

DESERT TRACKS



CONSERVING THE LAST FRONTIER

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REMOVING ENCROACHING SHRUBS FOR GRASSLAND BIRDS

Audrey Taulli, Carlos E. Gonzalez, Justin T. French, and Maureen G. Frank



Grassland habitats are among the fastest-declining habitats in the world, and bird populations that rely on them are disappearing just as quickly. This decline is attributed to the degradation of ecosystems due to habitat loss, fragmentation, and overgrazing, as well as conversion for human use, and woody plant encroachment.

Ninety percent of migratory grassland-reliant birds head to wintering grounds within the Chihuahuan Desert, which spans from the Trans-Pecos region of Texas down into Mexico. The Marfa and Marathon grasslands in Texas provide some of the most important habitat. This is where Borderlands Research Institute is leading a Wintering Grassland Birds Restoration Project.

Starting in 2019, herbicides were applied to combat western honey mesquite, creosote, and tarbush across multiple properties located in the Marfa and Marathon grasslands. In 2023, mechanical removal of mesquite via roller-chopping also occurred in some of the areas that had been treated by herbicide (referred to as combination-treated plots).

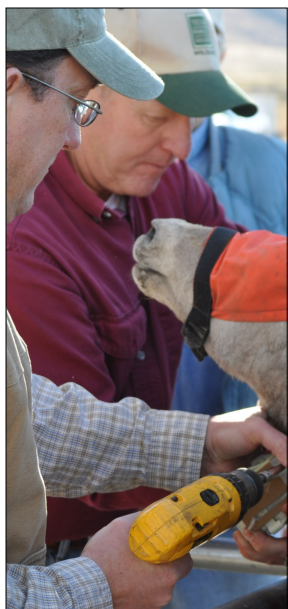
To measure the impact, we established survey grids across the study sites, covering intact grassland habitat, untreated shrubland habitat, herbicide-treated shrubland habitat, and combination-treated shrubland habitat. We surveyed birds every winter from 2019 to 2025.

We then analyzed whether the bird communities in any of the treated shrubland plots were becoming more like those found within the grassland habitats. Bird communities in the untreated plots and in plots treated with just herbicide became less similar to bird communities in intact grassland habitats over time. However, species composition in the combination-treated habitats became more similar to those in the intact grassland habitats, meaning that bird communities shifted to have more of the same species and relatively similar abundances.

Ultimately, our study shows that the structure of the brush, regardless of whether the plant is dead or alive, can negatively impact grassland bird species. To truly restore habitat for these species, woody vegetation must be completely removed. Effective treatment of encroaching woody vegetation that positively impacts grassland-reliant birds may help bring back the open landscapes that grassland birds need to thrive.



Above left, a grasshopper sparrow, and right, a chestnut-collared longspur, two of several grassland-reliant bird species that overwinter in the Chihuahuan Desert. At left, a combination roller-chopped and herbicide-treated site shows the growth in grasses that have appeared post-treatment. Line drawing at top (a grasshopper sparrow, perched, and a Baird's sparrow, profile) by Audrey Taulli.



From the Director – Leveraging Partnerships for Conservation

Over the last 18 years, the Borderlands Research Institute (BRI) has experienced significant growth and success. In the business world, growth occurs when you have strong customer relations, when you are able to expand into new markets, or when you invest in strategic initiatives through partnerships.

Although those same factors have been behind the success of BRI, our success and growth has been dependent on the support of our stakeholders, including landowners, natural resource managers, hunters, and

the communities of West Texas. Each of those stakeholders has an innate desire for information to help conserve the Chihuahuan Desert Borderlands.

Leveraging our stakeholder partnerships, we occupy a niche that is focused exclusively on science, education, and outreach. Very simply, we aspire to be information brokers for conservation in West Texas. Together, we continue to make a difference for the diversity of wildlife species and the habitats where they occur.

—Louis A. Harveson

A New Publication for Landowners and Land Managers



A new collaborative publication is available through Texas A&M AgriLife Extension Service and Borderlands Research Institute.

The *Trans-Pecos Rangelands Management* bulletin is published throughout the year with the objective of illustrating straightforward information to landowners, managers, and the general public related to rangeland stewardship and management in the Trans-Pecos region of Texas.

The first issue of the bulletin can be downloaded now for free from AgriLife

Learn, agrilifelearn.tamu.edu, and on the Borderlands Research Institute website at bit.ly/Rangelands.

In this issue you'll learn:

- Practical, sustainable grazing methods that fit Far West Texas
- Key native plants and forage for beef cattle in the Trans-Pecos
- How local weather challenges affect livestock and wildlife

Stay tuned for future issues of this useful resource!

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Record Scholarship Support Fuels BRI Students' Success



2025-2026 Borderlands Research Institute Scholarship recipients. Pictured, from left: Front row – Asia Cornelius, Cesar Garza, Hayley Shultz, Eliana Goodwin. Second row – Audrey Taulli, Maggie Rector, Kendall Christensen, Luke Christensen, Halli Lovell, Emilie Brochon, Christian Lewis, Bryce Mann, Will Quarles. Back row – Chris Mott, Emily Blumentritt, Shelby duPerier, SJ Gilbert, Ty Goodwin, Hailey Barton, Kennedy Bailey, Andrew Dotray, Jesse Ellgren. Not pictured are Caitlin Camp-Pappas, Matt Hewitt, and Madison Vastine.

More than two dozen students at Sul Ross State University will pursue their studies this year with the help of more than \$250,000 in scholarships awarded through the Borderlands Research Institute (BRI)—the largest total in the Institute’s history.

The Borderlands Research Foundation (BRF), which supports BRI, played a major role in this record-breaking year by expanding scholarship opportunities through initiatives like the West Texas Conservationist of the Year Award. Many additional partners and donors also contributed to the effort, providing meaningful support for students preparing for conservation careers.

“With the semester well underway, our students are immersed in fieldwork, classes, and research projects made possible by

this generous support,” said Dr. Louis A. Harveson, the Dan Allen Hughes, Jr., Endowed Director of BRI. “Thanks to the fundraising leadership of the Borderlands Research Foundation—and the generosity of so many organizations and individuals—we’re seeing an unprecedented investment in our students and, ultimately, in the future of conservation.”

Graduate and undergraduate students affiliated with BRI gain hands-on experience in wildlife and habitat research across West Texas. Many continue their conservation journeys in public agencies, private consulting, and ranch management roles. Today, BRI alumni influence wildlife management decisions on more than 31 million acres across Texas—evidence that supporting students today strengthens conservation tomorrow.

Alpine Wildlife Weekend 2026

Join us in Alpine, Texas, **January 30–February 1** for a weekend of activities, information and education on Texas Wildlife! This year’s focus: OWLS!

Activities include a short film screening, an owl walk and other guided hikes, wildlife scavenger hunt at the Alpine Farmers Market, a Lunch and Learn with BRI graduate students, five-minute drawings by Chris Ruggia, and presentations and workshops on nature photography and wildlife filmmaking.

See the full schedule of events and enter to win a stay at the historic Holland Hotel during Alpine’s Wildlife Weekend at visitalpinetx.com/wildlife.





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bri.sulross.edu

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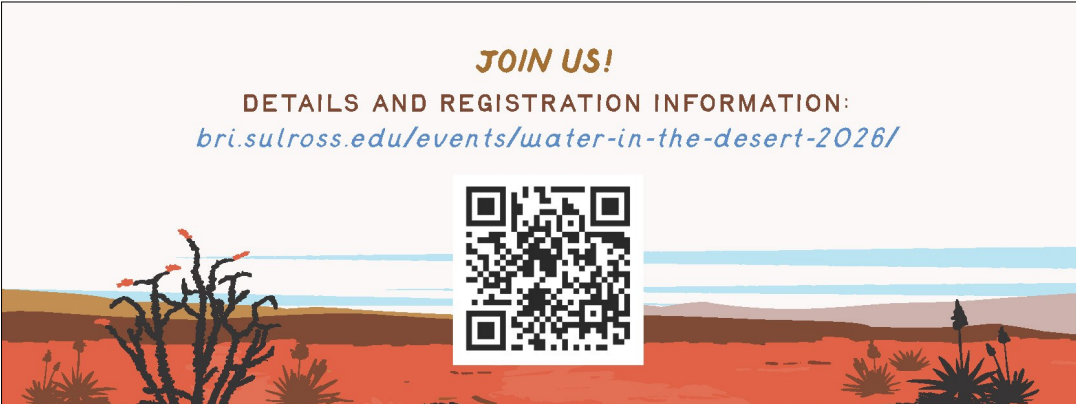
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Registration Open for Water in the Desert 2026

JOIN US!

DETAILS AND REGISTRATION INFORMATION:
bri.sulross.edu/events/water-in-the-desert-2026/

Registration is now open for the 2026 **Water in the Desert Conference**, returning to Alpine, **Feb. 11–13**. Hosted by Sul Ross State University and organized by the Borderlands Research Institute in partnership with the West Texas Water Research Center, the conference will build on the success of the 2024 gathering that drew more than 260 participants. This year’s event will again take place on the Sul Ross campus and feature thought-provoking sessions, field trips, and opportunities for collaboration.

Early bird registration is available through Jan. 2 at a reduced rate of \$75. After that date, the fee increases to \$95.

“Water in the Desert has become a trusted forum for real conversations about West Texas water,” said Billy Tarrant, interim director of the West Texas Water Research Center. “We’re looking forward to bringing everyone back together to share new science, strengthen partnerships, and keep the momentum going.”