



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

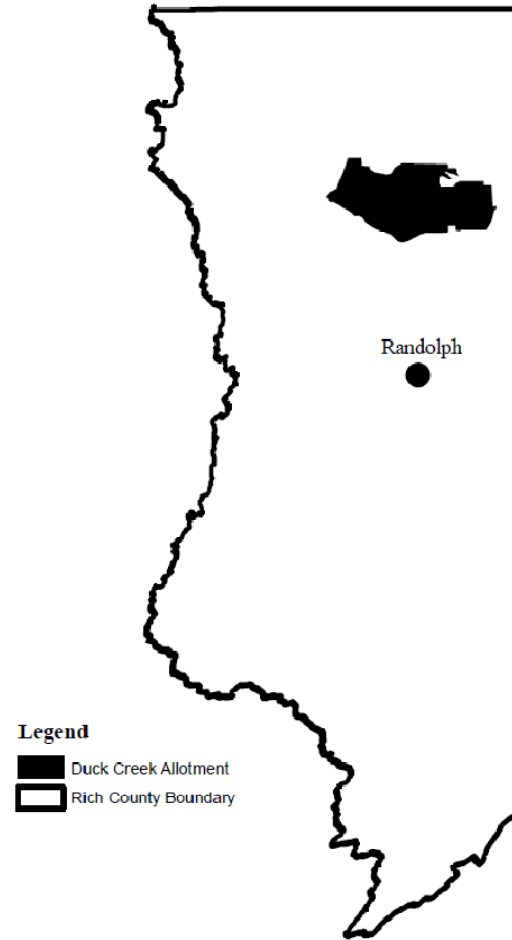
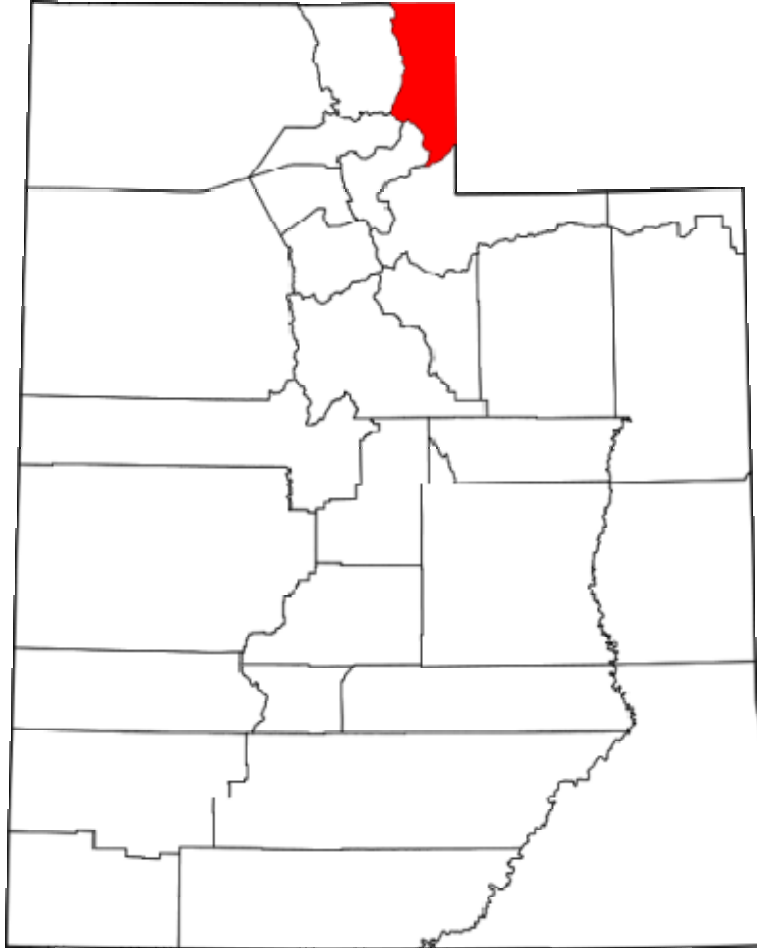
Sage-Grouse Project

- **Research Question:**

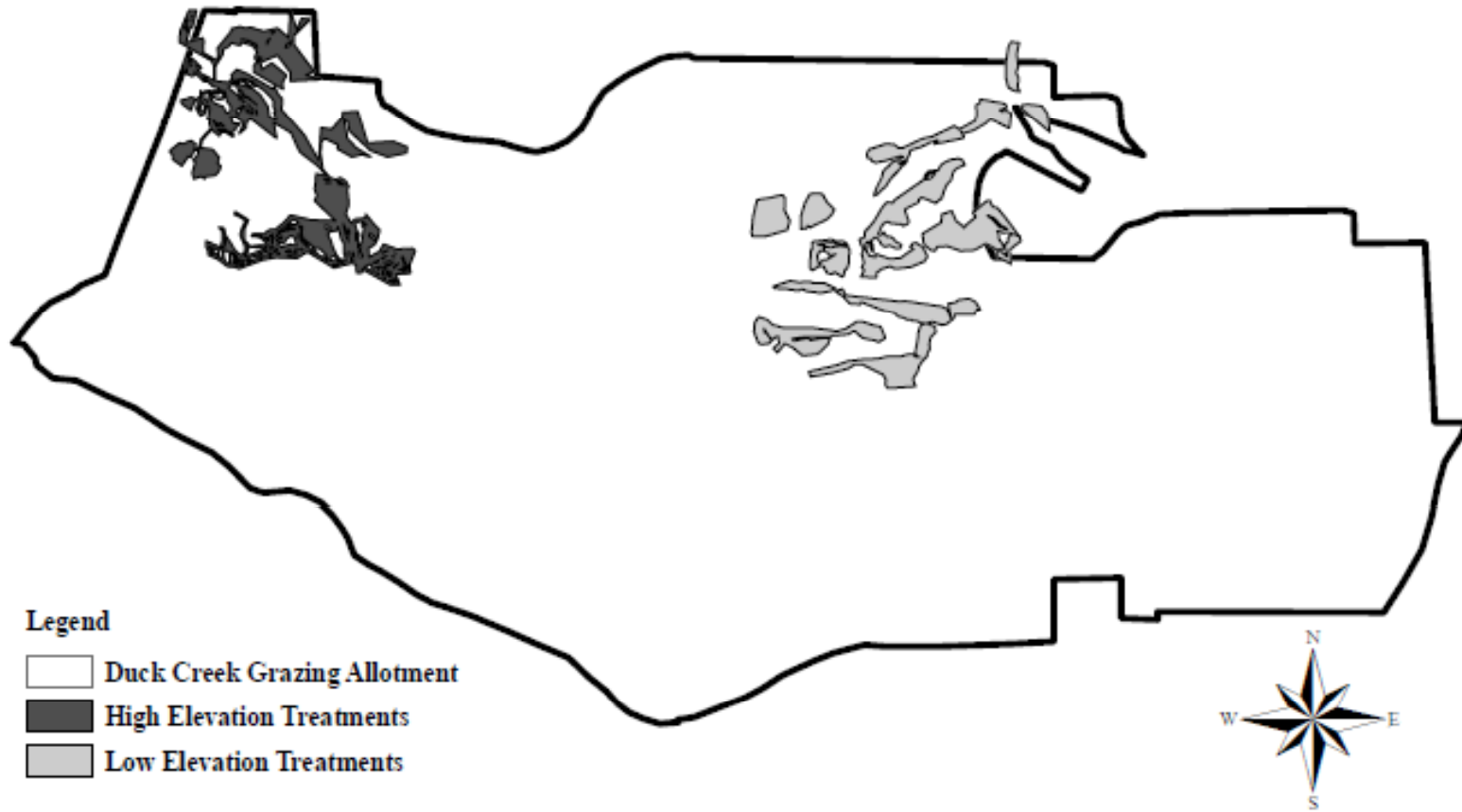
- Does sage-grouse habitat use in treated areas differ from untreated?
- Does sage-grouse use of treated areas change over time?



Study Area



Study Area



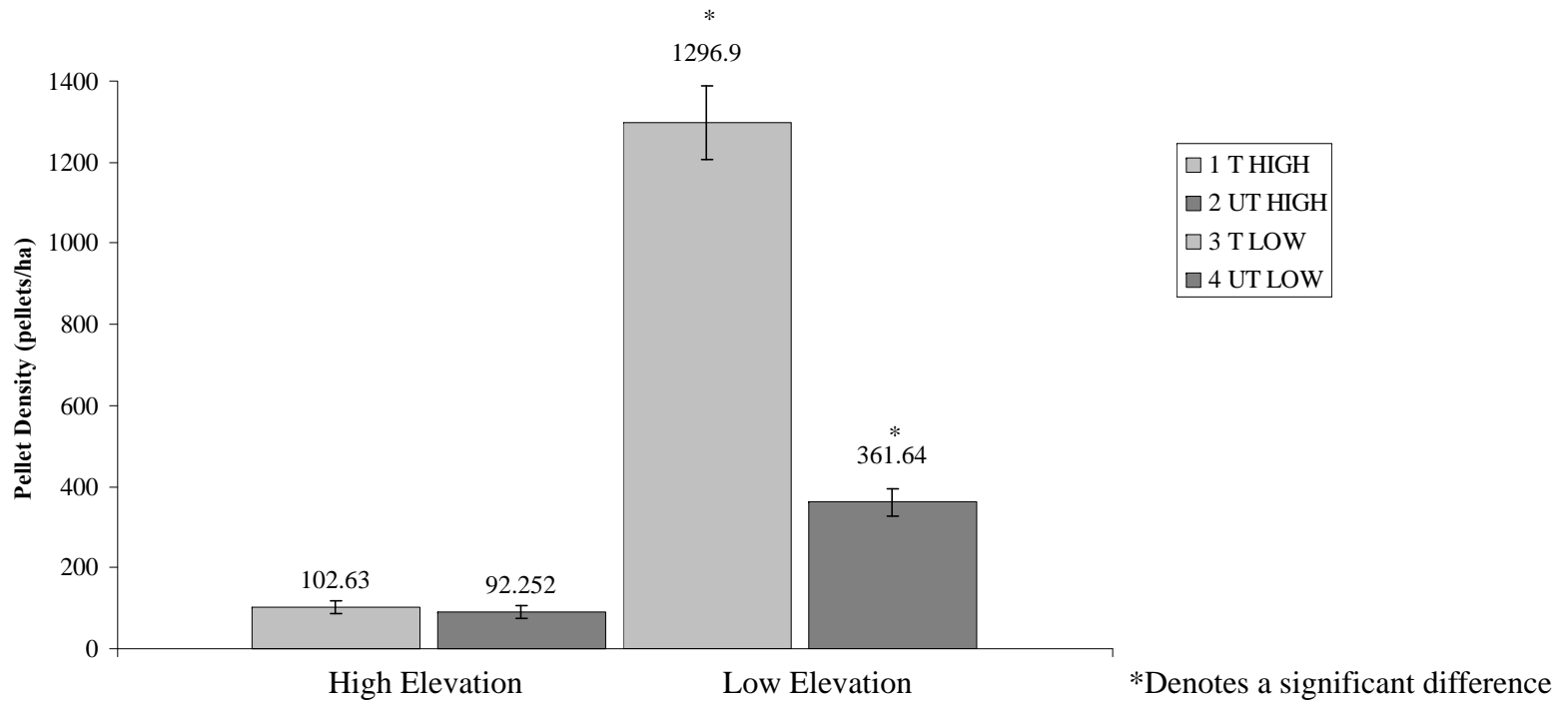
Methods

- **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

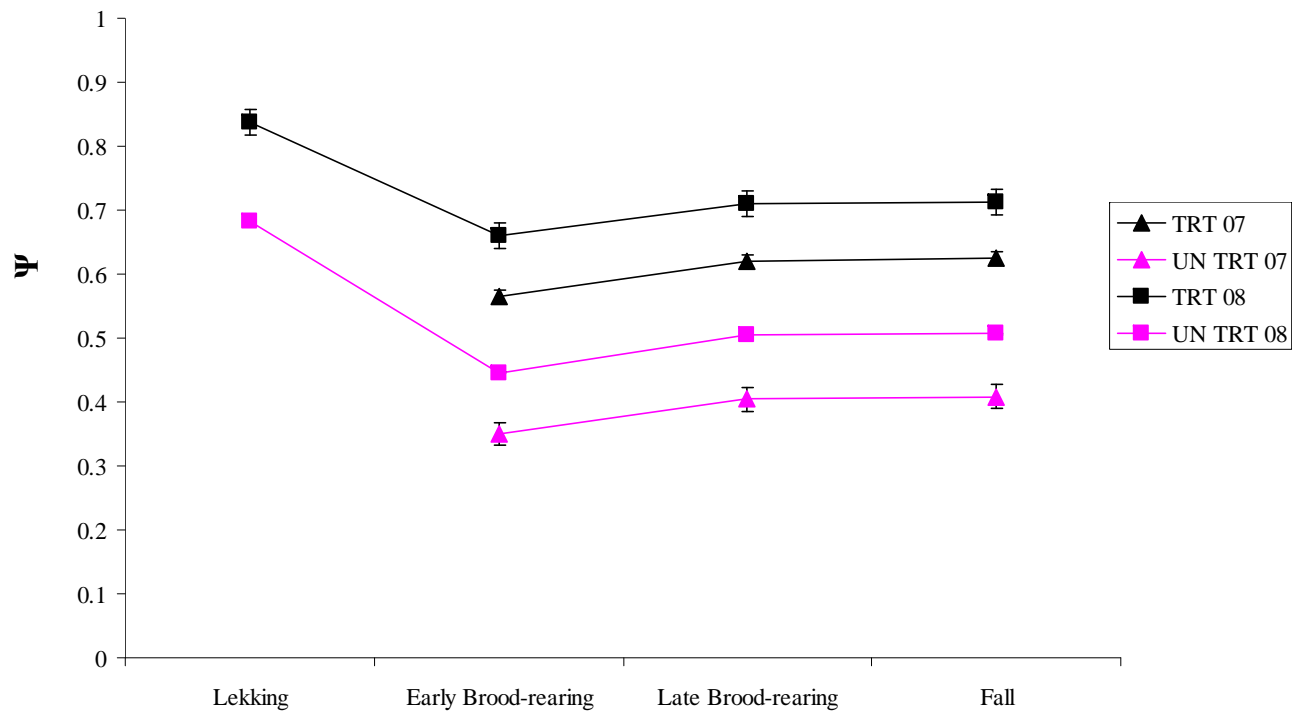
- Pellet Transects

- 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

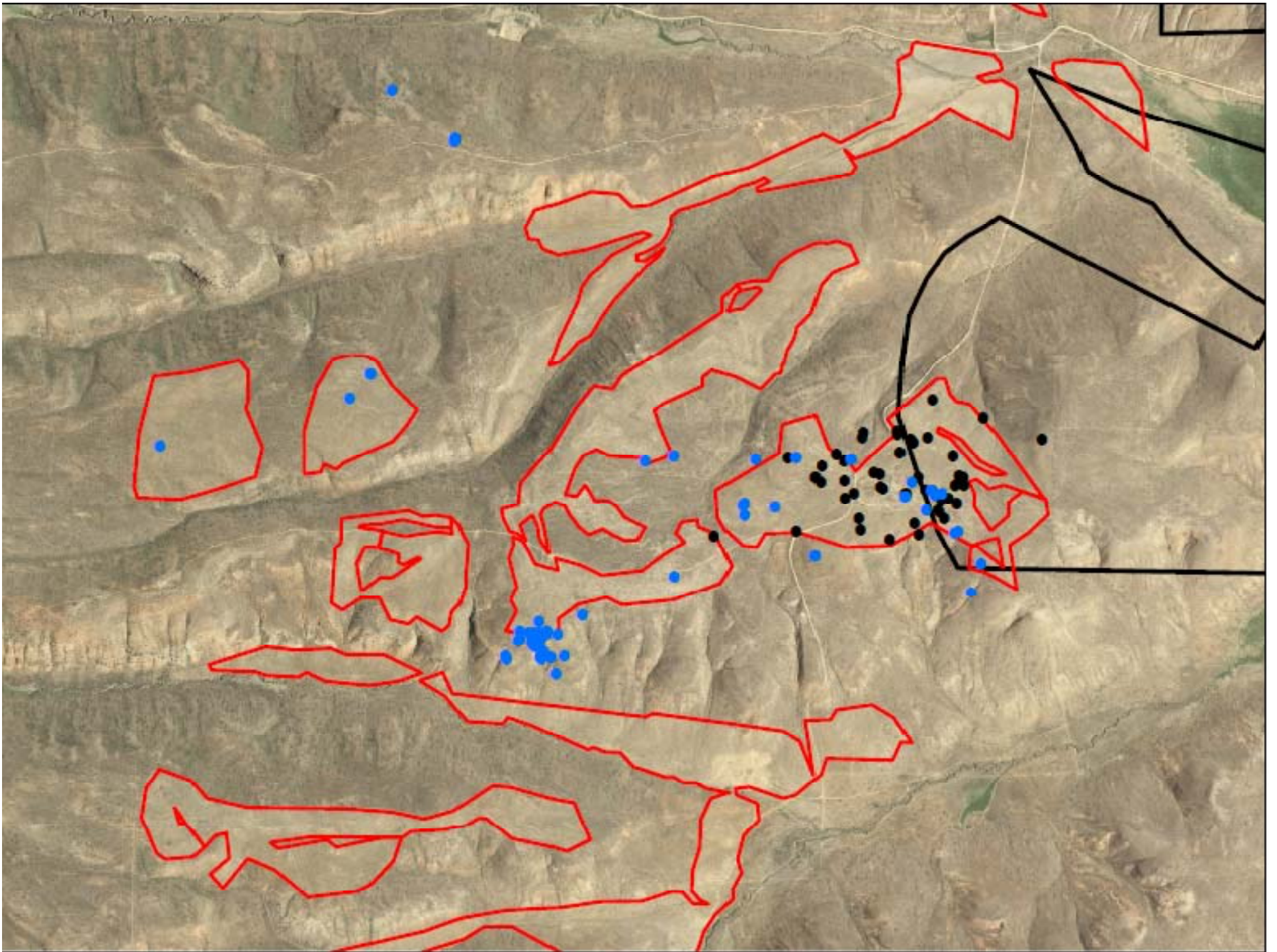
- GPS Telemetry
 - many locations in treated areas
 - **all locations in low elevation treated sites**
 - sage-grouse moved throughout the year

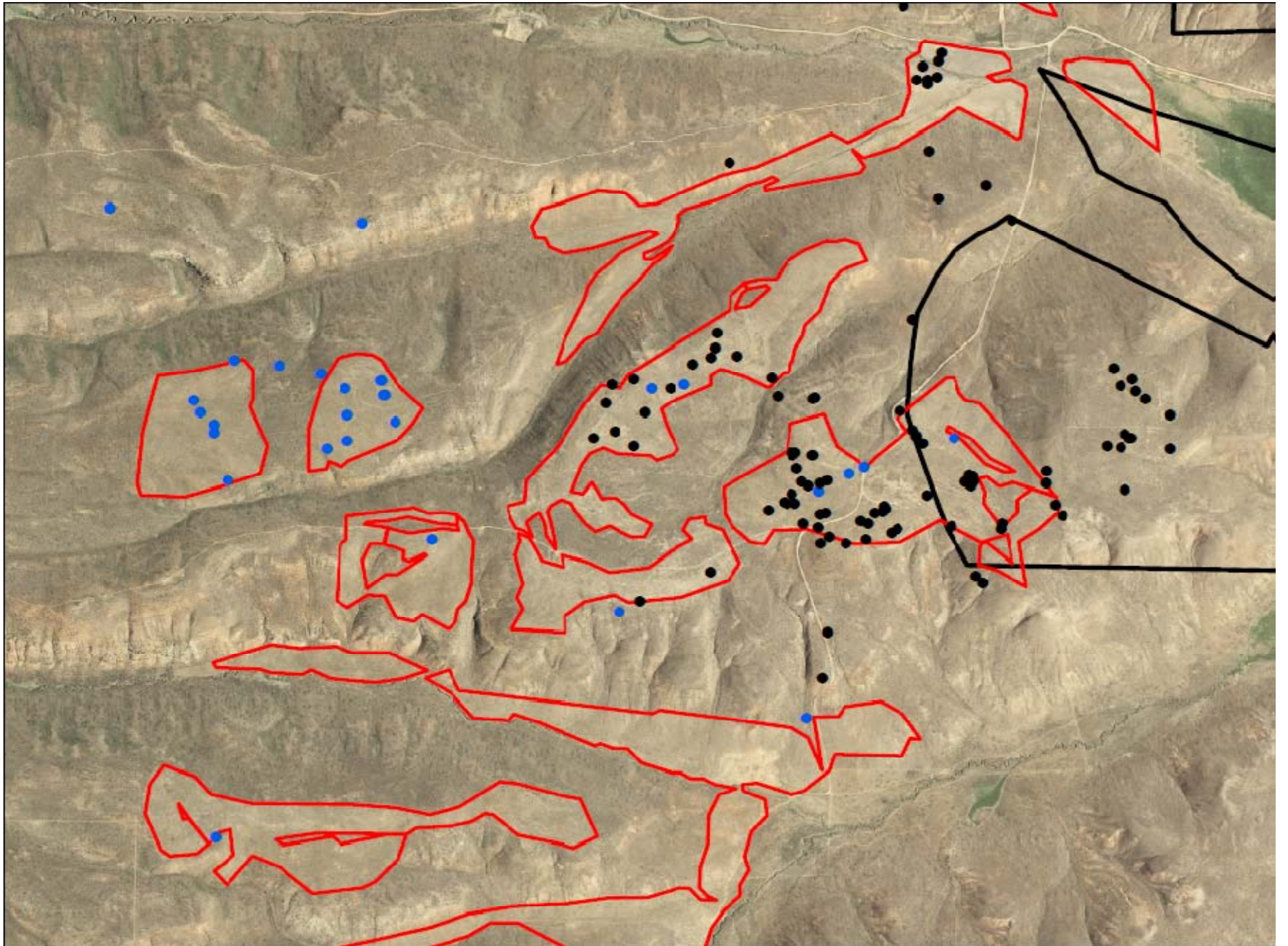


Results

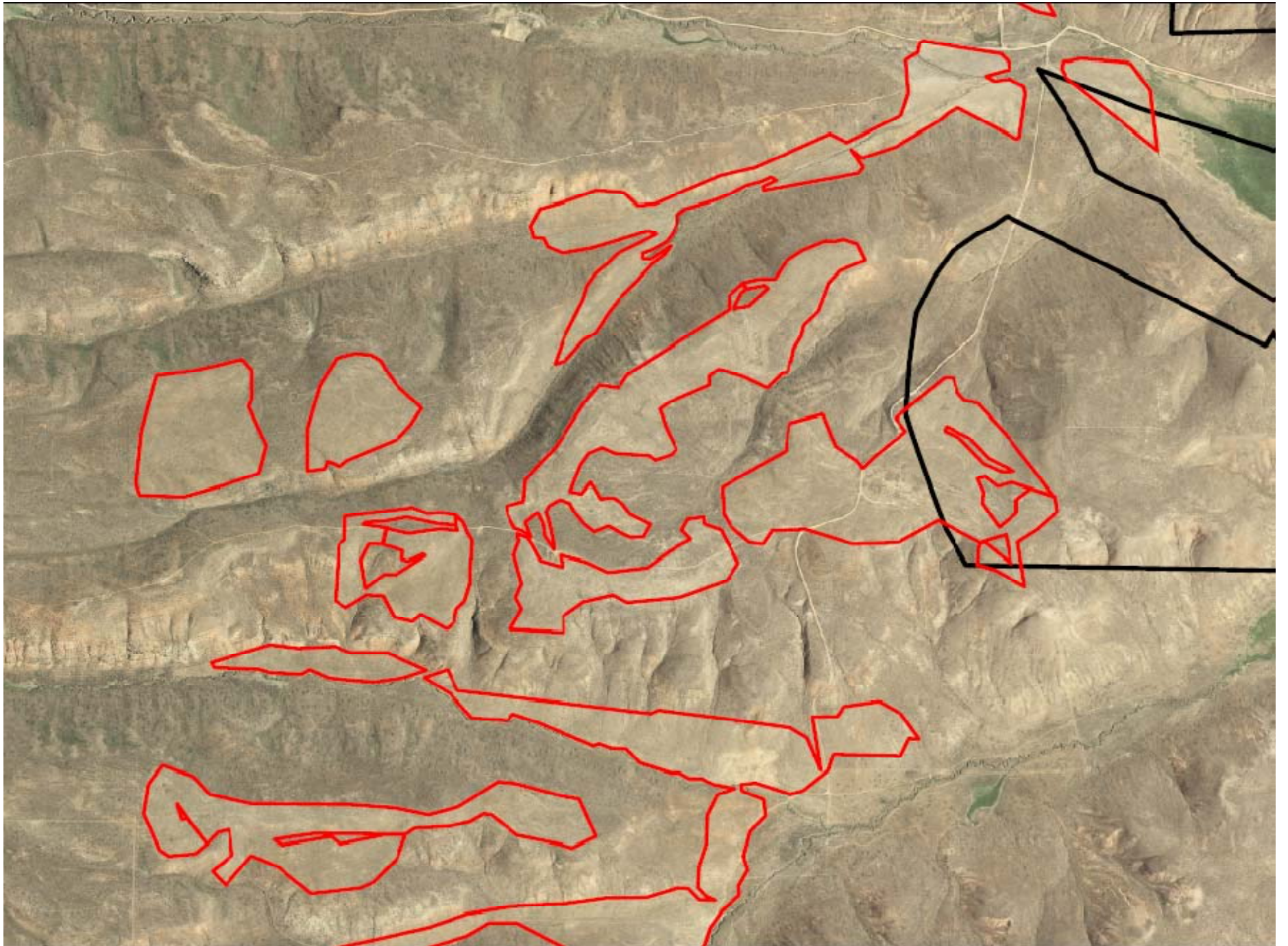
- GPS Telemetry
 - many locations in treated areas
 - all locations in low elevation treated sites
 - **sage-grouse moved throughout the year**







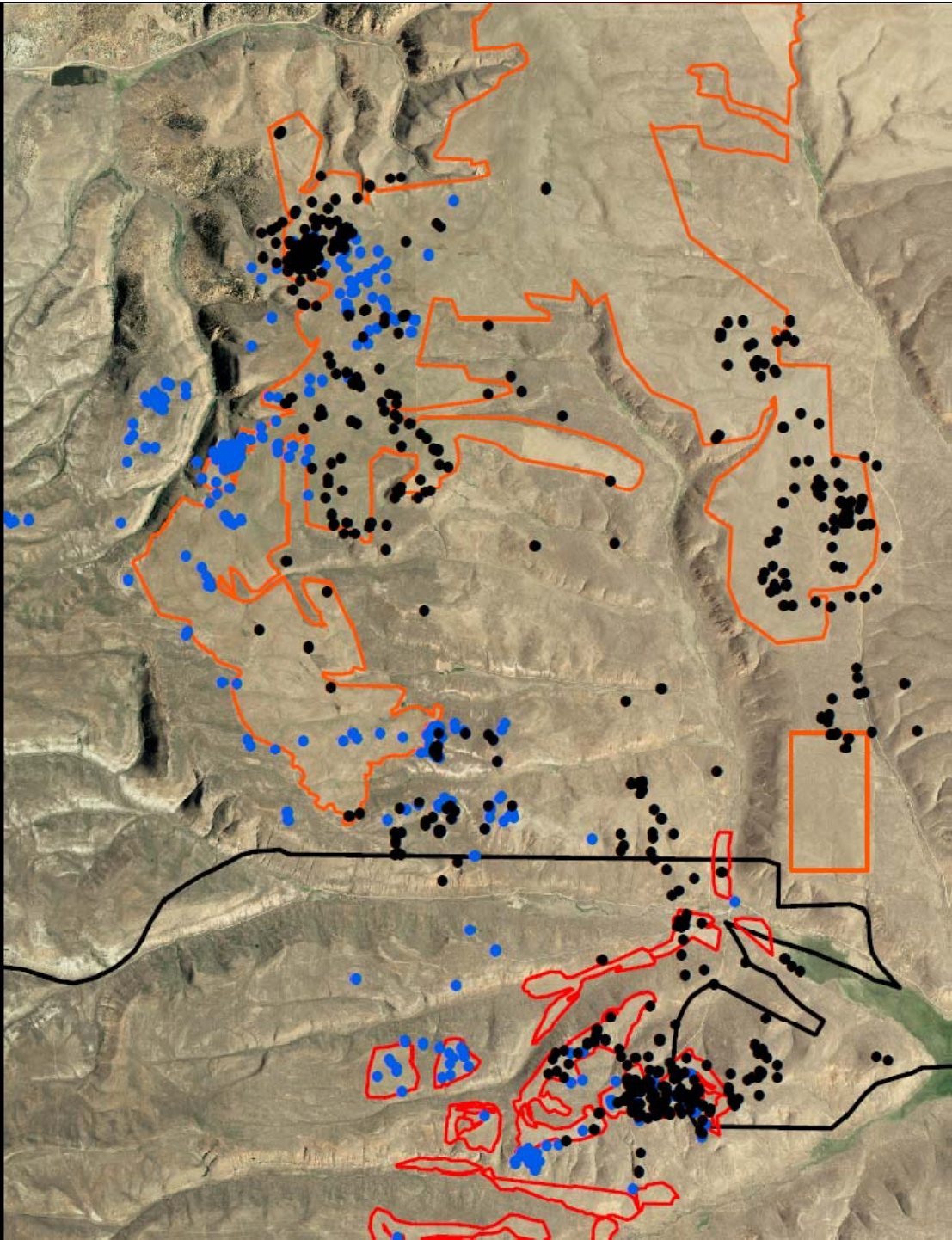




Results

- 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

Utah State University

BLM

NRCS

Rich County CRM

SGRP

USFWS

Private Landowners

DNR

Deseret Ranch

**Intermountain West
Joint Venture**

**Sportsman for Fish
and Wildlife**