

NRI 2018

ANNUAL REPORT

Discovery • Stewardship
Engagement • Innovation

TEXAS A&M



NATURAL RESOURCES INSTITUTE

WHO WE ARE

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.

WHAT WE DO

We work to solve complex natural resource challenges through **discovery, stewardship, engagement** and **innovation**. We're committed to conservation through interdisciplinary approaches, applied research, partner engagement and land stewardship.

OUR PROGRAMS

Wildlife Conservation and Mitigation

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

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.

Military Land Sustainability

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

Private Land Stewardship

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

SEARCHING FOR WHITE-NOSE SYNDROME

After discovering the contagious disease white-nose syndrome (WNS) killing bats across the U.S. in Texas, NRI researchers led a multi-agency team to study winter activity, composition, abundance and environmental conditions to combat the disease via monitoring and prevention strategies. Without these bat populations, loss of insect control and crop pollination is estimated to cost the U.S. agriculture industry at least \$3.7 billion annually.

DISCOVERY



STEWARDSHIP



ASSESSING RURAL LAND CHALLENGES

Although Texas farms and ranches contribute significantly to our state's economy in agriculture, energy and the military, our rural communities and natural resources are impacted by population shifts, urban growth, and other economic pressures. Through our geospatial analyses, we determined compatible land use solutions to protect both the military mission and the development of clean wind energy. Via rural survey work, we determined specific county needs and challenges for effective county leader planning.

ENHANCING WILD PIG CONTROL

Rapid wild pig population growth across the state negatively impacts our water and natural resources. To better manage and contain their growth and destruction, we've equipped landowners and resource managers with a web-based Wild Pig Reporting Tool where users can report pig sightings and damage-related information into a state-wide database. We anticipate this database will facilitate more efficient and cost-effective population reduction measures.

ENGAGEMENT

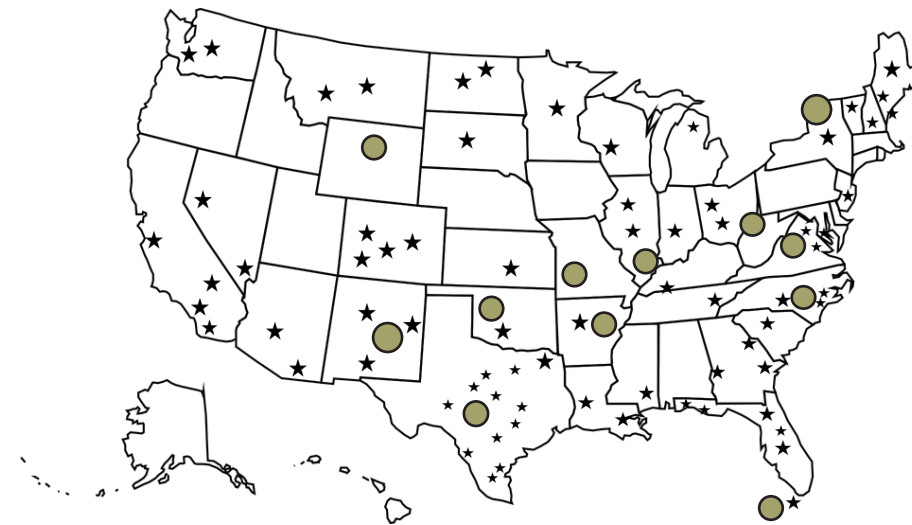


INNOVATION



REDEFINING ACTIVE WILDLIFE MONITORING

Ecological monitoring is often limited by monetary and manpower constraints, particularly for low density threatened and endangered species. NRI is pioneering the use of Passive Automated Monitoring Systems (PAMS) for wildlife surveys, which grossly exceeds the sample effort possible with human surveyors. Because PAMS produces large, multivariate data sets, NRI is also developing novel data management systems, and will continue to pursue avenues for patenting and expanding the use of these innovative sampling technologies.



● NRI employees ★ NRI projects

“We measure our success by how and where our work is used.”



13.2K people engaged collectively through 214 extension and scientific presentations and workshops.



\$12M in funding for innovative research and engaging extension projects.



32 students supported through NRI funding and mentorship.



154 publications peer-reviewed publications (29), extension publications (3) and project reports (122).



80K blog views by 58.8K visitors on the NRI and Wild Wonderings websites.

5.3K people reached through NRI newsletters—Quail Decline Initiative, Conservation Matters, Wild Pigs and SERPPAS.

1.9M reached through social media with Facebook, Instagram, Twitter and Youtube.

NRI.TAMU.EDU

Twitter: @TAMU_NRI

Facebook: @TAMUNRI

Instagram: @TAMU_NRI

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.

ART & PHOTO CREDITS

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