

Project Completion Report Rocky Mountains Cooperative Ecosystem Studies Unit (RM-CESU)

Project Title: Develop Spatially Explicit Gunnison Sage-grouse Winter Habitat Models

Project Code (such as UMT-72 and/or the “P” number): P13AC00086

Type of Project (Research, Technical Assistance or Education): Research

Funding Agency: National Park Service

Partner University: Colorado State University

NPS Agreement Technical Representative (with complete contact information):

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Start Date of Project: June 1, 2013

End Date of Project: March 31, 2014

Funding Amount: \$5,000

Project Summary,

This project provided additional funding to complete the analysis of Gunnison Sage-grouse winter habitat use. The work included processing a sagebrush habitat map (developed through a previous CESU agreement with Dr. Aldridge) to calculate predictor variables such as average sagebrush cover and bare ground within a landscape-scale and patch-scale distance around each winter location. In addition, other predictor variables thought to be important to GUSG winter habitat selection, as determined by the researchers, were developed. These included: a measure of terrain complexity, slope and aspect and distance to residential, road or power line development, and snow models assessing accessibility of sagebrush. The primary investigator developed models identifying which variables are important for grouse winter habitat selection.

Spatially explicit winter habitat models have been developed and Dr. Aldridge is currently developing a manuscript to submit for publication in a peer-reviewed journal. The final product

will be made available after the manuscript has gone through peer review for publication and internal review by CSU-NREL. The final publication will be provided to the Rocky Mountain CESU.

Number of students participating in this project:

Post-doctorate student participated, 2 former field technicians who participated in collecting the data being analyzed as part of this analysis are now working with Dr. Aldridge on other Master's Thesis projects.

Lessons Learned from this project:

Kezar basin, which runs along the southern shore of Blue Mesa Reservoir on Curecanti National Recreation Area, is crucial winter habitat for Gunnison Sage-grouse.

Other RM-CESU agencies or research partners who participated in this project:

U.S. Geological Survey