

**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:** 5.10  
**Project Title:** The population status and trend of peregrine falcons, gyrfalcons and other raptors in western and northwestern Alaska (Region V)  
**Project Duration:** July 1, 2006 – June 30, 2010  
**Report Period:** July 1, 2007 – June 30, 2008  
**Report Due Date:** September 30, 2008  
**Principal Investigator:** Peter Bente, Alaska Department of Fish and Game

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**Project Objectives:**

OBJECTIVE 1: Conduct, or cooperate with other investigators to complete population and production surveys (monitoring) of cliff-nesting raptors in selected areas on a scheduled rotational basis.

OBJECTIVE 2: Assess contaminant levels by analyzing opportunistic collections of addled eggs and other tissues located or found during production surveys. Note: laboratory analysis is coordinated by US Fish and Wildlife Service and often takes extended time and analysis will be completed when lab results are received.

OBJECTIVE 3: Collect 20 or more molted feathers from separate nesting areas of gyrfalcons (and other species as needed) to contribute to the State-wide effort to investigate genetic variation in gyrfalcons populations on a circumpolar basis.

OBJECTIVE 4: Evaluate the long-term potential for monitoring raptors in the area by comparing current population statistics with historical records.

**Summary of Project Accomplishments:**

OBJECTIVE 1: Survey Area Schedule:

Lower Yukon River – last surveyed in 2004; scheduled for survey in June 2009

Southern Seward Peninsula – surveyed in June 2007; scheduled for June 2008

Norton Sound Coastline – scheduled for survey in 2010

DeLong Mountains – not surveyed; not scheduled due to difficult logistics

Northwest Alaska – scheduled for survey in July 2007

Sagavanirktok River – last surveyed in 2002; not scheduled due to low staffing

**Lower Yukon River:** not surveyed during reporting period.

**Southern Seward Peninsula:** Comprehensive aerial surveys of the Southern Seward Peninsula study area were conducted in June 2008 using an R-44 helicopter for a total of 19.7 hours of flight. The area surveyed was the same as 2007 and included areas extending approximately 75 km east, 65 km west, and 140 km north of Nome

(approximately 16,000 km<sup>2</sup>). Previously mapped nest sites (N=613) and new sites within the survey area (N=22) were checked for occupancy by slow-speed fly-by survey techniques using GPS navigation to move from site to site. No landings or ground inspections were made during the survey. A summary of total nest site occupancy (raptors attending nest sites or nests with eggs/young) and classification of potential habitat was not completed during the reporting period. Overall, total raptor abundance (including ravens) was very similar to previous years for Common Raven, Golden Eagle and Gyrfalcon. A few species (Goshawk, Peregrine Falcon, Rough-legged Hawk) showed notable increases in abundance compared to 2007 surveys. Opportunistic observations of ground-nesting raptors (Northern Harrier and Short-eared Owl) and jaegers showed increased numbers during the 2008 nesting season, indicating a year with abundant microtine and small mammal prey.

Replicate surveys of historic Gyrfalcon nest sites were completed by two observers in each of three reference areas for a total of nine surveys to evaluate/estimate sightability rates for different observers. The replicate study areas were located within the Comprehensive survey area described above and surveys were completed on 24 – 27 June during 19.5 hours of flight using a R-44 helicopter. Analysis of data is on-going and will be used to estimate Gyrfalcon population size with statistical confidence.

**Norton Sound Coastline:** not surveyed during reporting period.

**De Long Mountains:** not surveyed during reporting period.

**Northwest Alaska:** Aerial surveys in the Northwest Alaska study area were conducted in July 2007 using PA-18 fixed-wing aircraft for a total of 26.0 hours of flight time. Survey area coverage included Eagle Creek (465 km<sup>2</sup>), Kokolik River (1768 km<sup>2</sup>), Kukpowruk River (1768 km<sup>2</sup>), Pitmegea River (1117 km<sup>2</sup>), and Utukok River (2420 km<sup>2</sup>). Compared to the previous surveys, approximately 86% of the entire study area was surveyed, only the Ipewik River (1210 km<sup>2</sup>) was not completed in 2007. Total survey coverage in 2007 was approximately 7540 km<sup>2</sup>. Previously mapped nest sites (N=806) within the survey area were checked for raptor occupancy by slow-speed fly-by survey techniques using GPS navigation to move from site to site. Primarily, surveys follow the major rivers of the area although off-river sites are checked when suitable habitat is visible from river survey routes. No landings or ground inspections were made during the survey. Total nest site occupancy (raptors attending nest sites or nests with eggs/young) was documented as follows: Common Raven – 13; Golden Eagle – 47; Gyrfalcon – 24; Merlin – 2; Peregrine Falcon – 14; Rough-legged Hawk – 54. Total raptor abundance (including ravens) was 154 nest sites, yielding an approximate occurrence of 1 pair per 49 km<sup>2</sup>. Classification of 548 sites of potential raptor habitat was documented as follows: cliff without color – 55; cliff with color – 95; cliff with rock ledge – 12; cliff with sticknest – 171; cliff with fallen sticknest or scar – 4; cliff with white-wash – 75; river cutbank with soil – 134; river cutbank with gravel – 2. Nesting success was variable among species: Common Ravens were underestimated because most nests had fledged by July; Golden Eagles were widely distributed with greater success in eastern locations; Gyrfalcons were low in number with small broods; Merlins were present at two cliffs with unknown success; Peregrine Falcons were found at an increased number of sites; Rough-legged Hawks were

moderately abundant with average broods (n=3-5);. Surveys are scheduled for July 2009 following caribou census work in the region.

**Sagavanirktok River:** not surveyed during reporting period.

OBJECTIVE 2: Since nest sites were not visited during annual aerial surveys, tissue samples for contaminants were not collected during the reporting period.

OBJECTIVE 3: Since nest sites were not visited during annual aerial surveys, feather samples for genetic analysis were not collected during the reporting period.

OBJECTIVE 4: Progress was made towards compiling historical and current records from two survey areas (Seward Peninsula and Northwest Alaska) into a comprehensive database to allow comparative analysis of raptor occupancy. Evaluation of trends of raptor occupancy will be possible once regional comprehensive data are summarized.

**Prepared By:** Peter Bente, Survey and Inventory Coordinator, Region V

**Date:** September 4, 2008