FEDERAL AID
INTERIM PERFORMANCE REPORT

ALASKA DEPARTMENT OF FISH AND GAME
DIVISION OF WILDLIFE CONSERVATION
PO Box 115526
Juneau, AK 99811-5526

Alaska Department of Fish and Game
State Wildlife Grant

Grant Number: **T-3** **Segment Number: 1**

Project Number: **13**

Project Title: Distribution, abundance and ecology of forest owls in Southeast Alaska

Project Duration: July 1, 2004 – December 31, 2008

Report Period: July 1, 2007 – June 30, 2008

Report Due Date: September 30, 2008

Partner: U. S. Fish & Wildlife Service

Project Objectives:

Objective 1: Establish a Southeast Alaska Owl Network – train volunteers to participate in region-wide owl monitoring efforts.

Job/Activity 1a: Recruit and train volunteers in cooperation with the Juneau Raptor Center.

Job/Activity 1b: Send volunteers to the field to begin collecting data.

Objective 2: Design a survey protocol for nocturnal owls in Southeast Alaska

Job/Activity 2a: Use distance sampling, repeated surveys, and radio-telemetry to estimate probability of detection of at least one species of owl in SEAK and evaluate survey methods for estimating abundance of forest owls

Job/Activity 2b: Determine the influence of temporal, weather, and lunar factors on vocalizations of forest owls in Southeast Alaska

Objective 3: Describe distribution and abundance of forest owls in Southeast Alaska

Job/Activity 3a: Design and conduct broad-scale surveys for forest owls during the peak period of detectability and using the optimal survey method

Job/Activity 3b: Locate marked owls using radiotelemetry to describe habitat associations, nesting and roosting habitat (if possible), and diet through pellet analysis (if possible).

Job/Activity 3c: Investigate and opportunistically survey unroaded areas.

Objective 4: Develop recommendations for a broad-scale monitoring protocol for this species group.

Job/Activity 4a: Analyze data.

Job/Activity 4b: Write reports and journal articles.

Summary of Accomplishments:

Objective 1:

Job/Activity 1a: We continued to solicit volunteers for the Southeast Alaska Owl Network, in conjunction with the Juneau Raptor Center.

Job/Activity 1b: We continued to have volunteers document owl sightings and conduct silent and broadcast surveys during the spring of 2008 through the Southeast Alaska Owl Network. We attempted to have surveys conducted in areas that, due to heavy snow during the winter/spring of 2007, volunteers were unable to access.

Objective 2:

Job/Activity 2a: The field portion of this job was completed during 2006; final analysis and reporting will be completed during the final year of this project, by 31 December 2008.

Job/Activity 2b: The field portion of this job was completed during 2006; final analysis and reporting will be completed during the final year of this project.

Objective 3:

Job/Activity 3a: Based on results of objectives 1 and 2, we designed and implemented a survey protocol for forest owls in Southeast Alaska. We utilized the Southeast Alaska Owl Network to conduct surveys in 7 communities throughout Southeast Alaska during the peak period of detectability. Because of the record snowfall in Southeast Alaska during the winter of 2006/2007, many survey points and routes that would normally have been available during this time period were unavailable. Therefore, we attempted to have volunteers survey these points or routes that were inaccessible last year. To date, many volunteers have not turned in data from their surveys so these numbers are incomplete. Once we receive all volunteer data, final analysis and reporting will be completed. Some of these data were presented as a poster at the 13th Alaska Bird Conference entitled "Attack of the Barred Owl in Southeast Alaska".

Job/Activity 3b: Based on radio-telemetry relocations of western screech-owls gathered during 2005 and 2006, we generated estimates of use area size and documented roosting and nesting habitat. These data were reported in a talk entitled "Home Range and Habitat Use of Western Screech-owls in Southeast Alaska" at the 13th Alaska Bird Conference. Final analysis of owl relocation data will be completed during the final year of this project.

Job/Activity 3c: While planning our survey effort this year, we evaluated several options for surveying unroaded areas for owls. However, because our goal was to design a monitoring protocol that could continue based solely on the volunteer network, we did not try to use methods this year that, in all likelihood, would be unavailable to volunteers (i.e., snowmachines) in later years. We did not attempt to survey unroaded coastal areas from skiff due to the numerous problems associated with that method, such as boating at night and difficulty hearing owls over water noise. We feel that, at this time, surveying away from roads is too difficult and would not provide sufficient additional information.

Objective 4:

Job/Activity 4a: Because of heavy snows in 2007, we had volunteers conduct additional surveys in spring 2008. We incorporated those data into previously collected data for

analysis. In addition, we received additional data from surveys conducted in the early 1990s and have been working to incorporate that into our analysis. Analysis of owl relocation data was completed during the FY08 and will be finalized in FY09.

Job/Activity 4b: Because final analysis was not completed during FY08, we did not work towards any publications. However, we have delineated several manuscripts with target journals for submission in FY09.

Significant Deviations: None

Project Leader: Stephen B. Lewis

Additional Information: An article on one aspect of this work, documentation of barred owl expansion in to southeast Alaska, was reported in the Alaska Science Forum on 9 April 2008 (http://www.gi.alaska.edu/ScienceForum/ASF19/1902.html).