

ALASKA DEPARTMENT OF FISH AND GAME
FEDERAL AID PROJECT
ANNUAL PERFORMANCE REPORT

Grant Number: E-5-HP

Grant Segment: 1

Grant Title: HCP Alaska Coastal Species: Studies Related to Listed/Candidate Marine Birds

Project Number: 2.0

Project Title: Distribution and Abundance of Steller's Eiders

Project Duration: February 28, 2003 to December 31, 2005

Project Reporting Period: May 28, 2004 to June 15, 2005

Project Interim Report Due: June 28, 2005

Location: Statewide

Project Objectives:

The objectives of this study are to improve knowledge of the status, distribution, and population trend for Steller's eiders breeding in Alaska by:

1. Identifying routes and timing of movements from wintering to spring staging areas to improve population estimates from spring surveys;
2. Identifying affiliations of wintering birds with breeding areas;
3. Improving knowledge of distribution on the Yukon-Kuskokwim Delta and North Slope;
4. Documenting age and sex structure of winter flocks; and
5. Collecting blood samples to contribute to studies of contaminants and genetic variation in wintering aggregations.

Summary of Project Accomplishments:

1. Identifying routes and timing of movements—Work is in progress. Movements of four birds (2 males and 2 females) captured in March 2004 and marked with satellite transmitters were monitored throughout the winter of 2004-2005. Locations of satellite birds were received every 5 days and plotted. Due to battery failure, signals terminated in late-winter and early spring.

In 2005 we changed handling protocols in order to keep birds in captivity pre- and post-surgery to try and reduce post-release mortality. Fieldwork began in February with the development of the holding facility in Kodiak. We began capture operations on 26 February 2005. We captured 49 Steller's eiders and placed satellite transmitters in 21 birds (15 females and 6 males). Twelve birds were held in captivity to acclimate to the holding facility prior to surgical implantation of the satellite transmitter, and nine birds were held post-surgery only. Three implanted birds died in captivity prior to release. Eighteen birds were released to the wild. Two of these died within 2 weeks of release. All of the remaining 16 birds were alive during the reporting period. Movements are being monitored every 36 hours during spring migration.

2. Identifying affiliations of wintering birds with breeding areas—In 2004, we identified 3 breeding areas in the Russian Arctic used by Kodiak birds, as well as spring and fall staging areas and the timing of migration. Work is in progress for 2005 birds that are currently in spring migration and have yet to arrive at breeding areas (Figure 1).
3. Distribution on the Yukon-Kuskokwim Delta and North Slope—No Kodiak birds went to the Yukon-Kuskokwim Delta or North Slope during the breeding season in 2004 or 2005.
4. Age and sex structure of winter flocks—Second year completed. We determined sex composition for another 400 birds in Kodiak. Data are being analyzed, but it has been difficult to get good age ratio data in field to accurately assess immature males from females.
5. Collecting blood samples—We collected blood samples for genetics and disease screening, and collected viral swabs from all captured birds. Samples have been transferred to the Alaska SeaLife Center and USGS Molecular Ecology Lab.

Problems or Deviations from Work Plan:

The additional costs associated with holding birds in captivity did not allow us to continue work in Cook Inlet in spring 2004. We discovered a new Steller's eider molting area in Kamishak Bay and plan to survey the area in September 2005 and test the feasibility of capturing and banding molting birds.

Anticipated Focus Next Reporting Period:

Continue with all of the above. A report on the success of the captive holding program and the movements of birds marked in 2005 will be produced. We will focus on analysis of winter sex ratio information because there is no reliable method to accurately assess age ratios in the field.

We will consider deploying five satellite transmitters in lower Cook Inlet in November 2005 or March 2006, depending on the feasibility of capture and availability of funds.

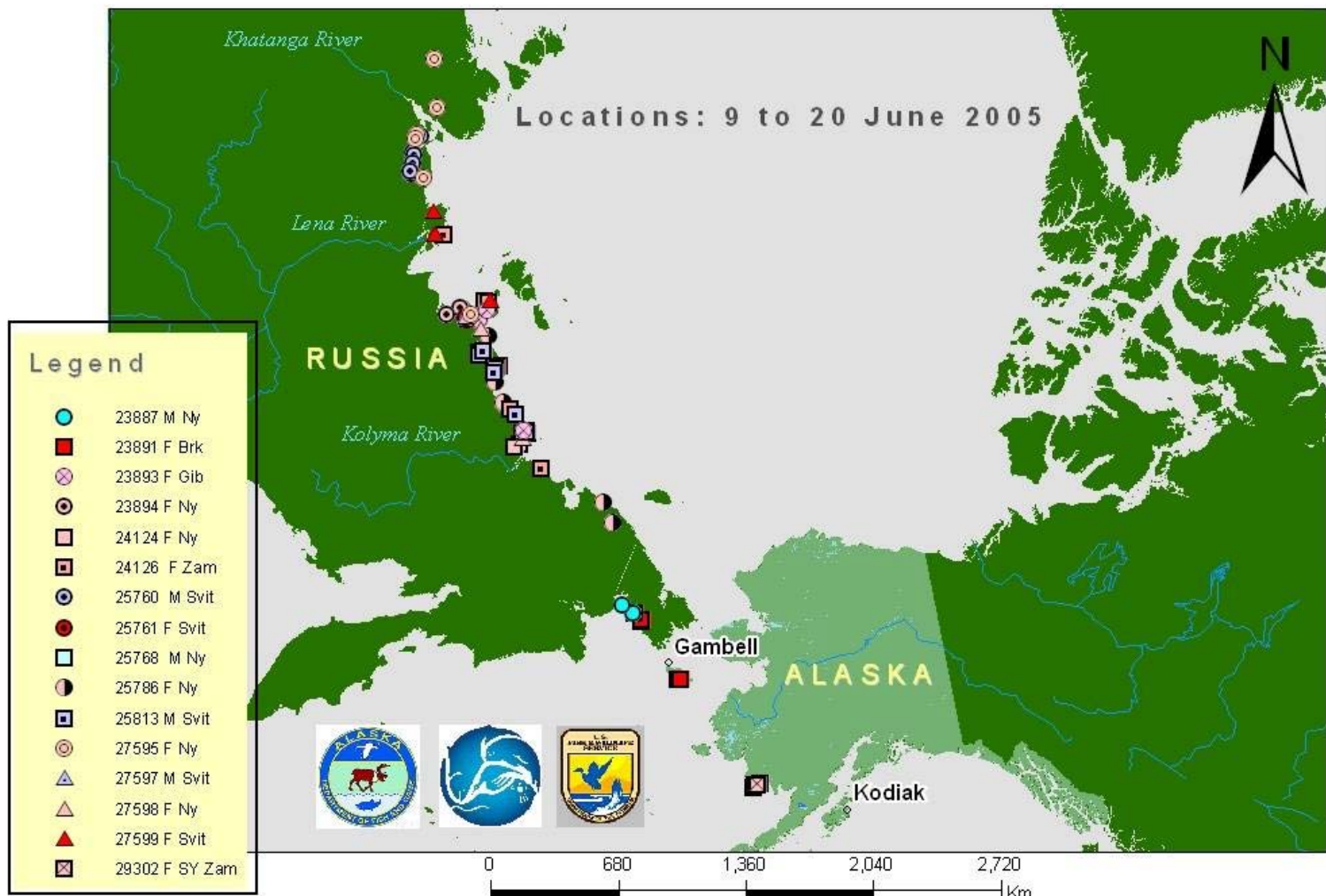
Interim Project Costs This Period (estimated):

Federal share \$84,000
State share \$28,000
Total \$112,000

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Report Date: June 15, 2005

Steller's Eider Satellite Telemetry Kodiak, AK 2005



Dan Rosenberg ADF&G Preliminary Data/Not for Citation

Last Updated June 20, 2005