1B (3,000 mi<sup>2</sup>)  
Southeast Mainland from Cape Fanshaw to Lemesurier Point

Unit 3 (3,000 mi<sup>2</sup>)  
All islands west of Subunit 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 (<1500 ft elevation) to 32 deer/mi<sup>2</sup>, measured by a mean pellet density of 1.0 pellet group/20 m<sup>2</sup> plot.

**Work Accomplished During the Project Segment:** We completed spring pellet group surveys at Woewodski (1.56 pellet-groups/plot), Blind Slough (1.61 pellet-groups/plot), Dry (1.26 pellet-

groups/plot), and Onslow (0.73 pellet-groups/plot). Twenty-five Mitkof Island deer were radiocollared as part of a cooperative study with the U. S. Forest Service.

We estimated deer harvests from Unit 1B and Unit 3 from a regional questionnaire mailed to a random sample of deer hunters.

**Progress Meeting Project Objectives:** Deer pellet surveys met project objectives in the 3 areas surveyed on Mitkof Island; however, the Onslow survey on Etolin Island did not meet our objectives. Results from the 1996-97 hunter questionnaire indicate 56 deer were harvested from Unit 1B and 577 from Unit 3. This represents a 33% decrease from the 1995-96 season.

**Project Location:** Unit 1C (7,600 mi<sup>2</sup>)  
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 2.0 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:** Preliminary harvest data from the regional mail questionnaire sent to a stratified sample of deer hunters estimated that 449 deer were taken within the unit, with 64% being bucks. Hunter success increased from 21.2% to 27% and hunters spent an average of 8.2 days for each deer harvested. Cold, windy weather limited hunter access, and low snowfall allowed deer to remain dispersed throughout their habitat through 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.

Pellet group surveys were completed at Point Hilda and North Douglas on Douglas Island. At North Douglas, 322 plots were measured in 3 transects with a mean of 1.43 pellet groups per plot. Two hundred fifty-two plots in 3 transects were examined at Inner Point, resulting in a mean pellet group density of 2.36 groups per plot. Shelter Island pellet transects (311 plots) yielded an average of 2.5 groups per plot. All of these results were increases from the previous inventories and were, in most cases, the highest ever recorded.

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, compared to the Inner Point area, is consistent with historical surveys and may relate to habitat quality and/or increased

accessibility for hunters in North Douglas. Pellet densities increased to the point that at Inner Point and on Shelter Island, we are meeting the management objective for pellet densities. No plots were examined on Lincoln Island during this report period.

**Project Location:** Unit 4 (5,800 mi<sup>2</sup>)  
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 level of 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 completed pellet-group surveys to assess population levels and trends in Unit 4. A survey questionnaire was mailed to a sample of harvest ticket holders to determine deer hunter effort and success information. We walked beach mortality transects near Sitka during late spring to assess overwinter survival/mortality from the previous winter.

**Progress Meeting Project Objectives:** According to the results of the 1996-97 hunter survey, we achieved all 3 management objectives. The average kill was 1.9 deer per hunter with a hunting effort of 2.7 days per deer. Males made up 72% of the harvest. We surveyed 11 deer mortality transects and observed an average of 0.9 winter-killed deer carcasses per mile of beach. This was down slightly from the 1.2 average observed during the previous spring.

**Project Location:** Unit 5 (5,800 mi<sup>2</sup>)  
Cape Fairweather to Icy Bay, east 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 use of the regional mail questionnaire, but results are not available for this report. The reported harvest for 1996 was probably less than 10 animals, similar to harvests in other years since the hunt reopened in 1991.

No pellet group surveys were undertaken in this unit during this report period. Anecdotal evidence indicates that wolves may be affecting deer numbers on the small islands in Yakutat Bay. Since these are the only relatively snow-free habitats in the area, heavy predation pressure on the islands could result in substantial declines to this introduced deer population.

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

**Segment Period Project Costs:**

	<u>Personnel</u>	<u>Operating</u>	<u>Total</u>
Planned	44.3	50.8	95.1
Actual	62.2	50.8	113.0
Difference	17.9	00.0	17.9

Area staff increased pellet-group sampling effort in response to concerns and uncertainties about regional deer population levels.

Submitted by:

Doug Larsen  
Acting Management Coordinator

**Project Title:** Southcentral Alaska Deer Management

**Project Location:** Unit 6 (10,140 mi<sup>2</sup>)  
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. Total harvest was 1926, with males composing 66% of the take. Success rate was 63%, and successful hunters harvested an average of 1.6 deer each. Montague Island provided 37% of the take, while Hinchinbrook and Hawkins islands produced 21% and 19%, respectively.

We conducted pellet group surveys from 14 May through 6 June on Montague, Hinchinbrook and Hawkins islands. Analysis of these data will be completed by August 1997.

**Progress Meeting Objectives:** We achieved all management 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<sup>2</sup>)  
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 During the Project Segment Period:** We monitored hunting activities and harvest by a mail questionnaire. Preliminary results indicated the 1996 harvest was 8944 deer, comprising 79% males. Eighteen percent of the harvest was from Afognak, Raspberry, and Shuyak islands; 72% 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 102 carcasses in 14.5 miles of coastline (7.0 carcasses/mi), with 87% fawns. Heavy snowfall in early December 1996 forced deer to the coast where they remained until early January when rain and warmer temperatures improved wintering conditions. By mid-December fawns were severely stressed, and dead deer were found at several locations by area residents throughout the remainder of the winter. During a 13 March aerial survey in Viekola, Uganik and Spiridon Bay, I noted that southerly exposures were mostly snow-free at 150-250 m elevation and deer were in good condition.

**Progress Meeting Objectives:** Preliminary results from the hunter questionnaires indicated the harvest increased from 7312 deer in 1995 to 8944 deer in 1996. The 1996 harvest exceeded the

8000 deer objective. High losses of fawns during the 1996-97 winter slowed an increasing trend in the deer population. Hunter's comments on questionnaires indicated the deer population in southern Kodiak Island is again approaching the high level of the early 1980s. Responding to the increasing trend, the Board of Game adopted our recommendation to delete the bag limit on antlerless deer for Afognak, Raspberry, and Afognak islands for the 1997 season.

**Segment Period Project Costs:**

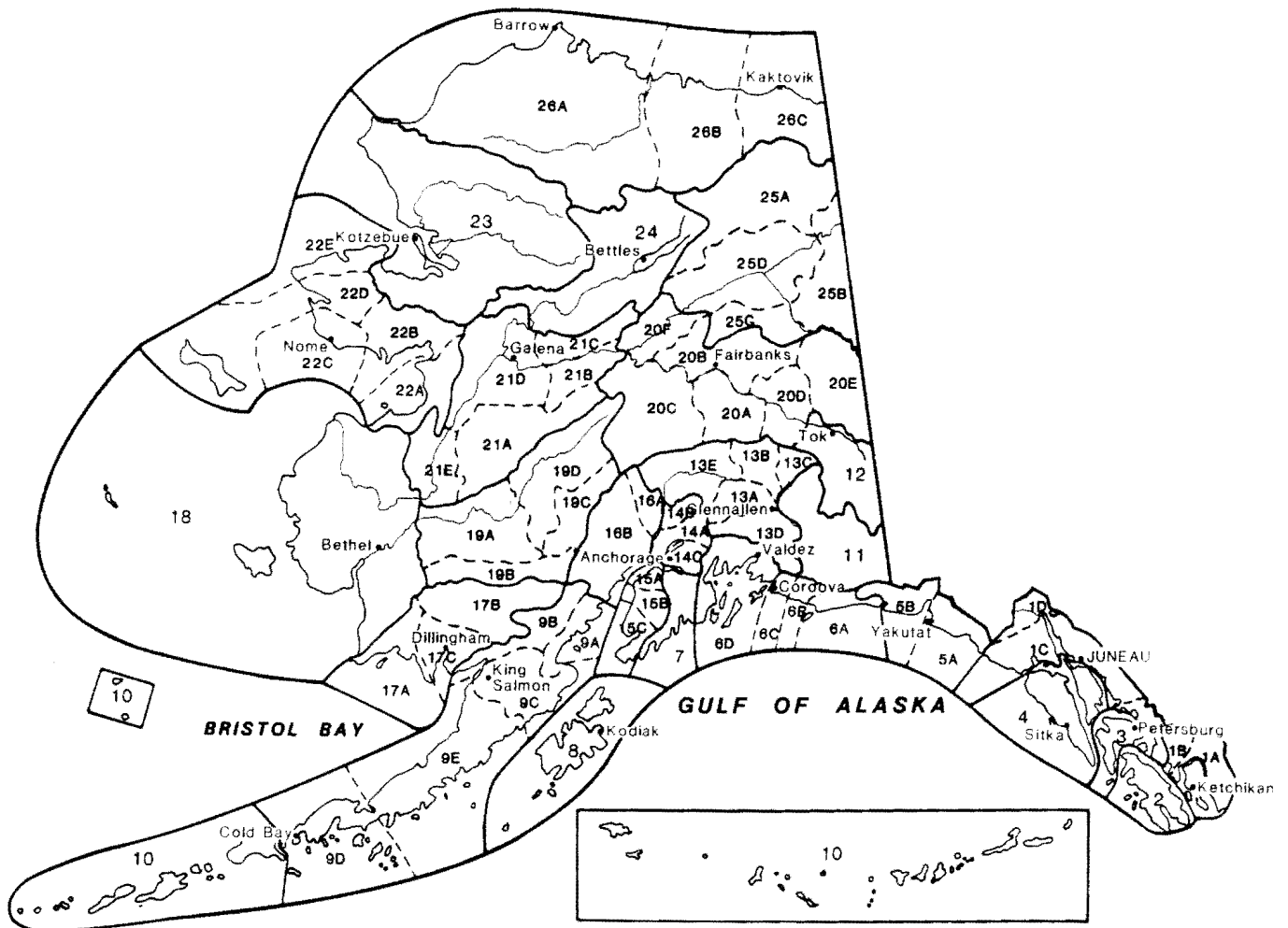
	<u>Personnel</u>	<u>Operating</u>	<u>Total</u>
Planned	29.1	14.8	43.6
Actual	29.1	14.8	43.9
Difference	0.0	0.0	0.0

Submitted by:

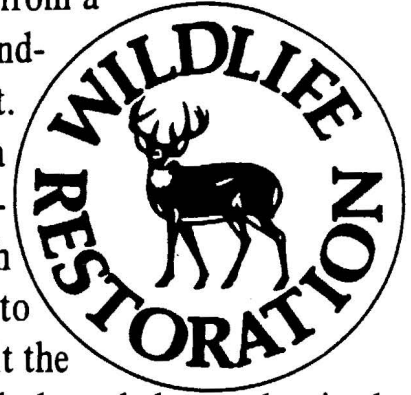
Michael G. McDonald  
Assistant Management Coordinator



# 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 FederalAid 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. TheAlaska 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