Greater Sage-Grouse Research in Rich County

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Research Context

- **Sage-grouse as a Sensitive Species**
  - Possible listing as T&E species

- **Sage-grouse as Sagebrush Obligates**
  - Sagebrush habitat is critical for survival
  - Decline in sagebrush habitat quality

- **Sagebrush Treatments**
  - Viable habitat manipulation options
  - Mechanical, chemical and fire
  - Potential brood rearing areas
Sage-Grouse Project

• Research Question:
  • Does sage-grouse habitat use in treated areas differ from untreated?
  • Does sage-grouse use of treated areas change over time?
Study Area
Study Area

Legend
- Duck Creek Grazing Allotment
- High Elevation Treatments
- Low Elevation Treatments
Methods

• **Data collection:**
  - **Distance Sampling:**
    - sage-grouse pellet transects
  - **Occupancy (presence/absence):**
    - probability of plots being occupied by sage-grouse
  - **GPS Telemetry**
    - locations of actual sage-grouse
Results

- **Pellet Transects**
  - high densities of pellets in Duck Creek
  - lower elevation treatments have highest densities
Results

- **Occupancy Sampling**
  - rates constant throughout year
  - higher occupancy rates in treated plots
Results

• GPS Telemetry
  – many locations in treated areas
  – all locations in low elevation treated sites
  – sage-grouse moved throughout the year
Results

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Results

• GPS Telemetry
  – many locations in treated areas
  – sage-grouse movements during the year
  – all locations in low elevation treated sites
  – summer range consisted of treated sites
Summary

• Sage-grouse are using treatment sites
• Highest use occurs from April-June
  – Males using for lekking habitat
  – Females using for early brood-rearing habitat
• Higher elevation treatments in Duck Creek had little use
• Use of other treated sites occurring
Thanks...

Utah DWR

BLM

Rich County CRM

USFWS

DNR

Intermountain West Joint Venture

Utah State University

NRCS

SGRP

Private Landowners

Deseret Ranch

Sportsman for Fish and Wildlife