Rich County Coordinated Resource Management (Rich CRM) Local Working Group

The Rich County Coordinated Resource Management (CRM) Local Working Group (LWG) is facilitated by Dallen Smith and Dave Dahlgren. The Rich CRM consists of state and federal agency personnel, representatives from local government, non-profit organizations, academic institutions, private industry, and private individuals.

Description of Area and General Population Information

The Rich CRM management area is located in northeastern Utah, and is a significant population center for grouse in three states – Utah, Idaho, and Wyoming. The Sage-grouse Management Area (SGMA) includes Cache, Rich, Weber, Morgan, Summit and Wasatch Counties. The area boundary was determined by consulting with adjacent states, Utah Division of Wildlife Resources (UDWR), and the Morgan-Summit Adaptive Resources Management LWG, and the Rich CRM. It incorporates vegetation types used by sage-grouse, mostly in the Wyoming Basin eco-region.

Recent Activities and Accomplishments

In late August, Taylor Payne led a tour focused on the Three Creek Project including the newly installed water systems. USU research is continuing on Deseret Land and Livestock and the Three Creeks Grazing Project, preliminary data has been presented to the CRM group. Poor weather in the early spring limited access to all known leks resulting in a low count. Several WRI projects are ongoing and preliminary reports were discussed. Future GIP projects are proposed in the CRM area and were reviewed by the CRM group.

Utah State University graduate student Hailey Wayment and Dr. Terry Messmer initiated new research in 2019 to evaluate the response of sage-grouse to livestock grazing (Figure 9). They will model sagebrush treatment areas on DLL to determine resource selection patterns of sage-grouse broods. While research previously reported in peer-reviewed literature has reported the potential for negative impacts of sagebrush reduction treatments, to increase livestock forage, on sage-grouse habitat, few studies have linked livestock grazing at the landscape level to vital rates for ground-nesting tetraonids such as the sage-grouse. They are proposing to parameterize sage-grouse vital rates under different grazing and treatment scenarios, this may have implications for grazing policy west-wide. Completion of this project will provide definitive information regarding sage-grouse vital rates and habitat selection with respect to the presence of cattle and the effects of livestock grazing on vegetation composition and structure. This research will also provide managers with areas most suitable for sagebrush treatments that will have positive impacts on both cattle grazing and sage-grouse. The research questions are:

1) Do sage-grouse brood-rearing habitat-use patterns and vital rates differ under prescribed rotational (DLL) and season-long grazing practices (3C)?
2) Can any of the observed differences be explained by avoidance behavior or differences in vegetation composition and structure, and the green wave that are the result of livestock grazing?
3) Can the green wave be facilitated, enhanced, or prolonged by managing livestock grazing?

**Upcoming Year Work Plan**

The CRM Plan needs to be updated so the Board plans to work on this in the Spring of 2020. A Summer Tour needs to be scheduled and follow-up on WRI and GIP projects will be on the agenda for 2020 meetings. Hailey Wayment will continue research this field season. Once approved the thesis will be available to the CRM.
Figure 9. Movements of a female greater sage-grouse (*Centrocercus urophasianus*) on Deseret Land and Livestock (DLL) from April 20, 2019 to August 20, 2019. DLL-19a-163605-F traveled from a lek on DLL where she was collared ~40 miles north through the Three Creeks (3C) study area.