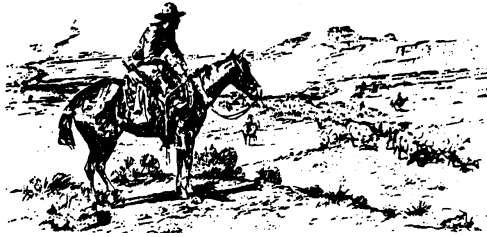


# RANGELAND NEWS



TO FOSTER ADVANCEMENT IN THE  
SCIENCE AND ART OF RANGELAND  
MANAGEMENT

NEVADA SECTION – SOCIETY FOR RANGE MANAGEMENT

April 2011

## NEVADA RANGELAND MANAGER OF THE YEAR: LARRY PEDRETT

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(see map on last page for zones)

### PRESIDENT'S PONDERERS

Heather Mobley

There's a buzz in the air these days about training cattle to eat weeds. We've known about it a long time now but it has taken some time for many folks to catch on to the concept or buy in to it. The first encounter I remember having with it was in 2007 on the internet while researching BEHAVE. On the BEHAVE links page was a link to Livestock for Landscapes, owned and operated by Kathy Voth, innovator of the “Training Cattle to Eat Weeds” workshop that has been on the mind of Nevada ranchers. Since then I have been keeping tabs on Kathy's successes and, believe me, there have been many. Recently Kathy has been frequenting our great state to talk about her program. Many ranchers have committed to giving the training a go and I am looking forward to seeing their success with this innovative and practical approach to weed management. Every year in Nevada we spend an obscene amount of money managing weeds with chemicals. Using livestock to help manage those weeds could save us a lot of that money. Still there are some who just aren't quite sure how to take the concept of training cattle to eat weeds. I asked Kathy why she felt that is and she told me about some of the common concerns that she has seen from skeptics. The biggest one is the possibility of

cattle spreading weeds through grazing. Well that is a fairly easy concern to respond to so I thought I would give it a shot. When left to select their own diet from a variety of foods, cows will choose to eat most weeds when they are in the vegetative stage before the plant has reached the seed dissemination stage. Obviously if they eat the plant before the seed is developed then the spread of the weed will not take place through grazing but what if they eat it once the seed is technically viable. In this case the seed would have to survive the digestive process of the cow and pass through in defecation still being viable. Given that this happened, there is a chance the seed could still germinate and be considered spread through grazing. At this time, there has not been enough research to determine what weed seeds are viable after being grazed, digested and defecated. Certainly given the new interest in using cattle as a tool to manage weeds, there is need for this research. But I think, for now, the bigger question is whether it is more likely we will see cattle grazing weeds after they have set seed and the seed survives to germinate after or is it more likely that cattle will transport weed seeds on their hair or on their hooves. If we have weed eating cattle out there grazing weeds when they are likely to, before seeds are viable, and therefore not allowing the weeds to reach seed dissemination during their stay, then we are less likely to see weed spread than we have historically through transport. This to me makes an even better argument for using cattle as a weed eating tool. If you have thoughts on this exciting subject, I would love to hear them and we have a great tool already in place to facilitate that, Google Groups. So please take some time to weigh in and let us know what your thoughts are, it's only by asking questions that we can learn the answers and we have some valuable resources at our fingertips in our members.

## **WELCOME, NEW MEMBERS!**

**Charles Mann** – UNR student, Reno, [mannc4@gmail.com](mailto:mannc4@gmail.com)

**Stacy Belshaw** – UNR student, Sparks

**Lewis Mendive** – Range Camp Top Hand, student, Elko

**Celina Bailey** – Range Camp Top Hand, student, Eureka

**Sarah Kulpa** – Carson City

**Lee Turner** - NDOW, Reno, [leeturner@ndow.org](mailto:leeturner@ndow.org)

**Justin Feeman** - NRCS-Caliente, [justin.feeman@nv.usda.gov](mailto:justin.feeman@nv.usda.gov)

**Michelle Clark** - UNR student, [clark\\_michele89@yahoo.com](mailto:clark_michele89@yahoo.com)

**Kay McCuin** - Eureka

Brand new Section membership chair, Tracy Shane, apologizes if she missed anyone this time. Please let her know at [ricegrass@frontiernet.net](mailto:ricegrass@frontiernet.net). She is learning the Allen Press system.

## **2010 NEVADA AWARDS**

Thank you for your contributions to rangeland management:

Young Rangeland Professional – Ryan Shane  
Rangeland Professional of the Year – Jack Alexander  
Rangeland Management Sustained Achievement – Robin Tausch  
Great Basin Award – Gary McCuin  
Rangeland Manager of the Year – Larry Pedrett  
Outgoing President – Ken Visser

## **2011 SUMMER TOUR and MEETING – RENO, JULY 7 and 8**

Far too often Rangeland Management Professionals get stuck in a box. Boxes from the agencies where we work, or boxes of the ecosystems that we focus on. The bottom line is at times we all have blinders on regarding natural resource issues beyond what we work on in our daily jobs. Some of us are lucky enough to work on projects across all types of landscapes, but most of us end up focusing all of our time on one type of project or one specific natural resource issue. This is not a bad thing, since focusing our careers on a single issue ensures that there will always be experts among us that have expertise on certain topics. But with that comes a responsibility to occasionally take off our blinder, step outside our box and look at natural resources beyond what we normally think of in our daily jobs.

That line of thinking was exactly how this years Summer Meeting came about. When I was deciding where to have our meeting many locations and topics came up. Most of them revolved around remote Great Basin ranches, and topics like cheat grass, feral horses, pinion/juniper, and sage-grouse. For those of you who know me, I love all those topics and love to hear about them whenever possible. In fact, I work every day on those remote ranches and face challenges with all those natural resource issues daily, just like many of you. That simple fact brought me to the idea of having a summer meeting for our membership that goes beyond what we “normally” see. Why not have a summer meeting that introduces our membership to issues beyond our normal daily jobs? Why not explore natural resource issues that we all know exist, but that we rarely have time to talk about or explore? Why not have a meeting that is a vacation from our daily blinders and a trip outside of our boxes?

So, without further discussion I would like to invite all the membership to the 2011 Nevada Section Summer Meeting. This year’s tour and meeting will be held in **Reno on July 7<sup>th</sup> and 8<sup>th</sup>**. The classroom presentations will be located at the USFWS/BLM offices in Reno. The field tour portion will be held along the Truckee River and will include a tour and discussion regarding the large scale restoration work that has taken place along the Truckee River in the last few years. Other topics that will be discussed, either in the classroom or in the field, will be a discussion on riparian ecological sites, fisheries resources and management of the Truckee/Pyramid Lake system, unique ecosystem values of Pyramid Lake, discussion of tall white top control methods, and others as well. At this point several of the presenters have not been finalized so the final agenda will follow later this spring. The presentations and field tour will occur on Thursday the 7<sup>th</sup>, and the SRM Business Meeting will occur on Friday morning the 8<sup>th</sup>. There will also be an evening event on the 7<sup>th</sup>. All the final details and agenda will be emailed to the membership as soon as they are finalized.

I hope this meeting will be a refreshing change and will help us all look outside of the box. I hope it will be worthwhile for you all to make it, and I hope to see all of you there.....

Cheers!!!! Chris M. Jasmine

### **SECTION BY-LAWS UNDER REVIEW**

The Section Council has formed the Bylaws Committee and has asked for the review and recommendations on how the existing bylaws can be updated. Members of the Bylaws Committee include Don Henderson (Chair), Jim Linebaugh, Jeremy Drew, and Ann Bollinger. The purpose of this bylaws review is to:

1. Update the existing bylaws to more accurately reflect how the Section is organized and functions today;
2. Compile the existing Section constitution and bylaws into one combined document; and,
3. Where appropriate, remove duplication found in the Section bylaws, articles of incorporation, and officer’s handbook.

Initial concepts for revising the 1992 bylaws were presented to the Section Council at the winter 2011 annual meeting held in Elko. At that time the Council asked the Bylaws Committee to afford the Section membership the opportunity to review and comment on the proposed revisions, to make any further revisions resulting from this membership review, and to bring its final recommendations to the Summer 2011 meeting for consideration by the Council. Upon completion of this bylaws update, the Bylaws Committee was also asked to then undertake revision of the 1993 Officers Handbook for compliance with the approved updated bylaws.

By the time you receive this announcement the involved Section documents will be posted on the Section website, found at <http://nevada.rangelands.org/>, under the right hand link called NSRM Documents. On this web page you will find copies of the proposed bylaws revisions dated January 12, 2011, the Section articles of incorporation, 1992 bylaws, 1992 constitution, and 1993 officer's handbook. Please review these documents in relation to the purpose identified above and submit your comments on the proposed bylaw revisions to Don Henderson at [don@rci-nv.com](mailto:don@rci-nv.com), or 340 N. Minnesota Street, Carson City, Nevada 89703. The Bylaws Committee will continue to accept comments up through May 31, 2011.

The Bylaws Committee is also looking for an electronic file of the Section officer's handbook, dated October 1993. If you happen to have this file, please forward a copy to Don Henderson under the contacts listed above. Don's telephone number is (775) 883-1600.

## JANUARY 2011 WINTER MEETING - ELKO

President-Elect Heather Mobley ably organized the 2010 Winter Section meeting at the California National Historic Trail Interpretive Center near Elko in January, putting the business meeting first on the agenda, thus helping to move the conversation along. Much ground was covered that can be read in the complete Minutes found on the new website at <http://nevada.rangelands.org/>. New secretary, Ann Bollinger, apologizes if anyone was inadvertently left off the attendance roll; please let her know. Her address is in the officer box at the top of the newsletter.

The afternoon technical program was about **BEHAVE**, Behavioral Education for Human, Animal Vegetation and Ecosystem Management, a research and outreach program that explores the principles of animal behavior. "Our primary focus is on diet and habitat selection of livestock. Understanding how animals learn will enable us to train animals to fit our landscapes rather than having to modify our landscapes to fit our animals. Using grazing as a tool will reduce our use of expensive machinery, fossil fuels and toxic herbicides. By understanding how animals learn we can use their natural behaviors to manage weeds, enhance biodiversity, improve feeding systems, minimize use of riparian areas and much more." Access to a wealth of information is available at <http://extension.usu.edu/behave/>.

After Gary McCuin introduced the basics of BEHAVE, Chuck Petersen gave an updated review of his completed Master's project at Cottonwood Ranch **using cattle to enhance biodiversity in the sagebrush steppe**. This is process-based management rather than outcome-based, giving cows and heifer calves a chance to risk a familiar or new food, big sagebrush (ARTR2), in the fall when terpene levels are lower, by giving them a feeling of wellness with supplementation, salt and hay in replicated treatment cells. The results show the animals really mixed their diets and in following springs there was tremendous budding on sagebrush plants because mouths are easier on plants than a mechanical treatment and a strong grass and forb response as well. This site had not crossed a threshold, although the expression of understory species was limited due to excessive shrub cover; it

had the capacity to respond and it did. The cattle also stripped and ate sagebrush bark in the progression of accepting sagebrush foliage.

It raises the question: what cow is best for an O'Neil Basin sagebrush diet? One possibility is a smaller frame, locally adapted cow in the second trimester that is able to shift rumen bugs to utilize sagebrush for protein in the fall and winter and are not market bound as the meat flavor can be affected. Heifers that were calves in 2007 gained up to two pounds/day in 2009 because they had experience. The idea is to have animals that can produce for the economics of the ranch as well as exhibit a desired behavior that results in a management treatment on the land; it goes beyond a bandaid solution.

Kody Menghini, cowboy at the Cottonwood Ranch, explained they will **continue the project**, using ranch cattle on a designated portion of rangeland. Agee Smith, owner of Cottonwood Ranch, has secured a two year (2011-2012) Western Sustainable Agriculture Research and Education (Western SARE) grant to see if they can reduce feed costs by getting protein from sagebrush while increasing biodiversity and productivity in the sagebrush steppe using cattle grazing. In a previous trial (2010), Kody and Agee learned they need to increase stock density so the animals are closer together and can observe eating behavior of others and to allow time for behavior to change. They found the bark stripping, which contains decent energy, does not affect the sagebrush plant most of the time. Western SARE administrators understand that winter conditions can be extreme so project flexibility is important. Some of the outreach product will include a How-To guide and site tours. Chuck Petersen, Beth Burritt (USU), and Fred Provenza are assisting with grant administration, technical assistance, and outreach products. There is an informal coalition of ranchers that are testing these ideas, and some exchange information at the BEHAVE conferences. Kody maintained cattle have a far greater capacity to adapt than we give them credit for. Are we making short-sighted diet selection decisions for livestock with our current practices while they have the potential to graze “unconventionally” and beneficially?

This project was funded by a grant from the Western Sustainable Agriculture Research and Education Program.



<http://wsare.usu.edu>

**There will be a summer tour at the Cottonwood Ranch to learn more about cattle grazing sagebrush. If you are interested, contact Kody Menghini at 775-720-1444.**

Agee Smith, rancher and owner of Cottonwood Ranch, spoke from his experience saying livestock have a phenomenal ability to be a tool but it is hard to get a handle on it and the tool is only as good as the person knows how to use it and can apply it. To work animals, Agee learned from Bud Williams, you have to change your mindset; to be totally present and working with the now. It is all about how you present yourself to them and pressure and release. Agee says this is really old knowledge but there aren't many places to gain it now. He suggested the Nevada Section should get behind training opportunities on **stockmanship** as he believes there will be more and more demand to handle

livestock this way to be able to use them as a tool. He referenced the Steve Cote book which you can find online at <http://www.grandin.com/behaviour/principles/SteveCote.book.html>.

Chuck Petersen concluded by “looking into **BEHAVE’s future**” based on his ongoing conversations with Fred Provenza. He said Fred’s current emphasis is linking the health of people with landscapes, relating to energy and nutrients that flow through the soil to plants, animals and humans. BEHAVE has been focused up until now on the “AVE” part of BEHAVE and he wants to emphasize the “H”, focusing on “Behavioral Education for Human Management!” He’s looking at things holistically as in the book Ecological Medicine, getting away from western reductionism approaches like taking a plant and breaking it down to its constituent parts to give one part to a person as medicine (treating symptoms), and going toward holism where the medicine could be the whole plant, so including the complementaries within that we don’t understand. In fact, he says, we can be satisfied not knowing everything, which often increases our appreciation of the complexity of systems. Our education system is an example; we split out rangeland and wildlife, yet really they are inextricably linked. We need to move to process based management and locally adapted plants and animals, utilizing their benefits where they already occur which creates secondary benefits. There is a disconnect between academia and producers when it comes to applying practical and successful resource management; research has less and less connection to the whole, to the on-the-ground land manager, and to students. We need to look at the industrial complex and how it relates to food products. One new path idea is toward a decentralized BEHAVE institute, a network that supports people with outside funding sources and local and global perspectives, emphasizing interdependence and a return to land and health. There will be another BEHAVE conference, funded by the Dixon Foundation this year or next focused on how behavior connects people to landscapes and more.

After the technical program, the Nevada Curlews, Gary and Kay McCuin, Steve Foster, Kent McAdoo, Chris Jasmine and Rick Orr, prepared an excellent Dutch oven dinner. Diners watched the full length version of SRM’s *Hope on the Range* and the BLM Rangeland Stewardship Award video honoring Duane Coombs and Ray Hendrix of the Smith Creek Ranch. Celina Bailey, one of the High School Youth Forum delegates presented her paper on pronghorn antelope and fielded questions; Rick Orr presented awards for absent Awards Committee chair Cub Wolfe and Sherm Swanson detailed Gale Dupree’s national Heroes in Conservation award from Field and Stream.

Ken Conley announced and welcomed the new Section officers:

President Elect – Chris Jasmine  
Zone Council 4 – Mark Freese (replacing now secretary Ann Bollinger)  
Zone Council 7 – Justin Feeman  
Continuing: Jeremy Drew (5), Boyd Hatch (2) and Jake Tibbitts (6)

## **2010 SUMMER TOUR – UNR GUND RANCH SOILS**

Paul Blackburn, NRCS Soil Scientist, Elko

Mazama ash, Lake Gilbert, beach plains, secondary calcium carbonate and soil/site correlation; topics included in the “Soils 101” tour last summer for the Nevada SRM at the UNR Gund Ranch. Paul Blackburn and Brien Park, both soil scientists with the Natural Resource Conservation Service led the soils discussion and Dr. Tamzen Stringham, University of Nevada, led discussions on the associated ecological sites. At four locations fundamentals of describing and documenting soils were demonstrated. Differences in depth to accumulations of secondary calcium carbonate or calcic horizon on two of the sites were discussed as they influence the dominant native shrub present, in this

case, black sagebrush vs big sagebrush. In addition to large backhoe pits small shovel or auger cores often yield significant clues as to soil properties that drive the plant community. These kinds of soil observations are fundamental to soil/site correlation, an understanding of which is critical to Nevada soil scientists and rangeland managers. Also discussed were landforms such as beach plains, parent materials, climate, genetic soil horizons and layers of Mazama ash, all of which have been influenced by or are associated with pluvial Lake Gilbert, which long ago occupied the basin floor of Grass Valley. It was apparent at the end of the day that the examination of basic soil properties by rangeland management specialists coupled with the more detailed observations made by soil scientists will enhance land management decisions.

Some concepts of interest discussed on the tour that are used by soil scientists and rangeland managers in Nevada:

- 8 inches of precipitation is considered the break between salt desert shrub and big sagebrush/black sagebrush species.
- Presence of singleleaf pinyon and bluebunch wheatgrass in rangeland ecological sites are MLRA 28B indicators of the 10 to 12 inch precipitation zone.
- Thurber's needlegrass is typically not found on soils derived from limestone parent materials in MLRA 28B.
- Idaho fescue occurs in MLRA 28B only on soils at upper elevation and derived from volcanic parent materials.
- Black sagebrush tends to favor soils derived from limestone parent materials or soils with heavy calcium carbonate accumulations with well expressed calcic horizons.
- Soils high in volcanic ash often influence rangeland production and species composition.
- Soil stability as evidenced by landform, determines the degree of expression of diagnostic soil horizons and thus taxonomic classification.
- Guidance that targets the expression of a mollic epipedon is currently being drafted and tested as an aid in deciding proper forestland/rangeland site correlation. Recent soil survey updates have resulted in significant reductions in areas previously identified as forestland.
- Ecological site resilience is enhanced in area of higher precipitation and/or effective moisture.
- Black sagebrush did not evolve under a fire regime as the fire return interval is considered to be greater than 100 years. Shadscale readily comes back after fire. Mountain big sagebrush is very resilient following fire due to increased precipitation or effective moisture, common in areas of this sagebrush occurrence.
- Nuances are what drive the plants one way or another after a fire; it will not always behave the same way, but soil mapping may not include that level of detail which the range ecologist needs to know as it will affect outcomes of management. Onsite soil investigations and an understanding of ecological process across the landscape acquired by "looking across the fence" are therefore important prior to any land management decision.

Participants agreed the tour was invaluable and suggested the Section either do this in other locations around the state or make sure we have a soil scientist on every tour. Ryan Leary brought along other specialists from her office and one, Pilar Rivera, wildlife biologist, commented, "Keep me posted on more cool happenings because most likely I'll be interested and will want to attend any trainings!"

## HIGH SCHOOL YOUTH FORUM - BILLINGS

Delegate Celina Bailey sends her thanks saying, "I had so much fun and learned so much. I met so many people that I otherwise wouldn't have. I also learned about many rangeland careers and opportunities. I'm very proud to say that I got to represent Nevada at the 2011 High School Youth Forum. Thank you so much for supporting me."

## GREAT BASIN AGGIES

The 6th Annual Aggie Club Agriculture Support Dinner fundraiser is called "Have a Ball at the Testicle Festival," Saturday, April 30 at Great Basin College in the solarium. This year they are featuring "Youth in Agriculture" and will have a special treat of rocky mountain oysters cooked and served by Biltoki Restaurant with the remainder of the meal catered by Café X. For tickets, please call Tracy Shane at 775 753-2344. GBC natural resources student, Jacklyn Burchard, attended the Billings meeting.

## Successful Workshop in Ruby Valley and Elko, Nevada

Kathy Voth, Livestock for Landscapes newsletter – March 30, 2011

<http://www.livestockforlandscapes.com/>

Ten ranchers are ready to start training their cows to eat weeds as soon as the plants poke their heads above the ground in Ruby Valley, Nevada. Cows will learn to eat Rabbitbrush, wild iris, willow, perennial pepperweed/tall whitetop, Canada thistle and more. One of the challenges we addressed was how to train your cattle if you turn out in May before many of the weeds have come up. I've got some new techniques

I spent part of Thursday at Great Basin College in Elko, Nevada and spoke to a group of about 25 ranchers, land managers, and students. After lunch a smaller group of producers met at the Maggie Creek Ranch and had a good discussion about how they can get their cattle trained too. I'm really looking forward to seeing folks in Nevada get going with their weed-eating cows.

Great thanks to Lance Knudson who did such a great job of organizing everything and to his wife Sierra Knudson and their two kids, Camus and Orrin who fed me, gave me a bed and entertained me in the evenings. Ranch kids know a lot more about how the world works than their city counterparts, so they told me some funny stories!

Thanks too to Tracy Shane of Great Basin College who set up the **Elko** workshop. They have a great program there and I enjoyed working with her and meeting some of her students.

(Editor's note: Good news; Kathy will detail the first results from the Ruby Valley bovine students in the Section's summer submission to *The Progressive Rancher*.)

**Please find the zone map on the Section website:**

<http://nevada.rangelands.org/>