

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:** 3.0

**Project Title:** Interaction of Eiders with Fisheries and Vessels

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

**Project Reporting Period:** February 28, 2003 to February 28, 2004

**Project Interim Report Due:** May 29, 2004

**Location:** Statewide

**Project Objectives:**

The objectives of this component are:

1. Describe the fisheries, spatial and temporal distribution of fishing effort, and fisheries utilization of ports of landing near and in the winter range of the Steller's eider.
2. Determine whether low-light imagery from DMSP/OLS sensors can describe the distribution of lighted fishing vessels in nearshore areas. If vessels can be detected, describe the distribution of fishing fleets near Steller's eider winter habitat for areas and days with cloud-free OLS imagery from 1992-2002.
3. Establish baseline coastal light intensity levels for the Alaska Peninsula and other areas of concern for days with cloud-free OLS imagery from 1992-2002.
4. Enhance seabird monitoring in observer programs for state-managed fisheries.

**Summary of Project Accomplishments:**

1. Fisheries spatial and temporal distribution— In this reporting period, vessel activity profiles were compiled and mapped by port of landing for ports with significant vessel activity from September through April, as measured by ADF&G fish ticket landing records. Twelve ports in the area of eider winter range received an average of 30 to 3,500 landings from 1998 through 2002 during September through April. For these ports, the spatial distribution of vessel landing activity was mapped by fishery and port profiles were graphed by day and fishery as a way of indexing vessel transiting activity in nearshore areas, and visualizing the specific times that vessel transit activity may overlap eider utilization.
2. Distribution of lighted fishing vessels in nearshore areas— This project component will occur during the next reporting period, following the description of coastal light intensity (objective 3).
3. Baseline coastal light intensity for the Alaska Peninsula—A preliminary survey of archived OLS imagery identified that coastal light intensity from small-scale activities and small communities are readily detectable and that there are sufficient cloud-free windows of opportunity. Further analysis of OLS imagery will occur during the next reporting period.

4. Enhanced seabird monitoring in observer programs—In this reporting period, seabird identification capabilities of ADF&G onboard observers were enhanced. Seventy copies of “Beached Birds” (2nd ed), from the University of Washington, Coastal Observation and Seabird Survey Team (COASST) program, were purchased to help observers identify incidentally caught seabirds in the hand. In addition, 70 copies of the “National Geographic Field Guide to the Birds of North America” were purchases for general seabird identification.

**Problems or Deviations from Work Plan:** None, other than objectives 2 and 3 were delayed to the next reporting period.

**Anticipated Focus Next Reporting Period:** Description of nearshore vessel activity by area of fishing, and detailed investigation of OLS imagery (objectives 2 and 3).

**Interim Project Costs (estimated):**

Federal share:	\$2,390
State share:	\$4,348
Total:	\$7,638

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**Report Date:** May 27, 2004