

**FEDERAL AID
INTERIM PERFORMANCE REPORT**

ALASKA DEPARTMENT OF FISH AND GAME
DIVISION OF WILDLIFE CONSERVATION
PO Box 25526
Juneau, AK 99802-5526

COOPERATIVE ENDANGERED SPECIES CONSERVATION FUND

STATE: Alaska

GRANT AND SEGMENT NR.: E - 4 - 2

PROJECT NR.: 1

WORK LOCATION: Southeast Alaska with emphasis on Southern Southeast and Prince of Wales Island

PROJECT DURATION: 25 September 2004 – 30 September 2006

PROJECT REPORTING PERIOD: 25 September 2004 – 24 September 2005

PROJECT TITLE: Population Status of Prince of Wales Spruce Grouse in Southeast Alaska

Project Objectives:

Objective 1: Develop a better understanding of the distribution and relative abundance of spruce grouse in southeast Alaska and evaluate threats to the sustainability of the various populations.

Job/Activity 1a: Gather information from hunter harvested birds to determine species, sex, age, and location of harvest for grouse and ptarmigan through a cooperator wing collection program.

Job/Activity 1b: Conduct supplemental grouse surveys on remote islands and other locations where hunter harvest does not provide information on species presence.

Job/Activity 1c: Evaluate habitat conditions and potential habitat changes in areas where populations are currently found.

Objective 2: Evaluate the relatedness of populations on specific islands in SE Alaska and compare with other recognized subspecies of spruce grouse.

Job/Activity 2a: Conduct a genetic analysis of tissues collected from hunter harvested birds in different locations to assess relatedness across islands and to other mainland populations of grouse

Job/Activity 2b: Collect specimens to evaluate morphological differences of populations and compare to genetic test of relatedness.

Objective 3: Evaluate the potential impacts of current and historical harvest on specific populations of grouse and ptarmigan.

Job/Activity 3a: Conduct a hunter harvest mail survey to gather information on current and historical harvest trends for grouse and ptarmigan throughout the region.

Job/Activity 3b: Use the survey to identify a network of grouse hunter cooperators in key areas of the region to report sighting rates and location information for specific populations of grouse.

Summary of Project Accomplishments:

Work in Objectives 1 and 2 was performed during the performance period, but was paid for by an additional Fish and Wildlife Service, Candidate Conservation contract. This additional funding has now expired and work on these objectives will continue into the future using Section 6 funds. The harvest survey, described in Objective 3 was completed with these funds.

1. Develop a better understanding of the distribution of grouse and ptarmigan within SE Alaska.

In 2005, 173 grouse and ptarmigan specimens were collected from hunters through a wing collection program. Of those, 20 were spruce grouse, 146 were blue grouse, and seven were ptarmigan. Spruce grouse were obtained from Zarembo, Prince of Wales, and San Fernando Islands. Supplemental surveys were conducted on Admiralty, Zarembo, and Heceta Islands; no spruce grouse were encountered on either Admiralty or Heceta islands. Birds found on Zarembo Island were associated with second-growth spruce-fir habitats. The wing collection program and supplemental surveys will continue over the next couple of years to collect additional samples needed for this evaluation.

2. Evaluate relatedness of population on specific islands in SE and compare with other recognized subspecies.

Tissue samples were collected from all 20 spruce grouse and submitted to the USFWS genetics lab in Anchorage for future analysis. Samples will continue to be collected over the next 2-4 years to obtain sufficient samples to conduct the comparative analysis between subspecies and island populations. Wing and tail samples have been archived for future morphological analysis.

3. Evaluate the potential impacts of current and historical harvest on specific populations of grouse and ptarmigan.

A grouse/ptarmigan harvest survey was sent to 3,500 licensed hunters in SE Alaska and 1,161 surveys were returned. These surveys are currently being analyzed to determine participation, effort, success, and location of hunting. Only preliminary analyses have been completed at this time. From the survey more than 100 individuals were identified as volunteers to participate in the wing collection program.

Project Costs: Federal share \$2809.40 + state share \$936.46 = total cost \$ 3745.86

Prepared By: Dale Rabe, Management Coordinator

Date: December 29, 2005

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ANNUAL PERFORMANCE REPORT**

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DIVISION OF WILDLIFE CONSERVATION
PO Box 25526
Juneau, AK 99802-5526

COOPERATIVE ENDANGERED SPECIES CONSERVATION FUND

PROJECT TITLE: A Population Status of Prince of Wales Spruce Grouse in Southeast Alaska

PRINCIPAL INVESTIGATOR: Dale Rabe, Acting Regional Supervisor

COOPERATORS: U.S. Forest Service and U.S Fish and Wildlife Service

GRANT AND SEGMENT NR: E-4-2

PROJECT NR: 1

WORK LOCATION: Southeast Alaska with emphasis on Southern Southeast and Prince of Wales Island

STATE: Alaska

PERIOD: 25 September 2006 – 24 September 2007

Project Objectives and Accomplishments

OBJECTIVE 1: Develop a better understanding of the distribution and relative abundance of spruce grouse in southeast Alaska and evaluate threats to the sustainability of the various populations.

JOB/ACTIVITY 1A: Gather information from hunter harvested birds to determine species, sex, age, and location of harvest for grouse and ptarmigan through a cooperator wing collection program.

Accomplishments: An additional 43 grouse and ptarmigan were collected through the wing survey program during this performance period. Species, sex, and age were determined in most cases, and in all cases for spruce grouse which are the focus of the study. Wing submissions from northern parts of the region have all been blue grouse; as a result future focus on wing collection will occur only in the southern part of the region.

JOB/ACTIVITY 1B: Conduct supplemental grouse surveys on remote islands and other locations where hunter harvest does not provide information on species presence.

Accomplishments: Weather and staffing constraints did not permit any additional supplemental surveys to be conducted to more remote islands. Because of very low likelihood of chance encounters with birds during such surveys, more emphasis has been placed on developing new and more reliable methods for finding birds during this year.

JOB/ACTIVITY 1C: Evaluate habitat conditions and potential habitat changes in areas where populations are currently found.

Accomplishments: During the performance period 17 spruce grouse were equipped with radio-telemetry transmitters. Birds were relocated on a regular basis and habitat

associations were recorded. Habitat use patterns will be compared with habitat availability during later phases of this study.

OBJECTIVE 2: Evaluate the relatedness of populations on specific islands in SE Alaska and compare with other recognized subspecies of spruce grouse.

JOB/ACTIVITY 2A: Conduct a genetic analysis of tissues collected from hunter harvested birds in different locations to assess relatedness across islands and to other mainland populations of grouse.

Accomplishments: A total of 66 spruce grouse samples have been collected from birds in SE Alaska and neighboring mainland areas of British Columbia. These samples are currently undergoing genetic analysis to determine the relatedness of various populations and to assess if additional samples that may be needed for statistical reliability of results.

JOB/ACTIVITY 2B: Collect specimens to evaluate morphological differences of populations and compare to genetic test of relatedness.

Accomplishments: Morphological measurements were taken from most of the spruce grouse caught and equipped with radio-transmitters. This information will be compared to equivalent measurements from other populations during a later phase of the study.

OBJECTIVE 3: Evaluate the potential impacts of current and historical harvest on specific populations of grouse and ptarmigan.

JOB/ACTIVITY 3A: Conduct a hunter harvest mail survey to gather information on current and historical harvest trends for grouse and ptarmigan throughout the region.

Accomplishments: No further work was done on this activity during this performance period. The mail-out survey has been completed and responses entered into a database for analysis. Some preliminary analyses have been completed, but additional work needs to be done. Findings from this job will be included in the final report.

JOB/ACTIVITY 3B: Use the survey to identify a network of grouse hunter cooperators in key areas of the region to report sighting rates and location information for specific populations of grouse.

Accomplishments: This activity has been completed and the survey identified more than 100 potential participants in the wing survey. Unfortunately, only a small percentage of those individuals actually submitted wings thus far. Additional cooperators will be identified by word-of-mouth and advertising in area offices.