

**MSARM
LOCAL
WORKING
GROUP**

Date: March 1, 2021

Place: Virtual meeting via Zoom

Present: Pam Kramer (UDWR), Jared Reese (BLM), Cjay Buttars (USDA-Wildlife Services), Elizabeth Cohen (Summit County USU Extension), Russ Norvell (UDWR), Scott Walker (UDWR), Seychelle Marcus (Utah Open Lands), Marie Schleicher (Utah Open Lands), Heather Talley (UDWR), Nathan Long (UDWR), Anthony Gray (USFS), Lorien Belton (USU Extension facilitator)

Discussion and Updates

Introductions

After introductions, the group had a short conversation about recent salmonella outbreaks and how local individuals with feeders could handle any birds found dead (freezing, then turning over for examination), as well as feeder cleaning protocols.

Migratory bird data information

Russ Norvell, from the Utah Division of Wildlife Resources, presented to the group about other species of interest in sagebrush landscapes, including how to find useful data about them.

First, Russ described local research done in Rich County from 2004-2008, which looked at how habitat disturbance across different scales might influence bird distribution, density, productivity, and use of space for breeding. They looked at sagebrush obligate birds, using a before-and-after case-control design. The disturbances were vegetation projects (sagebrush removal or crushing) done for various other reasons in the area. Key findings included:

- Species didn't abandon entire areas after treatments, but did leave the specific treatment areas.
- Different species responded differently. For example, in the treated areas, vesper sparrow breeding increased, while sage sparrow breeding attempts ceased. Unexpectedly, nest success for all species declined significantly for several years.
- Brewers sparrows and sage thrashers still selected for the same types of nest sites, even if it meant needing to move, while vesper sparrows moved nests into the treated areas.
- Each of the four species studies shifted their territories in different ways due to the sagebrush treatment projects.
- At a landscape scale, however, not much changed – nesting habitats selected were fairly consistent. However, at smaller scales, the projects did influence the birds' activities.

Russ also described a similar research project done in pinyon-juniper removal sites, with similar questions. This was done of over 36 PJ removal sites across Utah. A very brief summary of that study: where PJ was removed as part of those projects, PJ-obligate bird density was reduced as expected, but sagebrush species only benefitted where sagebrush still persisted.

Key management recommendations overall from the projects:

- Leave habitat islands to minimize impacts on sagebrush- and PJ-obligate birds
- Managers could look for balance at watershed scales when assessing when enough treatment is enough
- Assess the background species information from the WAP

Russ also provided virtual tours of several key data sources (publicly available) on birds. For example, on eBird, when birders record migration data, it is translated into visualized migration maps, which can be valuable for planning and implementing projects during the year. They also support IMBCR for more detailed and defensible data. These resources can help project planners think about corridors and focus on a landscape scale.

He provided the following two links to the group:

- <http://rmbo.org/v3/avian/ExploretheData.aspx>
- <https://ebird.org/barchart?byr=1900&eyr=2021&bmo=1&emo=12&r=US-UT-029,US-UT-043> (This link is specific to Morgan and Summit counties/)

New UDWR/BLM Maps

Michel Kohl presented remotely from Georgia on the new seasonal habitat maps. He began with a short history. Before 2017, the seasonal maps were based on expert opinion about where sage-grouse spent time during each season, and were represented by polygons. A set of interim maps, which replaced those polygons, were based on years of VHS GPS data from collared birds tracked manually in the field. That data was great, but it was biased toward successful nesting females, who had been the focus of most tracking, as well as during seasons when tracking was more possible (i.e. not winter). Those interim maps showed whether habitat was breeding, summer, or winter habitat, although the winter model was data limited. The scale was also quite coarse: 1 km x 1 k pixels, which was inadequate for project-level planning and some other applications.

The interim maps will shortly be replaced with new maps. The new maps include the new GPS collar data, from many more grouse, many more areas, and information across seasons. The new maps are models that also include rangeland datasets and many other variables. In essence, the model analyzed the characteristics of areas where grouse spend time, and identified places that match those criteria. The model is designed from a landscape scale, taking into account all habitat conditions in a large area, but mapped at a fine-scale resolution. Thus, sometimes at very fine scales, it might not look accurate (such as showing water like East Canyon Reservoir as habitat). This is because there is good habitat around East Canyon overall.. Similarly, the model doesn't work well for a tiny patch of otherwise good habitat surrounded by nonhabitat. But that makes sense at larger scales, because at a larger scale, that tiny patch is less ideal than the same thing surrounded by lots of other good habitat in its ability to support a grouse. Similarly, it doesn't handle linear features very well.

There are three different maps: nesting, summer, and winter. There are also three different colors, which represent suitable, marginal, and unsuitable habitat for sage-grouse. Each pixel is compared to a 10 km area around it. One key point: the nesting map is not time (i.e. “spring”) based. The nesting map shows the likelihood of a nest being placed by a grouse in an areas, based on previous nest location information. This map doesn’t indicate where lekking, breeding, or time is spent in spring. It is just based on past nest locations. Summer and winter models are built on calendar dates. The winter habitat model will look like it overestimates where birds might go, but it takes into account different winter severities and multiple other factors. Importantly, the model values range from 0 to 1 rather than binary (habitat, non habitat) so this allows for us to quantify habitat quality.

Michel explained that soon, following research published in 2019, all mapping, policy, etc. will be adjusting to use standardized dates for when the named seasons begin and end for sage-grouse life cycle purposes.

These maps do not show where birds exactly are. However, they are useful for looking at the relative value of different nearby lands from the perspective of sage-grouse habitat.

Round Robin

- There are two proposed WRI projects in the area. Although neither has a direct sage-grouse focus, the group looked at the WRI database and briefly discussed the WRI online portal and the two projects.
- Elizabeth and Melissa Early are interested in collaborating on wetlands habitat improvement project outreach to local landowners. Lorien will reach out to Elizabeth to help with any needed contacts. Clint Brunson was also suggested as an interested party to add to the discussion.
- A presentation given at the UBARM group about cheatgrass establishment might be of interest to some individuals in this group; Lorien will send the presentation from Daniel to Scott Walker and Nate Long.
- Summit Land Conservancy was unable to attend this meeting but is still very involved with the RCPP grant.
- Seychelle, with Utah Open Lands, is working on management plans for local conservation easements, as a masters degree capstone project.

Follow-up Needed

- Lorien will work with Elizabeth and Melissa on getting the low-tech wet-meadow information out to landowners. She will also connect them with Clint Wirick.
- Lorien will send the cheatgrass info to Scott and Nate.

Next Meeting

Lorien will send a doodle poll for the next meeting (hopefully an in-person field tour).