

West Box Elder Sage-Grouse Report – Late March/April/May 2016

Greater Sage-grouse Responses to Pinyon - Juniper Removal

Background and Purpose

I am researching and gathering habitat use and movement data in regards to the past and present pinyon-juniper removal projects within the Park Valley area of the Box Elder Sage-grouse Management Area (SGMA). Currently, I have 14 global positioning system (GPS) transmitters deployed and 2 more will be deployed by late spring, making a total of 16. One of the GPS transmitters requires the bird wearing it to come within range of a cell phone tower to download the location data. The transmitters have been deployed in close proximity to juniper treatment areas. The location data collected from transmitters will help us refine conifer removal strategies and placement, and also allow us to develop a metric to measure and mitigate greater sage-grouse response to landscape features and changes within the SGMA.

With the other 13 GPS transmitters, data downloads are being gathered every 4 hours on a 24 hour cycle throughout the study period. This larger data set will allow us to research and observe more closely sage-grouse utilization of treatment areas in reflection to overall population fitness at the landscape level. Also, a sample size of +/- 20 very high frequency (VHF) collars will be maintained for sample size robustness across the study area.

Lekking and Breeding Status

For this study season, we have monitored and counted 17 unique leks for the UDWR lek count survey across the study area. Each lek was counted at least 3 times for the lekking season. I was fortunate to discover a new lek within the Meadow Springs complex. It was named the Muddy Creek Lek. I observed up to 40 males on the new lek for this season. Males are still strutting on the lek sites, but their numbers are dwindling as most females have dispersed to nest.

Trapping

We are still trapping lekking areas to deploy the remaining GPS transmitters and redeploy any transmitters we recovered from mortalities, so far we have had 2 hens. We are restricting our trapping to areas near the leks to alleviate possible nest disturbance(s). Any GPS transmitters recovered during the field season will be refurbished and redeployed as quickly as possible to ensure we are maximizing their capabilities relative to their cost. If possible, the last few GPS transmitters will be deployed in the Warm Springs area in hopes of documenting bird movements within new juniper removal areas.

Nesting

Currently, about 40% (both GPS and VHF birds) are nesting, with more females initiating nests every week. To date, 2 nests have been predated across the study area. Predation type was undetectable, but my suspicion is ravens played a part in one. In both cases, neither female was killed.

To mitigate the potential for ravens using our activities to key in on nesting sage-grouse, my technicians and I are being careful not to spend extended periods observing nesting females. This caution is warranted because I have observed ravens following me on several different occasions this season while relocating females; whether they were actual profiling me or just being curious—we are playing it safe.

The first female to hatch a nest this season occurred on May, 6th. She selected a nest site in the conifer treatment just east of Chicken Ridge. One of the predated nests was 20 yards from one of the new treatments in Dry Basin.

Mortality

For this field season, 2 GPS and 2 VHF females have been killed, but GPS transmitters and VHF radio-collars recovered in all 4 cases. Two more VHF collars are transmitting mortality signals south of Lynn Reservoir, but we have not been able to recover the radio-collars at the time this field report was written. Of the mortalities, 1 female showed to avian predation signs. Predation causes remain unknown for the other 3.

Grouse Movements

Due to the size of my study area, birds are beginning to really spread-out over the landscape now that the lekking season is tapering off and females are starting to nest. Currently, 1 VHF female is initiating a nest just east of Grouse Creek, at least 5 VHF females are nesting in Dove Creek Pass and upper Clark's Basin, 1 GPS females is nesting south of the Pipeline, and 3 GPS and 2 VHF females are initiating nests east of Park Valley.

Of the females we radio-marked, we have not been able to relocate 1 VHF female. We have not detected any signals for her this season. We will continue listening/checking for her throughout the field season.

One GPS female that was captured in Dry Basin last winter decided to take a vacation this spring just west of the City of Rocks in Idaho. I can tell by her satellite locations that she is incubating a nest. I can still monitor her locations and daily movements via satellite downloaded data. Also,

I can see the exact route she used to travel to Idaho. This information would not have been possible with VHF collared birds. Very cool movement data to look at and capture!

West Box Elder Landowners

I must say that I am very appreciative for the amount of cooperation, interest and trust that has been given to my technicians and I this field season; be reassured, it is not taken lightly. I am aware that we are guests and my technicians are reminded frequently of this privilege we have. Furthermore, I have really enjoyed getting to know all the different landowners within my study area and learning about their knowledge of the landscape, both past and present.

Without hesitation, please contact me if you want to know anything about what we are observing on your property, or if you just have general questions. If I do not have the answer, I will do my dead-level-best to find it out for you.

Best,

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