TEXAS A&M
NRI
NATURAL RESOURCES INSTITUTE

NRI
2019

ANNUAL REPORT

Discovery • Stewardship
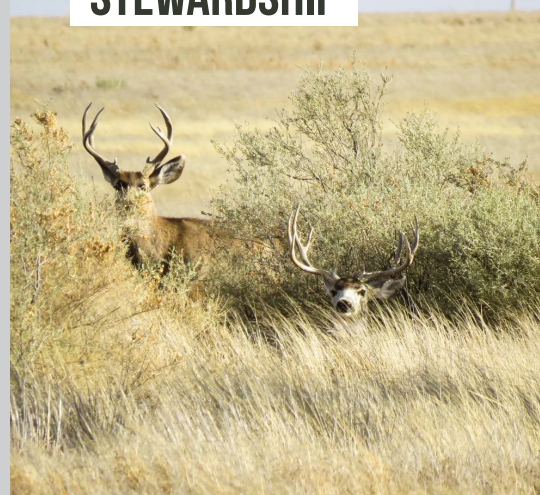Engagement • Innovation

WHO WE ARE. WHAT WE DO. WHY WE DO IT.

STEWARDSHIP

DISCOVERY

INNOVATION

ENGAGEMENT

MISSION

We work to solve complex natural resource challenges through discovery, stewardship, innovation and engagement.

We're committed to conservation through interdisciplinary approaches, applied research, partner engagement and land stewardship.

VISION

We are a team of research and extension professionals guided by the Land Grant mission. We envision a future where the benefits of private lands are enhanced and the value of land stewardship is promoted and strengthened.

WILDLIFE CONSERVATION AND MITIGATION

We promote plant and animal population management, including threatened and endangered species, through the application and translation of sound science.

MILITARY LAND SUSTAINABILITY

We support the twin imperatives of military readiness and land conservation through integrated land management, applied research and collaborative regional planning.

LAND TRENDS AND DEMOGRAPHY

We develop geospatial tools to promote long-term planning for landscape conservation. We also provide geospatial and data analytic support to research and extension projects to aid in data-driven decision making.

PRIVATE LAND STEWARDSHIP

We foster stewardship of private lands and their public benefits through engagement and partnerships, and offer science-based, pragmatic solutions.

$7 MILLION

garnered in funding through 40 grants so that we may continue to pursue innovative research and engaging extension projects in Texas and beyond. We're grateful to our sponsors and partners for working with us to narrow the conservation gap.

39 STUDENTS

supported through NRI funding and mentorship during post-doc, graduate and undergraduate training so that we may continue to bring conservation leaders forward.

191 PUBLICATIONS

produced through peer-review (26), book chapters (3), abstracts and proceedings (13), technical and contract reports (85) and as press articles (64) so that we may continue to contribute to science purposefully and with intention.

12K LANDOWNERS

engaged collectively through 145 Extension program presentations across the state of Texas so that we may continue to cultivate communities of land and wildlife stewards.

In 2019, the people behind the Texas A&M Natural Resources Institute delivered solutions to challenges across borders, and doubled their shared voice in a single year—making their work push further to advance conservation solutions.

These are a handful of 2019 accomplishments rooted in practical and solution-driven research, serving as examples of innovation and sustainable, data-driven natural resource policies for future generations.

ENDANGERED SPECIES ACT WORKSHOP

In partnership with the University of Wyoming and the Texas A&M School of Law, NRI endangered species experts hosted a workshop of nationally recognized thought-leaders to discuss and document the evolving state role and approaches to enhancing collaborative solutions to the Endangered Species Act (ESA) and species conservation issues. The subsequent workshop report outlined a foundation for a strong federal-state relationship for conservation under the ESA as it notes the critical role of state fish and wildlife agencies from decision-making processes to locally-driven efforts.

PRIVATE LAND STEWARDSHIP EDUCATION

Developed with the curious-to-learn outdoor audience in mind, the NRI Engagement Team led the development of a new series called Private Land Stewardship Lessons, cross-pollinating with other Teams to include four categories: stewardship on private lands, threatened and endangered species, vegetation and landscape and wildlife management. Each lesson can be accessed on the NRI website and on AgriLife Learn through interactive modules, giving our audiences the freedom to choose their own path as they learn new information that can be applied in their daily activities.

TEXAS EARLY NOTIFICATION TOOL

Supporting both military readiness and sustainable energy development approaches, the Texas Early Notification Tool (TENT) was designed by our NRI Geospatial and Data Analytics Team in partnership with the Texas Military Preparedness Commission (TPMC), the Department of Defense Office of Economic Adjustment (OEA) and with input from the American Wind Energy Association (AWEA), for energy industry users to screen potential energy project and development sites while maintaining and protecting the military's defense mission.

SPOT-TAILED EARLESS LIZARD SPECIES RECLASSIFICATION

NRI research scientists used a pluralistic approach to species delimitation to help resolve uncertainty in species boundaries of phrynosomatid sand lizards of the genus *Holbrookia*, specifically, the Spot-tailed Earless Lizard (*H. lacerata*)—a species historically divided into two subspecies. The combined evidence from genetics, morphology and environmental niche was sufficient to consider these subspecies as distinct species with the lizards' taxonomy naming being updated based on their geography.

REMOVING MUSSEL SPECIES FROM CANDIDATE LIST

Genetic studies and population studies by NRI researchers and the U.S. Geological Survey (USGS) showed that the smooth pimpleback and golden orb mussels are part of a common and wide-ranging species. This discovery led FWS to remove both mussels from the candidate listing process, which precluded listing them under the Endangered Species Act.

SENTINEL LANDSCAPES LANDOWNER RESOURCES TOOL

The national Sentinel Landscapes partnership, including many NRI policy team members, launched an interactive landowners resources tool to provide landowners with a one-stop-shop to state and federal landowner assistance programs. The tool streamlines the search process by compiling 300 programs on a single platform designed for a tailored experience for each individual landowner or organization across the U.S.

LANDOWNER LONGLEAF CHALLENGE

Endeavoring to restore the majestic longleaf forests, an ecosystem that once dominated much of the southeastern U.S. providing habitat for wildlife, ecosystem services and economic opportunities for surrounding communities, the Texas Longleaf Implementation Team (TLIT) through NRI launched the Landowner Longleaf Challenge. After 5 months, this campaign appeared in the Facebook feeds of 96,000 East Texas landowners who indicated interest in land management and longleaf restoration. We successfully garnered 625 interactions between the TLIT and natural resource experts strengthening relationships with a network of well-informed landowners as a foundation to a more resilient outreach program for longleaf restoration.

TEXAS WORKING LANDS CHANGES AND TRENDS

The *Status Update and Trends of Texas Working Lands (1997-2017)* report rounded its second decade serving as a critical resource for private and public landowners, as well as for local and state-wide decision-makers. With this report, NRI examined new patterns and trends following the release of the Census of Agriculture datasets by the U.S. Department of Agriculture (USDA) National Agricultural Statistics Service (NASS). More specifically, with this fifth iteration, we can clearly define changes in land values, ownership size and land-use of privately-owned Texas working lands.

ABOVE THE FOLD

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SERVICES

Our team provides the following technical and professional services:

- Project Management and Environmental Planning
- Environmental Monitoring and Field Surveys
- Statistical Analyses and Ecological Modeling
- Geospatial and Remote Sensing Analyses
- Database Design and Web-based Mapping
- Communication and Engagement Strategies

LOCATIONS

To support our regional partnerships, NRI scientists and staff are located at multiple offices:
College Station, **San Antonio**, **Dallas** and **Washington, D.C.**

WHERE CONSERVATION AND APPLIED RESEARCH MEET.