

**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-11 **Segment Number: 1**
Project Number: 3.0
Project Title: Ice Seal Studies in Alaska
Project Duration: 1 July 2008 – 30 June 2010
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 an ice seal monitoring program to obtain samples that can be used as indices to determine the health and status of ice seal populations.

JOB/ACTIVITY 1A: Collect samples from ice seals harvested for subsistence. Collect morphometric information (length, girth, blubber thickness) and biological samples (e.g., teeth, stomach, liver, kidney, blubber, muscle, reproductive tracts, heart, lung, blood) from four species of ice seals.

JOB/ACTIVITY 1B: Analyze samples and the resulting data and prepare reports and manuscripts for use by the Ice Seal Committee and National Marine Fisheries Service for management and for incorporation into the status reviews of each species for the Endangered Species Act listing process.

OBJECTIVE 2: Conduct satellite telemetry studies to determine movements and habitat use of ice seals.

JOB/ACTIVITY 2A: Deploy satellite transmitters on ice seals with the assistance of local hunters.

JOB/ACTIVITY 2B: Analyze movements and dive data to determine movements and habitat use of ice seals. Prepare reports and manuscripts to make data available for managers.

OBJECTIVE 3: Write annual progress reports, and a final report. Give presentations at scientific and local meetings, particularly in Alaska. Publish results in peer-reviewed journals.

JOB/ACTIVITY 3A: Write annual progress reports, and a final report. Give presentations at scientific and local meetings, particularly in Alaska. Publish results in peer-reviewed journals.

Summary of Project Accomplishments:

JOB/ACTIVITY 1A: Collect samples from ice seals harvested for subsistence. Collect morphometric information (length, girth, blubber thickness) and biological samples (e.g., teeth,

stomach, liver, kidney, blubber, muscle, reproductive tracts, heart, lung, blood) from four species of ice seals.

Two biologists (John Citta and Justin Crawford) and two technicians (Mark Nelson and Anna Bryan) traveled to six villages to conduct an ice seal monitoring program by working with coastal communities and hunters to collect samples for the harvest for use in determining the health and status of four ice seal populations important to Alaska. Samples and measurements were collected during the fall harvest in 2008 and the spring harvest in 2009 for four species of ice seals in six villages.

JOB/ACTIVITY 1B: Analyze samples and the resulting data and prepare reports and manuscripts for use by the Ice Seal Committee and National Marine Fisheries Service for management and for incorporation into the status reviews of each species for the Endangered Species Act listing process.

Spotted seal samples and measurement data from the 1960s to present were analyzed to provide National Marine Fisheries Service with information regarding changes in the health and status of the population through time for incorporation into the status reviews of each species for the Endangered Species Act listing process. We provided analyses on diet, productivity, growth rate, body condition, disease, contaminants, age and sex distribution of the harvest, and survivorship in a report (Quakenbush et al. 2009).

JOB/ACTIVITY 2A: Deploy satellite transmitters on ice seals with the assistance of local hunters.

One biologist (Justin Crawford) assisted Native Village of Kotzebue personnel, the Chairman of the Ice Seal Committee, and other local hunters in the capture and tagging of ringed seals in October 2008. Thirteen ringed seals were tagged near Kotzebue. Seals were measured, sampled (blood and skin) and satellite transmitters were attached.

JOB/ACTIVITY 2B: Analyze movements and dive data to determine movements and habitat use of ice seals. Prepare reports and manuscripts to make data available for managers.

Satellite data was downloaded, filtered, and maps were made weekly for distribution and for posting on the Native Village of Kotzebue's website. Movement data were analyzed for presentations.

JOB/ACTIVITY 3A: Write annual progress reports, and a final report. Give presentations at scientific and local meetings, particularly in Alaska. Publish results in peer-reviewed journals.

Results of the sampling and telemetry studies were presented at the Ice Seal Committee meeting in Fairbanks in July 2008. An abstract for a poster presentation at the Society for Marine Mammals Biennial Conference was prepared and the poster will be presented in Quebec City, Canada in October 2009 (Crawford et al. 2009).

Significant Deviations: None.

Products:

Quakenbush, L., J. Citta, and J. Crawford. 2009. Biology of the Spotted Seal (*Phoca largha*) in Alaska from 1962 to 2008. Preliminary report to National Marine Fisheries Service from the Alaska Department of Fish and Game, Fairbanks, AK. 66 pp.

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Crawford, J., K. Frost, J. Goodwin, and A. Whiting. 2009. Different habitat use strategies by subadult and adult ringed seals. 18th Biennial Conference on the Biology of Marine Mammals. (Abstract)

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