

# DESERT TRACKS

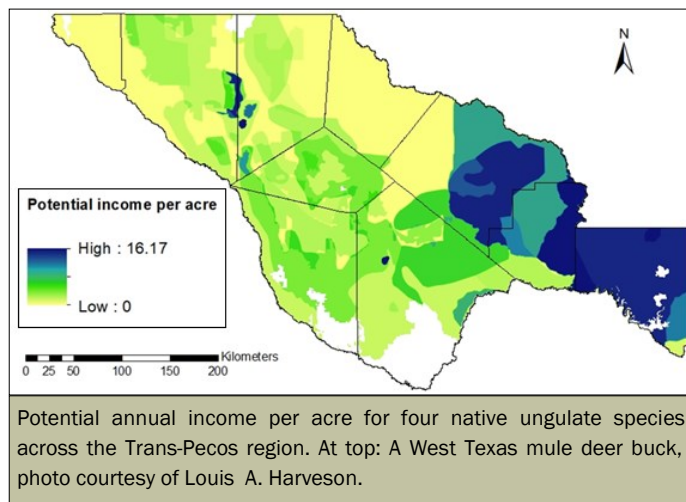
**BORDERLANDS**  
RESEARCH ♦ INSTITUTE

CONSERVING THE LAST FRONTIER

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## The Economics of Stewardship: Big Game Hunting in the Trans-Pecos

*Kelley Mundy, Louis A. Harveson, Stacey S. Dewald, Patricia M. Harveson and Billy Tarrant*



**W**ith the rise in land fragmentation across the state, it has become increasingly important to understand the activities that minimize developmental impacts and keep lands intact. While it is accepted that hunting is an important economic driver for West Texas landowners, it can be difficult to capture the actual economic value of different areas. We investigated the economic potential for hunting of native big game species for ten counties in West Texas. Specifically, we estimated potential hunting income of four principal big game species, including pronghorn, white-tailed deer, mule deer, and desert bighorn sheep.

Each of these species is routinely surveyed by Texas Parks and Wildlife Department biologists and managed within species-specific management units. For mule deer, white-tailed deer,

and pronghorn, we applied a sustainable harvest rate of mature bucks to the long-term average population for each management unit. For desert bighorn sheep, actual ram permit issuance through time was used to provide harvest potential for each occupied mountain range. We estimated potential hunting income by associating species management units with a monetary value based on pricing from expert opinion (TPWD biologists). A monetary value was assigned to each species management unit and then incorporated into spatial layers in a GIS database. State and national parks were excluded since there is little or no hunting allowed at those locations.

Total estimated hunting income ranged from \$0.24 to \$16.17 per acre, with highest incomes coming from Pecos, Terrell, and Val Verde counties. These values are based on the combined values of each of the species that occur in that area. Based on our model, every location in the Trans-Pecos has economic potential from hunting, even if that amount is as low as \$0.24 per acre.

Regardless if a landowner wishes to derive income from hunting, grazing, or both, in this area of the state it is vital that the managed tracts of land stay large—a direct function of rangeland productivity and precipitation levels. Results from this research can be used to help plan for the development and management of the Far West Texas region. When coupled with the other values that large working lands provide to society (e.g., clean air, water, dark skies, biodiversity), it has never been more important to work with landowner partners to ensure sustainability and minimize land fragmentation.



Scaled quail (or blue quail) are one of the iconic species that West Texas Conservationist of the Year John L. Nau, III, has worked to conserve through habitat restoration projects. Photo courtesy of Gary Kramer.

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## From the Director – West Texas Conservationist, 2022

Conservation in Texas begins and ends with private landowners. Landowners are the stewards that all Texans depend on to ensure we have clean water, clean air, scenic vistas, and that provide habitat for the wildlife species we cherish.

We recently had the opportunity to celebrate the conservation accomplishments of Houston businessman John L. Nau, III, with the inaugural West Texas Conservationist of the Year award. The new award honors visionary conservationists who are making a difference that will be felt for generations to come.

Nau is a firm believer in science-based land management, and he has opened his gates to the staff and students of the Borderlands Research Institute.

Over the last 15 years, BRI has had the privilege of working with John and his family at the Nine Point Mesa Ranch, where we have partnered on numerous wildlife and habitat research projects. The ranch has

become an extension of Sul Ross State University and a training ground for our students, who will become the next generation of conservation professionals.

John's commitment to conservation and education doesn't end at his fence line. John has impacted all corners of the country through his conservation vision. Among his myriad accomplishments, he currently serves on the boards of the National Park Foundation, the Congressional Sportsmen's Foundation, the American Battlefield Trust and the Abraham Lincoln Presidential Library Foundation. Here in Texas, he is a longtime member of the Texas Historical Commission, and is currently serving as board chairman.

We offer a heart-felt thank you to all our friends and supporters for making our inaugural award celebration such a success!

*—Louis A. Harveson*



Mr. Nau was given a bronze sculpture of scaled quail and cholla to commemorate his tireless efforts in West Texas conservation. Pictured left to right: Parker Johnson, John L. Nau, III, and Louis A. Harveson.

## BRI Launches Center for Land Stewardship and Stakeholder Engagement



The Center for Land Stewardship and Stakeholder Engagement is a new resource in the Chihuahuan Desert of West Texas. The center provides science-based guidance for achieving conservation goals and serves as a liaison for landowners, industry, and community members. Photo: Glass Mountains courtesy of Bonnie J. Warnock.

**T**he Center for Land Stewardship and Stakeholder Engagement has been established at the Borderlands Research Institute (BRI) at Sul Ross State University. The new center facilitates conservation efforts in far West Texas by providing technical resources for landowners, energy developers, community members and conservation partners.

Funded in part by the Cynthia and George Mitchell Foundation and the Permian Basin Area Foundation, the center was created based on the recommendations made through the Respect Big Bend initiative. Respect Big Bend's mission is to

inspire and empower stakeholders to conserve the unique resources and protect the iconic communities of the Big Bend region of Texas.

The Center for Land Stewardship and Stakeholder Engagement provides science-based guidance to landowners and land managers, enabling them to make informed decisions about minimizing developmental impacts while implementing mitigation and restoration activities. The center also offers resources and technical guidance to area landowners and land managers to assist them in conservation and management goals. Finally, the center serves as a conservation liaison and convener for principal conservation partners in order to maximize the effectiveness of various conservation initiatives in the region.

“The center is the direct result of the incredible efforts of the Respect Big Bend Stakeholder Advisory Group, which worked hard to define the critical values of the region that we all treasure,” said Billy Tarrant, who is Associate Director of Stewardship Services at BRI. “They emphasized the need for a lasting resource for stakeholders, and this new center will be a tangible and valuable resource for landowners that will be valued for years to come.”

Learn more at [bri.sulross.edu/land-stewardship/](http://bri.sulross.edu/land-stewardship/).

## Two New Faces on BRI's Advisory Board

The Borderlands Research Institute is proud to welcome two new members to its advisory board.



**S**arah Nunley Biedenarn is a fourth-generation landowner, rancher, and hunter. She received her Bachelor of Business Administration in finance and accounting from Texas Christian University. Sarah is also a member of the board for

the Texas Agricultural Land Trust, and currently serves as President of the Texas Wildlife Association. Sarah and her husband, Tucker, live in San Antonio.



**A** U.T. graduate, James C. “Rad” Weaver is CEO and Chairman of CW Interests, an investment management firm in San Antonio. He currently serves on multiple corporate boards, including Cox Enterprises, KB Home, and Milestone Brands. In 2017,

Rad was appointed to the University of Texas System Board of Regents. Rad and his wife, Ashley, own the Petan Ranch in Marfa and the Amanecer Ranch in Yancey.



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# Trans-Pecos Wildlife Conference

## August 4-5, 2022

### Sul Ross State University Alpine, TX

**Topics include:**

- Landowner Incentives for Conservation**
- Bird-Friendly Beef**
- Aoudad in West Texas**
- A Field Trip**
- And more!**

**Registration: \$75**  
**Late Registration (7/25 and later): \$100**



