

Sheeprock Sage-grouse Management Area Translocation Field Update

May 2020

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

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Background

This is the May 2020 field report for the research project studying greater sage-grouse (*Centrocercus urophasianus*; sage-grouse) population translocations, predation and habitat management the Sheeprock Sage-grouse Management Area (SGMA). The SGMA, located in central Utah, consists of 611,129 acres in Tooele and Juab Counties. Key threats to sage-grouse identified in the SGMA include wildfire, invasive species (annual grasses and forbs), potential loss of riparian or mesic areas, predation, habitat fragmentation, dispersed recreation, and conifer encroachment. Since 2016, we have translocated 146 sage-grouse that were captured on the West Box Elder and Parker Mountain SGMA's. In 2020, no additional sage-grouse have been translocated. This year we are continuing to monitor previously-translocated and resident sage-grouse to evaluate how the SGMA population is responding to habitat and predation management. We are also evaluating if habitat selection and vital rates differ for previously-translocated and resident sage-grouse. In addition, we are studying off-highway vehicle (OHV) use patterns of recreationists in the Sheeprock to learn if current use is impacting sage-grouse habitat-use and are also surveying OHV users to determine their specific recreation needs and motivations for coming. Because of the Governor Herbert's COVID-19 directives, USU's research office has postponed the OHV surveys until further notice.

Technicians and Training

In February, we hired three technicians for the 2020 field season beginning on March 2. Those hired include J. Coburn Blunt (New Hampshire), Adam Cupito (Ohio), Zack Petrie (New Jersey). Zack is the crew leader for the 2020 team this year. The technicians arrived at the research site in March and have been self-isolating while performing field work. During this time, the technicians received bird handling, telemetry training, vegetation monitoring, vehicle safety training, and COVID-19 mitigation training.

COVID-19 Update

We have embraced the Governor's and Utah State University's (USU) directive regarding the COVID-19 Pandemic. We have filed a field research plan with USU and received approval to conduct our field work. As mentioned previously, all research involving human subjects has been suspended until further notice. The research involving OHV recreation is included in this because we interview campers and fill out a survey about their trip. We are following USU guidelines on this and will commence once we have received additional guidance. The trend we reported in the April regarding higher season camping and visitation in the Sheeprock SGMA has continued. This could be reflective of the closure of other areas because of COVID-19 guidance.

2020 Captures

We captured and radio-marked nine resident sage-grouse this season. The captured birds include two males (1 Fredrickson male, 1 Government male) and seven females (1 Benmore female, 5 Log Canyon females, 1 McIntyre female). We completed trapping for the 2020 season in mid-April, when the majority of females began nesting.

Lek Counts

We discovered two new leks this year in addition to Little Valley lek becoming an occupied lek again. The new leks include the Log and McIntyre Divide, seen in the map below. Peak number of males counted by lek were: Government Creek 11, Benmore 14, Fredrickson 10, McIntyre 8, Little Valley 7, Log Canyon 5, and McIntyre Divide 4. The total number of males counted for 2020 was 59, up from a peak of 37 last year. However, last year's lek counts were impacted because of limited access. Though the peak lek counts appear higher, we stress that counts and locations fluctuated this year.

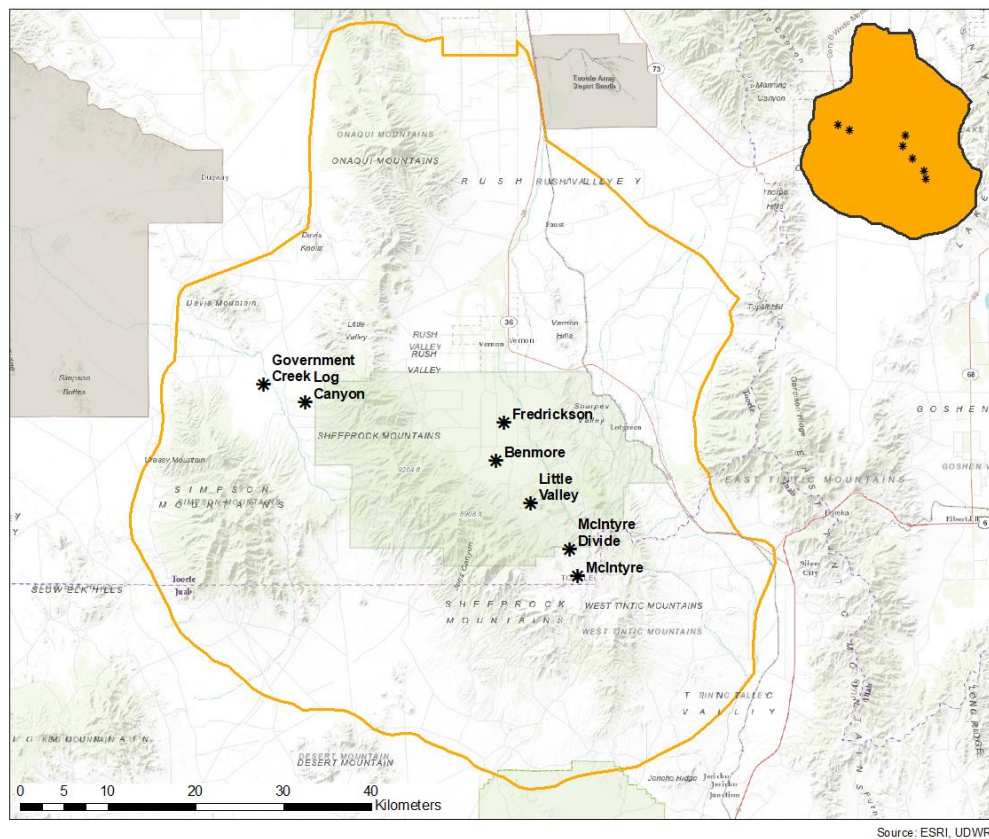


Figure 1. Active lek locations, including the two new (Log Canyon and McIntyre Divide) and recently reoccupied (Vernon Little Valley) leks, in the Sheepprock Sage-grouse Management Area, UT.

Nesting and Brooding

Of the 21 females we are monitoring, 12 initiated nests. Seven are marked with global-position system (GPS) transmitters: one 2016 female, one 2019 female, and five 2020 females. Five are

marked with very-high frequency (VHF) transmitters: one 2018 female, three 2019 females, and one 2020 female. Six of the twelve nests failed, leaving six successful nests. Two nests were predated by avian species, three were mammalian, and one was unknown.

Six nests hatched out into broods, and five are currently still brooding: one 2016 female, one 2018 female, two 2019 females, and one 2020 female.

Survival

There have been no new fatalities detected in May, so we have detected 12 fatalities of the 33 birds monitored. Three were marked with GPS transmitters and nine were marked with VHF transmitters. We will continue to monitor the radio-marked sage-grouse and recover any new mortalities as soon as possible.

Public and Private Partners

As always, we thank the landowners who allow us access to their properties to capture and monitor birds. We also are extremely indebted to the dozens of volunteers who have helped with the translocation effort. We particularly thank Jason Robinson and Avery Cook, UDWR 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 Yamaha Corporation, 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 UDWR, and the US Geological Service for funding, encouragement, and project support.