

Desert Tracks

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



RESEARCH IN ACTION:

Mitigating Habitat Disturbance from Oil and Gas Development in West Texas

Colin Shackelford, Jameson Crumpler, and Louis A. Harveson

With habitat fragmentation and disturbance becoming a growing concern in West Texas, the development of native seed sources and restoration techniques is needed in order to address habitat restoration at a regional scale.

Like most rangeland restoration projects, there are no quick fixes to address the issues of habitat degradation or disturbance. However, using seeds developed from populations native to West Texas is one way to ensure that a habitat restoration project is successful. Through research studies, we have learned that good habitat restoration is certainly compatible with oil and gas activity.

One of the key programs at the Borderlands Research Institute (BRI) is West Texas Native Seeds (WTNS). WTNS is a partnership between the BRI at Sul Ross State University and the Caesar Kleberg Institute at Texas A&M University-Kingsville. At WTNS we promote the use of native plants in rangeland restoration; highway right-of-ways; oil, gas, and energy transmission right-of-way reclamation; and horticultural plantings.

WTNS is poised to play a significant role in the reclamation of habitats following oil and gas development. In fact, the WTNS program anticipates two plant releases in 2017 to facilitate restoration. Both silver bluestem and whiplash pappusgrass will soon be available through the commercial



A picture is worth a thousand words. By using native seeds (left) landowners have ensured rapid recovery of this transmission pipeline compared to using a standard industry mix (right).

seed trade for restoration projects across west Texas.

Any large-scale disturbance on your property can have devastating effects to the habitat. Accelerating recovery using native seed sources is critical for repairing ecosystem function.

Taking the time to properly plan, prepare, and implement a restoration project can greatly enhance success. However, any rangeland restoration project on your property should incorporate the expertise of a natural resource specialist. Our staff are available to assist you with technical assistance regarding seeding and restoration recommendations. For more information contact us at 432.837.8225 or bri@sulross.edu.

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BRI Researchers:

Dr. Louis A. Harveson, Dan Allen Hughes, Jr., Endowed Director and Professor of Wildlife Management

- Big Game Ecology & Management

Dr. Patricia Moody Harveson, Associate Professor of Conservation Biology

- Population Ecology & Spatial and Systems Analysis

Dr. Robert J. Kinucan, Professor of Range Management

- Disturbance Ecology & Plant Biology

Dr. Ryan S. Luna, Assistant Professor of Wildlife Management

- Upland Gamebird Ecology & Management

Dr. Ryan O'Shaughnessy, Assistant Professor of Agribusiness

- Agribusiness & Wetland Ecology

Dr. Bonnie J. Warnock, Clint Josey Endowed Chair and Professor of Sustainable Ranch Management

- Rangeland Ecology & Sustainable Ranch Management

Dr. Whitney Gann, Research Scientist

- Pronghorn Ecology & Restoration



Conservation is a full-contact sport! Students with the Borderlands Research Institute aren't afraid to roll up their sleeves and get dirty. BRI students (above) work side-by-side with biologists from Texas Parks and Wildlife Department and volunteers from non-profit organizations to help install water guzzlers for wildlife.

From the Director—"Our Students Are Rock Stars!"

It should come as no surprise that educating students is a fundamental part of the mission of the Borderlands Research Institute.

Not only do we formally teach our students about conservation and sound management practices, but one of our unique features is that we also provide students with real-world experiences that prepare them for managing natural resources in an ever-changing world.

The faculty and staff at the BRI are very fortunate to work with such a dedicated and competent group of students. Many times their accomplishments are not fully advertised or promoted; however, in this issue of

Desert Tracks we made a concerted effort to highlight some of their accolades.

Because of your generosity, the BRI is able to employ 20-30 graduate and 10-20 undergraduate students each year, which equates to an annual investment of \$500,000 in our students! We rely heavily on the gifts, grants, and scholarships to help support the army of students we employ.

By giving to the BRI, you are not only promoting conservation, but are also helping young men and women pursue a career in wildlife conservation. Thank you for supporting these fine young men and women!

—Louis A. Harveson

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BRI Students Travel Far and Wide to Present Research

For graduate and undergraduate students at the Borderlands Research Institute, presenting at a professional meeting or to a group of landowners is more than a milestone in their professional development, it's a right of passage.

In many cases, when our students present their research findings, it is the culmination of 2-3 years of intensive field work, data analysis, literature review, synthesis, and laborious writing and revisions.

In the 2016 academic year, undergraduate and graduate students at the BRI presented over 50 different research papers or posters across North America! Our students presented at over 25 different wildlife and natural resource conferences across Texas, New Mexico, Alaska, North Carolina, Wisconsin, Maryland, South Carolina, and Mexico!

Like our faculty and staff, our students take pride in sharing information for the betterment of wildlife conservation. Our students bring tremendous enthusiasm, energy, and passion to the vital role they play in our program!



BRI undergraduate and graduate students recently presented papers and posters at the Texas Section of the Society for Range Management. Students included (left to right): John Kiddo Campbell, Destinee Love, Kaitlyn Williams, J.D. Eddy, and Ernesto Garcia-Ortega.

Donor Spotlight: Houston Safari Club Scholarships

The Houston Safari Club (HSC) has been a long-time partner of the Borderlands Research Institute by supporting our students with scholarships and providing grants to various research projects.

Since 1999, Houston Safari Club has awarded over 425 scholarships valued at over 1.75 million dollars. HSC's Dan L. Duncan Memorial Scholarship is one of the most prestigious wildlife scholarships in the country. Thank you, Houston Safari Club, for investing in the future leaders of conservation!



Recently, Gary Rose (right) with the Houston Safari Club awarded Dan L. Duncan Memorial Scholarships to four graduate students with the Borderlands Research Institute including (l-r): Grant Lawrence, Ron Jankowiak, Jose Etchart, and Claire Veronie.

Over 90% of our funding comes through private donations!

Please consider making a tax-deductible donation to the Borderlands Research Institute.

BRI's Harveson Named Outstanding TTU Alumnus

Dr. Louis A. Harveson recently received the Outstanding Alumnus Award from the Department of Natural Resources Management at Texas Tech University. Dr. Harveson is a graduate of Texas Tech, where he received his B.S. in Wildlife Management in 1991.

Dr. Harveson was recognized for his outstanding contribution to advancing the science and management of wildlife of the

Trans-Pecos, Texas; his leadership and vision for developing the Borderlands Research Institute at SRSU; and his service to The Wildlife Society and other conservation organizations.

After graduating from Texas Tech, Harveson received his M.S. from Texas A&M University-Kingsville and his Ph.D. from Texas A&M University. Harveson has been employed at Sul Ross for 19 years.



Dr. Warren Conway (left) presents Dr. Louis A. Harveson with the Outstanding Alumnus Award from Texas Tech University's Department of Natural Resources Management.

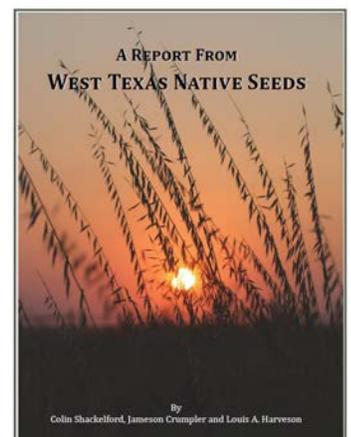
West Texas Native Seeds Report Available Online

In partnership with the Caesar Kleberg Wildlife Research Institute at Texas A&M University-Kingsville, the Borderlands Research Institute recently released a report highlighting the West Texas Native Seeds program.

The purpose of the West Texas Native Seeds program is to develop and promote native plants for the restoration and reclamation of

habitats on private and public lands across West Texas.

The report highlights the value of native seeds, the process of collecting and developing native seed sources, and identifies proven restoration techniques that can be used in conjunction with oil and gas exploration. The report can be found at http://bri.sulross.edu/pubs_reports.html





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Educating Young Professionals Is in Our Nature!

Opportunities abound for graduate and undergraduate students with the Borderlands Research Institute (BRI)!

The BRI in partnership with the Houston Livestock Show and Rodeo and other private donors have teamed up to advance the professional development of undergraduate students through an Undergraduate Research and Mentorship Program. Over the past year, the Undergraduate Research and Mentorship Program supported 12 undergraduate students completing independent research projects under the supervision of BRI graduate students and staff.

Results of these research projects were recently presented at BRI's Second Annual Undergraduate Research Symposium. Projects are funded seasonally or annually de-

pending on project needs, and are available to any interested undergraduate student who meets the qualifications.



Undergraduate students are given unique research opportunities through the Mentorship Program. Clockwise from left, Thomas Janke (Mentorship Coordinator), Carolina Medina-Nava, Zuzu Verk, Destinee Love, Kaitlyn Williams, Benjamin Benavidez, Fabiola Baeza, Silverio Avila-Sanchez, Charles Musick, Mark Black, Alec Ritzell, and Cody Putman.