

**FEDERAL AID  
FINAL 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-1 **Segment Number:** 6  
**Project Number:** 5  
**Project Title:** Distribution and seasonal habitat use of American dippers  
**Project Duration:** June 7, 2004 – December 31, 2006  
**Report Period:** July 1, 2006 – December 31, 2006  
**Report Due Date:** March 31, 2007  
**Partner:** Willson Ecological Consulting

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**Project Objectives**

1. Determine distribution of American dippers in the Juneau area with respect to watershed and stream characteristics in nesting and wintering seasons;
2. Evaluate the limits to local dipper population size.

**Summary of Project Accomplishments for entire project**

**Objective 1:** Over 3 field seasons (2004-2006), we surveyed about 40 streams for breeding dippers (25 were occupied), found 110 nests, and banded 101 adult dippers. Occupied streams were larger (estimated 90% streamflow exceedance >0.3 cfs) and had a higher average density of benthic invertebrates (21 stream reaches, densities up to 250+ per sample) than unoccupied streams (10 stream reaches, densities up to 150 per sample); small streams were not occupied even if apparently suitable nest sites were available. Some pairs nested on glacial streams. In winter, dippers moved around and could be found on virtually any stream; they also commonly foraged in deltas, chiefly on amphipods (densities up to 700/sample). There were no mortalities from capture activities.

**Objective 2:** A top limit to abundance of breeding dippers appears to be set by the availability of nest sites on streams above a minimum size (an inferred food limitation). Within this limit, winter mortality can reduce numbers such that not all territories are occupied in a given year. In addition, territorial aggression is capable of limiting density.

**Project Accomplishments during last segment period only (July 1, 2006 – December 31, 2006)**

**Objective 1:** Continued to monitor 2006 nests for fledging success, banded two more adults, searched for banded birds in winter (so far have resighted 14). There were no mortalities from capture activities.

**Objective 2:** See above. By continuing the project through next spring (without the benefit of ADF&G funding), we will obtain more information on winter mortality and annual survival, territory occupancy, and nesting ecology.

**Significant Deviations:** none

**Project Leader:** Mary F. Willson

**Additional Information:**

Outreach: Seminar at University of Alaska-Southeast, participation by 2 UAS classes and several volunteers, shared data with USGS office in Black Hills (by request), presentation to Alaska Bird Conference 2006, training session for USFS interpreters at Visitor Center; invited to present talk to bird group in Sitka (scheduled for Feb 2007), recently contacted by 2 writers in Fairbanks and Anchorage for source material.

Although all SWG funds have been expended on this project, the partner has extended its contract with ADF&G to further analyze data from existing marked birds and write a comprehensive report on the study. Work is expected to be completed by December 2007.