

Sheeprock Sage-grouse Management Area Translocation Field Update- 6/6/2017

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 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. 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, of 611,129 acres in Tooele and Juab Counties.

Equipment

For the 2017 field season, 15 new GPS transmitters and 20 new VHF collars were purchased.

Survival

Radio-marked sage-grouse are being checked on every two to three days. There have been 7 confirmed mortalities since the translocations: 6 translocated birds from 2017 and 1 from 2016. Of the 6 translocated birds from 2017, 4 were artificially inseminated females, one was a SHAM buffer female, and one was a male. The remaining mortality was a translocated female from 2016.

Nesting and Brooding

As of this report date, seven females have been confirmed to initiate nests: two 2017 translocated females (1 SHAM and 1 control), one 2017 resident female, three 2016 translocated females, and one 2016 resident females. Of these seven, five successfully hatched into broods: one 2017

resident female, three 2016 translocated females, and two 2016 resident female. The two 2017 translocated females are still incubating.

Radio-marked Grouse Movements

Most of the 2017 translocated grouse have begun to localize. However, some that have left the SGMA. We will conduct a telemetry flight on June 6 to search for VHF birds that have been undetected from at least a month or since translocation. Below is a map showing an example of one of our 2017 SHAM translocated females that travelled to Spanish Fork:

