

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-R-1-2018

PROJECT NUMBER: 1.0 UAF Nutrition Lab Lease

PROJECT TITLE: Lease of Laboratory and Office Space at the Matanuska Experiment Farm

PERIOD OF PERFORMANCE: 1 July 2019 – 30 June 2020

PERFORMANCE YEAR: Year 3 of a 5-year grant.

REPORT DUE DATE: Submit to Coordinator 1 Sept 2019; due to FAC 28 Sept 2019

PRINCIPAL INVESTIGATOR: Donald Spalinger - ADF&G Wildlife Physiologist II

COOPERATORS: Jack Mortenson – ADF&G Wildlife Capture Veterinarian

Authorities: 2 CFR 200.328
2 CFR 200.301
50 CFR 80.90

I. PROGRESS ON PROJECT OBJECTIVES DURING PERFORMANCE YEAR

OBJECTIVE 1: The purpose of this grant is to lease laboratory and office space at the University of Alaska – Fairbanks (UAF) Matanuska Experiment Farm for a term of 5 years, with possible continuation thereafter if the facility is found to be of enough benefit to the division.

ACCOMPLISHMENTS: We established a lease of laboratory space with the UAF Matanuska Experiment Farm and set up a fully operational herbivore nutrition laboratory and offices for the principal investigator and laboratory technician, as well as offices and workspace for ADF&G's Wildlife Capture Veterinarian and wildlife veterinary technician. A drug storage facility that meets DEA requirements was also set up.

Based on a long-standing working relationship with the principal investigator, the Matanuska Experiment Farm provided the following to the herbivore nutrition laboratory: A carbon-hydrogen-nitrogen analyzer, a turbovap, reverse-osmosis water purifier, a water deionizer, 4 balances, all types of necessary glass ware, gas regulators, refrigerators, freezers, drying ovens, ultra sound cleaners, certified chemical storage cabinets, a microscope, vacuum pump, eye-wash station, a hood, sample containers, Nalgene containers, muffle furnace, 2 different sized bead mills, work tables and counters, tools,

necessary hardware, bomb calorimeter, work carts, mats, stools, and years' worth of several chemicals used in our work. The total value of these instruments and equipment given to us exceeds \$300,000.

Since getting the laboratory fully operational in September 2018, our backlog of forage quality and diet composition samples has been significantly reduced. The ability to count on laboratory access and functional equipment has greatly helped in this regard.

On the veterinary side of this lease, the farm provided complete office furnishings (desks, conference table, chairs, shelves, cabinets, work carts, lamps, etc) for four offices. They also provided the drug storage chamber, stainless steel worktables, stainless steel cabinets, refrigerators, and freezers (including an ultra-cold freezer). The Experiment Farm has also allowed use of barn space for doing animal surgeries, and for teaching animal capture courses.

II. SUMMARY OF WORK COMPLETED ON PROJECT TO DATE.

We are currently in year 3- of this 5-year project. Work completed, or nearly so, includes acquisition and deployment of laboratory equipment, acquisition and proper storage of chemical reactants and drugs used in wildlife immobilization activities, and progress in analyzing nutritional quality of forage samples. Among approximately 2400 samples completed or in progress for 6 projects of digestible dry matter, digestible energy, and digestible protein assays, we have assisted in providing nutritional analyses for two projects outside our Region: (1) winter moose browse for T. Paragi in Region 3 (85 samples) and (2) summer nutritional phenology on burned and unburned habitats on the Kenai Peninsula (Region 2). At this time, priority is being placed on completing these analyses and summarizing/publishing these results. Note: the previous Principle Investigator, Dr. William Collins, retired from the Department in early May. Dr. Donald Spalinger has taken responsibility for the nutrition lab portion of this project.

III. SIGNIFICANT DEVELOPMENT REPORTS AND/OR AMENDMENTS.

No SDRs or amendments were submitted during this performance year.

IV. PUBLICATIONS

Publication of our nutritional analyses is currently in progress for peer-reviewed journals. We have successfully completed one Master's project, which was supported by this laboratory (K. L. Anderson. 2020. Effects of fire on diet composition, foraging behavior, and nutritional status of moose in southcentral Alaska. MS Thesis, University of Alaska Anchorage. 101pp.

V. RECOMMENDATIONS FOR THIS PROJECT

No changes to the project statement are required at this time.

Prepared by: Donald Spalinger – ADF&G Wildlife Physiologist II **Date:** 25 Aug 2020