



Texas Section Society for Range Management

*Providing Leadership for the Stewardship of Rangelands
Based on Sound Ecological Principles*

May - June 2006

Volume 58, Number 3

President's Notes



*Charles Anderson
President, TSSRM*

President's Notes. It seems like I just prepared the one for the March-April newsletter.

With this issue I want to pay respect to all our members that make a difference for rangelands in Texas. Our members are dedicated to the SRM vision. Many of our members have held, and are holding, key leadership positions with SRM. Tell these members thank you for their service at the parent society level.

I am continually amazed at what TSSRM is able to accomplish annually with an all volunteer organization. Committees make things happen in our organization.

The Awards Committee has been hard at work since February. They prepared and submitted a number of award nominations to SRM. Now they are turning their attention to finding deserving candidates for our TSSRM awards. Dan Caudle is chairing the committee this year. Contact him if you have someone you would like to nominate for an award.

The Annual Meeting Committee has been meeting almost monthly.

Time flies when you are having fun. If this old saying is correct, then I must really be enjoying myself. It is hard to believe that this is my third

Remember to pencil in the Annual Meeting for October 11-13 at Del Rio. The committee is taking a different approach for the Wednesday pre-meeting activities. More details will be mailed out later this summer. Chad Ellis and Butch Taylor are co-chairing the committee this year. Our annual meeting committee is the life blood of TSSRM. This committee is responsible for generating a very large part of our operating revenue. A financially successful annual meeting means TSSRM can be active.

We were very fortunate last year to host the SRM Annual Meeting. TSSRM received over \$16,000.00 for its 10% share of the profit from the meeting. Dan Caudle and George Peacock served as co-chairs for the meeting. I hesitate to list any other names because I know I would leave someone out, but thank you to all our members that worked hard to make the Fort Worth meeting so successful.

The Youth Activities Committee has been very busy. Youth Range Workshop starts on June 18. They are preparing for the 41 youth that are attending this year's YRW. The members of this committee take their positions very seriously. The committee is also conducting a capital funds campaign. Contact Paul Loeffler or Jenny Pluhar if you would like to donate to a very worthwhile purpose. Lee Knox is chairing the committee this year.

The nominations committee is also

very busy now. They are putting together a good slate of candidates for us to vote on later this summer. Two things I would ask of all members;

- **Be open to their request** if they ask you to run for an office, and
- **Vote!** Let's make the committee work hard this year by having to count all the ballots they mail out.

I hope I have not offended anyone by not mentioning all the committees. A complete listing of committees and committee chairs can be found on our website at www.tssrm.org. All our committees are working to make 2006 a banner year for TSSRM.

I would like to end with saying *Thanks* for all your hard work for TSSRM.

Charles

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- ★ Attention Fellow Conservationists
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Call For Papers

Texas Section Society for Range Management Annual Meeting

Del Rio, Texas - October 11-13, 2006

We are inviting submissions for oral presentations at the Texas Section, Society for Range Management annual meeting in Del Rio, Texas. Presentations are solicited for a general session and a "Young Professionals" session. The general session is open to anyone desiring to present results of original research or idea relating to ecology and management of the diverse rangelands and wildlife habitats of Texas. The young professionals session is open to undergraduate and graduate students and young professionals working in natural resources management who have been out of school for 5 years or less. Presentations will be 20 minutes in length.

Please send an abstract following the format of the example that follows to Bob Lyons (rk-

lyons@tamu.edu). Abstracts should be 250 words or less and must be in MS Word, Wordperfect, or .pdf format. Abstracts will be accepted until **1 August 2006**. Please indicate in your e-mail to us whether you will be giving a powerpoint or a slide presentation.

Example abstract:

DIET OPERLAP BETWEEN
CATTLE, DEER, AND NILGAI

Ortega, J.A., Department of Animal and Wildlife Sciences, Texas A&M University-Kingsville, Kingsville, Texas 78363.

Doe, J.D., Department of Rangeland Ecology, Lonesome Dove, Texas 77777.

Cattle (*Bos indicus*), white-tailed deer (*Odocoileus virginianus*), and nilgai (*Boselaphus tragocamelus*) are the primary ungulates on almost 1

million ha in southern Texas. The objective of our research was to determine the degree of diet overlap among these 3 species of ungulates. We collected fresh fecal samples seasonally from each of 4 different ranches. Samples were dried at 40⁰ C, ground, and plant species composition was determined by microhistological analysis. Averaged across sampling dates, cattle diets were 90% grass and 10% forbs. Deer diets averaged 20% grasses and 80% forbs. Nilgai consumed 50% grasses and 40% forbs. Diet overlap was greatest during summer and winter and least during spring and fall. Competition among the 3 species of ungulates can be minimized by maintaining densities below the carrying capacity of the habitat.

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Important Dates

- July 10-14 **Texas Prescribed Burn School**
Kerrville
For more information, contact:
Keith Blair - 830-589-2999
- August 15-17 **Pronghorn Symposium**
Sul Ross State University's Espino
Conference Center
Contact: Ken Cearley, 806-651-5760
- Oct. 11-13 **TSSRM Annual Meeting - Del Rio, TX**
For more information, contact:
Charles A. Taylor
Sonora, TX - 325-387-3168
angora@sonoratx.net
Chad Ellis - Alpine, TX - 432-837-5864
chad.ellis@tx.usda.gov
- Oct. 2007 **TSSRM ANNUAL MEETING**
Lubbock, TX - Dates TBD

The Riparian Sponge – Bigger Is Better

By Steve Nelle

There is no greater social or political or economic or biological issue in Texas than water. Many folks have put their water hopes in such grandiose plans as reservoirs, inter-basin transfers, pipeline projects, brush control, desalinization and other such “solutions”. Yet, there is another large and mostly unrecognized source of water that can be developed in nearly any part of the state.

One of the attributes of a properly functioning riparian area is the sponge effect and water storage capacity within the riparian area. This does not refer to water storage in the creek channel itself, but water detention in the land. This large absorbent sponge of riparian land will soak up, store, and then slowly release water over a prolonged period. This riparian sponge can be managed in a way to greatly increase and improve this storage or it can be managed in a way to decrease and degrade water storage.

The best example to illustrate the riparian sponge effect is from Bear Creek in central Oregon (12 inches annual precipitation; 3500 feet in elevation). Veteran riparian specialist Wayne Elmore has observed, measured, photographed and followed the changes in this creek for the past 28 years. Prior to 1976, the area received no specialized grazing management. As a result, the riparian vegetation was sparse and inadequate. Creek banks were actively eroding and the channel was cutting down. Flow was intermittent and no



fish life could exist. During runoff events, the volume of sediment was high. ***The size of the riparian sponge was only 3.8 acres per mile of stream and this sponge was storing less than 500,000 gallons of water per mile*** – far below its potential.

Following a change in grazing management, including several years of rest, the riparian area began to respond. In 1985, a specialized grazing plan was implemented to continue the recovery of the area – both the uplands and the riparian area.

By 1996, riparian vegetation was full and thick. ***The riparian sponge had increased to 12 acres per mile and this sponge was now storing 4,000,000 gallons of water per mile.*** The improved riparian vegetation was now filtering and capturing sediment and the streambed was raised by 2.5 feet. An 8 fold increase in water storage! Side benefits were a return of perennial flow and the return of fish. The rancher has benefited too, with a tremendous increase in riparian vegetation and greatly increased grazing capacity. Now the vegetation is properly grazed in a sustainable manner and riparian functions are maintained.

Just think, 12 acre feet of water (4,000,000 gallons) being stored in the

banks and the riparian floodplain on each mile of the creek. This water is absorbed during periods of runoff, stored in the riparian sponge and then slowly released for continuous flow in between runoff events. The shallow aquifer is being continually recharged. This natural phenomenon can be duplicated on thousands and thousands of miles of creeks all across Texas. While each creek is different, the principles of riparian management and restoration work in Texas just as they do in Oregon and other places.

The key to building a bigger and better riparian sponge starts with the right kinds and amounts of vegetation. If grazing is continuous or if livestock are concentrating their grazing in the riparian area, a change in grazing management is recommended. Fencing to create a separate riparian pasture can alleviate these problems and allow appropriate management. In some cases, a complete rest from grazing for a few years is recommended to jump-start the recovery process. In other cases, a change in the timing and duration of grazing is all that is needed to allow restoration to begin. Rest during most of the growing season and light to moderate grazing during the dormant season will allow recovery in many cases.

Slowing the flow of water as it moves downhill and keeping water on the land longer is the key to good land and water management. Good stewardship by private landowners can be a critical link in helping solve the water problems of Texas.

Attention Fellow Conservationists!

This is the first call for the Texas Section SRM County Level Awards!!

Each year an important part of the TX Section's activities is the recognition of deserving individuals for various awards. As you go about your daily work, meet with committees, and hear of good work done in the field, please consider who you may want to nominate for a County Level Award.

Please take some time to visit with your co-workers as you nominate worthy candidates and most likely more candidates will surface. Anyone can nominate these good

people and they don't have to be a member of SRM. There are a lot of deserving nominees in our great state. Let's bring the spotlight on them so they can shine and lead the way to inspire others.

There are 4 categories for the County Level Awards. They are 1) Natural Resources conservation Service (NRCS) employee, 2) Friend of TX Section of SRM (this could be other agencies, Ag businesses or companies, news reporters, etc), 3) County Extension Agent and 4) High School Ag Science Teacher.

As you go about your work in range and conservation, think of

those that would be worthy of recognition who selflessly plug away at making the world a better place just because it is the right thing to do. Let's make the effort and recognize them by finding them and sending their qualifications to your committee representative.

Your 2006 County Level Awards Committee members are: Diane Arnold, Port Lavaca; Jed Elrod, Fort Stockton; Brad Teplicek, Eden; Kim Stine, Tolar; Ray Schmicek, Midland; Vivian Garcia, Corpus Christi; Deeann Cameron, San Angelo; JR Bell, Amarillo; Stan Reinke, Corpus Christi, and Phillip Wright, Hondo.

Pronghorn Symposium Slated for Aug. 15-17 in Alpine

Writer: Steve Byrns, (325) 653-4576, s-byrns@tamu.edu

Contact: Ken Cearley, 806-651-5760, k-cearley@tamu.edu

ALPINE – Texas Cooperative Extension will co-sponsor a pronghorn symposium on Aug. 15-17 at Sul Ross State University's Espino Conference Center. The center is located at the University Center, Ave. B and Harrison St., Campus Entrance 4, in Alpine. Anyone interested in pronghorns is invited to attend.

Registration followed by a social and light meal will start at 6:30 p.m. Aug. 15 at Kokernot Lodge, 1101 Loop Road. Registration will continue at 7:30 a.m. the next morning at the Espino Conference Center. The program will begin at 8 a.m. in the Center. Lunch and supper are included with registration.

A tour of the Kokernot 06 Ranch will highlight the Aug. 17 activities. Veterinarian-led post-mortem exams, or necropsies, of a pronghorn and a calf will show how anatomy dictates animal management. The tour will showcase habitat management options, as well as plants important to maintaining pronghorns.

Speakers will hail from Texas, New Mexico and Arizona.

Topics will include life history and behavior of pronghorns, current populations, permit issuance procedure, food and habitat requirements, habitat management, grassland restoration, and land use change and its impact on pronghorns.

Panel discussions on issues relative to pronghorn management will follow the presentations. Outfitters and other operators will present marketing opportunities.

"Pronghorns are a valuable asset found on a good portion of rangelands in the Southwest," said Ken Cearley, Extension wildlife specialist at Canyon. "Our aim is to provide needed information about the management and marketing of pronghorns, while utilizing sound land stewardship principles.

"The symposium will provide up-to-date information that can be used to better manage pronghorn habitat and pronghorn populations and in turn

provide opportunities for utilization of this important resource."

Other symposium sponsors are: Texas Wildlife Association, Sul Ross, Texas Parks and Wildlife Department, Natural Resources Conservation Service, University of Texas Lands, and Chihuahuan Desert Resource Conservation and Development Area.

Individual pre-registration is \$65 through Aug. 1 and \$85 thereafter. Registration includes a bound copy of the symposium proceedings. To register online, go to <http://www.peopleware.net/1542b> To register by mail, send a check made out to "Pronghorn Symposium" to Conference Services, Pronghorn Symposium, Drawer H-1, Aggield Station, College Station, TX 77844. To register by phone call 979-845-7694.

For more information contact Cearley at k-cearley@tamu.edu or (806) 651-5760.

TSSRM Awards

It's that time of year again... time to develop and submit nominations for TSSRM awards.

Surely each of you know someone who is deserving of one of these Texas Section SRM awards:

- 1. Outstanding Contribution to Rangeland Management** – TSSRM's most prestigious award. Nominees must be actively engaged in ranching and/or professional fields related to rangeland management. Recognized leader who has made a particularly significant contribution to the art and science of range management that is worthy of special recognition.
- 2. Fellow** – TSSRM member for at least 10 years who has performed exceptional service to the Texas Section and has a history of continuous contribution to TSSRM.
- 3. Outstanding Achievement** – Individual or team which has made a professional contribution to rangelands that is eminently noteworthy

which is at least state-wide in scope.

- 4. Special Recognition** – Not an annual award. Presented occasionally to recognize individuals for outstanding contributions to the general field of range management. Not an annual award.
- 5. Outstanding Young Range Professional** – TSSRM member who has not reached 39th birthday by January 1 of the year the award is conferred. Must demonstrate extraordinary potential and promise as a range management professional.

Go to the TSSRM website (pages 21-23 of the Administrative Handbook) to review the complete purpose, criteria, and nomination format for the OCRM, Fellow, and Special Recognition Awards. Contact Dan Caudle to receive an electronic version of the current criteria and nomination form for the Outstanding

Achievement Award and the Outstanding Young Range Professional Award. Review Appendix K (pages 92-93 of the handbook) to see lists of past recipients. Then, take a little time out of your busy schedule to nominate someone who should be recognized and honored by their peers in the Texas Section for their activities or contributions related to TSSRM and/or rangeland management.

Nominations for the Fellow Award and the Special Recognition Award must be received by the TSSRM Awards Committee no later than **July 1**. Nominations for OCRM, Outstanding Achievement, and Outstanding Young Range Professional Awards must be received by the committee no later than **August 1**. Send completed nominations to Dan Caudle, Chairman of the TSSRM Awards Committee at : **Email** dan.caudle@ftw.usda.go; **Mail** 3406 Cliff View Loop, Weatherford, TX 76087

TSSRM NEW MEMBERS

LET US GIVE WELCOME TO OUR MAY-JUNE NEW MEMBERS TO THE SECTION. THANK YOU FOR YOUR CONTINUED SUPPORT FOR RANGELAND STEWARDSHIP.

JASON M. CARROLL
JONATHAN R. HAMMONS
GERALD W. HOBSON

MASON, TX
COLLEGE STATION, TX
WEATHERFORD, TX

Season of Birth Affects Calf Growth on Great Plains

To everything, there is a season—even for ranchers raising herds of cattle out on America's Great Plains. According to scientists with the Agricultural Research Service (ARS), calving season—the time of year when a cow gives birth to a calf—is an important factor in determining how healthy a cow and calf will be, how much weight they'll gain, and how much high-quality nutrition will be available to them.

ARS animal scientist Elaine Grings, along with colleagues at the agency's Ft. Keogh Livestock and Range Research Laboratory in Miles City, Mont., recently completed a three-year study investigating differently timed calving-season and weaning strategies and how they affect mother cows and their calves. The researchers also wanted to see how certain calving times—late winter, early spring or late spring—affect the economics of livestock production.

In the northern Great Plains, which includes Montana, Wyoming and North Dakota, the primary inputs for raising cattle are the costs associated with providing ample nutrition to the animals. This feed comes in the form of supplements, winter hay, and the

grasses that the animals graze.

In this semiarid region characterized by rolling hills and broken badlands, ranchers are accustomed to a narrow growing period that typically peaks in May and June, when temperatures and precipitation encourage new, cool-season grasses to sprout. According to Grings, this forage can be a vital source of food for lactating cows, which pass important nutrients on to their calves through their milk.

In choosing a calving season, a rancher changes the priority of how the most nutritious forage is used. The rancher can time the cows' reproduction so that the highest quality forage goes to boosting cows' weight gain during pregnancy, encouraging milk production for their nursing calves—or to nourishing the calves themselves, which need hardy forage to properly grow and develop.

Grings' calving study was published in the *Journal of Animal Sci-*

ence.

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April 18, 2006

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The Demise of Passionflower

By Steve Nelle

I am a native plant nerd. We are slowing converting the yard to a mixture of native shrubs, flowers, grasses and vines. It is attractive during certain times of the year and rather “native” looking at other times. The neighbors seem to tolerate it OK.

About 4 years ago a native passion flower vine was planted near a window, using a piece of cattle panel as a trellis. The vine grew some the first year and even produced a few flowers. If you have not learned to admire the intricate beauty of passion flowers, you should take the time to do so.

During the second year, the vine grew larger extending to the top of the trellis and produced a nice crop of flowers. This is when I first noticed the caterpillars. There is a certain species of butterfly, the Gulf fritillary, which lays its eggs exclusively on the leaves of passion flower. Once the eggs hatch, the caterpillar offspring must eat a diet of 100% passion flower leaves. Nothing else will do.

The distinctive caterpillars are shiny metallic orange with black bristles. They start out very small and grow rapidly. They are true eating machines, consuming at least their own weight every day in passion flower leaves. In this



second year, the caterpillars consumed essentially all of the leaves by late summer. I was worried that I had allowed the overgrazing of the vine and was unsure of the impact this was going to have on the plant. However, after the caterpillars turned into mature butterflies, the plant put on a new crop of leaves in the fall.

My worries were abated, at least for the time being. I vowed next year not to allow the caterpillars to eat all of the leaves.

In the third season the vine put on an abundance of new spring growth and flowers. The butterflies once again found the plant and the caterpillars once again began to devour the vine. This time, I attempted to “manage” the grazing and the destruction of leaves by squishing some of the caterpillars. I sort of hated to do this. The dilemma was that I wanted a healthy plant with lots of pretty flowers, yet I had come to appreciate and anticipate the production of fritillaries. How

many butterflies were enough? How many caterpillars were too many? How much grazing could the plant endure and still remain healthy? I guess the desire to produce butterflies exceeded the desire to grow a healthy passion vine. Once again, the caterpillars stripped nearly all the leaves from the vine. I expected that once again the vine would recover and put on a new crop of leaves before frost. I rationalized that this flush of fall growth would produce enough leaf surface and carbohydrates to replenish root reserves and maintain the health of the vine.



(See **PASSIONFLOWER**
on following page)

As expected, the vine did put out new growth, but not as much as the year before.

In year four, the spring of 2006, the passion flower vine failed to put on any growth. The caterpillars and my lack of grazing management had sucked the last bit of life out of the forage plant. I had unintentionally killed the vine. I know the principles of plant growth and how grazing and herbivory affects plants. Yet in my haste to produce more butterflies, I failed to adequately apply what I knew. I succumbed to the false notion that *more is better*.

In perspective, this is no great loss. I can always go down to the native plant nursery and buy another \$6 vine. However, there are more serious applications that can be learned.

The primary application of this story is plain and clear. The damage and/or death of range grasses, forbs, and shrubs takes place in exactly the same manner. Whether the grazers are deer, cattle, goats, sheep, or exotics, the management and control of animal numbers is paramount. Knowledge of plant growth and range management principles is not enough—it must translate into active management, not wishful thinking. Failure to control and adjust animal numbers to harvest forages in a sustainable manner continues to be the greatest single challenge in range management.

Another important application can also be made. Fritillary caterpillars are very selective feeders. Animals that are selective feeders have the

potential to do great damage to preferred plants unless concerted management is applied. Livestock and deer are also selective feeders. Periodic and regular rest periods are needed in between grazing periods to provide needed recovery time. Continuous grazing is not sustainable use in most cases (there are a few exceptions). Grazers and browsers will high-grade the best plants until they are over-utilized. Over time, this causes the gradual and cumulative loss of plant diversity.

The good news, of course, is that good management, based on good science, motivated by good conservation ethics, can sustain and improve the range and provide all of the functions and values we appreciate about rangeland.