

THE COMMUNICATOR

A QUARTERLY PUBLICATION OF UTAH'S COMMUNITY-BASED CONSERVATION PROGRAM



January 2018

Volume 14, Issue 1

IF IT'S NOT GOOD FOR COMMUNITIES, IT'S NOT GOOD FOR WILDLIFE

By Terry Messmer, Utah State University

Since 1996, and the inception of the Utah Community-based Conservation Program (CBCP), our mantra has been “if it’s not good for communities, it’s not good for wildlife.” Over the past 20 some years, the CBCP has committed itself to organizing and facilitating sage-grouse local working groups throughout Utah.

Utah supports an estimated 6% of the total range-wide greater sage-grouse population. These populations are distributed throughout the northern, western, and central parts of Utah where they occupy a discontinuous habitat base that reflects the natural topography and geography of the Utah landscape. About half of Utah’s greater sage-grouse populations occur on private lands; successful conservation depends upon gaining broad support from local communities and private landowners.

We had hoped the CBCP would provide a process that enhanced coordination

and communication between private and public partners. A goal of the program was to develop and implement “seamless” plans for designated Utah geographic areas that contribute to the conservation of sage-grouse and other wildlife species that inhabit Utah’s sagebrush ecosystems and enhance the economic sustainability of local communities.

In 2013, the Conservation of Greater Sage-grouse in Utah (Plan) was published. The Plan would not have been possible without the two decades of research and community involvement accomplished by the CBCP partnership. In February 2015, Governor Herbert signed an Executive Order (EO) to fully implement the Plan. The EO recognized and credited the CBCP for conducting the baseline research and community involvement essential to building the Plan. Because of the CBCP extension and research efforts, the state of Utah possessed unparalleled knowledge about the factors essential to the species’ conservation. When CBCP local working group (LWG) plans and state and federal agency efforts were aggregated into a statewide plan for sage-grouse, the collective result provided an organized approach for addressing the factors used to measure the success of conservation actions. Since 1996, the Utah’s partners have restored



To access the special issue on community-based conservation visit <https://digitalcommons.usu.edu/hwi/>

IN THIS ISSUE

IF IT'S NOT GOOD FOR COMMUNITIES, IT'S NOT GOOD FOR WILDLIFE.....1

YAMAHA MOTOR CORPORATION PARTNERS WITH USU TO SUPPORT SAGE-GROUSE CONSERVATION AND OHV RECREATION.....2

WHY YOU SHOULDN'T JUST USE RAW SAGE-GROUSE TELEMETRY LOCATIONS TO PLAN YOUR NEXT MANAGEMENT PROJECT.....3

WHY YOU SHOULDN'T, CONT.4

IF IT'S NOT GOOD, CONT.4

CBCP MISSION STATEMENT.....4

Continued on page 4.

YAMAHA MOTOR CORPORATION PARTNERS WITH USU TO SUPPORT SAGE-GROUSE CONSERVATION AND OHV RECREATION

Courtesy – Utah State University Extension

Off highway vehicle (OHV) recreation is one of the fastest growing outdoor activities in the west, where > 27% of the population use OHVs. More than 1 in 3 persons in rural areas and 1 in 4 in cities participate in OHV recreation averaging 24 days a year. Much of this OHV recreation occurs on public lands. In the western U.S., over 8,400,000 people live within 3 miles of sagebrush and 7,600,000 within 3 miles of public lands. In 2013, public lands supported an estimated 7,929,000 visitor days of OHV recreation or 12% of total visitor days.

In Utah, the Bureau of Land Management manages nearly 22.9 million acres of public lands, representing about 42 percent of the state. These lands are varied, ranging from rolling uplands to sprawling desert lowlands and feature some of the most spectacular scenery in the world, from the snow-capped peaks of remote mountain ranges to colorful red-rock canyons. These lands, in addition to supporting OHV recreation, are also home to many wildlife species including the greater sage-grouse.

Utah State University Extension's Utah Community-based Conservation Program (CBCP) was recently awarded a \$12,500 grant and two ATVs from the Yamaha Motor Corporation, as part of Yamaha's Outdoor Access Initiative, to support field research designed to balance recreation on public lands with sage-grouse conservation in the Sheeprock Sage-grouse Management Area (SGMA). The SGMA, located in Utah's West Desert, consists of a 600,000 acre sagebrush landscape which is largely managed by the Bureau of Land Management and the U.S. Forest Service (USFS) for multiple access to include dispersed OHV recreation. The Sheeprock SGMA also provides residents of the Salt Lake Valley easy access to public lands for OHV recreation.

The SGMA is being managed through an integrated adaptive management approach that combines social research to determine public land recreation user needs with sage-grouse translocations, habitat restoration and recreation management. The information gathered through the partnership will be used by the BLM to develop a travel management plan to conserve sage-grouse and enhance the experience of off-road vehicle users.

“The work USU Extension is doing is a great example of institutions and agencies coming together to find ways to create and protect access to public land for all types of recreation,” said Steve Nessl, Yamaha's ATV/SxS marketing manager. “With support from the Yamaha Outdoor Access grant program, the research team at USU can help the state public land managers put together a use plan that supports motorized recreation without disrupting important wildlife conservation efforts.”

Terry Messmer, USU Extension wildlife specialist and CBCP director said that innovative partnerships are the future of wildlife management and conservation.

“Yamaha is a leader in the outdoor recreation industry, and with the support of the other partners, we are confident we can achieve a sustainable balance that enhances outdoor recreation and sage-grouse conservation on public lands,” he said.

Through partnerships like this, Messmer said USU Extension has a long history of serving the citizens of Utah and the West by providing the best information on the management of western lands.

Richard West of Cache Honda Yamaha agreed. “We are grateful to Yamaha Motor Corporation for their support of the Conservation Initiative,” he said. “It is important to us and all the power sport dealers in Utah that all who use and recreate on public lands participate in these important decision-making processes.”



Melissa Chelak, USU graduate student, accepts two Yamaha Kodiak 700 ATVs from Richard West, Cache Honda Yamaha, Logan Utah. The ATVs were donated by the Yamaha Motor Corporation to support field research designed to balance recreation on public lands with sage-grouse conservation in the Sheeprock Sage-grouse Management Area, near Tooele, Utah. Photo courtesy of Julene Reese.

WHY YOU SHOULDN'T JUST USE RAW SAGE-GROUSE TELEMETRY LOCATIONS TO PLAN YOUR NEXT MANAGEMENT PROJECT

By David Dahlgren, Utah State University

In the late 1990s Utah State University (USU) began working with our partners on the Parker Mountain Sage-grouse Management Area (SGMA) to study greater sage-grouse (*Centrocercus urophasianus*; sage-grouse) responses to vegetation treatments completed in brood-rearing habitat. To conduct this study, we radio-marked female sage-grouse with very high frequency (VHF) necklace-style radio transmitters on nearby leks that were lower in elevation than the experimental treatments. We thought that marked sage-grouse would move into the experimental treatments and we could monitor their habitat selection to see which treatment types they preferred.

However, as we followed the marked birds during nesting and brooding seasons, we found that most avoided the treatments altogether. Based on this information, we would have concluded that sage-grouse did not like any of the habitat manipulations. But, when we took a closer look at the experimental plots we found lots of sage-grouse signs in them. So we implemented pellet counts and bird dog surveys. During the pellet count surveys we documented more sage-grouse using the experimental plots than untreated areas, and during the bird dog surveys found that sage-grouse and their broods were selecting for a specific treatment type over others.

So, what can we learn from this experience? Although we had a good number of sage-grouse radio-marked during those years (i.e., 30-40 females), this sample size was still less than 1% of the overall population of grouse on the SGMA. Therefore, just by chance alone our 1% did not use the areas where we manipulated the habitat. If we only looked at the telemetry locations of our marked birds we would have seriously erred.

This type of error is called **Telemetry Bias**. Telemetry bias is the over-estimation of the implications of telemetry location information. Basically, if we make management decisions for a landscape by looking at only radio-marked individual locations we could easily succumb to this bias and the associated error.

Then why do we have telemetry data and how is it useful?

Radio-marked individuals are only considered to be a representative sample of the overall populations. We can then use statistical models to look at telemetry locations and the habitat selection these represent. Now, knowing what our marked birds selected and assuming our subsample represents habitat selection of the rest of the birds in the population, we then assign habitat selection value to the entire landscape. Rather than individual points on the landscape, habitat selection values are presented in some sort of heat map (e.g., green to red scale; Figure 1).

Although it is tempting to look at a map of a few individuals' telemetry location points and want to make management decisions on "where the birds actually are," this temptation is full of potholes and unintended flaws. Rather, the power of telemetry location data is that it can lead us to habitat selection information for the entire population across the landscape. These heat maps provide the best information for management decisions because they are a representation of the entire population.

Accordingly, we are now working with our agency partners to provide a way to produce habitat selection maps in an area of interest. Currently, there are several projects underway across Utah that have deployed VHF global positioning systems (GPS) transmitters in sage-grouse. The GPS transmitters are capable of giving us multiple sage-grouse locations 24-7. Researchers at USU, Brigham Young University, and the Utah Division of Wildlife Resources

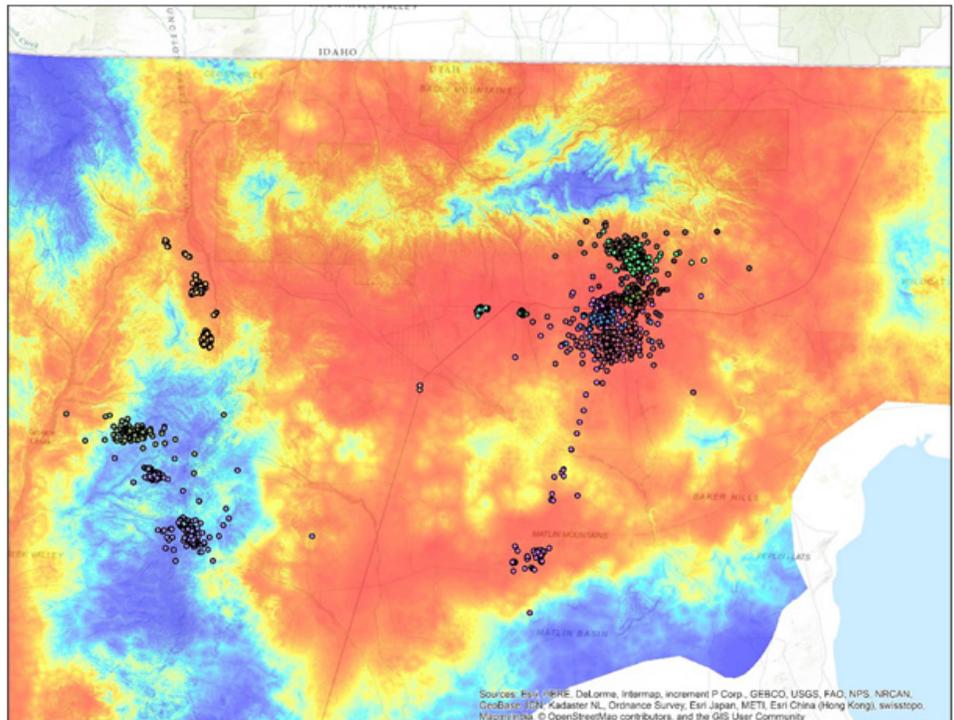


Figure 1. An example of a habitat selection heat map. This depicts general sage-grouse habitat in West Box Elder County and demonstrates how known GPS locations can be used to characterize the entire landscape.

Continued on page 4.

If it's not good for communities, it's not good for wildlife.

WHY YOU SHOULDN'T JUST USE RAW SAGE-GROUSE TELEMETRY LOCATIONS TO PLAN YOUR NEXT MANAGEMENT PROJECT, CONT.

are working together to combine telemetry data into one universal database. We already have an incredible amount of telemetry location data (i.e., greater than 500,000 locations).

Many of our partners know about these projects in their areas and they desire the information for their management decisions. We applaud the desires of these managers to use the best available information. However, because of the telemetry bias issue, we now have developed a process to provide habitat selection maps based on telemetry location data nearest or within the area of interest. Individual requests from managers for this information should go through the state or regional sage-grouse program leads. For more information, you can also contact Michel Kohl at michel.kohl@usu.edu.

IF IT'S NOT GOOD FOR COMMUNITIES, IT'S NOT GOOD FOR WILDLIFE, CONT.

over 500,000 acres of sage-grouse habitat and protected over 94% of the state's sage-grouse populations on 7.5 million acres in 11 sage-grouse management areas. Since inception, the state of Utah has committed over \$150 million to implement LWG identified incentive-based conservation strategies. Utah sage-grouse populations in the CBCP planning areas have stabilized. Because of the CBCP vision, community involvement in sustainable conservation has dramatically increased. Because of Utah's efforts and others range-wide, the U.S. Fish and Wildlife Service determined that the sage-grouse did not warrant ESA protection.

The CBCP and similar efforts on-going in other states in the region were recently featured in a special issue of Human-Wildlife Interactions (HWI). Human-Wildlife Interactions is the only scientific journal dedicated specifically to reporting research, management case studies, and policy perspectives designed to enhance the management of human-wildlife conflicts. The issue is available online <https://digitalcommons.usu.edu/hwi/>. We hope you take a few minutes to flip through the issue and see how other states are also achieving species conservation goals by working with local communities. However, even given the recent innovative successes there remain practical and policy challenges and unresolved questions regarding how government and those who do not live in the affected communities view and will respond to communities empowered to make public land resource management decisions. In this issue, the authors explore these questions in greater depth.

Utah's Community-Based Conservation Program Mission

Utah's Community-Based Conservation Program is dedicated to promoting natural resource management education and facilitating cooperation between local communities and natural resource management organizations and agencies.

Utah State University is committed to providing an environment free from harassment and other forms of illegal discrimination based on race, color, religion, sex, national origin, age (40 and older), disability, and veteran's status. USU's policy also prohibits discrimination on the basis of sexual orientation in employment and academic related practices and decisions.

Utah State University employees and students cannot, because of race, color, religion, sex, national origin, age, disability, or veteran's status, refuse to hire; discharge; promote; demote; terminate; discriminate in compensation; or discriminate regarding terms, privileges, or conditions of employment, against any person otherwise qualified. Employees and students also cannot discriminate in the classroom, residence halls, or in on/off campus, USU-sponsored events and activities.

This publication is issued in furtherance of Cooperative Extension work, acts of May 8 and June 30, 1914, in cooperation with the U.S. Department of Agriculture, Kenneth L. White, Vice President for Extension and Agriculture, Utah State University.



Local working group members visit a habitat treatment site. Photo courtesy of Lorien Belton.