

Alaska Department of Fish and Game
Division of Wildlife Conservation

Federal Aid in Wildlife Restoration
Annual Performance Report of
Survey - Inventory Activities
1 July 1994 - 30 June 1995

DEER

Mary V. Hicks, Editor



PAT COSTELLO

Grant W-24-3
Study 2.0
December 1995

STATE OF ALASKA
Tony Knowles, Governor

DEPARTMENT OF FISH AND GAME
Frank Rue, Commissioner

DIVISION OF WILDLIFE CONSERVATION
Wayne L. Regelin, Director

Persons intending to cite this material should receive permission from the author(s) and/or the Alaska Department of Fish and Game. Because most reports deal with preliminary results of continuing studies, conclusions are tentative and should be identified as such. Please give authors credit.

Free copies of this report and other Division of Wildlife Conservation publications are available to the public. Please direct requests to our publications specialist.

Mary Hicks
Publications Specialist
ADF&G, Wildlife Conservation
P.O. Box 25526
Juneau, AK 99802
(907) 465-4190

The Alaska Department of Fish and Game administers all programs and activities free from discrimination on the basis of race, religion, color, national origin, age, sex, marital status, pregnancy, parenthood, or disability. For information on alternative formats for this and other department publications, please contact the department ADA Coordinator at (voice) 907-465-4120, (TDD) 1-800-478-3648, or FAX 907-586-6595. Any person who believes she/he has been discriminated against should write to ADF&G, PO Box 25526, Juneau, AK 99802-5526 or O.E.O., U.S. Department of the Interior, Washington DC 20240.

Project Title: Southeast Alaska Deer Management

Project Location: Subunit 1A (5,300 mi²)
Ketchikan area including the mainland draining into Behm and
Portland Canals

Unit 2 (3,600 mi²)
Prince of Wales Island and adjacent islands south of Sumner Strait and
west of Kashevarof Passage and Clarence Strait

Project Objectives and Activities:

1. Maintain deer populations in excess of 45 deer per mi² of winter range (1.4 pellet-groups per plot) in Subunit 1A and Unit 2.
2. Monitor deer densities using pellet-group surveys.

Work Accomplished During the Project Segment Period: We completed deer pellet-group surveys in 4 Value Comparison Units (VCUs) within Subunit 1A and 3 VCUs within Unit 2. Using fixed-wing aircraft, we completed alpine surveys of Gravina Island in Subunit 1A and Eudora Mountain in Unit 2 during July. 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/mi² density objective was met in 2 of 7 sampled VCUs (VCU 625, Trocadero Bay and VCU 719, Port Stewart). With density estimates of 41 and 42 deer/mi², respectively, VCUs 575 (Thorne Bay) and 716 (Helm Bay) almost met our objective. Our lowest observed densities were at Kitkun Bay (VCU 679), Spacious Bay (VCU 722), and Margaret (VCU 738), where estimates ranged from 13 to 22 deer/mi². Of 7 VCUs sampled, 3 were higher than when last sampled (VCUs 575, 719, 738) and 3 were lower (VCUs 679, 716, and 722); 1 was sampled for the first time (VCU 625). Deer densities in southern Southeast have increased slightly during the past year.

Project Location: Subunit 1B (3,000 mi²)
Southeast Mainland from Cape Fanshaw to Lemesurier Point

Unit 3 (3,000 mi²)
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: Increase populations on deer winter range (<1,500 ft elevation) to 32 deer/mi², measured by a mean pellet density of 1.0 pellet-group/20 m² plot.

Work Accomplished During the Project Segment: Spring pellet-group surveys were conducted at Security Bay, Portage Bay, and Woewodski, resulting in values of .26, .57, and 1.38 pellet-groups/plot, respectively.

Harvest data for Lindenberg Peninsula on Kupreanof Island and Mitkof Island derived from a registration permit report. Harvest data for the remainder of Unit 3 and Subunit 1B was estimated from a regional questionnaire mailed to a random sample of deer harvest ticket holders.

Progress Meeting Project Objectives: All 3 deer pellet survey areas in Unit 3 show a slight increase in deer densities. The Woewodski survey area was the only one to meet the project objective of a mean pellet density of 1.0 pellet-groups/plot.

Anecdotal information indicates deer are plentiful on Zarembo Island.

In the registration permit hunt area, we issued 729 permits and 570 hunters reported hunting. The reported harvest was 159 bucks, and hunters spent a total of 1950 days in the field. Results from the final 1993/94 survey questionnaire estimated 185 deer harvested in Subunit 1B for a 56% success rate and 670 deer harvested in the nonpermit area of Unit 3 for a success rate of 46%. Hunters harvested 189 deer in Subunit 1B, a 51% success rate, and 649 deer in the remainder of Unit 3, a success rate of 47%.

Project Location: Subunit 1C (7,600 mi²)
Southeast Alaska mainland and the islands of Lynn Canal and Stephens Passage between Cape Fanshaw and the latitude of Eldred Rock, including Sullivan Island and the drainages of Berners Bay

Project Objectives and Activities:

1. 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.
2. Monitor the deer harvest.
3. Participate in the public planning process.
4. Participate in the 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 showed 634 deer taken in the unit. Bucks were 63% of deer killed. Hunter success increased to over 36%, and successful hunters spent an average of 4.2 days afield. Early severe snow accumulation

increased deer vulnerability and contributed to heavy harvest in early winter. Rains melted much of the snow by late December, and conditions became mild.

We completed pellet-group surveys on Shelter and Douglas islands. Mean pellet-group density was measured on 297 plots in 6 transects on Shelter Island at 1.4 pellet groups per plot. At north Douglas Island 306 plots were measured in 3 transects; mean pellet density was 0.9 pellet groups per plot. We examined 254 plots in 3 transects at Inner Point and Point Hilda; mean pellet density was 1.4 pellet groups per plot. Lincoln Island was not surveyed.

No planning meetings were held during the report period.

Progress Meeting Project Objectives: Pellet-group densities were lower than in recent surveys. The lower density at North Douglas compared to deer density of Inner Point/Point Hilda is consistent with earlier surveys. The Shelter Island density was also lower than the previous count. Counts were well below the objective of 2.0 pellet groups per plot. The decrease from 1994 may reflect high harvest and early winter mortality.

Project Location: Unit 4 (5,800 mi²)
Admiralty, Baranof, Chichagof, and adjacent islands

Project Objectives and Activities:

- Maintain a population density capable of sustaining an average hunter harvest of at least 1.5 deer, a minimum success rate of 1 deer killed per 4 days hunting, and a male deer harvest at 60% of the total.
- 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. We mailed a survey questionnaire to a sample of harvest ticket holders to determine deer hunter effort, success, and hunting locations.

Progress Meeting Project Objectives: According to preliminary results of the 1994/95 hunter survey, all 3 management objectives were achieved. The average kill was 2.5 deer per hunter (up from 2.1 deer in 1993/94), with a hunting effort of 2.0 days per deer (a decrease from 2.6). Males composed 68% of the harvest compared to 70% in the previous season.

Project Location: Unit 5 (5,800 mi²)
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; the reported hunter success rate was 27%, with 5 bucks taken. Successful hunters averaged more than 4 days afield. Although personnel time was shifted from this project to work on Unit 4 brown bear harvest assessment, additional pellet counts were accomplished.

Progress Meeting Project Objectives: No management objectives were established for this unit.

Segment Period Project Costs:

	<u>Personnel</u>	<u>Operating</u>	<u>Total</u>
Planned	88.8	50.4	139.2
Actual	82.5	50.4	132.9
Difference	6.3	0	6.3

Submitted by:

Bruce Dinneford
Management Coordinator

Project Title: Southcentral Alaska Deer Management

Project Location: Game Management Unit 6 (10,140 mi²)
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 2507, with males composing 64% of the harvest. Success rate was 68% and successful hunters harvested an average of 2.0 deer. Montague Island provided 29% of the take, while Hawkins and Hinchinbrook Islands produced 28% and 20%, respectively.

We conducted pellet-group surveys from 1 through 11 June on Montague, Hinchinbrook and Hawkins. 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 mi²)
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 10,401 deer. Males composed 80% of the harvest, and hunter success was 83%. Twenty-one percent of the harvest was located on Shuyak, Afognak, and Raspberry islands; 79% of the harvest was on Kodiak and adjacent small islands. Over 15% of the harvest occurred in the Olga Bay drainage of southern Kodiak Island.

We surveyed winter mortality at 2 sites on Kodiak Island and 1 site on Afognak Island. We found 60 carcasses in 15.5 miles of coastline (3.9 carcasses/mi.) and 70% were fawns. The winter loss was light overall, with the highest mortality in Ugak and Kiliuda Bay drainages in northeastern Kodiak Island.

Progress Meeting Objectives: The estimated harvest increased from 6254 deer in 1993-94 to 10,401 in 1994-95, well above the 8000 deer objective. Hunter success increased slightly

from 80% in 1993-94 to 83% in 1994-95. The deer population continued to increase, but it remained well below the previous peak in the mid 1980s.

Segment Period Project Costs:

	<u>Personnel</u>	<u>Operating</u>	<u>Total</u>
Planned	33.1	12.3	45.4
Actual	33.1	12.3	45.4
Difference	0.0	0.0	0.0

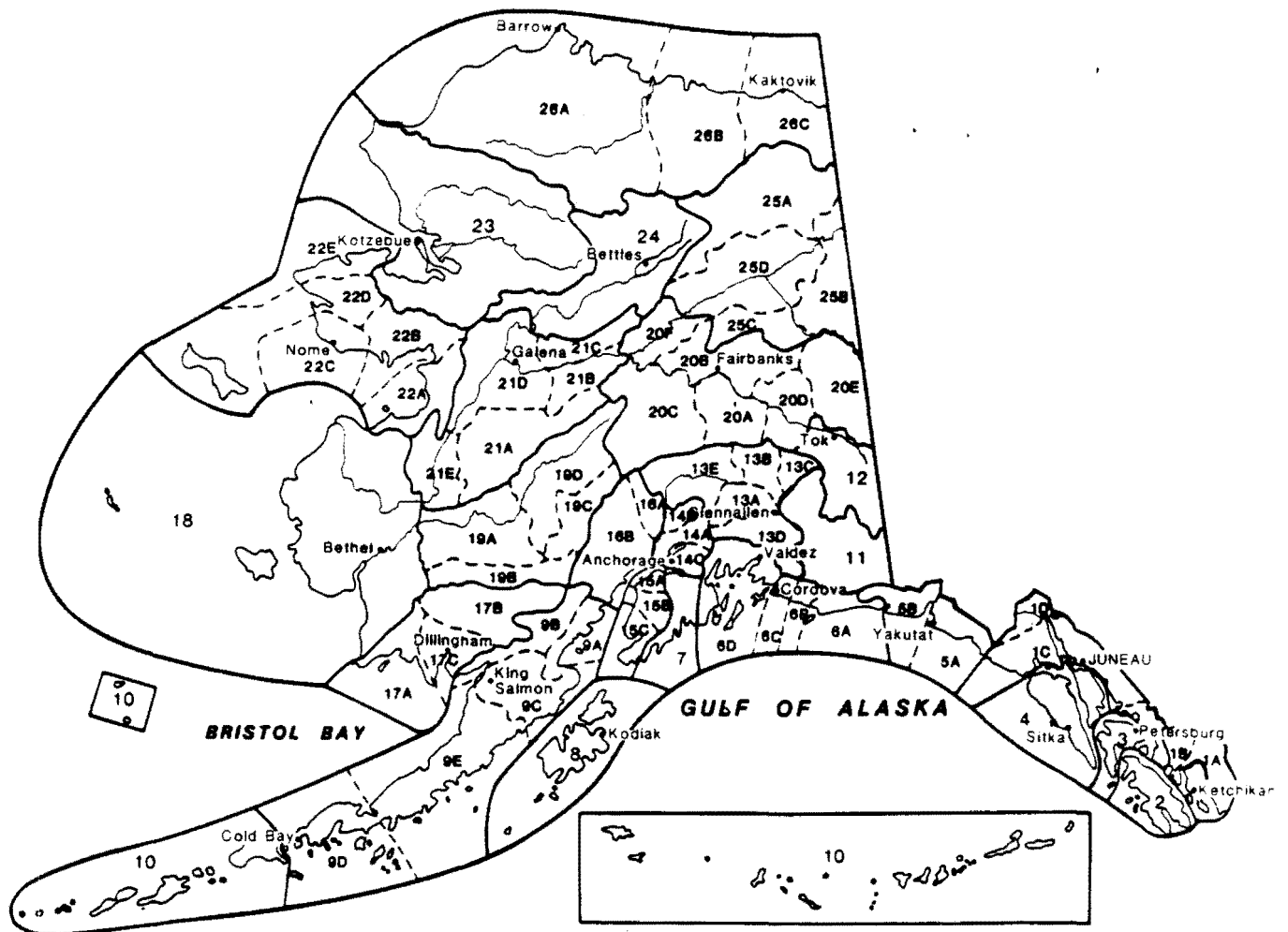
Submitted by:

Jeff Hughes
Survey-Inventory Coordinator

NOTES

NOTES

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