



NRI 2020

ANNUAL REPORT

Discovery • Stewardship
Engagement • Innovation

2020: A YEAR OF RESILIENCY.

In a year that would have allowed us to lose sight of the mission at hand, of the people who we work and learn alongside, of the long haul and the mark—we stayed the course.

Last spring found our institute and our local communities abruptly adapting to a new environment where we were called to forego the ways we conduct research and engage with our constituents and students. We were handed a new lens of work-life integration; and the impacts of a sweeping pandemic are still ever relevant in everyday conversation as we navigate what the future of safety and progress now requires.

To say the least, it would have been understandable to forget our cause whether we were on the front lines battling a tremendous challenge or staying homebound as our best line of defense.

Nevertheless, the NRI family found ways to start new conversations of hope, connection, character and steadfast presence. The people behind NRI created a new perspective and **we remained resilient.**

In the last year, I watched our people create new homes and grow families; embark on new adventures and reshape ways to learn in the field and online, no matter how challenging the environment. Together, we published impactful research, taught brilliant students and brought new stewards into conversations about the methodologies we've explored and tested to strengthen the value of working lands and open spaces.

And so, in the midst of global upheaval, the spirit of our NRI people gave way for community, a rallying of colleagues, a muster, if you will.

This past year held a great deal of loss for our nation and individual families, but it also gave way for a reprieve. We found a new depth to our institute focus and how we continue to contribute to conservation and stewardship. Thank you for supporting our efforts in solving today's natural resources challenges and those coming tomorrow.

Dr. Roel Lopez, Director

\$11.4 MILLION

garnered in funding through 42 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.

54K NEW STEWARDS

engaged in 2020 as we found new ways to adapt to COVID restrictions with the utmost concern for public health. NRI explored and tested methodologies to continue to build virtual communities of practice around private landowners, researchers, and students.

277 PUBLICATIONS

to include 27 peer-reviewed publications, 4 book chapters, 10 abstracts and proceedings, 156 technical and contract reports and 80 press articles contributing to science purposefully so that land stewards, researchers and policy-makers may make objectively-informed decisions.

48 STUDENTS

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



OUR WORK

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.

2020: A YEAR OF MOMENTUM.



OUR 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.

OUR 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.

THE SENTINELS: COLLABORATION BETWEEN DEFENSE, CONSERVATION AND AGRICULTURE

Premiered in Washington, D.C., "The Sentinels" is a documentary bringing light to the Sentinel Landscapes Partnership—a collaboration among the U.S. Department of Defense, Department of Agriculture and Department of the Interior that works across conventional boundaries to strengthen military readiness, conserve natural resources and bolster agricultural economies. The Partnership recognizes "Sentinels" as those who stand guard, watch over and look ahead. Today, a new corps of Sentinels is emerging across the country to steward and defend the last intact landscapes from disappearing from pressures of urbanization and land conversion. Together, we continue to work toward maintaining working lands and implementing conservation practices to benefit wildlife and promote compatible land-use practices.

TEXAS FARM AND RANCH LANDS CONSERVATION PROGRAM 2020 EVALUATION REPORT

To help safeguard the public benefits derived from working lands, the Texas Legislature created the Texas Farm and Ranch Lands Conservation Program (TFRLCP) in 2005, with the purpose of funding voluntary agricultural conservation easements on private lands. The goal of the 2020 report was to examine the conservation easements executed under the TFRLCP, evaluating ecological and economic values secured through the protection of 21 properties totaling about 28K acres, as well as the fiscal efficiency of state funds to protect working lands with high agricultural value at a relatively low cost for state residents. Using data from the Texas Comptroller and the National Land Cover Database, NRI analysts determined that the properties conserved under the TFRLCP have the potential to provide approximately \$2.9M in agricultural commodities, \$7.3M in water replacement costs and \$170,400 in wildlife consumptive uses annually.

LEOPOLD LIVE!: CREATING VIRTUAL COMMUNITIES OF PRACTICE

When handshakes are out of the question, connecting with partners and remaining vigilant in our mission to support private landowners in their stewardship efforts has never looked so different as we navigate a pandemic. In 2020, with creativity and ingenuity, we launched *Leopold Live!*, a 5-week live series conducted in partnership with the Selah, Bamberger Ranch Preserve to demonstrate to students, landowners and wildlife enthusiasts the original 5 creative methods conceptualized by Aldo Leopold to effectively manage wildlife populations and their habitats. By the end of our series, we reached more than 26K people on social media, building an organic virtual community of practice.

LAUNCHING THE NRI SOURCEBOOK

Launched in 2020, NRI released the first volume of *The Sourcebook*, a digital collection of the recently published peer-reviewed scientific publications, research reports, and science-based resources developed to support the improvement of conservation, natural resource management and private land stewardship. We are continually committed to solving natural resource issues and engaging land managers, citizens and policymakers throughout the process by developing science that can be shared in dynamic ways.

INTEGRATING CITIZEN SCIENCE AND RESEARCH TO INFORM POLICY

In an effort to synthesize the importance of considering documented experiences with scientific research, NRI published a new case study demonstrating how citizen science and remotely-sensed data could be integrated to help inform time-sensitive policy decisions for species of conservation concern.

13,500 MINUTES OF THE TEXAS EARLY NOTIFICATION TOOL (TENT)

Given the recent growth and importance of the wind energy industry in Texas, military planners, industry leaders, and community stakeholders are working collaboratively towards proactive solutions to avoid conflict when possible. Funded by the Texas Military Preparedness Commission and the Department of Defense Office of Economic Adjustment, NRI undertook the development of the publicly available *Texas Early Notification Tool* (TENT), encouraging industry and other stakeholders to assess potential project locations in light of military airspace and to facilitate conversations by providing users with current military points of contact. In one year, more than 450 30-minute sessions were conducted by stakeholders and decision-makers. In the coming years, we project the tool will continue to provide collaborative opportunities to balance military and industry needs. Following the momentum of this project's success, NRI continues to expand its efforts related to airspace encroachment, through both TENT as well as other engagement opportunities.

COMPLETED: SIX YEARS OF REVERSING THE QUAIL DECLINE INITIATIVE

The Reversing the Quail Decline Initiative (RQDI) sought to restore healthy quail populations in Texas by educating and advocating for effective stewardship of quail habitat, seeking answers to long-standing questions about the causes of the quail decline, emphasizing the value of native quail species, and promoting opportunities for quail to thrive—all while maintaining the economic and recreational benefits of quail hunting. Since its inception, RQDI hosted dozens of programs, produced more than 100 articles, videos and other resources, organized 3 statewide symposia, and reached hundreds of thousands of people with the quail conservation message. The year 2020 wrapped the quail project, but the resources and efforts put into motion will continue to have positive impacts for years to come.

2020: A YEAR OF IMPACT.

NRI.TAMU.EDU



@TAMU_NRI

WHERE CONSERVATION AND APPLIED RESEARCH MEET

COLLEGE STATION

SAN ANTONIO

DALLAS

WASHINGTON D.C.



**TEXAS A&M
AGRI LIFE**

The Texas A&M Natural Resources Institute operates as a unit of the College of Agriculture and Life Sciences at Texas A&M University, Texas A&M AgriLife Research and the Texas A&M AgriLife Extension Service.