

Project Summary
Rocky Mountains Cooperative Ecosystem Studies Unit

Project Title: Winter Habitat Use and Survival of Sage Grouse in Montana
Type of Project\): Research
Project Discipline: Natural
Funding Agency: BLM
Other Partners/Cooperators: MT Department of Fish, Wildlife and Parks and US-FWS
Effective Dates: 12/9/2004 to 12/30/06
Funding Amount: \$81,000.00: \$30,000.00 (2006);\$51,000.00 (2004)
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Project Abstract: Objectives: <ol style="list-style-type: none"> 1. Determine age –specific winter survival of sage-grouse hens 2. Evaluate the potential high-use winter habitat areas and characteristics in south Phillips County, MT 3. Examine relationships between winter seasonal home range quality and fitness attributes including survival, physiological condition, and reproduction <p>Progress: Greater sage-grouse populations have suffered dramatic decline across western North America over the past 60 years. Loss of habitat and gradual extirpation has lead to petitions to the US FWS to list sage-grouse for protection under the Endangered Species Act. Repeated attempts to list the species for protection have failed. Several entities have outlines the need for more precise information about sage-grouse seasonal habitat requirements. Very little is understood about sage-grouse habitat needs during the winter season, and how winter habitat characteristics influence fitness. Currently, there are only a few winter ecology studies completed 20 years ago directing today’s conservation strategies. There is immediate need to update and improve our understanding of winter season habitat requirements and survival rate for sage-grouse. My research furthers our understanding of sage-grouse winter fitness by estimating age-specific female survival rates over two winter seasons, and exploring how weather and habitat variables affect these rates. My research also evaluates several hypotheses to determine sage-grouse winter habitat needs. I have used radio-marked sage-grouse hens to estimate the demographic information, and recorded winter locations which I am using to model habitat use patters. Synthesizing the survival information with the habitat use models will allow me to quantify winter habitat quality.</p>
Outcomes with completion dates (reports, publications, workshops, videos, etc.): Field work was completed in May 2006. Project results expected in January 2007
Keywords: Greater sage-grouse, habitat, winter survival rates