



# Desert Tracks

"Helping conserve the natural resources of the Chihuahuan Desert Borderlands through research, education, & outreach."

Fall/Winter 2009

Volume 2, Issue 2

Editor: Patricia Moody Harveson

## RESEARCH IN ACTION:

### *Movements and Habitat Use of West Texas Elk*

by Brendan Witt and Louis A. Harveson

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Elk are an icon of the Rocky Mountains. Historically elk occurred in portions of west Texas, but the extent and abundance in which they ranged is unknown. Merriam's elk (a desert subspecies) inhabited the Guadalupe Mountains as late as the 1800s, but they met their demise in the early 1900s. Restocking has primarily been at the hand of private landowners. Although elk are classified as exotic in Texas, free-ranging elk populations have been recorded in every county in the Trans-Pecos and their numbers and distribution seem to be expanding.

To better understand the demographics and movements of elk in west Texas, we collaborated with private landowners and the Rocky Mountain Elk Foundation on a 5-year study. Based on our data, elk (11 cow, 3 bull) showed preference for riparian and woodland habitats associated with the upper elevations. Preferred habitats had higher amounts of water and food. Elk are very flexible in their diet and can consume grass, forbs, and browse. Whereas, deer focus on forbs and browse and cattle consume grasses.

Water is also important in elk habitat. Elk rely more on water than mule deer. Elk distribution is limited by water availability. The expanding populations of elk are likely a result of increased water availability (water tanks and troughs) and the increased availability of supplemental feed (protein, corn) associated with wildlife operations.

In our study, elk displayed extremely large



*The elk population in the Glass Mountains is currently being studied to better understand movements and demographics.*

home ranges where bulls averaged 85,251 acres and cows 35,830 acres. Both bulls and cows limited their movements during spring and summer, but increased activity during fall and winter.

We are in the final phase of our research project where we are estimating herd composition and size, calving rates, mortality factors, and population growth of the elk population in the Glass Mountains. We are also finalizing results of our landowner survey and will notify you once those reports are available. For more information about the Glass Mountains Elk Project, please contact Paula Skrobarczyk or Louis Harveson at 432.837.8488.

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## From the Director—“We’re Just Getting Started!”



*Dr. Louis A. Harveson is the Director of the Borderlands Research Institute and Professor of Wildlife Management.*

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Wow! What an incredible journey we have traveled in such a short amount of time.

As I reflect on the last 2 years, I can't help but think about that first meeting when we pitched the concept of the Borderlands Research Institute for Natural Resource Management.

In 2007, Dr. Vic Morgan, former SRSU president, authorized the creation of the Borderlands Research Institute. But unlike other initiatives that are started at universities, the majority of the funding was expected to come from private sources. And it has.

With the assistance of our Advisory Board, we launched the Institute and a plan of action to begin addressing challenges of natural resource management in the region. The Board has been an invaluable source of inspiration, an avenue for networking with a broader audience, and the financial underpinning needed for us to get off the ground. Each of them has stepped forward and has embraced our mission.

Our researchers, staff, and students carry the work load. They are the ones writing proposals, collecting and analyzing data, building

partnerships, and providing management alternatives to landowners and resource professionals from across the region.

In the 2 years the Institute has been in operation, we have already had great success. We have:

- \* engaged over 4,000 landowners and managers with our semiannual *Desert Tracks* newsletter,
- \* published and distributed over 5,000 copies of our biennial *Research Highlights* magazine (in English and Spanish),
- \* hosted various wildlife workshops and symposiums educating over 1,000 individuals,
- \* received almost \$2,000,000 in research grants to study wildlife, habitats, and management practices of the Chihuahuan Desert, and
- \* demonstrated that our students, staff, and researchers are leading scholars as acknowledged by the honors and awards they have received from across the state and country.

None of these successes would have been possible without the support from people like you and organizations like yours.

You have welcomed us into your homes, onto your ranches, and into your financial planning. The hospitality and generosity which you have expressed is not taken lightly—we cherish your friendship.

But we still need your help. Only a small percent of our operating funds come from the university (~5%), the remainder of our funding comes from donations from individuals, foundations, and corporations.

With this issue of *Desert Tracks*, you will find an envelope. If you enjoy things that are wild, learning about wildlife and the habitats they rely upon, investing in the education of future biologist and managers, and participating in workshops and symposiums, I encourage you to take a moment and return the envelope to us, so we may further our mission.



## *Donor Spotlight: Alfred S. Gage Foundation*

The Alfred S. Gage Foundation recently awarded a \$25,000 grant to the Borderlands Research Institute. Descendants of Alfred S. Gage serve on the foundation including Roxana C. Hayne and Joan N.

Kelleher (grandchildren) and Nancy Hayne and Julie K. Stacy (great grandchildren). Alfred S. Gage was one of the original ranching pioneers of west Texas and established the Catto-Gage Ranch of Brewster and Pre-

sidio counties over 125 years ago. The Catto-Gage Ranch is still one of the largest cattle ranches in west Texas and was recipient of the Lone Star Land Steward Award for the Trans-Pecos region in 2007.

*Please consider making a tax deductible donation to the Borderlands Research Institute to support our research, outreach, and educational programs.*

## *Prescribed Fire Symposium Set for April 8-9, 2010*

Mark your calendars for the Trans-Pecos Prescribed Fire Symposium. The Borderlands Research Institute is partnering with the Texas AgriLife Extension Service, the Trans-Pecos Prescribed Burning Association, the Texas Wildlife Association, and Texas Parks and Wildlife Department to host the symposium at Sul Ross State

University, Alpine, Texas, April 8-9, 2010.

The symposium is scheduled to include a full slate of informative seminars on prescribed fire followed by a half day of field demonstrations on a local ranch. Seminars will be given on topics related to prescribed burning including the history and role of fire in the west, how and when to con-

duct a prescribed fire, use of fire to control brush encroachment, the effects of prescribed fire on habitat and wildlife, and a landowner/manager discussion panel.

For updates on the Symposium, please contact Dr. Bonnie Warnock at 432.837.8488 or go to [www.sulross.edu/brinrm](http://www.sulross.edu/brinrm).



*Join us April 8-9, 2010 on the SRSU campus for the Trans-Pecos Prescribed Fire Symposium.*

## *Houston Safari Club Invests in Wildlife Students*

Six wildlife students at SRSU were recently awarded \$4,000 by the Houston Safari Club. Recipients included Paula Skrobarczyk, Renee Keleher, Dustin Hollowell, Reagan Gage, Mark Tyson, and Kendall Smith. Since

1999, Houston Safari Club has given over 160 scholarships totaling \$500,000 to the top wildlife students across Texas. The purpose of the scholarship program is to invest in the future of wildlife conservation—students. In addition to

funding over 20 SRSU students during the last decade, Houston Safari Club has been a valued friend of the Borderlands Research Institute and has sponsored various research projects, workshops, and other educational programs.



*Scholarship winners are (L-R): Paula Skrobarczyk, Renee Keleher, Dustin Hollowell, Reagan Gage, Mark Tyson, and Kendall Smith.*

*Borderlands Research Institute  
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152006-120473-20-30632



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## *Pronghorn Decline Investigated by Researchers*

Although pronghorn populations fluctuate with rainfall, pronghorn levels reached a near-record low this past summer. Biologists and ranchers were hopeful that pronghorn would recover following timely and abundant rainfall. But they did not, indicating that other factors may be at play.

A sampling effort was organized by Texas Parks and Wildlife Department, the Borderlands Research Institute, Texas Department of State Health Services, and local landowners and sportsmen. Data were collected

from hunter-harvested pronghorn during the October hunting season. A second phase of sampling will occur this winter by capturing live does and examining them as well.

Over 50 TPWD biologists, SRSU wildlife and vet technician students, and landowners participated in obtaining fecal, blood, and abomasum samples from over 100 pronghorn across the Trans-Pecos. Samples will be analyzed for diseases, internal parasites, and mineral levels to determine potential barriers to survivability and reproduction.



*Following an extremely low fawn crop in 2009, TPWD and BRI researchers are investigating the possibility that diseases and parasites are limiting pronghorn populations.*

Both the West Texas and Paso del Norte Chapters of Safari Club International provided timely funding for this project.