

RANGELAND NEWS



TO FOSTER ADVANCEMENT IN THE
SCIENCE AND ART OF RANGELAND
MANAGEMENT

NEVADA SECTION – SOCIETY FOR RANGE MANAGEMENT

May 2017

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 (see map on last page for zones)

“Like” the Facebook page for the Nevada Section of SRM: <https://www.facebook.com/nvsrm/>

and

2018 Annual Meeting page: <https://www.facebook.com/SRMAnnualMtg2018/>

CONGRATULATIONS TO LETTY VEGA !!!

Letty represented the Nevada Section at the High School Youth Forum
In St. George and brought home the
3rd Place Trophy!

We are very proud of Letty and all our SRM Youth.

PRESIDENT'S PONDERERS

Charlie Clements, March 27, 2017

For one who favors field time over office, the winter of 2016/2017 has limited my field time significantly. Checking my rain gauges on a monthly basis has been a chore to say the least. Washed out roads, impassible mud bogs and snow drifts have been very common this winter. With such a welcoming of favorable precipitation for the driest State in the Union, I can only feel the nervousness of an extreme wildfire season on the horizon. Annually we hear reports of "it is dry out there so fire danger is high" or "it has been a wet year and the growth of fuel has fire danger at a high level". Well, as I traversed the rangelands of western Nevada all fall and winter chasing Chukar Partridge, I can tell you that not only did we have a whole lot of cheatgrass fuel carry-over from 2016, the green-up of cheatgrass that started in October and through the winter is only adding to the already dangerous cheatgrass fuel loads. So much so, that it was difficult to visually find footing on the rocky slopes of Chukar country due to the height of cheatgrass impeding your ability to step to the next stable footing. One of my observation points in fact yielded more than 1,200 lbs/acre cheatgrass dry matter in mid-November 2016 with more than 60 emerged cheatgrass seedlings/ft², just a taste of the upcoming fuel load. Visiting my various seeding plots throughout the state, the precipitation has resulted in tremendous seeded species germination and early seedling emergence, yet the emergence and growth of cheatgrass and other fuels are only a human caused accident or dry lightning strike away from a catastrophic wildfire storm that burns adjacent unburned habitats and/or successful restoration/rehabilitation projects. Personally, I am more nervous in 2017 than I was in 1999 when more than 1.8 million acres burned in Nevada alone!!!

On a good note, the Society for Range Management National Meeting in St. George, Utah from January 29-February 2 was well attended and informative. The Nevada Section was well represented and the meeting provided many with the opportunity to sit down, visit and have a few drinks over dinner. The Nevada section has nice close knit family, so reach out to other professionals and friends and get them involved in this Section/Society

Congratulations to Letty Vega who represented the Nevada Section at the SRM National Meeting in St. George and was awarded 3rd place in the High School Youth Forum. Range Camp will be held this June at the Porter Canyon location where the next High School Youth Forum candidates will be chosen. Range camp can always use help, so if you are interested contact Kathryn Dyer at kdyer@blm.gov.

President-Elect, Rixey Jenkins will be releasing the summer tour dates and agenda very soon, so get ready to save the date!!! Hope to see you all at the Summer Tour/Meeting☺

2017 SUMMER TOUR AND BUSINESS MEETING

President Elect Rixey Jenkins

Managing Cheatgrass in Rangeland Restoration Efforts

Join us in Boulder Valley on June 14 to take a look at efforts to control cheatgrass fuel loads to reduce the risk of wildfires and restore annual grass invaded rangelands on the TS Ranch. We'll also visit some recent restoration projects on the Hot Pot and Izzenhood wildfires that burned important winter range for mule deer, antelope and sage grouse. CEUs for the tour will be available. The Summer Business Meeting will be the next day on June 15 at the NDOW office in Elko.

Morning Stop – TS Ranch – (meet near Dunphy)

Topics

- Control of cheatgrass fuel loads with cattle grazing
- Effectiveness of seeding efforts
- Creation and maintenance of fire breaks

Speakers

- Jeff White
- Hanes Holman
- Barry Perryman

Afternoon Stop – Restoration Efforts on Recent Wildfires

Location: Hot Pot or Izzenhood Fires – Which is easier to access from the East?

Topics

- Success and challenges of aerial and drill seeding efforts
- Seed mixes used: native, introduced, mixed native/introduced
- ‘Snowstorm’ forage kochia
- Annual invasive grass control with various herbicides and timing of applications

Speakers

- Steve Foree
- Tom Warren
- Charlie Clements

Join us at The Star Hotel for a Basque-style dinner. No-host social at 6pm. Dinner at 7pm.

Business Meeting at the Elko NDOW office at 8 am on June 15.

**2018 SRM ANNUAL MEETING, TECHNICAL TRAINING & TRADE SHOW –
SPARKS, NV**

January 28 – February 2, 2018

Co-Chairs, Mark Freese and Ryan Shane

The 2018 SRM International Meeting planning committee is in its final year of preparations and will need your help more than ever. From now until the end of the event there are many tasks that the committee is responsible for achieving. Please consider assisting with the effort as the Nevada Section is the host for this event.

Below is a list of a few activities that we have recently completed or are currently working on.

- Launched a Facebook page. Visit us at <https://www.facebook.com/SRMAnnualMtg2018/>
- Will launch a website soon
- Developing technical (Eagles and Agriculture, Nevada Rangelands, Targeted Grazing, Wild Horses) and social (Lake Tahoe, Carson City, Virginia City, Skiing) tours
- Organizing entertainment from the President’s Reception to a live concert to various special events (Cowboy Poetry, Basque Heritage Dinner, Brewery and Distillers Tour)
- Organizing the Plenary Session, Producers Forum, Tradeshow, and other main attractions
- Proposals for symposia, forums and workshops are due by July 14
- Abstracts for contributed papers and posters will be due no later than September 22, 2017.
- Draft budget under construction
- Space arrangements under development.
- Regular Range News Flashes being produced and issued internationally.

There are opportunities to participate on the planning committee. We hope that you will consider helping out in

this effort to make the 2018 meeting a success! To be added to the Annual Meeting Planning Committee (AMPC) contact list please email Génie MontBlanc at emb@cabnr.unr.edu.

WINTER 2017 MEETING NOTES

Charlie Clements

The Nevada Section Society for Range Management hosted a winter meeting/symposium January 10th at the Nugget in Sparks which focused on plant materials and methodologies for successfully restoring/rehabilitating Great Basin rangelands. Despite harsh/icy winter conditions, the meeting was well attended. The meeting started out with a presentation from Jay Davison, Alternative Crops and Forage Specialist with the University Nevada Cooperative Extension. Jay's presentation, "Challenges in Restoring and Rehabilitating Arid Lands" pointed out some very revealing on-the-ground realities, the majority of Nevada is very arid...less than 8" annual precipitation is very common and just about 90% of Nevada receives on average less than 10" (Table 1). In Lahontan Valley of northern Nevada, Jay pointed out that precipitation has only been above 8" in 4 of the last 36 years. It is very hard to find desirable plant materials that can establish as seedlings and persists on these arid lands. Because it is so difficult to seed perennial grasses, forbs and shrubs on these very arid lands, transplanting of shrubs like four-wing saltbush, winter fat, shadscale, greasewood and forage kochia can provide a better chance of getting plants established and stabilizing the site from further soil erosion. Short-term irrigation can significantly increase transplanting success, but this adds costs to the project. Jay pointed out the importance of rehabilitating degraded rangelands, including abandoned agriculture fields, because these lands will only result in excessive wind erosion and on favorable years be invaded by exotic and invasive weeds.

-Las Vegas	4.2"	-Winnemucca	8.29"
-Tonopah	4.95"	-Austin	12.47"
-Hawthorne	3.7"	-Eureka	11.83"
-Yerington	5.14"	-Caliente	9.13"
-Fallon	4.99"	-Ely	9.72"
-Reno	7.4"	-Elko	9.56"
-Lovelock	5.29"		

Table 1. Average annual precipitation for selected Nevada cities. The majority of precipitation occurs during the cold winter months.

Robert Blank, Soil Scientist USDA-ARS, presented on his research "Cheatgrass Soil Engineering and Perennial Grass Suppression of Cheatgrass". Dr. Blank reported that cheatgrass is engineering the soil for itself as to better take advantage of limited resources. This engineering has resulted in more mineral nitrogen and when he planted other species into cheatgrass engineered soil, they grew better as well. Dr. Blank presented on research in which he planted long-lived perennial grasses like crested wheatgrass and bluebunch wheatgrass, and then planted cheatgrass at various distances from the established long-lived perennial grass. Cheatgrass barely survived from 4-6" distance, but did much better at the 10-12" distance. One of the reasons Dr. Blank believes this cheatgrass suppressing is occurring is that as the established long-lived perennial consumes soil moisture, the mineral nitrogen becomes less available, negatively affecting cheatgrass survivability and growth.

Dan Harmon, Agricultural Research Science Technician, USDA-ARS, presented on “The Role of Weed Control in Rangeland Rehabilitation” where he focused on what, how and why it is important to conduct weed control. Dan presented examples of weeds such as; Halogeton—first major weed of concern in the Great Basin, a poisonous plant that caused major domestic sheep die-offs in the early to mid-1900s, and Cheatgrass, even though nutritious, a grazing resource, and reduces erosion, has significant negative impact on ecosystem function due to its’ flammability and associated increased chance, rate, spread and season of wildfires, which warrants control efforts. Controlling weeds opens a *temporary* window of opportunity to conduct range improvement practices like rangeland seeding to improve perennial forage, soil stabilization, decreased wildfire frequencies and allow succession to take place. Dan also pointed out that native species like big sagebrush and pinon-juniper are also weeds in certain circumstances and warrant control efforts as well. Dan focused on the mechanical and chemical (herbicides) treatments to control rangeland weeds, which have experienced as much as 95-99% temporary control of such weeds as cheatgrass, resulting in that *temporary* window of opportunity he referred to earlier. Dan also pointed out on the importance of proper timing of weed control treatments. Discing should be done in the spring prior to cheatgrass seed maturity and then summer fallowed and seeded in the fall before inclement weather limits seeding efforts. Spraying of soil active herbicides like Plateau, LandMark or Matrix should occur in September to early October before fall cheatgrass green-up, then fallowed for one-year to allow the herbicide residue to decrease to levels that will not harm fall seeded species seedlings when they emerge in later winter to early spring.

These herbicides residues are effective for about a 12-15 month period. Resources on these arid lands are very limited therefore, active weed control programs are critical in most rangeland rehabilitation efforts. If cheatgrass competition is not decreased *prior* to seeding you lose nearly half your soil moisture. For example, seeding into a 12” precipitation zone without decreasing cheatgrass competition is *really* like seeding into a 6” precipitation zone, which leads to failure. “*Who weeding slacketh, good husbandry lacketh.*” Thomas Tusser, (Five hundred points of good husbandry 1557).

Dr. Kevin Jensen, Research Geneticist, USDA-ARS in Logan, Utah has more than 30 years of experience in improving rangeland plant materials to meet the demands of rangeland resource management. Dr. Jensen pointed out that more than 30 million acres of Intermountain west rangelands have been invaded by the exotic and invasive annual grass, cheatgrass. The accidental introduction and subsequent invasion of this species has significantly altered rangelands by outcompeting native perennial species at the seedling stage. The USDA-ARS Forage and Range Research Unit has been working very hard to improve desirable native and introduced perennial grasses in an effort to improve germination, seedling vigor and establishment traits to not only compete with such species as cheatgrass, but also persist in arid environments. Selections of bluebunch wheatgrass, squirreltail and Indian ricegrass have come a very long way, but with that said introduced perennial grasses such as crested wheatgrass and Siberian wheatgrass performed better than the natives. Even though some of these native selections improved in germination and emergence rates, establishment rates fell off as these selections did not persist and decreased by nearly 30% in a very short 5-year period. Native selections actually performed better and showed longer persistence when seeded with Siberian wheatgrass in their trials. Such selections as Snake River wheatgrass has shown a 74% increase in establishment through the breeding programs performed by ARS. Dr. Jensen mentioned that in the Intermountain west, introduced species like crested wheatgrass and Siberian wheatgrass does not keep natives from establishing within those seeded/treated areas.

Dr. Kirk Davies, Rangeland Scientist with the Range and Meadow Forage Management Unit in Burns, Oregon presented on the importance of revegetating rangelands to increase diversity, improve forage for livestock and wildlife and decrease wildfire frequencies. To do this it is critical to conduct effective weed control practices and establish long-lived perennial grasses. Long-lived perennial grasses are the best known method at suppressing cheatgrass and medusahead and allowing succession to take place. Dr. Davies presented data from his research that yielded burning by itself is not successful, but in combination with certain soil active herbicides the establishment of long-lived perennial grasses increased. Burning initially decreased cheatgrass, but by year-3 cheatgrass was more than 15/ft², which is not effective. Burning in the early fall, followed by a herbicide application of Plateau @ 8 oz/acre rate, fallowed for 1-year and seeded to perennial grasses resulted in nearly 1 perennial grass per ft². Dr. Davies also researched the establishment of native versus introduced species in these treated areas. Native species, bluebunch wheatgrass and squirreltail, established at 0.22/ft² compared to 0.7/ft² for crested wheatgrass. The fact that the native species demand higher levels of precipitation zones significantly limits their ability to provide cheatgrass suppression and decrease the chance, rate, spread and season of wildfires on millions of acres of rangelands. Mechanical treatments increased soil disturbance, but in specific cases is a viable tool as well and should be part of the management options.

Kirk Ellern, co-founder of AboveNV.com presented on the many options of using drones to monitor projects, disturbances and wildlife counts through the high resolution data provided as well as the potential of these drones to monitor hard to get to locations. Kirk pointed out the ability of this resolution to provide data on weed invasions as well as identify bighorn sheep lambing counts as well as certain bird species nesting/eggs/chick numbers. Kirk's presentation provides some very innovative approaches that can immensely improve data needed by resource managers.

The Q&A session particularly focused on the fact that many of the individuals that are in the position to select seed mixes and restoration/rehabilitation practices are absent from such meetings/symposiums. Frustration has built up over-time as restoration/rehabilitation practices are measured by the efforts put forth rather than the actual successes on the ground. This panel has a combined experience of more than a century and half. The experience these researchers provide should not be taken for granted and if used properly would only improve on the ground successes of restoration/rehabilitation efforts on Great Basin rangelands. The Nevada Section, Society for Range Management is dedicated to providing this most useful information and engaging all those interested in improving our valuable rangelands. Presentations are available @ Nevada.rangelands.org

UNR RANGE CLUB
Stacy Greenberg

The University of Nevada, Reno Range Club had a very busy and productive spring semester. In January 2016, the UNR Range Club participated in the Society for Range Management Annual Meeting in St. George, UT and received 1st place in the University Chapter Display competition where the theme of the display was Rangelands and Geology. In the extemporaneous speaking competition, Jennifer Fisk took home 4th place. We're very proud of the club and are looking forward to being able to attend and help with the next SRM meeting in Sparks, NV in 2018.

The Range Club's Gun Raffle to help raise money for attending the SRM meeting was a great success and we sold almost all 300 tickets. We randomly selected Sam Mori as our winner of the .243 Ruger rifle! The club wishes to thank everyone who purchased tickets! For the next SRM meeting, we are raffling away a custom

saddle donated to the club by Duane Coombs. Tickets are \$20 each or 6 for \$100. If anyone is interested in purchasing tickets, please contact Martina Middione at mmiddione@nevada.unr.edu.

This spring, the UNR Range Club participated in mock interviews featuring several professionals such as Matt Dusenbury from Klondex Mines and Tye Morgan from USDA-Agricultural Research Service, who were able to help members with their interviewing skills and resume building. Next year we hope that more professionals will be able to help the club out to enhance this event even further. Thank you to all who have helped with this event!

In late April, the club participated in the Science in the Sagebrush Steppe in the Northern Great Basin Experimental Range west of Burns, OR. There we competed with several schools, and joined in on collaborative events to further our knowledge on rangeland management. Courtney Kratz won 1st place and Sebastian Tsocanos took home 2nd place in the plant identification contest, and Lewis Mendive's team won 1st place in the management plan competition. We had a great time interacting with ranchers and agencies alike, and learned so much that will be applicable to our careers once we graduate. Thank you to all the professionals who set up this wonderful learning experience!

NEWS AND NOTES

**Upcoming field tour on Restoring and Conserving Great Basin Ecosystems July 11 and 12 at 8:00 am; meet on both mornings at the Austin District Ranger's Office on the west side of town. You are welcome to attend one or both days. It includes several speakers from the agencies and UNR. This information can also be found online at: <https://drive.google.com/drive/folders/0B2-0g66OV6cudC15UzFzFzhwa0E>. For additional information contact: Jeanne Chambers (jchambers@fs.fed.us 775-224-1854).

Day 1 is Watersheds, Riparian Ecosystems and Meadows

Day 2 is Sagebrush Ecosystems: Pinyon and Juniper Expansion, Cheatgrass Invasion, and Fire

** Soils, Plants & Management: Tools for Working Lands Ecological Sites and State and Transition Models Bristlecone Convention Center Ely, NV June 15-16, 2017, taught by Tamzen Stringham, Patti Novak-Echenique and Cody Coombs. Registration (no cost): Contact: Nevada Cattlemen's Association nca@nevadabeef.org or call 775-738-9214

Field Sessions both days - At each field stop (3 or 4 locations): → Soils – physiographic, climate, soil features and characterization → Team Exercises - Identification of ecological sites and states, analysis of rangeland health; determining forage production; monitoring techniques → Group Discussion – Determination of the ecological sites/states, thresholds; soil and vegetation responses to disturbances, restoration and management

** The Nevada Creeks and Communities Team invites you to the following classes:

PFC Assessment for Integrated Riparian Management -- July 18-19 + 20 **Eureka, NV** at the Eureka Opera House. The first day emphasizes classroom instruction and the second day field riparian assessment.

PFC Assessment for Integrated Riparian Management -- July 25-26 + 27 **Bishop CA** Inyo NF Supervisors office (351 Pacu Lane, Suite 200). Both classes 8 AM – 6 PM each day.

Ranchers' Riparian Success Stories: Three Different Ranches – Three Different Stories August 11-12 **Elko, NV and 3 ranches** Sponsored by Nevada Cattlemen's Association & Newmont Mining Corporation

Riparian Grazing Management – August 22-24 8:00 –5:00 **Winnemucca, NV** at the Convention Center, East Hall. The class will combine classroom instruction, field assessment of a management situation, and interdisciplinary team planning for site-specific objectives and monitoring. Three full days.

PFC Assessment for Integrated Riparian Management -- September 12-13 + 14-15 **Rafter Seven Ranch** (south of Yerrington on the East Fork of the Walker River). The first day emphasizes classroom instruction, the second day field riparian assessment. The third and fourth optional days continue field riparian assessment on the Pitchfork, Rafter-7, and Flying M Ranches. Plan on 2 or 3-4 full days (8:00-6:00).

For reference materials go to <http://www.cabnr.unr.edu/swanson/Extension/PFCTeam.aspx>

Please let Sherman Swanson know you plan to attend any class as soon as possible

(sswanson@cabnr.unr.edu). Please include the following information: Name, Affiliation, Address, Phone, e-mail, Interest, discipline, role or area of expertise. Direct questions to: Sherman Swanson (775-784-4057).

** President Betsy Macfarlan announces the 2017 Nevada Weed Management Association (NWMA) biennial conference will be jointly held with the North American Invasive Species Management Association (NAISMA), October 23-26, 2017 at the Nugget Hotel and Casino in Sparks. Questions to 775 289-7974 or nvma1995@gmail.com

We'd still like to send the NvSRM newsletter to key stakeholders such as the BLM State Director, USFS Forest Supervisor, head of NDF, etc; they will have the option to unsubscribe but if they do we need to put the new person in when the job is refilled. This will be a separate mailing list that Trina will send out. In the past, it used to be that when a new agency head came a small delegation from the Section would go and talk about SRM. **SUGGESTIONS NEEDED FOR WHOM / POSITIONS TO INCLUDE ON THE MAILING LIST. Please send suggestions to Membership Chair Trina Johnson at Trina.Johnson@nv.usda.gov.

AWARDS !!!!!

Check out the long list of awards the UNR Range Club has earned this year in their article above

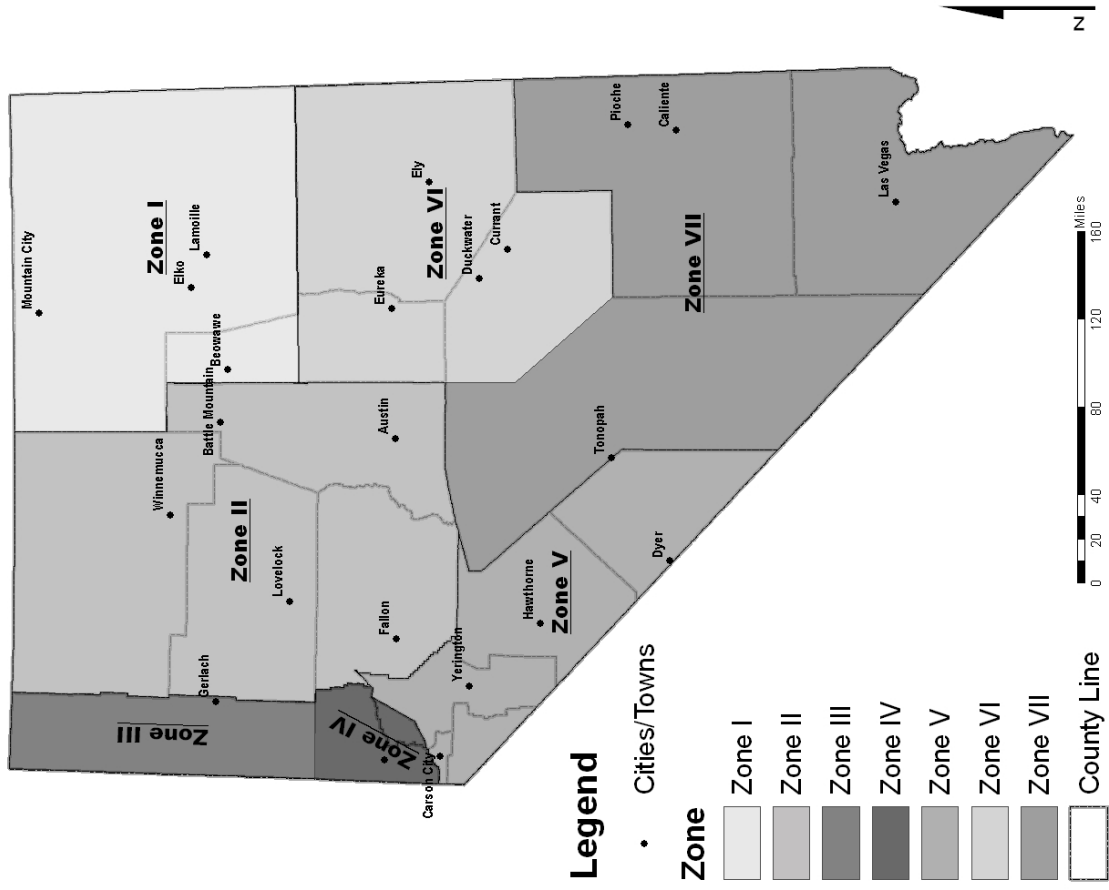
And

Read the attached write-ups ably put together by Meagan Carter, previous Awards Chair.

CONGRATULATIONS, ALL!

**VOTE FOR BARRY PERRYMAN
FOR SRM BOARD OF DIRECTORS**

Nevada SRM Section Zones



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