

# FEDERAL AID ANNUAL RESEARCH PERFORMANCE REPORT

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

## *Annual PROGRESS REPORT SHELL AND INSTRUCTIONS*

*The purpose of this report is to summarize significant findings and their management implications for the entire project. This template is based on Federal Aid reporting requirements as found in the Federal Aid Handbook, Chapter 11 <http://wsfrprograms.fws.gov/subpages/toolkitfiles/fah52211.pdf>*

### Alaska Department of Fish and Game Wildlife Restoration Grant

**GRANT NUMBER:** W-33

**SEGMENT NUMBER:** 11

**PROJECT NUMBER:** 1.67

**PROJECT TITLE:** Comparative nutritional status among 6 high density moose subpopulations in Interior Alaska

**PROJECT DURATION:** 1 July 2008–30 June 2014

**REPORT DUE DATE:** 1 September 2014

**PARTNER:** None

**PRINCIPAL INVESTIGATOR:** Kalin Ann Kellie Seaton

**COOPERATORS:** John Haddix (U.S. Army), Casey Brown (University of Alaska Fairbanks), Todd Brinkman (Scenarios Network for Alaska and Arctic Planning)

**WORK LOCATION:** Interior Alaska

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#### **I. SUMMARY OF WORK COMPLETED THIS SEGMENT ON JOBS IDENTIFIED IN ANNUAL WORK PLAN**

**OBJECTIVE 1:** Conduct a literature review.

**JOB/ACTIVITY 1:** Literature review.

Reviewed literature on habitat selection, moose nutrition, and burn dynamics.

**OBJECTIVE 2:** Estimate and evaluate nutritional differences among 6 high-density subpopulations using short-yearling weights.

**JOB/ACTIVITY 2B:** Compare nutrition among 6 high-density subpopulations.

I began summarizing trace mineral results from blood samples collected in the 6 subpopulations. I began to collaborate with ADF&G researchers in other parts of the state

to compare trace mineral results across a broad spectrum of nutritional condition and geography.

OBJECTIVE 4: Connect nutritional indices, population estimates and harvest by monitoring the movements of individual moose (% present) during survey and hunting seasons.

JOB/ACTIVITY 4A: Radiotrack moose and obtain location information.

I collected bi-monthly locations for adult moose in GMU 20C, recorded whether or not they still had their calf at heel and recorded information on their use of the 2009 burn. I also summarized calf at heel information and presented it to the Fairbanks Advisory Committee in April 2013.

OBJECTIVE 6: Evaluate the progression of nutritional differences between burned and unburned areas of Unit 20A.

JOB/ACTIVITY 6A: Evaluate use of recent burns by collared moose.

I traveled by invitation to Umeå, Sweden, where I met with various moose research biologists and discussed several approaches to the analysis of habitat use patterns.

JOB/ACTIVITY 6C: Collect fine-scale movement information to determine movement and use patterns in burned and unburned habitat.

I continued to collect GPS location information via ARGOS satellites relative to several burns in GMUs 20A and 20C.

OBJECTIVE 7: Write annual progress reports, write final report and publish in peer-reviewed journals.

JOB/ACTIVITY 7B: Write a peer-reviewed paper on the population and nutritional dynamics of moose in recent burns.

No work was done on this job in FY13.

## **II. SIGNIFICANT DEVIATIONS AND/OR ADDITIONAL FEDERAL AID-FUNDED WORK NOT DESCRIBED ABOVE THAT WAS ACCOMPLISHED ON THIS PROJECT DURING THIS SEGMENT PERIOD**

I prepared and proofed a Microsoft Access® database that included all telemetry locations obtained during the calving season from 1996 to present.

## **III. PUBLICATIONS**

None.

## **IV. RECOMMENDATIONS FOR THIS PROJECT**

It is likely that the publishing goals for this project (Objective 7, Jobs 7a and 7b) will be replaced with a single peer-reviewed publication relating the variation in nutritional condition at high density with a focus on the potential use of trace mineral analysis as an index of nutrition. The information we have collected on moose dynamics in burns will

be summarized as a technical report as additional time is needed before long-term patterns can result in measureable differences in nutrition/behavior.

**PREPARED BY:** Kalin A. Kellie Seaton

**DATE:** 15 August 2013