

**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, 2015
Report Period: 1 July 2013 – 30 June 2014
Report Due Date: September 28, 2014
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.

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:

Norton Sound Coastline Peregrine Falcon Survey – last surveyed in 2012, next survey in 10 years

May 2014 – Seward Peninsula Early Eagle Survey

June 2014 – 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 2013, next survey not scheduled

Seward Peninsula Early Eagle Survey Summary: Aerial surveys of 420 raptor nesting locations were completed using a Robertson R-44 helicopter during 22-23 May and 6 June 2014. Two observers recorded occupancy information at a subsample of previously recorded Golden Eagle and Gyrfalcon sites during 15.6 hrs of flight while navigating along GPS waypoint route lines. Raptors occupied 59% of the surveyed locations (n=249). Of 281 unoccupied locations, 26% were sticknests at cliffs (n=110), 41% were cliffs with evidence of raptor use (n=171). Raptors and ravens observed at occupied locations included:

Common Raven: 0 singles*, 6 failed pairs**, 27 successful pairs***, 33 total locations
Golden Eagle: 5 singles, 2 failed pairs, 11 successful pairs, 18 total locations;
Gyrfalcon: 6 singles, 6 failed pairs, 38 successful pairs, 50 total locations;
Merlin: 2 singles, 2 total locations;
Northern Goshawk: 1 successful pair, 1 total location;
Peregrine Falcon: 4 singles, 0 failed pairs, 5 successful pairs, 9 total locations;
Rough-legged Hawk: 11 singles, 0 failed pairs, 15 successful pairs, 26 total locations

* 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 Survey Summary: Aerial surveys of 726 raptor nesting locations were completed using a Robertson R-44 helicopter during 24-26 June 2014. The survey coverage included revisiting the locations that were surveyed in May and early June (reported above). Two observers recorded occupancy information at previously recorded sites during 19.1 hrs of flight while navigating along GPS waypoint route lines. Raptors occupied 32% of the surveyed locations (n=228). Of 499 unoccupied locations, 24% were sticknests at cliffs (n=177), 44% were cliffs with evidence of raptor use (n=321). Raptors and ravens observed at occupied locations included:

Common Raven: 5 singles*, 18 failed pairs**, 37 successful pairs***, 60 total locations
Golden Eagle: 8 singles, 15 failed pairs, 11 successful pairs, 34 total locations;
Gyrfalcon: 0 singles, 21 failed pairs, 36 successful pairs, 57 total locations;
Merlin: 2 singles, 2 total locations;
Northern Goshawk: 2 successful pairs, 2 total locations;
Osprey: 1 failed pair, 1 total location;
Peregrine Falcon: 5 singles, 2 failed pairs, 7 successful pairs, 14 total locations;
Rough-legged Hawk: 13 singles, 23 failed pairs, 22 successful pair, 58 total locations;

* 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.

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 2013, we visited 79 Gyrfalcon nest cliffs on the Seward Peninsula from which we collected 641 molted feathers for genetic analysis. All samples were shipped to Wildlife Genetics International for analysis 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 2014 showed recovery from very low occupancy in the 2013 nesting season. However, damp, cool conditions in May-June 2014 delayed nest initiation and promoted nest failures during incubation. 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. Site locations were screened for position accuracy using satellite imagery and alignment along survey flight lines. Work was initiated to link images in the photo catalog to site descriptions and GIS mapped locations. Progress was made to remove duplicate records generated in early pre-GPS surveys. Approximately 9000 records are being examined for QAQC.

II. PUBLICATIONS

Bente - none

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

Bente - none

IV. RECOMMENDATIONS FOR THIS PROJECT

Prepared by: Peter Bente and Travis Booms, ADF&G

Date: 28 September 2014