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, 2011

Report Period: July 1, 2008 –June 30, 2009

Report Due Date: September 30, 2009

Partner: Alaska Department of Fish and Game

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: 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.

Survey Area Schedule:

Lower Yukon River – last surveyed in 2004; not scheduled due to low staffing
Southern Seward Peninsula – surveyed in June 2009
Norton Sound Coastline – scheduled for survey in 2010
DeLong Mountains – not surveyed or scheduled due to difficult logistics
Northwest Alaska – scheduled for survey in July 2009
Sagavanirktok River – last surveyed in 2002; not scheduled due to low staffing

Southern Seward Peninsula (survey summary): Comprehensive aerial surveys of the Southern Seward Peninsula study area were conducted in June 2009 using a R-44 helicopter for a total of 19.2 hours of flight. The area surveyed included areas extending approximately 75 km east, 65 km west, and 140 km north of Nome (approximately 16,000 km^2). Previously mapped nest sites (N=607) 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. Except for selected gyrfalcon nesting sites (Objective 3), 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 – 47; golden eagle – 32; goshawk – 1; great-horned owl – 1; gyrfalcon – 36; peregrine falcon – 5; rough-legged hawk – 111. Total raptor abundance (including ravens) was 233 nest sites, yielding an approximate occurrence of 1 pair per 68 km^2. Classification of 374 sites of potential raptor habitat was documented as follows: cliff without color – 56; cliff with color – 64; cliff with rock ledge – 17; cliff with sticknest – 137; cliff with fallen sticknest or scar – 44; cliff with white-wash – 9; river cutbank with soil – 1; man-made structures - 6. Overall, total raptor abundance (including ravens) was very similar to previous years for common raven, golden eagle and gyrfalcon. Rough-legged hawks were abundant with large broods (n=5-7) in response to high numbers of small mammals. Two species (goshawk, great-horned owl) were present at only 1 site each, and merlins were not detected on the survey.

Replicate surveys of 147 historic gyrfalcon nest sites were completed by three observers on separate R-44 helicopter flights to evaluate/estimate sightability rates for different observers. The replicate study sites were located within the Comprehensive survey area described above and surveys were completed in June 2009 during 15.5 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.

Northwest Alaska (survey preparation): Preparation for aerial surveys was completed during the reporting period. Over 800 previous locations were moved into GPS format with flight routes scheduled for July 2009 along the following rivers in the study area: Eagle Creek (465 km^2), Ipewik River (1210 km^2), Kokolik River (1768 km^2), Kukpowruk River (1768 km^2), Pitmegea River (1117 km^2), and Utukok River (2420 km^2).

OBJECTIVE 2: Assess contaminant levels by analyzing opportunistic collections of addled eggs and other tissues located or found during production surveys.

No tissue samples were collected for contaminant analysis during the reporting period.

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.

Feathers were collected from 5 Gyrfalcon nest sites for genetic analysis. Also, feather samples from 2 Gyrfalcons taken as falconry birds from the survey area (in previous years) were added to the feather collections.

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

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. All records collected from Northwest Alaska in 1989, 1999, 2002, and 2007 were compared to Google Earth locations of landforms and compiled into annual survey summaries. Similar work was completed for Seward Peninsula surveys in 2007 and 2008. Evaluation of trends of raptor occupancy will be possible once regional comprehensive data are summarized.

Significant Deviations: None.

Prepared By: Peter Bente