Alaska Department of Fish and Game
Division of Wildlife Conservation

Federal Aid in Wildlife Restoration
Annual Performance Report
Survey-Inventory Activities
1 July 1999 - 30 June 2000

DEER

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Grant W-27-3
Study 2.0
September 2000

PERFORMANCE REPORT

Project Title: **Southeast Deer Population Management**

Project Location: Unit 1A (5000 mi^2)
Ketchikan area including mainland draining into Behm and Portland Canals

Project Objectives and Activities

- Maintain deer populations in excess of 45 deer per mi^2 of winter range (1.4 pellet-groups per plot).
- Monitor deer densities using pellet-group surveys.
- Monitor deer winter survival using mortality transects.
- Monitor deer harvest using mailed questionnaire forms.

Work Accomplished during the Project Segment Period: We completed deer pellet-group surveys in 5 Value Comparison Units (VCUs) within Unit 1A. We evaluated winter deer mortality by walking previously established mile-long beach transects and enumerating winter kills. 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 not met in any of the 5 sampled VCUs. Estimated densities in Unit 1A ranged from 4 deer/mi^2 on Duke Island to 40 deer/mi^2 on Gravina Island. Of the 5 VCUs sampled during 2000, 3 were higher (VCUs 765, 767, and 769) and the others (VCU 748 and 999) were similar to the past 2 years. The estimated unit harvest was 287 deer, down from last year's estimate of 556 deer. A mild winter during 1999/00 resulted in little winter mortality. Beach mortality transects monitored during spring 2000 also showed little evidence of winter mortality. We believe the deer population remained stable during this report period.

Project Location: Unit 1B (3000 mi^2)
Southeast mainland from Cape Fanshaw to Lemesurier Point

Project Objectives and Activities

- Increase populations on deer winter range (<1500 ft elevation) to 32 deer/mi^2, measured by a mean pellet density of 1.0 pellet-group/20 m^2 plot.
- Monitor deer densities using pellet-group surveys.
- Monitor deer harvest using mailed questionnaire forms.

Work Accomplished during the Project Segment Period: Pellet counts were not conducted in Unit 1B. We estimated harvest data from a regional questionnaire mailed to a random sample of deer harvest ticket holders.

Progress Meeting Project Objectives: Results from the 1999–00 hunter questionnaire indicate 160 hunters (52 were successful) in Unit 1B harvested 287 deer. Bucks made up 86% of the harvest, .5 deer were taken per hunter, and 5.8 days were spent hunting for each deer harvested.

Project Location: Unit 1C (7600 mi^2)
Southeast 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.
- Gather annual harvest data through regional mail-out questionnaires regarding deer hunting.
- Participate in annual deer pellet survey

Work Accomplished during the Project Segment Period: Using preliminary harvest data from the regional mail questionnaire sent to a stratified sample of deer hunters, we estimated that 339 deer were taken within the unit, 59% of which were bucks. Successful hunters spent an average of 6.8 days afield for each deer harvested. Unlike the winter of 1998–99, the 1999–00 winter produced low snowfall that 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 unit probably increased. We did not conduct deer mortality investigations during this report period.

Pellet group surveys were completed at North Douglas and Point Hilda (Inner Point) on Douglas Island. At North Douglas a total of 282 plots were measured in 3 transects with a mean of 0.88 pellet groups per plot compared to a mean of 1.03 in 1998 (the most recent survey). At Point Hilda 280 plots were measured in 3 transects with a mean of 1.09 pellet groups per plot, compared to a mean of 1.06 in 1999.

Progress Meeting Project Objectives: The first objective of a mean pellet density of 2.0 pellet groups per plot was not met for either of the VCUs sampled. We used a random sample hunter survey to monitor the deer harvest.

Project Location: Unit 2 (3900 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 as measured by a mean pellet density of 1.4 pellet-groups per plot.

- Monitor deer densities using pellet-group surveys.

- Monitor deer winter survival using mortality transects.

- Monitor deer harvest using mailed questionnaire forms.

Work Accomplished during the Project Segment Period: We completed deer pellet-group surveys in 3 Value Comparison Units (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^2 density objective was not met in any of the 3 sampled VCUs. Estimated densities in Unit 2 ranged from 18 deer/mi^2 at Point Protection to 32 deer/mi^2 at Warm Chuck. Of the 3 VCUs sampled during 2000, 2 were lower (VCUs 527 and 561) and the remaining (VCU 635) was higher than the previous year. Harvest was estimated at 2549 deer, similar to the long-term average and slightly higher than last year's harvest estimate of 2492. Both the number of hunters and the success rate was similar to 1998. We believe the deer population remained stable in Unit 2 during this report period.

Project Location: Unit 3 (3000 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 (<1500 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 Period: We completed spring pellet group surveys at Security Bay, Bay of Pillars, Port Malmesbury, and Woewodski Island. The mean number of pellets per plot, respectively, was .22, .16, .11, and 1.36. Three of the 4 VCUs measured increased from the last time surveyed. Harvest data for Unit 3 was estimated from a regional questionnaire mailed to a random sample of deer harvest ticket holders.

Progress Meeting Project Objectives: Deer pellet surveys met project objectives in only 1 survey area. Results from the 1999–00 hunter questionnaire indicate 1199 hunters (572 were successful) in Unit 3 harvested 932 deer. Bucks made up 93% of the harvest, .8 deer were taken per hunter, and 5.8 days were spent hunting for each deer harvested. Zarembo Island had the highest harvest with 368 deer taken by 349 hunters (203 were successful).

Project Location: Unit 4 (5800 mi^2)
Admiralty, Baranof, Chichagof, and adjacent islands

Project Objectives and Activities

- Maintain a population density of deer 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 reported male deer harvest of at least 60% of the harvest.

Related Management Activities

- Collect population data through fecal pellet surveys
- Use a hunter survey to determine harvest and effort information
- Conduct deer mortality transects in key areas as needed

Work Accomplished During the Project Segment Period: We measured deer population trends through pellet-group surveys and subsequent analyses. Deer hunter harvest tickets were distributed and a survey questionnaire mailed to a sample of harvest ticket holders to collect data on deer hunter effort and success. Spring mortality transects were completed near Sitka. We collected paired long bones from fall hunter-killed deer and from bones collected during spring mortality transects. Marrow fat contents were determined for various sex and age classes of deer following a mild winter. A deer condition index route was established on Baranof Island in an effort to allow earlier prediction of the extent of starvation mortality. Incidence of lungworm and other parasites was investigated.

Progress Meeting Project Objectives: From extrapolations of the deer hunter survey, our objectives were met: the average reported number of deer per hunter was 2.1, with an average of 2.2 days afield per deer harvested, and bucks composed 71% of the reported harvest. We conducted deer pellet group surveys during spring 2000 in 7 areas within Unit 4. Data indicated deer populations remained slightly depressed in comparison to the previous year, probably due to a simple lag time decline inherent in the sample methods. Limited winter mortality transects were conducted on Baranof and Chichagof islands. We completed 8 miles of surveys on 7 established trend areas. No dead deer were found, further reflecting the relative mildness of the 1999–00 winter.

Project Location: Unit 5 (5800 mi^2)
Cape Fairweather to Icy Bay, eastern Gulf Coast

Project Objectives and Activities

- Maintain a population capable of supporting a 1-month season and a bag limit of 1 buck.

Work Accomplished during the Project Segment Period: We monitored harvest through the use of the regional mail-out questionnaire. Preliminary results indicate that harvest was 5 deer.

No pellet group surveys were conducted this year. Anecdotal evidence suggests that spotlighting for deer may account for a much higher harvest than the reported legal kill. Additionally, wolves may be negatively affecting deer numbers on the small islands in Yakutat Bay.

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

Segment Period Project Costs

	Personnel	Operating	Total
Planned	90.2	52.0	142.2
Actual	89.2	24.0	113.2
Difference	1.0	28.0	29.0

These budget figures do not include deer management code.

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. Total harvest was 2265, with males composing 54% of the take. Success rate was 61%, and successful hunters harvested an average of 1.3 deer each. Montague Island provided 40% of the take, while Hinchinbrook and Hawkins Islands produced 17% and 21%, respectively.

We conducted deer pellet surveys during 25 May–21 June 2000 with a total of 42 person-days on Montague, Hinchinbrook, and Hawkins islands. Preliminary results indicate that overall mean pellet groups per plot was down 30% from last year and 56% from spring 1998, a result of the severe winter of 1997–98. Analysis of these data will be completed by August 2000.

Progress Meeting Project Objectives: The deer population was able to sustain a harvest of 1500, and hunter success rate was greater than 50%. However, the proportion of males (54%) in the harvest was less than the objective of 60%.

Project Location: Unit 8 (8750 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 during the Project Segment Period: We monitored hunting activities and harvest by a mail questionnaire. Extrapolated results indicated the 1999 harvest was 3665 deer, including 75% males. Fifteen percent of the harvest was from Afognak, Raspberry, and Shuyak islands; 85% of the harvest was from Kodiak and small adjacent islands. Hunter success was 57% and successful hunters averaged 1.2 deer per hunter. The average number of days hunted was 5.5 days/hunter. Boats were the most common means of transportation (41%). Successful hunters also used aircraft (17%) and highway vehicles (15%). Most hunters were from Kodiak Island (42%), Anchorage (21%), or other Alaskan locations (19%). Only 18% of the hunters were nonresidents.

Winter mortality on Kodiak Island was very heavy during the 1998–99 winter, with at least 50% of the population suspected to have perished. Public concerns about the ability of the deer population to recover prompted the Board of Game to issue an emergency regulation reducing

the harvest of antlered bucks in late December. Mortality was significantly lower during the 1999–00 winter.

Progress Meeting Objectives: This was the second consecutive year in 4 years that harvest was less than the 8000 deer objective.

Segment Period Project Costs:

	Personnel	Operating	Total
Planned	27.6	13.3	40.9
Actual	27.6	13.3	40.9
Difference	0.0	0.0	0.0

Submitted by

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