Alaska Department of Fish and Game
Division of Wildlife Conservation
2007

Abundance, spatial relationships, and trans-boundary movements of brown bears on the mainland coast of Southeast Alaska

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Research Annual Performance Report
1 July 2006–30 June 2007
Federal Aid in Wildlife Restoration
Grant W-33-5
Project 4.36

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

FEDERAL AID
ANNUAL RESEARCH PERFORMANCE REPORT

ALASKA DEPARTMENT OF FISH AND GAME
DIVISION OF WILDLIFE CONSERVATION
PO Box 115526
Juneau, AK 99811-5526

PROJECT TITLE: Abundance, spatial relationships, and trans-boundary movements of brown bears on the mainland coast of Southeast Alaska

PRINCIPAL INVESTIGATOR: Rodney W. Flynn, Coauthors: Stephen Lewis, LaVern R. Beier, and Grey Pendleton

COOPERATORS: U. S. Fish and Wildlife Service, U. S. Forest Service

FEDERAL AID GRANT PROGRAM: Wildlife Restoration

GRANT AND SEGMENT NR.: W-33-5

PROJECT NR.: 4.36

WORK LOCATION: Mainland coast of Southeast Alaska from the Stikine River to the Misty Fiords National Monument, including the drainage of the Unuk River

STATE: Alaska

PERIOD: 1 July 2006 – 30 June 2007

I. PROGRESS ON PROJECT OBJECTIVES

OBJECTIVE 1: Provide project supervision for brown bear studies on the mainland coast, including the preparation of budgets, the planning of field and office activities, data analysis, and report preparation.

This project was initiated in 2005. Previous work was done under contract with the U. S. Fish and Wildlife Service and the U. S. Forest Service. Progress on the project's study objectives proceeded as planned. Field work for summers 2005 and 2006 were organized and completed successfully. All data have been compiled and stored for future analyses. Annual progress reports have been prepared and submitted to funding agencies (U. S. Fish and Wildlife Service and U. S. Forest Service) as required.

Objective 2: Study brown bear movement patterns.

Altogether, 36 individual brown bears have been captured and 33 GPS collars deployed on them. Fourteen GPS collars deployed in 2004 and 2005 have been retrieved, the data downloaded, and the location information summarized. We were unable to retrieve 3 GPS collars because the collars released in difficult terrain and VHF transmitters failed prematurely. One of these collars released in Canada and 2 released in Misty Fjords National Monument Wilderness. Additionally, 1 collar did not release as scheduled and the VHF signal from 1 collar was never located.

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

OBJECTIVE 1: Provide project supervision for brown bear studies

JOB/ACTIVITY A: Prepare annual plan for field work.

The annual work plan was completed and submitted. Progress on the project's study objectives proceeded as planned. Field work for summer 2006 was organized and completed successfully.

JOB/ACTIVITY B: Compile, organize, and analyze field data using appropriate methods.

We retrieved 10 GPS radiocollars and failed to retrieve two others. Two GPS collar did not release as scheduled. One of these bears was eventually shot by a hunter in May 2007 and the collar retrieved. The VHF signal from another collar was never heard again. We suspect that this collar released outside of our study area because a collared brown bear had been seen in the Iskut River valley across the border in Canada earlier in the summer of 2006. Data from the retrieved GPS collars were downloaded, organized, and summarized. All files were converted to geodatabases using ArcMap GIS software. Home ranges for 8 brown bears were plotted and maximum distances moved were calculated.

JOB/ACTIVITY C: Prepare reports as required by other funding sources and manuscripts for professional journals.

An annual progress report was prepared and submitted on May 1, 2007 to the other funding agencies - the U. S. Fish and Wildlife Service and U. S. Forest Service.

OBJECTIVE 2: Study brown bear movement patterns.

JOB/ACTIVITY A: Deploy GPS collars on 10 brown bears in the study area.

We captured 5 (3 males and 2 females) brown bears in the Bradfield Canal portion of the study area and 6 female brown bears in Unuk River drainage. We deployed GPS collars on the 10 adults.

JOB/ACTIVITY B: Retrieve collars at the end of the data collection period.

We retrieved 10 GPS radiocollars that had been deployed in 2005.

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

None.

IV. PUBLICATIONS

Flynn, R.W., S.B. Lewis, L.R. Beier, and G.W. Pendleton. 2007. Abundance spatial relationships, and transboundary movements of brown bears on the mainland coast of Southeast Alaska. Annual progress report. Alaska Department of Fish and Game. Douglas, Alaska.

V. RECOMMENDATIONS FOR THIS PROJECT

The project appears to progressing well.

PREPARED BY:

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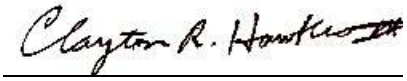
Wildlife Biologist III

APPROVED BY:



Clayton R. Hawkes
Federal Assistance Coordinator
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Dale Rabe
Research Coordinator

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Division of Wildlife Conservation

APPROVAL DATE: _____