



# Desert Tracks

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

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## BRI RESEARCHERS

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- **Specialization:** Landscape Ecology and Conservation Genetics

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- Professor of Range Management
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- Associate Professor of Range Management
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## RESEARCH IN ACTION:

### *Assessing Mountain Lion Predation in the Davis Mountains*

*Ron Thompson, Patricia Moody Harveson, and Louis A. Harveson*

The mystique of mountain lions can be attributed to their nocturnal habits, elusive nature, ability to take large prey, and the low densities at which they occur. For the Chihuahuan Desert Borderlands, mountain lions stand on top of the food chain in a category by themselves. Mountain lions (also known as pumas, panthers, and cougars) once occurred in all 10 ecoregions of Texas. Today they are primarily found in the Trans-Pecos and the western edge of the Edwards Plateau and pockets of South Texas. They are the last of the *true* large carnivores of Texas.

As one of the most elusive animals in North America, our knowledge of mountain lions is sparse. It wasn't until the advent of radiotelemetry studies in the 1970s that we started getting a clearer picture of mountain lion ecology.

Working with private landowners, we initiated a study to better understand the role mountain lions have on prey populations in the Davis Mountains. Our objectives are to (1) determine the diet of mountain lions, (2) estimate the density of mountain lions and their prey, (3) evaluate the impact mountain lion predation has on prey populations, and (4) describe population characteristics.

Using trained hounds and leg-hold snares, we captured mountain lions and outfitted them with satellite collars that allow us to



*Mountain lions are true carnivores. Their diet, foraging behavior, and kill rates are being investigated by BRI researchers to better understand their role in controlling prey populations.*

download their daily locations. Locations were imported into mapping software for display. If locations were clustered in a defined area, researchers marked the area and then navigated to that area to search for potential kill sites.

During the past two years, we have documented over 4,000 locations of 7 mountain lions resulting in 70 known kill sites. Deer (mule and white-tailed) have accounted for 49%, with 17% feral hogs, 10% elk, 9% collared peccaries, and 11% other species (coyote, skunk, porcupine, etc.). Three kill sites were scavenged and no livestock kills have been documented. This information will be compared among other desert ecosystems including study sites in southern Arizona and Sonora, Mexico.



*Anyone that has visited the Borderlands of the Chihuahuan Desert has lasting memories. The Borderlands Research Institute is committed to help conserve the flora and fauna of the region.*

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*From the Director—“In Loving Memory...”*

Through the years, the Borderlands Research Institute has been honored to receive donations in memory of various loved ones across the country. Unfortunately, we do not always know those that are remembered, but we glean information from the various cards and notes we receive in their memory.

Their stories are varied, but have a common theme: the loved one that is being remembered had a passion, love, or affinity for the Big Bend region. Stories may begin with, “one of my fondest memories of my grandmother was when we took a two day camping trip to the Davis Mountains” or “the Big Bend was such a special place for our family.”

I would like to share one of their stories:

Judy lived a full life. Judy loved her family and friends and celebrated life every chance she could. She lived for holidays, reunions, and anytime she could spend with her family outdoors fishing, camping, gardening, or watching wildlife.

During her latter years, Judy struggled with various diseases but didn’t let them keep her down. She overcame most of the hardships brought on by her ailments until her passing.

Recently, Judy passed peacefully in her home. Among her accomplishments, Judy and her husband had taught her five children to appreciate and

enjoy nature. She especially cherished sharing the outdoors with her 11 grandchildren: baiting hooks, planting flowers, and spotting deer.

It wasn’t until arrangements were being made that my siblings and I discovered that our mother, Judy, requested to direct memorial donations to the Borderlands Research Institute.

Judy’s story is not uncommon. Like many, she loved spending time with her family discovering and appreciating the natural resources of the Chihuahuan Desert Borderlands.

Please know that the Institute is humbled and honored to receive gifts in memory of our loved ones.

—*Louis A. Harveson*

*Pronghorn Restoration and Research Report Available*

Researchers with the Borderlands Research Institute and Texas Parks and Wildlife Department recently held a seminar to update landowners, wildlife enthusiasts, and concerned citizens about ongoing efforts to restore pronghorn

to west Texas. Topics covered included the effects of habitat fragmentation, diseases, fawn survival, restoration efforts, and movements. If you were unable to attend the seminar, a research report can be found online at <http://www.sulross.edu/brinrm/pubs.htm>



*Efforts to restore pronghorn will continue once rainfall patterns return to normal and habitat conditions improve.*

## *Donor Spotlight: Peggy and Dan Allen Hughes, Jr.*

A \$1 million gift from Peggy and Dan Allen Hughes, Jr. has established the first-ever endowed position at Sul Ross State University. The Peggy and Dan Allen Hughes, Jr. Endowment Fund will enable Sul Ross to establish the Dan Allen Hughes, Jr., Endowed Director for Borderlands Research.

Dan Allen is a member of the Borderlands Research Institute (BRI) Advisory Board and was appointed by Gov. Rick Perry to a six-year term on the Texas Parks and Wildlife Commission in 2009.

Dan Allen serves as president of Dan A. Hughes, Company, LP; is president of Hupecol Operating Company, LLC; and CEO of

Maverick American Natural Gas, LLC. He is also a member of the Texas A&M University College of Geosciences Advisory Council. Peggy is also very active in civic duties, serving on the board of the 12<sup>th</sup> Man Foundation. Dan Allen (1980) and Peggy (1982) Hughes are both Texas A&M graduates.

“Peggy and I are very pleased we are able to make this gift,” he said. “The BRI, with the assets of Sul Ross State University, is currently conducting and will continue to conduct much-needed research on the wildlife of the Trans-Pecos Region. By endowing the director’s position at the BRI, that person will be able to spend most of his or her



*Dan Allen (l) and Peggy Hughes present a \$1 million check to BRI Director, Louis Harveson and SRSU President, Ricardo Maestas (r).*

time overseeing and growing the Institute.”

“We are extremely grateful for this most generous gift,” said Sul Ross President Dr. Ricardo Maestas. “Mr. and Mrs. Hughes’ love of wildlife and their abiding interest in land stewardship

dovetail with the Institute’s science-based research and education projects.”

Dr. Louis Harveson, BRI director, said, “Dan Allen has been with the Institute since day one and has truly helped us gain a solid footing in our research efforts.”

## *San Antonio Livestock Exposition Fellow: Andy James*

Since the inception of the Borderlands Research Institute (BRI), the study of mule deer has been a priority among scientists and landowners. To help advance our understanding of mule deer, the San Antonio Livestock Exposition (SALE) Fellowship has con-

tinued to sponsor a graduate scholarship with the BRI.

This year’s SALE fellow is Andy James of Gatesville, Texas. Andy earned his bachelor’s of science in rangeland ecology and management from Texas A&M. Andy also served as a ranch

management specialist and was employed with the NRCS in the Texas Panhandle. The mule deer project is being conducted in the Apache Mountains. Andy will be evaluating annual and seasonal home ranges relative to supplemental water and feed.



*Andy James looks on while a young mule deer buck is released during his study on the Apache Ranch.*

*Borderlands Research Institute  
for Natural Resource Management*

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*Trans-Pecos Wildlife Conference Set for August 2-3, 2012*

**P**re-registration has opened for the 2012 Trans-Pecos Wildlife Conference!

The two day conference begins Thursday morning with a plenary session on “Challenges of Ranching during the Extremes,” followed by sessions on methods to improve habitat, incorporating carnivore management and other nongame into your ranch plan, followed by an extended session on big game management (desert bighorns, pronghorn, and mule deer).

For Friday, we have scheduled a field tour of a local ranch where ranch owners and managers across the region will discuss various habitat and wildlife management programs they are using.

The conference is hosted by the Borderlands Research Institute, Texas Parks and Wildlife Department, Texas Wildlife Association, Natural Resource Conservation Service, and Texas AgriLife Extension Service.

Please plan to join us August 2-3, 2012 in the Mor-

gan University Center at Sul Ross State University.

Registration forms can be found at (<http://www.sulross.edu/brinrm/tpwc>) or call 432.837.8488 for more information.



*Itching to learn more about west Texas wildlife? Join us for the Trans-Pecos Wildlife Conference.*