

Wildlife Restoration MULTI-YEAR GRANT 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 Wildlife Restoration Grant

GRANT NUMBER: AKW-19

PROJECT NUMBER: 6.0

PROJECT TITLE: Mountain goat population genetics in Alaska

PERIOD OF PERFORMANCE: 1 July 2016–30 June 2020

PERFORMANCE YEAR: 1 July 2017–30 June 2018

REPORT DUE DATE: 1 September 2018

PRINCIPAL INVESTIGATOR: Kevin S. White

COOPERATORS: Aaron Shafer (Trent University), Glacier Bay National Park

I. PROGRESS ON PROJECT OBJECTIVES DURING PERFORMANCE YEAR

JOB/ACTIVITY 1: Collect and archive hunter-harvested mountain genetic samples from throughout Alaska.

Accomplishments:

During July 2017-June 2018, we collected and archived 173 hunter-harvested mountain goat tissue samples. In addition, we collected and archived 34 samples associated with live-capture research activities (capture activities were conducted as part of a separate project). All samples were subdivided. One set of samples was sent to Trent University for analyses, the other set was archived at ADFG – DWC, Douglas, AK.

JOB/ACTIVITY 2: Collect genetic samples from the Cleveland Peninsula and other inadequately sampled areas.

Accomplishments:

We conducted three helicopter-based sample collection trips to the upper Cleveland Peninsula and northern Bradfield Canal areas during June 2018. During these field efforts we collected 116 fecal pellet samples. In cooperation with the National Park Service, we also collected 16 fecal pellet samples in Glacier Bay National Park during April 2018.

JOB/ACTIVITY 3: Conduct laboratory and statistical analyses to characterize mountain goat population structure, movement, and demography.

Accomplishments:

All samples collected were submitted to Trent University for genetic analysis. During Aug 2017-June 2018, approximately 1000 DNA extractions from harvested mountain goats were completed (including replicates), and 826 samples were successfully genotyped. Statistical analyses will not be conducted until sampling and laboratory analyses are completed.

II. SUMMARY OF WORK COMPLETED ON PROJECT TO DATE.

Overall, 2156 tissue samples (hunter = 1795, research = 397) and 400 fecal pellet samples (Cleveland Peninsula = 358, Glacier Bay = 42) have been collected and submitted for analyses. In total, 1743 tissue samples and 251 fecal pellet samples have been successfully genotyped, respectively.

III. SIGNIFICANT DEVELOPMENT REPORTS AND/OR AMENDMENTS.

None

IV. PUBLICATIONS

None.

V. RECOMMENDATIONS FOR THIS PROJECT

This project should be continued as described in the study plan and project statement.

Prepared by: Kevin White, Wildlife Biologist III

Date: 1 September 2018