

# **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 May 2018 – 31 May 2023

**PERFORMANCE YEAR:** 01 October 2020 – 30 September 2021

**PRINCIPAL INVESTIGATOR:** Kristin Denryter - ADFG Wildlife Physiologist II

**COOPERATORS:** Jack Mortenson – ADFG Wildlife Capture Veterinarian

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Authorities: 2 CFR 200.328  
2 CFR 200.301  
50 CFR 80.90

Performance reporting on activities ensures performance expectations are being achieved while complying with Federal regulation. Please include, at minimum, the following project information in Sections I – V below:

1. A comparison of actual accomplishments to the objectives of the project established for the period. In other words: what progress have you made toward completion of the objective(s) of the project? Describe how your objective(s) were met.
2. The reasons why established goals or objectives were not met, if appropriate. In other words, please describe and justify any changes in the implementation of objective(s) or approach(es).
3. Additional pertinent information including, when appropriate, analysis and explanation of cost overruns or high unit costs. If applicable, please describe how the project resulted in any benefits, promising practices, new understandings, cost efficiencies, management recommendations, or lessons learned.
4. Additional work not previously described accomplished during this period of performance.

### **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, an Ankom Fiber Analyzer, 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 UAF Matanuska Experiment 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 necropsies, and for teaching wildlife capture and handling courses.

## **II. SUMMARY OF WORK COMPLETED ON PROJECT TO DATE.**

We are currently in year 4 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, in Region IV, we have assisted in providing nutritional analyses for three projects outside Region IV: (1) winter moose browse for T. Paragi in Region 3 (85 samples), (2) summer and winter nutritional phenology on burned and unburned habitats on the Kenai Peninsula (Region 2 and Wildlife Habitat Enhancement and Spatial Analysis Program), and (3) Colville River moose forage samples (Region V). At this time, priority is being placed on completing these analyses and summarizing/publishing these results. Note: the previous Principle Investigator, Dr. Donald

Spalinger, retired from the Department in June 2021. Dr. Kristin Denryter has taken responsibility for the nutrition lab portion of this project as of July 2021.

### **III. SIGNIFICANT DEVELOPMENT REPORTS AND/OR AMENDMENTS.**

No SDRs or amendments were submitted during this performance year.

### **IV. PUBLICATIONS**

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. Portions of this thesis are also being prepared for publication in peer-reviewed journals.

### **V. RECOMMENDATIONS FOR THIS PROJECT**

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

**Prepared by:** Jeff Stetz – ADFG Region IV Research Coordinator  
Kristin Denryter – ADFG Wildlife Physiologist II  
Ryan Scott – ADFG Assistant Director

**Date:** 14 Jan 2022