

**Alaska Department of Fish and Game  
State Wildlife Grant**

**Grant Number:** T-3 **Segment Number: 1**  
**Project Number:** 5.15  
**Project Title:** Determination of nesting locations and relative productivity of short-eared owls in East-central Alaska  
**Project Duration:** 1 July 2008 – 30 June 2011  
**Report Period:** 1 July, 2008 – 30 June 2009  
**Report Due Date:** September 30, 2009  
**Partner:** Alaska Department of Fish and Game

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**Project Objectives:**

OBJECTIVE 1: Test the use of helicopter (Robinson R44) flushing techniques to determine efficacy of finding nests in the Fortymile drainages, Alaska.

JOB/ACTIVITY 1A: Establish standardized protocols for helicopter airspeed and altitude (above-ground-level) that will lead to locating nests/nesting locations of short-eared owls.

JOB/ACTIVITY 1B: Provide baseline information on relative values of various habitat types for short-eared owl nesting.

JOB/ACTIVITY 1C: At each identified short-eared owl nest location, document productivity (number of eggs/young) and timing of various phases of the reproductive cycle in eastern Interior Alaska.

JOB/ACTIVITY 1D: Collect information on short-eared owl diets based on prey remains found in/near nests.

**Summary of Project Accomplishments:**

OBJECTIVE 1:

JOB/ACTIVITY 1A: Establish standardized protocols for helicopter airspeed and altitude (above-ground-level) that will lead to locating nests/nesting locations of short-eared owls.

T. Booms and a field technician searched for nesting Short-eared Owls from an R44 helicopter for 13 hours over three days in June and covered 416 linear kilometers of potential nesting habitat. We observed a total of 45 owls. We flushed 28 owls from the ground in front of the helicopter and found 2 Short-eared Owl nests. Airspeed varied from 18-55 km/hr and altitude varied from 10-40 meters above ground. The most effective, efficient airspeed for flushing Short-

eared Owl was 37 km/hr at an altitude of 15-20 meters above ground. We recommend these values be followed for future survey protocols.

**JOB/ACTIVITY 1B:** Provide baseline information on relative values of various habitat types for short-eared owl nesting.

While surveying the 416 km, almost all Short-eared Owls observed were in grassland, tundra, or low shrubland habitat types. Both nests occurred in areas with mixed dwarf birch, willow, sedges, and grasses. Few birds were found in areas that had not been burned. Detailed habitat data was collected at each nest site and these data will be compiled for descriptive purposes.

**JOB/ACTIVITY 1C:** At each identified short-eared owl nest location, document productivity (number of eggs/young) and timing of various phases of the reproductive cycle in eastern Interior Alaska.

T. Booms counted the eggs in each nest (1 and 3 eggs) and returned the following day to determine if eggs were still being laid. Both nests contained an additional egg on the subsequent day, indicating the owls were still in the egg-laying phase.

**JOB/ACTIVITY 1D:** Collect information on short-eared owl diets based on prey remains found in/near nests.

T. Booms searched both nest locations extensively for prey remains or pellets, but found no evidence of either. No information on diet could therefore be collected.

**Prepared By:** Travis Booms