

**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: 7
Project Title: Breeding ecology and habitat quality for arctic warbler in Interior Alaska
Project Duration: July 1, 2004 – June 30, 2007
Report Period: July 1, 2006 – June 30, 2007
Report Due Date: September 30, 2007
Partner: Alaska Bird Observatory

Project Objectives

1. Document Arctic Warbler breeding chronology, productivity, territory size, and site fidelity; and
2. Develop a hierarchical model of habitat quality for the Arctic Warbler in Interior Alaska.

Summary of Project Accomplishments for entire project

Objective 1: We completed three field seasons of research on Arctic Warblers along the Denali Highway. We found and monitored 100 Arctic Warbler nests, documenting breeding phenology and productivity. We found extraordinary nest success (92%). We colorbanded most breeding adults. This allowed us to plot territories, observe individual behavior, and document the rate of return of adults. Return rates varied with year ranging from 25-75%.

Objective 2: We created a model of habitat preferences using nest and non-nest based habitat sampling. There is a positive correlation between nest areas and shrub density. Areas of moderate shrub cover were preferred over areas with denser cover. This corresponds to higher densities of nesting Arctic Warblers found on the more open study plots at higher elevation. We also conducted point counts transects in several areas to test the results of our habitat model.

Project Accomplishments during last segment period only (July 1, 2006 – June 30, 2007)

Objective 1: We continued to gather data on breeding chronology (arrival dates, first egg date, fledging dates), monitor nests to document nest success, colorband adults, band nestlings, observe males to assess the size of their territories, and describe nest habitat.

Objective 2: After the field season, we conducted extensive analyses of nest success, productivity, site fidelity, and other aspects of the project. We presented the results at the Alaska Boreal Partner's in Flight Meeting in Anchorage in December. We integrated the 2006 results with the results from the previous years and completed a draft of the final report. It is currently being reviewed by ABO staff and will be sent for peer review before submission to ADF&G.

T-1-6-7 Arctic warbler
FY07 Final Performance Report

Significant Deviations: None

Project Leader: Dr. Susan Sharbaugh and David Shaw