

## **Sheeprock Sage-grouse Management Area Translocation Field Update- 7/10/17**

### **Population Dynamics and Seasonal Movements of Translocated and Resident Greater Sage-Grouse of the Sheeprock Sage-grouse Management Area (SGMA)**

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#### **Purpose and Background:**

For the past 9 years, the greater sage-grouse population (*Centrocercus urophasianus*; sage-grouse) in the Sheeprock SGMA has been declining. This research will evaluate the use of translocations as a tool for the conservation of declining sage-grouse populations with the intent of providing managers with relevant information to aid in successful implementation of management techniques. Because of the management projects that are being and have been completed in the SGMA, we will also be able to assess sage-grouse use of the projects to provide manager with information to guide the development of future projects. This year, in an effort to increase nest initiation rates for translocated females and provide information leading to the development of translocation best management practices (Chelak and Messmer 2016), we included an artificial insemination experiment. This spring in cooperation with 2 other translocation projects—one in North Dakota and another in California—half of our translocated females sage-grouse were artificially inseminated to determine if this practice increases the probability of translocated initiating nests and localizing at the study site. Some of the females received sterile buffer solution as part of the control population (SHAM). This year we also will be collecting data regarding radio-marked sage-grouse response to OHV recreation and predation management.

#### **Study Area**

The Sheeprock SGMA, located in central Utah, consists of 611,129 acres in Tooele and Juab Counties.

#### **Survival**

Survival of radio-marked sage-grouse are monitored every two to three days. We have 12 confirmed mortalities since the 2017 translocations were completed: 11 translocated birds from 2017 and one from 2016. Of the 11 translocated birds from 2017, five were artificially inseminated females, three were SHAM buffer females, one was a control female, and one was a male. The remaining mortality was a translocated female from 2016.

#### **Nesting and Brooding**

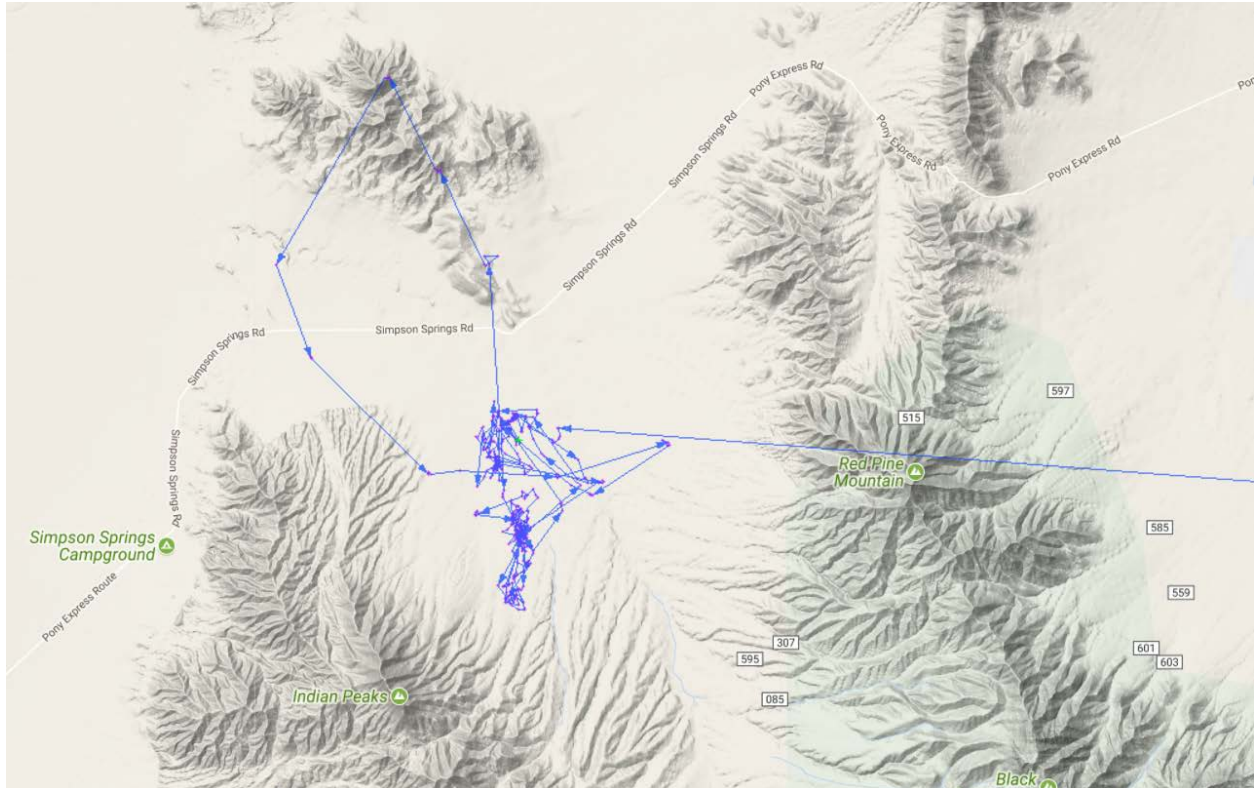
Nine females initiated nests in 2017: four 2017 translocated females (1 AI, 1 SHAM and 2 control), one 2017 resident female, four 2016 translocated females, and one 2016 resident females. Of these nine, seven successfully hatched broods: two 2017 translocated females, one 2017 resident female, three 2016 translocated females, and one 2016 resident female. Currently, three of the seven broods remain, and one brood has successfully reached the 50-day brood

survey with one chick. One of the remaining two broods will reach its 50-day survey this week, and the last will be at the end of July.

### **Radio-marked Sage-grouse Movements**

Translocated sage-grouse currently in the study area have localized around the lek areas and several have flocked with residents. The wide movements seen in the earlier part of the season have tapered off.

Below is an example of a female that was translocated into the Government lek area. She remained in the study area, and localized around the lek area. She is an artificially inseminated female.



### **Landowners**

We thank the landowners who allowed us access to their properties to capture birds. We also are indebted to the dozens of volunteers who have helped with the translocation effort. We particularly thank Jason Robinson and Avery Cook, DWR for coordinating the effort through the public review process and the logistics required to complete the translocation. We also thank the Utah Public Lands Policy Coordination Office, the BLM, the West Box Elder CRM, the Parker Mountain and West Desert Adaptive Resources Management Local Working Groups, the Jack H. Berryman Institute, the Quinney Professorship for Wildlife Conflict Management, the DWR, and the US Geological Service for funding, encouragement, and project support.