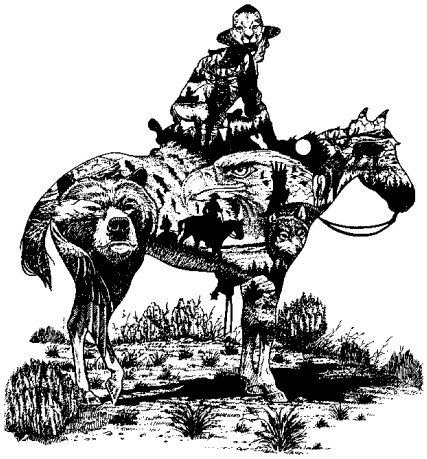

Society for Range Management
Pacific Northwest Section

Properly functioning ecosystems provide for long-term sustainability of watersheds, plants, animals and people
Volume 64, Number 1 *March 2013*

NEWSLETTER

President's Message

Bob Gillaspy, Vancouver, WA -- works in Portland, OR

As you read this note, Spring is around the corner. It may already be at your place. Take a moment to go out and enjoy the new and renewed growth of life happening around you.

Spring is a time when we are anxious to get back to the field. As I eagerly anticipate my field visits, I wonder *"How can anyone with an interest in food, water, natural resources, biology, fresh air, wildlife, bird songs on the wind, (and on and on. . .) not be interested in rangelands?"* Yes, I know that many of the benefits from rangelands can be attributed to other land uses, such as forest, cropland, pastures, and hay fields. But since a certain pull towards rangelands is a common thread weaving through all of us, let's leave it at rangelands for now.

Even those who spend most of their lives in suburbia have an interest in rangeland use and management; they just may not know it, yet. They may think that rangelands are populated with cowboys, or that they are vast open spaces of little interest. Many may not see the connections between their lives and the rangelands that are miles away, or just out their back door.

I urge **you** to reach out to your neighbors, colleagues, friends and acquaintances to help them better understand how rangelands connect to their lives. Tell them what rangelands mean to you. Invite them on your next field trip, chapter event, or even to our **summer field tour in Dawson Creek, BC** or the **fall tour in Enterprise, OR.**

Society for Range Management is a group of people with varied backgrounds, who all contribute to our understanding of the ecology, use, and management of the range resources. **I like that!** We are practitioners, researchers, managers, biologists, hydrologists, plant ecologists, soil scientists, . . .

Ours is truly a society of people who are committed to learning from each other.

Let's expand the awareness of SRM. Invite others to join so that we can all learn how rangelands impact our lives and can be managed to sustain the many benefits that come from these lands.

British Columbia, Oregon and Washington were represented by 60 people at the **SRM Annual Meeting in Oklahoma City!** Many were students -- our future. They participated in High School Youth Forum (with **Alyssa Johnson** as president), undergraduate events, and graduate paper presentations. Thank you to those who encouraged these people. I hope you can persuade them to become members of SRM.

There were special guests from our PNW Section. The **Martinez Brothers,** sheep producers from the Yakima, Washington area, received a national award from the USFS for their range management skills and cooperative attitude. **Becky Hatfield Hyde**, an Oregon cattle producer, participated in the "Women as Change Agents in the World's Rangelands" symposium. She talked about her efforts to combine sustainable cattle ranching with land restoration.

One highlight of the Annual Meeting was the SRM Honor Awards Program. PNW Section has been represented in the past; this year was no exception. Read about **Tim Deboodt, Bob France, Greg Tegart** and **Meribeth Lomkin** on page 2. Congratulations to each of you!

Looking ahead, the BC folks are putting together a fascinating summer tour program, **June 19 - 21. Dawson Creek** may be a long way to go, but this field tour will be worth the travel. Several carpools are going up. If you are looking for a ride, or are willing to share a ride, please contact Lynne Breese, or your section neighbor. They will work together to help you find a way to get to Dawson Creek, BC.

Remember to put the fall meeting and tour on your calendar: **September 19-21, Enterprise, Oregon.**

Meantime, enjoy your spring season. Bring a friend to the next Range Gathering!!

Bob

bob.gillaspy@or.usda.gov or rangebob47@gmail.com

Honored in Oklahoma

by John Buckhouse, Awards chairman, Corvallis, OR

Tim Deboodt, Prineville, OR. Outstanding Achievement in Research & Academia Award recognized Tim's nearly 20 years of paired watershed research that proved that significant amounts or water, including ground water recharge, are lost from a site due to juniper presence. As an Extension educator, he helps landowners, decision makers, lawmakers and students understand the value and complexities of natural resource management.

Bob France, Coldstream, BC. Outstanding Achievement in Stewardship Award recognizes Bob's work for rangelands and for the SRM at chapter, section and parent Society levels. As a District and Province Extension educator in the Ministry of Agriculture, he worked with land managers involved with forages, livestock, wildlife and rangelands. After retiring from the Ministry, he coordinated livestock programs for the BC Cattlemen's Association.

Greg Tegart, Vernon, BC. Outstanding Achievement in Stewardship Award recognizes that Greg was born to be a range manager! With the BC Ministry of Agriculture since 1978, Greg has provided leadership on Coordinated Resource Management Planning, conflict resolution, grazing management, fire ecology and plant identification. He is consulted by other agencies and individuals throughout BC and all of North America.

Meribeth Lomkin, Jerome, ID. Outstanding Young Range Professional Award recognizes Meribeth's enthusiasm and commitment to youth through HSYF, FFA Range Contest and Idaho Rangeland Resources Commission. She is active in SRM at the Idaho section and Parent Society where she chairs the Endowment Fund. She is also a member of PNW Section. Meribeth manages Endowment Lands with the Idaho Department of Lands.

S. Martinez Livestock, Inc., Yakima, WA. National Forest Service Award for External Partner Outstanding Rangeland Management recognizes Martinez brothers management of their sheep on nine allotments and their consistent cooperation to find reasonable solutions to management issues. They hosted the PNW SRM 2012 summer tour. **PNW Section** and the SRM **Redd Fund** helped Mark & Wendy Martinez travel to Oklahoma City.

Friends and colleagues gathered in Kamloops, BC on March 7, 2013 to celebrate with recent SRM award winners from BC (left to right) Bob France, Alf Bawtree and Greg Tegart. Alf was presented with the 2012 Jim Brunner *In For The Long Haul Award*, originally presented in Long Beach, WA and Bob France and Greg Tegart were each presented with *Outstanding Achievement Awards*, originally presented in Oklahoma City, OK. This was a great chance to celebrate and for Alf and Greg to actually receive their physical awards as they had both been unable to attend the original ceremonies. **Photo by Don Blumenauer.**

Oklahoma City Notes

Pete Schreder, Lakeview, OR: Oklahoma may be flat, but the annual meeting was anything but that, with too many high points to list. It is a pleasure to connect with friends and colleagues, share stories and experiences, and spend a few days focusing on the practice so many of us are passionate about. The Annual Meeting is always a time for me to reengage in the discipline of rangeland management and come home charged up for the new field season.

Alyssa Johnson, Salmon Arm, BC: This year I had the honour of returning to the High School Youth Forum (HSYF) as the President. It was all such a unique experience, being able to lead the forum, and travel to OKC for the forum, is the furthest I've ever traveled. This was also a huge eye-opener to the opportunities that SRM has to offer, and I'm looking forward to Orlando next year!

Drew Dyer, Dallas, OR: Most memorable was not a specific activity, but rather the accepting and community based atmosphere that was created by everyone. The encouragement fostered at the beginning of the HSYF was carried throughout the forum by each of the delegates. Listening to all the topics and the presenter's emotion and passion behind it, was well worth the trip. Everyone has a strong passion for what they do and want to share that with others to improve the community as a whole.

Emily Lent, Prineville, OR: I had a good time and learned quite a bit. I volunteered with the HSYF presentations as a judge and once again, it was an outstanding group of youth and I am continually impressed and amazed with the knowledge and speaking skills these high school students have!

Maura Laverty, Peshastin, WA: Spending casual time with **Mark & Wendy Martinez,** instead of in an official FS meeting was special -- getting to know them personally and sharing laughs. They couldn't stay longer because lambing had begun, and the 1st calf dropped while they were in OKC! "Women as Change Agents in Rangelands" featured fascinating women, including PNW's **Becky Hatfield Hyde**. It's a treat to meet new people and visit my SRM friends, especially the Idaho members.

Brenda Smith, Burns, OR: Representing High Desert Youth Range Camp at the High School Youth Forum, **Drew Dyer** made an excellent presentation; he had thoroughly studied his subject, the effects of fire on sage-grouse habitat in SE Oregon. Special thanks to **Chad Boyd** at E.OR Ag. Research Center for helping Drew, and thanks to OSU students **Aleta Nafus** and **Merilynn Hirsch** for traveling with Drew, and MANY thanks to PNW for providing this opportunity for Drew. He represented you well.

Wendy Gardner, Kamloops, BC: Undergrads **Kelsey Hayes** and **Andrew Volo** and graduate students **Mahesh Kahdka** and **Vanessa Volpatti** represented Thompson Rivers U. Many thanks to the funding from PNW Section and especially to the **Bedell family** for making this possible. Vanessa and Mahesh presented posters; Vanessa gave a technical talk. Highlights from the students: "The benefits of attending SRM were numerous. It was exciting to be exposed to different research methods and ideas which help direct our thinking for research. Idea sharing forums allowed us to express our thoughts and collaborate with professionals. Networking helped develop strong ties and create future opportunities. Presentations expanded our knowledge base outside of sitting in university classes. A great highlight was meeting the publishing authors whose work we have used to implement our own ideas and base our research off of. These authors have given us positive feedback and encourage us to take up the challenge of moving the current research in range science and management forward."

Becky Hatfield Hyde, Beatty, OR: Thank you, PNW Section, for sponsoring part of my trip to Oklahoma so I could participate on one of the panels. What a great conference. I only wish I could have attended more sessions. I love the universe of people who care about range.

Bob France, Coldstream, BC: I enjoyed the OKC meeting and catching up with old friends. The Plenary was excellent and I attended several informative sessions. While planning the trip to OKC, I had forgotten that it was the site of the 1995 bombing of the Murrah federal building. I vividly remember watching the aftermath on TV. When I realized the site was nearby, I walked to the National Memorial on Sunday morning. I spent most of the morning wandering, sitting and contemplating what had happened. The site of 168

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The Effects of the Long Draw, Holloway, and Miller-Homestead Fires on Sage-Grouse Habitat in Southeastern Oregon

***By by Drew Dyer**, Dallas, OR, HSYF Presentation in Oklahoma City*

Introduction

There are now only 11 U.S. states that the greater sage-grouse (*Centrocerus urophasianus*) inhabits, what some call the "high desert chicken". This bird has become the focus of many management programs, due to its status as an indicator species and its low reproduction rate and fluctuating life cycle. The number of sage-grouse are declining, while sporadic natural disasters and other factors increase, thus increasing the attention and action towards this species. Dr. Chad Boyd a rangeland scientist with the Agricultural Research Service in Burns, OR states that "sage-grouse can be found in 11 western states. Their numbers have been declining since the 1960s and the U.S. Fish and Wildlife has classified them as warranted for listing under the Endangered Species Act. A final decision on listing is forthcoming in 2015, but if this species is listed, land use and management will be impacted on millions of acres of western rangeland" (Boyd 2012). While awaiting this decision, management applications have been tested by some of the largest wildfires in recent history. In southeastern Oregon three fires consumed vast acreages through prime greater sage-grouse territory, seriously impacting habitat. The native sage-grouse populations of eastern Oregon will be affected by the Long Draw, Holloway, and Miller-Homestead fires, because of the scale of disturbance.

Eastern Oregon greater sage-grouse habitat under normal seasonal conditions

Appearance: What are sage-grouse? The Burns, Oregon and Washington U.S. Bureau of Land Management have accurately described as "A large, rounded-winged, spike-tailed, ground-dwelling bird, about two feet tall and weighing from two to seven pounds (BLM 2013a). The females and males differ in appearance, females are dark with a black and brown conservative appearance, while the males have black and brown coloring with a white ring that surrounds their neck and chest. When breeding, the males will produce a bright yellow air filled sac from their chest, to attract females.

Habitat: The high desert of eastern Oregon provides suitable habitat for the greater sage-grouse. "Typically greater sage-grouse habitat occurs in sagebrush (*Artemesia spp.)* communities at elevations of 1,220 to 2,438 m (4,000 to 8,000 ft.) with annual precipitation of 25 to 38 cm (10 to16 in) and rolling topography with slopes generally less than 30%. . ." (Call and Maser 1985). Sage-grouse are known as "indicator" species due to the fact that their habitat needs are consistent with what is considered a properly functioning sagebrush ecosystem (Wambolt et al. 2002). If a significant environmental change occurs they will often migrate to a different location. Necessary habitat elements include Wyoming or basin sagebrush, mixed with open areas known as leks used for breeding which are relatively devoid of juniper trees. The sagebrush is preferred to be of medium height with a wide base; the wide base allows for ample cover during nesting and brooding. Leks are generally lacking of herbaceous material, and are broad open spaces available for mating appearance. The presence of juniper trees, and other tall

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The Effects of Fires on Sage-Grouse Habitat, continued from previous page

structures are a special concern when managing for sage-grouse, these birds are easily driven away from areas where there is anything above 3-4 ft. in height because such structures can serve as raptor (predator) perches (Crawford et al. 2004).

Diet: The nutritional requirements for sage-grouse differ significantly between the summer and winter months. During the summer their diet is primarily composed of sagebrush, forbs, and insects. Some of these forbs include hawks beard, clover, and dandelions; insects include ants and beetles. During winter their diet is composed almost entirely of the available sagebrush (Hagan 2005, Miller et al. 2001, High Desert 2012).

Migration: Sage-grouse, like other birds, will migrate on a seasonal basis. In a residential habitat where all of the seasonal requirements are met the sage-grouse will move within an average of 39 miles^2, while in a migratory population may range across a 47 miles^2 area, and their entire range may include an area of 580 miles^2 (Hagan 2011). The area necessary for sage-grouse dictates that large amounts of land need to be available for them. It is difficult to manage for this species while balancing other factors such as grazing, recreation, other wildlife species, and natural disasters.

Effects of the fire

Southeastern Oregon has been impacted by three of the largest wildfires in Oregon history. In the summer of 2012 the Long Draw, Holloway, and Miller-Homestead fires burned vast areas of sage-grouse habitat. These lightning caused fires combined to burn approximately 1,155,208 acres of public and private land that is used for livestock grazing, sage-grouse and other wildlife habitat. The three fires burned relatively fast, which helps with recovery. These fires burned through large and prime lek sites for the sage-grouse.

Prior to the fires, in some areas, there was a large fuel load from dead herbaceous material that could have gathered due to a lack of grazing and abundant moisture in previous years, along with non-native invasive exotic annual grasses, such as cheatgrass (*Bromus tectorum*) which are known to increase fire frequency and acts as a fire accelerant (Hagan 2005). These factors were present, but fortunately during the time of these fires there were strong winds which helped to produce a quick and continuously moving blaze. This circumstance was important because the faster a fire burns the less intense constant heat there is on the soil and in turn on the roots of perennial grasses and shrubs (Boyd 2012). For many of the desirable grasses and shrubs, it is likely to be a slow recovery. It takes many years for a habitat to recover naturally from a fire. This is in part due to a chemical effect called hydrophobia; the burned soil is less efficient in absorbing water, making it more difficult for vegetation recovery until the hydrophobic layer is gone (USDA 2000). In a naturally recovering habitat, the first plants to recover will be the exotic annuals, then within a couple of seasons followed by perennials, and lastly shrubs and trees (Hagan 2005).

Forecasted consequences of the fire on native sage-grouse habitation

Sage-grouse populations have exhibited long-term declines throughout North America, declining by an estimated 33% over the past 30–40 years (Connelly and Braun 1997, Braun 1998, Connelly et al. 2004). This decrease in sage-grouse supports the importance of maintaining a healthy landscape. Although it may seem the burned habitat has been destroyed,

Continued on next page...

PNW Lost Resource

Jon Skovlin died February 14 in La Grande, OR. As a student, summer work on ranches and seasonal work on the Wallowa National Forest, led him to study forest, range and wildlife management. He researched cattle grazing at the Starkey Experimental Forest and Range, and he was a wildlife research biologist at the Forest and Range Sciences Laboratory in La Grande. After retirement in 1981, he worked in Kenya, training college graduates at the National Range Research Station. In the early 90s, he and his wife Donna, wrote several books on local and regional history. Who remembers the PNW SRM field workshop to NE Oregon when we jostled for bus seats, trying to be close enough to Jon and Donna to hear them tell stories? Contributions in his memory may be made to any local history group.

there is hope of the viability of sagebrush and by extension sage-grouse revival to the area. However, even though the fires swept through areas at a fast rate leaving a light burn that could limit the long term effect of heat on the roots of the plants, it will likely be several years before there is any sign of sage-grouse returning to the burned area, due to the slow reproduction and growth of sagebrush.

One of the critical concerns of these fires and how the ecosystems will recover is the risk of infestations of invasive annual exotic grasses and exotic weeds. It is common to see cheatgrass take over a native post-fire ecosystem, resulting in monocultures. Monocultures severely restrict the healthy functioning of ecosystems (U.S. Dep. Inter. 1996). Cheatgrass changes the natural fire cycle of these ecosystems, causing burning in 4-5 year cycles or less, historic fire intervals have decreased dramatically from 50 to 100 years, due to invasion by annual exotic grasses (Crawford et al. 2004). When burn cycles repeat at a higher rate than normal it does not allow native grasses and shrubs to survive, which in effect destroys the habitat. Sagebrush will be decimated, because their root systems are too shallow, once they have been burned they are unable to recover. The natural reseeding ability of sagebrush is slow and yields a low outcome, especially over extensive burned areas. The seeds have to slowly encroach in from the unburned perimeter. In order to retain a healthy habitat the replanting of sagebrush and other native perennials is necessary for recovery (Ziegenhagen and Miller 2009).

Programs implemented to help recover the sage-grouse population

It is important to remember when managing for an ecosystem or habitat that there is more than one aspect to manage, they are complex systems. The difference between effective and ineffective management is the ability to adaptively manage, taking into effect the consequences of every decision to make adequate decisions in regards to the entire system. Fires are a natural component of many ecosystems, although it is necessary to manage and protect these areas from large fires because it is home to a species (i.e. sage-grouse) that has been on the decline since European settlement (Hagan 2005, Wambolt et al 2002). It is a large concern that these three recent fires will have a negative influence on the presence and number of sage-grouse in the region. There are currently restoration plans in effect for each of the burn sites. The Miller-Homestead fire was the smallest of the three fires; it will be an excellent scale example of what type of recovery measures are needed. The plans for this fire recovery include but are not limited to 3,500 acres of aerial seeding, 22,000 acres of drill seeding, and 9,082 acres of sagebrush transplants (BLM, 2012). In union with these restoration methods the use of cattle grazing may be used to manage fuel loads of annual exotic grasses (Crawford et al. 2004). Among these plans there are several more for erosion control. The seeding plans help re-introduce the native perennial plants before invasive plants have the opportunity to take over. This process also helps to increase the rate at which the land recovers. After the fires in southeastern Oregon there were high tensions between the landowners and government agencies, part of this was due to the issue of grazing. Some argue that higher grazing over time on the land would lessen the risk of fire starts due to lightning. This concept is common in range management, and has been brought to light again on a larger scale. It will be interesting to observe how these practices will benefit the restoration of such large burned areas.

Conclusion

Rangeland is the ". . . uncultivated land that will provide the necessities of life for grazing and browsing animals." (Holechek et al. 1989). This concept is what range management is based on and helps guide how management plans are implemented to effectively and efficiently preserve and enhance the rangeland. Fire cycles are a natural part of many ecosystems, but rehabilitation of affected areas can be necessary to maintain habitat for sensitive species like sage-grouse. Although it may be argued that fire is a natural part of the ecosystem and that restoration may occur naturally over time, that concept is not applicable for many sagebrush plant communities because there have been too many "unnatural" factors (e.g., invasion of annual exotic grasses) disrupting the system. The programs implemented are, in my opinion, the most effective way to quickly re-introduce the native vegetation and benefit wildlife habitat. Over the long-term, these plans will lead to the re-establishment of the greater sage-grouse into the disturbed habitats.

Oklahoma City Notes, continued from page 3

chairs representing those killed will remain with me forever.

Gene Hickman, Bend, OR: Ecological sites sessions were worthwhile and the focus on fire ecology of the Plains, by the great set of Monday speakers, was informative. ARS Fort Reno Prairie research lab and TNC Tallgrass Prairie Preserve were outstanding places to explore regional landscape ecology, prairie restoration, cattle/buffalo grazing management and the effects of burning on composition and yields. Oklahoma has a rich history of Native Americans, western settlement, range livestock, and oil production. Museums added to our SRM trip at the Society's wisely chosen location of Oklahoma City.

Maureen Malenstyn, aka Wendy's Mom, Ladner (Delta), BC: I always find interesting topics at these meetings even if I'm a 'farm' person, not a 'range' person. The symposium on climate change relevant to agriculture was interesting since we are working on that same issue in our municipality of Delta (one of three chosen in all of BC). Also enjoyed the "Women as Change Agents . . . " because that is applicable to my type of agriculture. Loved the field trip to Tallgrass Prairie Preserve, especially the bison! So, the 49th parallel can be ignored with many of these issues - they are relevant to all of us.

Joe Wagner, Lakeview, OR: Oklahoma -- where the wind comes blowing down the plain. Actually great weather, great food, great hospitality and an interesting city. I enjoyed the Cowboy Hall of Fame, especially the statue of the cowboy who didn't have a horse; his saddle, behind him, was leaning against his leg, but the back of the saddle was sitting on a prickly pear cactus. I felt sorry for his next horse. The Feral Hog session, it's a hate them if they tear up your land, or love them if you are a hunting guide and make $$$$$ leading hunting parties. YIKES!! they might be migrating north from California.

Jim Eisner, Prineville, OR: I appreciated Derek Bailey's presentation on cattle, where they found SNP (Single Nucleotide Polymorphism) of DNA that can select hill climbers vs. bottom dwellers. Derek, from New Mexico State, has done a lot of work on cattle distribution, breeds and supplements. Enjoyed the musical band American Aquarium, a country rock band that sounds like an angry Steve Earle.

Sandy Wyman, Prineville, OR: It was a great meeting -- so much information and not enough time to catch it all! One highlight: "Targeted Grazing: Management of Livestock Distribution". Riparian health is correlated to grazing management. Off-stream practices (e.g. tanks, supplements) may have a positive correlation to stream health. Rangelands filter runoff and pollutants - up to 60% of cattle fecal loading is near livestock attractants in summer. Greater than 90% of E. coli is retained in the fecal patty; 99.9% of E. coli is trapped within one yard of the fecal patty; up to 80% is trapped in functional riparian areas.

Pat Shaver, Woodburn, OR: Most of my time was spent between the ESD workshops and the Board of Directors meetings. It always amazes me how much is going on at the Annual meetings. I was impressed with all the goings-on with the committees within the Society. We truly are an active bunch and I think going the right path toward sustainability.

Bob Gillaspy, Vancouver, WA: I never realized you could get wet pavement without rain! Apparently you can if the humidity is high enough, which happened in OKC. Wink Crigler (Women as Change Agents symposium) said that she wants range for future generations and for others to discover and enjoy. **Tony Svejcar** said that bunchgrasses may only live 5 - 10 years. This means that range management needs to allow bunchgrasses to produce seed as often as possible.

Calendar of Events

June 19-21, 2013	PNW Section Summer Workshop, Dawson Creek, British Columbia
September 19-21, 2013	PNW Section Annual Meeting & Workshop, Enterprise, Oregon
February 9-14, 2014	67th Annual Meeting, Society for Range Management, Orlando, Florida
January 30-Feb.7, 2015	68th Annual Meeting, Society for Range Management, Sacramento, CA

Want to alert members to an upcoming event? Comment on an article? Give us your new address? Brag about another member's contribution to range management? Tell us a story? ***Contact the Newsletter Editors!***

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