

**FEDERAL AID  
ANNUAL PERFORMANCE REPORT**

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

***Annual PROGRESS REPORT SHELL AND INSTRUCTIONS***

*The purpose of this report is to summarize significant findings and their management implications for the entire project. This template is based on Federal Aid reporting requirements as found in the Federal Aid Handbook, Chapter 11 <http://wsfrprograms.fws.gov/subpages/toolkitfiles/fah52211.pdf>*

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

**Grant Number:** T-21 **Segment Number: 1**  
**Project Number:** 13.0  
**Project Title:** Population status and trend of cliff-nesting raptors in western and northwestern Alaska.  
**Project Duration:** April 16, 2011 – June 30, 2014  
**Report Period:** 1 July 2012 – 30 June 2013  
**Report Due Date:** September 28, 2013  
**Principle Investigator:** Peter Bente and Travis Booms, ADF&G  
**Project Location:** Historical study areas in western and northwestern Alaska, including the Seward Peninsula, Lisburne Peninsula (NW AK), Sagavanirktok River, Norton Sound, and the DeLong Mountains.

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**I. SUMMARY OF WORK COMPLETED ON JOBS FOR LAST SEGMENT PERIOD ONLY *Briefly describe how Federal Aid funds were spent on each active job, listing the results achieved during only this segment period (1 paragraph each). If a job was not accomplished as planned, very briefly tell why.***

**Objective 1:** Conduct, or cooperate with other investigators to complete population and production surveys of cliff-nesting raptors in selected areas on a scheduled rotational basis. (See schedule section below).

**Job/Activity 1a:** Charter aircraft or float rivers to replicate previous surveys and collect survey data following the schedule below.

Accomplishments:

July 2012 – Norton Sound Coastline Peregrine Falcon Survey

May 2013 – Seward Peninsula Early Eagle Survey

June 2013 – Seward Peninsula Comprehensive Survey

DeLong Mountains – previously surveyed in 1979, not scheduled due to difficult logistics

Sagavanirktok River – last surveyed in 2002; not scheduled due to low staffing and conflict with other scheduled projects

Lower Yukon River – last surveyed in 2004; not scheduled due to low staffing and conflict with other scheduled projects

Northwest Alaska –last surveyed in 2009, next survey scheduled in July 2013

Norton Sound Coastline Summary: Aerial surveys of the Norton Sound coastline to visit previously documented Peregrine Falcon nesting locations were completed using a Robertson R-44 helicopter during 11-13 July 2012. Two observers recorded occupancy information at 188 previously recorded sites (all raptor species) during 17.4 hrs of flight while navigating along 525 miles of coastal cliff habitat. The survey covered there area from Wales to St. Michael, Alaska. Of the 188 locations to be inventoried, 79% were occupied by raptors (n=148), 14% were not occupied (n=27), and 7% were not checked during the survey (n=13). The occupancy rate is skewed high because the survey route focused on previously occupied locations and did not include searches in suitable (adjacent) habitat. Bird species observed at occupied locations included:

Bald Eagle: 3 single\* adults, 3 total locations;  
Common Raven: 10 singles, 3 failed pairs\*\*, 30 successful pairs\*\*\*, 43 total locations  
Golden Eagle: 8 singles, 1 failed pairs, 3 successful pairs, 12 total locations;  
Gyr Falcon: 2 singles, 1 failed pairs, 3 successful pairs, 6 total locations;  
Merlin: 1 successful pair, 1 total locations;  
Osprey: 1 single, 1 total location;  
Peregrine Falcon: 36 singles, 8 failed pairs, 15 successful pairs, 59 total locations;  
Rough-legged Hawk: 15 singles, 1 failed pairs, 13 successful pair, 29 total locations;  
Short-eared Owl: 1 single; 1 total location

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\* single = no evidence of nest or mate;

\*\* failed pair = nest with no evidence of eggs or young;

\*\*\* successful pair = nest with incubating or brooding adult, or fledged young.

Seward Peninsula Early Eagle Summary: Aerial surveys of 192 raptor nesting locations were completed using a Robertson R-44 helicopter during 25-26 May 2013. Two observers recorded occupancy information at a subsample of previously recorded Golden Eagle and Gyr Falcon sites during 7.8 hrs of flight while navigating along GPS waypoint route lines. Raptors occupied 34% of the surveyed locations (n=65). Of 127 unoccupied locations, 41% were sticknests at cliffs (n=79), 25% were cliffs with evidence of raptor use (n=48). Bird species observed at occupied locations included:

Common Raven: 3 singles\*, 0 failed pairs\*\*, 5 successful pairs\*\*\*, 16 total locations  
Golden Eagle: 4 singles, 4 failed pairs, 3 successful pairs, 11 total locations;  
Gyr Falcon: 4 singles, 3 failed pairs, 10 successful pairs, 17 total locations;  
Merlin: 1 single, 1 total location;  
Northern Harrier: 3 singles in flight, 3 total observations;  
Peregrine Falcon: 3 singles, 1 failed pair, 4 total locations;

Cliff Nesting Raptors  
FY13 Progress Annual Report

Rough-legged Hawk: 14 singles, 6 failed pairs, 20 total locations;  
Short-eared Owl: 1 single; 1 total location

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- \* single = no evidence of nest or mate;
- \*\* failed pair = nest with no evidence of eggs or young;
- \*\*\* successful pair = nest with incubating or brooding adult, or fledged young.

Seward Peninsula Comprehensive Summary: Aerial surveys of 644 raptor nesting locations were completed using a Robertson R-44 helicopter during 20-22 June 2013. Two observers recorded occupancy information at previously recorded sites during 19.2 hrs of flight while navigating along GPS waypoint route lines. Raptors occupied 19% of the surveyed locations (n=125). Of 519 unoccupied locations, 40% were sticknests at cliffs (n=258), 33% were cliffs with evidence of raptor use (n=214), 3% were in sticknests in trees (n=21), and 4% were man-made structures (n=25). Bird species observed at occupied locations include:

Bald Eagle: 1 single\* adult, 1 total location  
Canada Goose: 3 singles, 5 pairs (incubating), 8 total locations;  
Common Raven: 2 singles, 5 failed pairs\*\*, 9 successful pairs\*\*\*, 16 total locations  
Golden Eagle: 8 singles, 7 failed pairs, 6 successful pairs, 21 total locations;  
Glaucous Gull: 2 pairs (incubating), 2 total locations;  
Gyr Falcon: 4 singles, 5 failed pairs, 18 successful pairs, 27 total locations;  
Merlin: 3 singles, 3 total locations;  
Northern Goshawk: 1 successful pairs, 1 total location;  
Osprey: 1 failed pair, 1 total location;  
Peregrine Falcon: 5 singles, 6 successful pairs, 11 total locations;  
Rough-legged Hawk: 13 singles, 8 failed pairs, 2 successful pair, 23 total locations;

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- \*\* failed pair = nest with no evidence of eggs or young;
- \*\*\* successful pair = nest with incubating or brooding adult, or fledged young.

Northwest Alaska: Maps, database records, GPS records, and logistic plans were prepared to survey 869 cliff-nesting raptor locations in this area in July 2013.

**Objective 2:** On the Seward Peninsula, estimate nest site fidelity, dispersal, and other demographic parameters, delineate putative territories, and contribute to a statewide study of gyrfalcon genetics.

**Job/Activity 2a:** Collect 20 or more adult molted feathers from separate nesting territories of gyrfalcons on the Seward Peninsula.

**Job/Activity 2b:** Partner with the USGS Molecular Ecology Lab or other appropriate partner to analyze genetic samples.

Accomplishments:

In July 2012, we visited 58 Gyrfalcon nest cliffs on the Seward Peninsula from which we collected 854 molted feathers for genetic analysis. In October 2012, we established a contract

with Wildlife Genetics International to process the samples and provide us mark-recapture data for analyses. All samples were shipped to the lab during this period and are being processed.

**Objective 3:** Evaluate the long-term potential for monitoring raptors in the area by comparing current population statistics with historical records.

**Job/Activity 3b:** Using the updated database, calculate population statistics and evaluate them over time to guide future designs of long-term monitoring.

Accomplishments:

Annual surveys of raptors on the Seward Peninsula have demonstrated high variability of nesting occupancy and distribution. The comprehensive survey data collected in June 2013 showed one of the lowest occupancy rates since early data collections in the 1960s. Late winter and early spring weather conditions appear to be major contributing factor to raptor occupancy and this should be examined in future trend analysis. The abundance of previous nesting locations and relatively easy logistical access make this study area an important place to continue long-term monitoring of occupancy and distribution.

**Objective 4:** Maintain and update current raptor database in Nome.

**Job/Activity 4a:** Enter survey data into the database, annually.

Accomplishments:

Previous Seward Peninsula raptor nesting records for the period 1996 to 2013 were prepared for addition to the cumulative raptor database. Progress is being completed to screen data to remove duplicate records. Approximately 7000 records are being examined for QAQC.

**II. PUBLICATIONS**

None

**III. ADDITIONAL FEDERAL AID-FUNDED WORK NOT DESCRIBED ABOVE THAT WAS ACCOMPLISHED ON THIS PROJECT DURING THIS SEGMENT PERIOD**

None

**IV. RECOMMENDATIONS FOR THIS PROJECT**

None

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**Date:** 28 September 2013