

Alaska Department of Fish and Game
Division of Wildlife Conservation
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Wildlife Health and Disease Surveillance in Alaska

Kimberlee B. Beckmen

Research Performance Report
16 May 2003–30 June 2003
Federal Aid in Wildlife Restoration
Grant W-33-1, Study 18.73

This is a progress report on continuing research. Information may be refined at a later date.

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**FEDERAL AID
ANNUAL RESEARCH PERFORMANCE REPORT**

ALASKA DEPARTMENT OF FISH AND GAME
DIVISION OF WILDLIFE CONSERVATION
PO Box 25526
Juneau, AK 99802-5526

PROJECT TITLE: Wildlife health and disease surveillance in Alaska

PRINCIPAL INVESTIGATOR: Kimberlee B Beckmen

COOPERATORS: US Department of Agriculture, Alaska Department of Environmental Conservation, National Marine Fisheries, Auke Bay Laboratory, National Marine Mammal Laboratory, Alaska Department of Health and Human Services, US Geological Survey, US Fish and Wildlife Service, Alaska Bird Observatory, and other federal, state, and local entities, with major funding from the Centers for Disease Control

FEDERAL AID GRANT PROGRAM: Wildlife Restoration

GRANT AND SEGMENT NR.: W-33-1

PROJECT NR.: 18.73

WORK LOCATION: Statewide

STATE: Alaska

PERIOD: 16 May 2003–30 June 2003

I PROGRESS ON PROJECT OBJECTIVES

This project began in May 2003. Consequently the report period covers only 6 weeks of activity.

OBJECTIVE 1: Implement the Chronic Wasting Disease (CWD) Surveillance Program. Completed draft of the Statewide CWD Surveillance Plan for submission for funding to the USDA.

Organized and completed a half-day teleconference of the Alaska CWD Task Force to discuss revisions and finalize the Surveillance Plan and Game Ranch Trespass policies. Communicated with Matt Robus and Dave Larsen via telephone and e-mail to develop CWD and Game Ranch Trespass policies.

OBJECTIVE 2: Coordinate the West Nile Virus (WNV) surveillance of wild birds in Alaska.

Participated in a half-day teleconference with the Alaska WNV Surveillance Partnership. Finished and distributed a public brochure on the Program. Started Statewide surveillance in dead birds. Collected 10 suspicious dead bird carcasses from various area offices, transported them to Alaska State Veterinary Lab, performed necropsies, collected brain tissue and submitted tissues for WNV testing.

OBJECTIVE 3: Maintain the blood, serum, and tissue banks.

Collected and harvested blood/serum from 99 bears. Performed necropsies and tissue collection for tissue bank on 4 animals. Received blood, harvested serum and accessioned blood and serum into serum bank on a total of 300 animals (bears, seals, wolves and caribou).

OBJECTIVE 4: Conduct disease and parasite surveillance and monitor changes in disease patterns.

Collected tissues or parasite specimens from 8 mammals and 10 birds for disease and parasite testing. Processed and accessioned samples, shipped to respective laboratories for further diagnostic testing. Met with Dr John Blake at UAF to plan necropsy classes for biologists to teach proper sample collection and necropsy technique.

OBJECTIVE 5: Monitor levels of environment contaminants in species of concern.

Received contaminant data from the NWFSC contaminants laboratory on blood/tissues collected from Steller sea lions live-captured in 2002. Began to compile, interpret, and summarize data in preparation for statistical analysis.

OBJECTIVE 6: Review literature, prepare annual progress reports, a final report, and manuscripts for publication in refereed literature.

Completed one manuscript and submitted to journal for peer review. Due to short period, did not have any progress or final reports to complete at this time.

II SUMMARY OF WORK COMPLETED ON JOBS IDENTIFIED IN ANNUAL PLAN THIS PERIOD

JOB 1: Implement Chronic Wasting Disease Surveillance Program.

The CWD Surveillance Plan was finalized and submitted to USDA for funding.

JOB 2: Coordinate West Nile Virus surveillance of wild birds in Alaska.

The Statewide WNV dead bird surveillance began. I coordinated the implementation, notified the public, and began the task of collecting dead birds and harvesting tissues for testing.

JOB 3: Maintain serum and tissue banks.

Collected, processed, and accessioned blood/tissue from nearly 400 animals into the serum and tissue banks.

JOB 4: Conduct disease and parasite surveillance.

Collected, necropsied, and submitted samples for disease/parasite diagnosis from 8 mammals and 10 birds. Started planning necropsy classes for biologists for sample collection.

JOB 5: Monitor levels of contaminants in species of concern.

Received data from contaminants laboratory on Steller sea lions and began to compile, summarize, and interpret data.

JOB 6: Review literature, prepare reports and manuscripts, and travel.

Finished and submitted one manuscript for peer review for publication.

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

None.

IV PUBLICATIONS

See Appendix.

V RECOMMENDATIONS FOR THIS PROJECT

None.

VI APPENDIX

Organochlorine contaminant concentrations in scats collected on Steller sea lion (*Eumetopias jubatus*) rookeries

KIMBERLEE B BECKMEN, KENNETH W PITCHER, KATHLEEN A BUREK, AND GINA M YLITALO

Abstract: Scats (feces) from Steller sea lions (*Eumetopias jubatus*) were collected on 20 rookeries over 4 years (1998–2001) to assess exposure of selected organochlorine (OC) contaminants (e.g., dioxin-like PCBs, DDTs) in the northern portion of the thriving eastern stock in Southeast Alaska/British Columbia (SE/BC) as compared to the depleted western stock in Gulf of Alaska (GOA) and eastern Aleutian Islands (EAI). Concentrations of OCs in scats were used as a semi-quantitative indicator of recent exposure reflecting excretion of PCBs congeners in addition to recent dietary intake. The rank order of mean OC concentrations in scats was EAI > SE/BC > GOA. These data suggest that exposure to the OCs is elevated in portions of the range of the declining western stock of Steller sea lions. These findings also show that scat can be used a noninvasive indicator of contaminant exposure.

VII PROJECT COSTS FOR THIS SEGMENT PERIOD

FEDERAL AID SHARE \$ 6,753 + STATE SHARE \$ 2,251 = TOTAL \$9,004

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APPROVAL DATE: _____