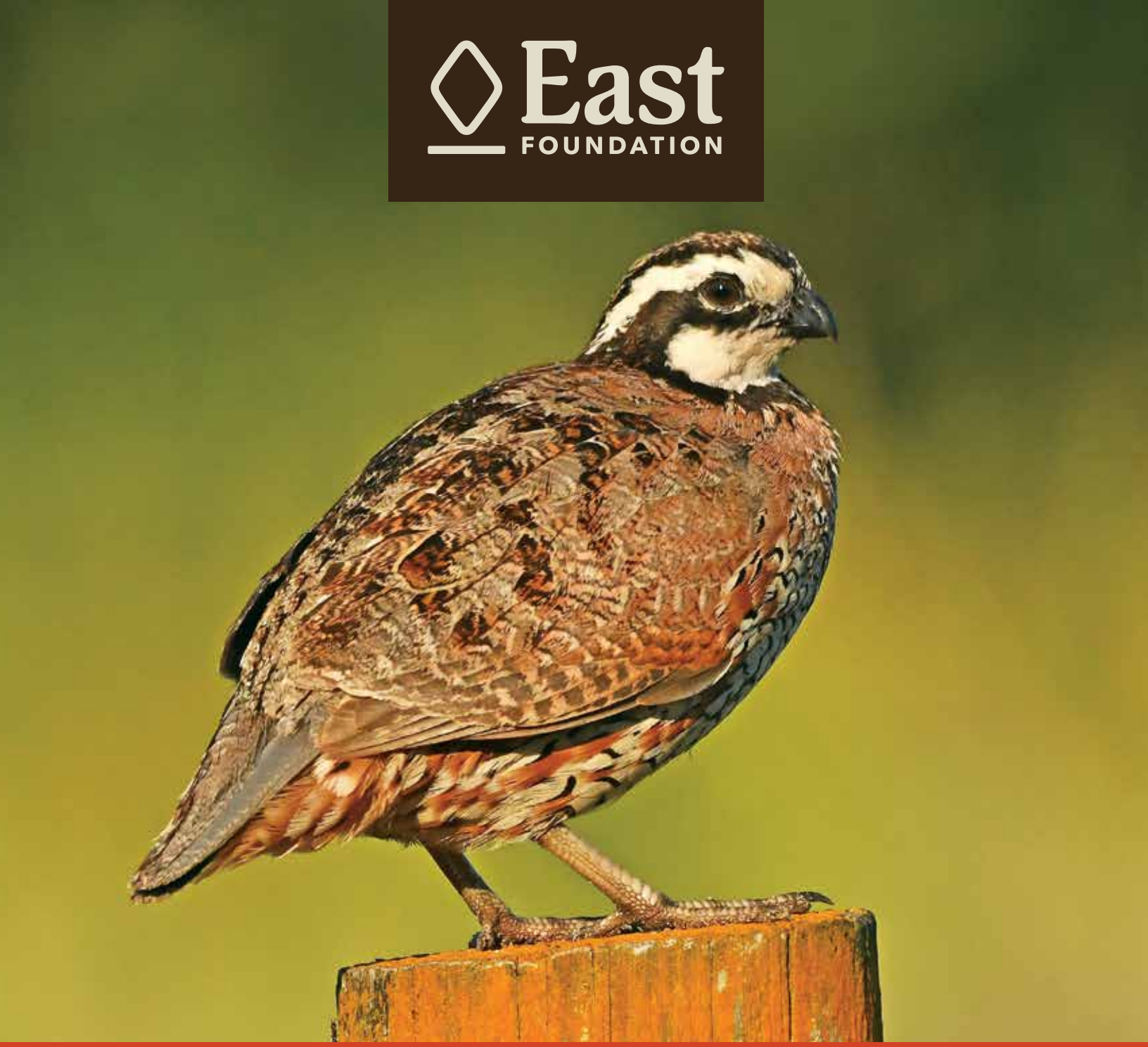
East FOUNDATION



ANNUAL 2024

RANCHING | SCIENCE | EDUCATION

East
FOUNDATION

Locations

Hebbronville
310 East Galbraith Street
Hebbronville, Texas 78361

San Antonio Viejo Ranch
474 East Ranch Road
Hebbronville, Texas 78361

El Sauz Ranch
37216 Highway 186
Port Mansfield, Texas 78598

San Antonio
200 Concord Plaza Drive, Suite 410
San Antonio, Texas 78216
(210) 447-0126

eastfoundation.net

Knox Kronenberg

About Us

East Foundation promotes the advancement of land stewardship through ranching, science, and education.

We manage more than 217,000 acres of native South Texas rangeland, operated as six separate ranches in Jim Hogg, Kenedy, Starr, and Willacy counties. Our land is a working laboratory where scientists and managers work together to address issues important to wildlife management, rangeland health, and ranch productivity. We ensure that ranching and wildlife management work together to conserve healthy rangelands.

East Foundation was created through the generous gift of the East family in 2007. To honor their legacy, we uphold their vision and values that were established more than a century ago. In pursuit of our mission, we use our abundant natural resources to build future leaders through programs that introduce students to private land stewardship. We invest in future professionals through internships, graduate fellowships, and close engagements with university programs.

We care for our land and are always exploring more efficient ways to get things done and are continuously guided by our values to conserve the land and resources.

We do what's right for the land and the life that depends on it.

CONTENTS

Features

2 From The CEO

4 About the East Foundation

6 Sustaining A Ranching Enterprise

12 The Long Game–Game Species Research and Management in South Texas

18 Our People

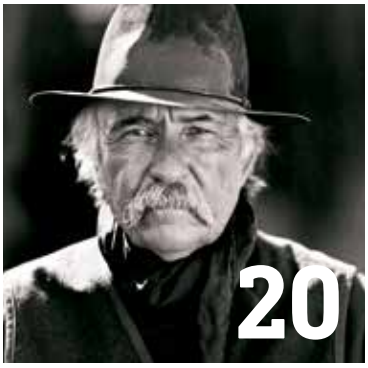
20 The East Foundation Ranches A Photographic Journey

30 Current Science Spotlight

32 One Step At A Time–Building The Next Generation Of Land Stewards

36 Flames On The Range–Managing East Foundation Rangelands with Fire

40 Our Sponsors



Publications Staff

Neal Wilkins, CEO and Publisher

James Powell, Editorial Director

Kristine Robb, Managing Editor

Landen Addison, Editor

Todd Snelgrove, Editor

Shawn McCraw, Creative Director and Graphic Designer

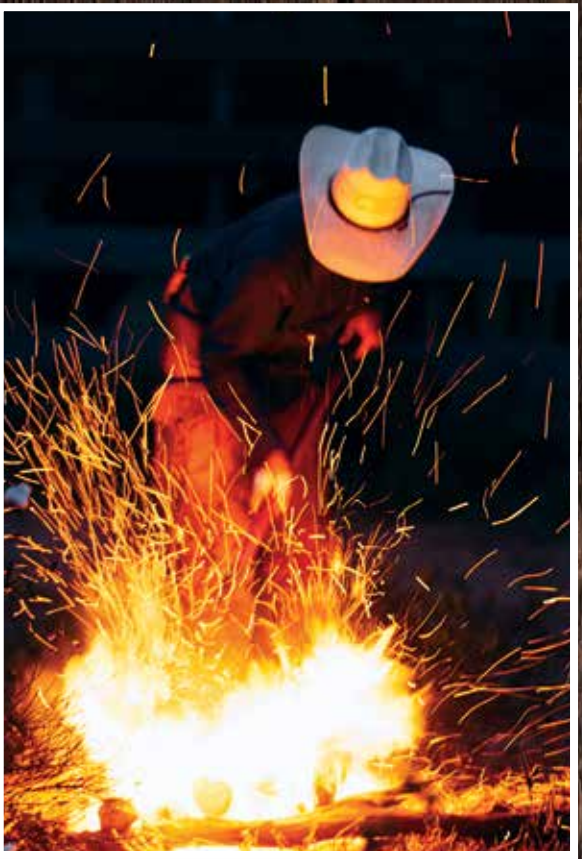
Cover Photos

Brian Wolf, Knox Kronenberg

Printer

Printed on Endurance Silk by Wrights Printing, The Woodlands, Texas


Neal Wilkins, Ph.D. CEO



From the CEO

Neal Wilkins

Welcome to East Foundation's 2024 Annual. As in previous years we are featuring the work we do to meet our mission, and how this work is relevant for making land management decisions and building future leaders. In the process we highlight some unique challenges of ranching – especially ranching in South Texas. Our goal here is to give you some insights into what we do to support stewardship of native rangelands – and explain some of the reasons why we do what we do.

Native rangelands in South Texas are often subject to drought, when browns and shades of gray tend to prevail across the landscape. Other times, under the right combination of rain, season, and sunlight, shades of green dominate the land. When we look hard enough, the only thing that seems to remain constant is the fact that our landscape is continuously changing – and it is those changes in plant growth and plant diversity that are most visible. Our rangelands include hundreds of different plant species – each responding to drought, grazing and fire in different manners. Our scientist's inventory on just part of the San Antonio Viejo ranch includes 323 plant species – 184 forbs, 53 grasses, 39 woody plants, and 11 cacti & succulents. The sheer diversity of native plants often adds complexity to our pursuit of understanding rangeland systems. But it is also true that this diversity of plant life is key to maintaining important wildlife habitats and sustaining livestock productivity, as well as all other benefits of healthy rangelands.

"All flesh is grass" is a biblical reference found in the Old Testament book of Isaiah. While respectfully taking this phrase out of context, it may be the most succinct representation of our recognition that all life is contingent upon the primary productivity of plants. All flesh – all wildlife, all livestock, all human life – relies first on a plant's capacity to capture sunlight; and use the energy to convert CO_2, H_20, and soil nutrients into food that may be consumed by other life.

Throughout this report you will see that much of what we highlight comes back to the central basic theme of understanding the most important factors contributing to the long-term value of our native rangelands. Here is some of what you will find as you turn the pages:

- East Foundation's Jason Sawyer puts emphasis on our approach to developing adaptive grazing strategies. He highlights the science behind our Coloraditas Grazing Research and Demonstration Area, a long-term effort to better understand the response of plant productivity and diversity to different grazing strategies – and, in turn, how this rangeland response is reflected in cattle productivity and wildlife populations.

- Wildlife biologist and long-time hunting outfitter Greg Simons describes the significance of our research into important game species, including our hunting-based research. Greg's work highlights the value of wildlife productivity and sustainable harvest to the overall enterprise value for ranches in South Texas.

- Legendary photographer Wyman Meinzer shares with us a photo essay selected from his more than 10 years of work on East Foundation ranches. This photo essay also includes selected ranch images from four other remarkable photographers – Knox Kronenberg, Nick Kelley, Emily McCartney Eiguren, and Jonathan Vail. Enjoy this.

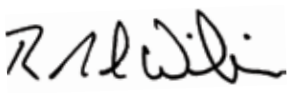
- East Foundation's Lindsay Martinez shines a spotlight on the science behind grazing management, rangeland monitoring, and supporting ocelot conservation.

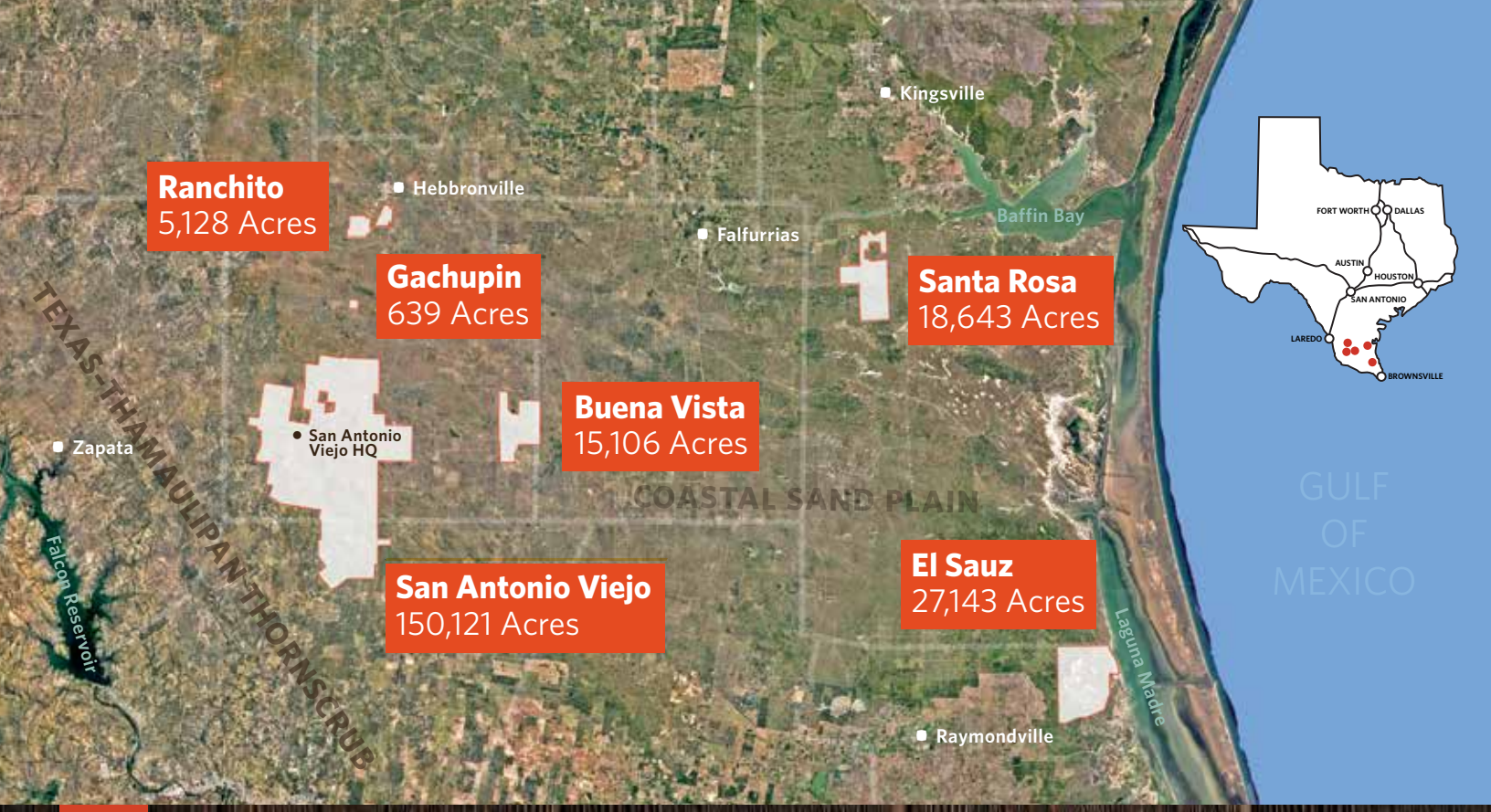
- East Foundation's Landon Addison brings our attention to a collection of efforts designed to build the next generation of leadership for meeting our mission of advancing land stewardship.

- Professor Sandra Rideout-Hanzak highlights the large-scale prescribed fire research on East Foundation's El Sauz ranch. Understanding the dynamics of managing native rangelands with fire is key to enhancing productivity for livestock as well as maintaining important wildlife habitats. As with much of our work, this long-term project also serves as a training ground for young professionals to gain experience in applying fire to rangelands.

We owe a lot to those that support and sponsor our work, and we have the good fortune to work with world-class partners in most every effort highlighted here. With their help, we do what is right for the land and the life that depends on it.

Neal Wilkins

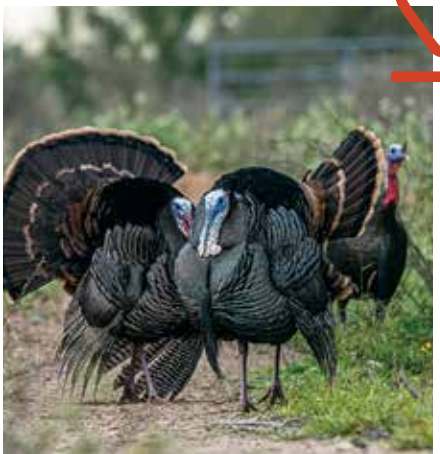


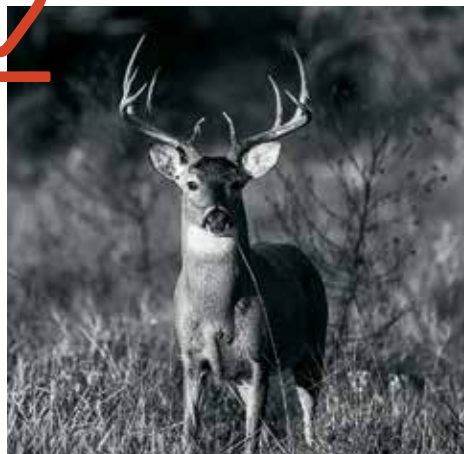


About the East Foundation

Our Mission

East Foundation promotes the advancement of land stewardship through ranching, science, and education. In pursuit of our mission, we use our working ranchlands and abundant natural resources to build future leaders through programs that introduce students to private land stewardship. We invest in future professionals through internships, graduate fellowships, and close engagements with university programs.





Knox Kronenberg, Emily Stribling, Jonathan vail

We promote the advancement of land stewardship through ranching, science and education.

Our Land & Operations

Like the East family before us, we ranch in the Wild Horse Desert, a region also known as the South Texas Sand Sheet and the Coastal Sand Plains, an area prone to both drought and extreme heat. We manage over 217,000 acres of native South Texas rangeland, operated across six ranches in Jim Hogg, Kenedy, Starr, and Willacy counties.

Our History

The East Foundation ranchlands were acquired over a period of about one hundred years. This land was utilized as a family owned and managed ranching operation. When Robert East passed away in 2007, he gifted his landholdings to the East Foundation.

Today, the East Foundation operates as an **Agricultural Research Organization**, the first of its kind in the United States. Working in concert with land-grant university, agency, and other partners, the Foundation's ranches are a working laboratory where scientists and managers together address issues important to wildlife management, rangeland health, and ranch productivity. We ensure that ranching and wildlife management work together to conserve healthy and productive rangelands.

Knox Kronenberg

SUSTAINING A RANCHING ENTERPRISE

By Jason Sawyer

Jason Sawyer is Chief Science Officer for East Foundation, where he integrates science-based research programs within the Foundation's ongoing ranching operations. Jason has a B.S. in Rangeland Ecology and Ranch Management from Texas A&M University, and M.S. and Ph.D. degrees in Range Nutrition and Beef Cattle Management from New Mexico State University. He has authored or co-authored over 120 peer-reviewed and invited publications, over 250 abstracts, proceedings, and technical reports, and given more than 125 presentations.

LAND – ESPECIALLY LAND HELD IN HISTORIC RANCHES – HAS THE APPEAL OF PERMANENCE. Stewardship of this resource, with the goal of sustaining it far into the future, acknowledges the perpetual nature of the land. This sense of steadfast permanence belies the complex, ever-changing networks of the life that depends on the land, and the challenges of management in a dynamic system.

At East Foundation, our mission is to advance land stewardship through ranching, science, and education. In our ranching enterprise, we view the purpose of management as seeking to maximize the long-term value of the ranch; the ranch management team seeks continuous improvement toward this goal by adopting a 'management by experiment' mindset, where new approaches can be implemented and evaluated. Our science program's purpose is to enable better decision-making by land stewards; we conduct experiments to enhance management.

The grazing management decision is the largest leverage point under managerial control to impact the sustainability of ranching operations and natural resource health. Both livestock production and wildlife populations are reliant on rangeland resource integrity and represent key value creation mechanisms in a ranching system. Because of this, the Foundation aims to develop and evaluate grazing strategies that enhance the long-term value of private lands. To accomplish this requires rangeland stewardship that optimizes both livestock production and wildlife populations, builds resilience into production and ecological systems, and encourages adaptability to an ever-changing landscape.

> " Our goal is to maximize the value of our ranches, and the responses that we generate in the Coloraditas help inform our management of other units. "
>
> –Garrett Stribling, Ranch Business Manager

The 18,538-acre Coloraditas unit of the San Antonio Viejo ranch was established as a grazing research and demonstration area (CGRDA or 'Coloraditas') to be a living laboratory for ongoing, long-term studies of the interactions of livestock grazing management, wildlife populations, and rangeland condition on South Texas ranches. The CGRDA program structure is designed to overlay long-term, consistent data collection platforms at landscape scale on grazing management strategy 'treatments' that can be evaluated, adapted, and refined over time. Each iteration is a 'phase' of the overall program. As phases are completed, new information is gained and new iterations of strategy evaluation (i.e., next phases) are constructed. As we document the responses of these strategies compared to a 'standard' approach, we discover new information that we use to inform and develop grazing strategies for other areas of our ranches.

"Our goal is to maximize the value of our ranches, and the responses that we generate in the Coloraditas help inform our management of other units," says Garrett Stribling, ranch business manager. "We aim to increase rangeland resiliency and carrying capacity through our grazing strategies, and documentation of these outcomes is giving us insight into grazing effects and benefits of diversity on our rangelands to build both capacity and resilience, These are the keys to long-term improvement in both livestock production and wildlife population stability."

Generally, grazing strategies are described as combinations of stocking rate and grazing method. Grazing methods may be continuous, or any version of 'discontinuous' grazing within a year or defined set of years, typically described as rotational or deferred rotation methods.

Our Phase I study at the CGRDA, initiated in 2015, used two stocking rates based on average forage growth expectation (35 Ac/Animal Unit) or a more conservative stocking rate to allow more forage carryover as a buffer against future risk (50 Ac/AU). Each stocking rate was combined with either continuous or rotational grazing methods, yielding four grazing strategies. Importantly, Phase I was designed with rigid stocking guidelines – stocking rates were fixed throughout the duration of the experiment. The only flexible element of the experiment was the timing of rotations in those strategies, and the duration of grazing within each rotational pasture.

Outcomes from Phase I are still being evaluated, and reports, scientific articles, and management bulletins are released as different analyses are completed (these can be found at www.eastfoundation.net). A key outcome from Phase 1 was to illustrate the infeasibility of rigid grazing strategies in an environment characterized by highly variable precipitation patterns. Rigid strategies

cannot persist for more than a few years without compromising livestock productivity and/or range condition exacerbated by drought, and in 2018 Phase I ended with a destocking of the Coloraditas unit.

> " The drought and resulting deterioration of range condition not only impacted livestock production but led to declines in bobwhite populations as well as decreases in grass and forb species richness across grazing treatments "
>
> – Andrea Montalvo, Research Scientist

"The drought and resulting deterioration of range condition not only impacted livestock production but led to declines in bobwhite populations as well as decreases in grass and forb species richness across grazing treatments," says Andrea Montalvo, East Foundation research scientist. "Few direct effects of grazing method (rotational versus continuous grazing) were observed, and the effects of stocking rate were driven by weather – when it rained, both stocking rates worked; when it didn't, neither stocking rate was low enough to be sustainable."

These Phase I observations suggest that 'adaptive' management strategies may better accommodate variable rainfall and forage production. Our Phase II experiment is designed to evaluate adaptive grazing strategies. "Adaptive" grazing has many connotations, but lacks quantitative definitions, making consistent implementation difficult. To help managers make clear decisions, we have developed an adaptive framework based on quantitative measurement of forage conditions within each pasture. Using that information, we set headcount to achieve a utilization target within a continuous or rotational grazing method. This approach avoids the risks of rigid stocking systems, while allowing to capture increases in productivity that result from either weather or management responses over time.

The Foundation also has developed a modified rotational strategy from Phase I findings. Our current rotational strategy uses three pastures and one herd and is

> “ Few direct effects of grazing method (rotational versus continuous grazing) were observed, and the effects of stocking rate were driven by weather – when it rained, both stocking rates worked; when it didn’t, neither stocking rate was low enough to be sustainable.”

Knox Kronenberg, Emily Stribliing

designed to ensure that during a three-year cycle, each of the pastures receives the equivalent of one year of grazing, and that use is distributed across seasons. This should promote the greatest opportunities for recovery and maintenance of plant diversity.

We are in the fourth year of Phase II, and we have been able to sustain the grazing enterprise across a variety of rainfall scenarios. The adaptive adjustments are deployed annually at weaning, making this strategy feasible within an extensive system at scale. Within years, the rotational strategy may result in very modest reductions in calf weaning weight, but if the pattern of grazing offers improvements in range condition over time, this short-term sacrifice may be justified.

As we work to document outcomes, other important questions emerge. Our execution of adaptive grazing relies on good data about forage conditions – and these data are difficult to collect. East Foundation has developed a science program effort aimed at exploring methods to increase the quality and reduce the effort required to collect forage data, which will serve to aid in decision-making across our ranches. Better data and data collection methods are also important to our ability to evaluate carbon assimilation and the health of our rangeland ecosystems. We continue to evaluate wildlife survey methods, and we are searching for the relationships between biodiversity and resilience to weather shocks that can help inform our grazing strategies beyond measures of direct productivity. In a variable environment, the speed of recovery (i.e., resilience) may be as important over time as any measure of annual production.

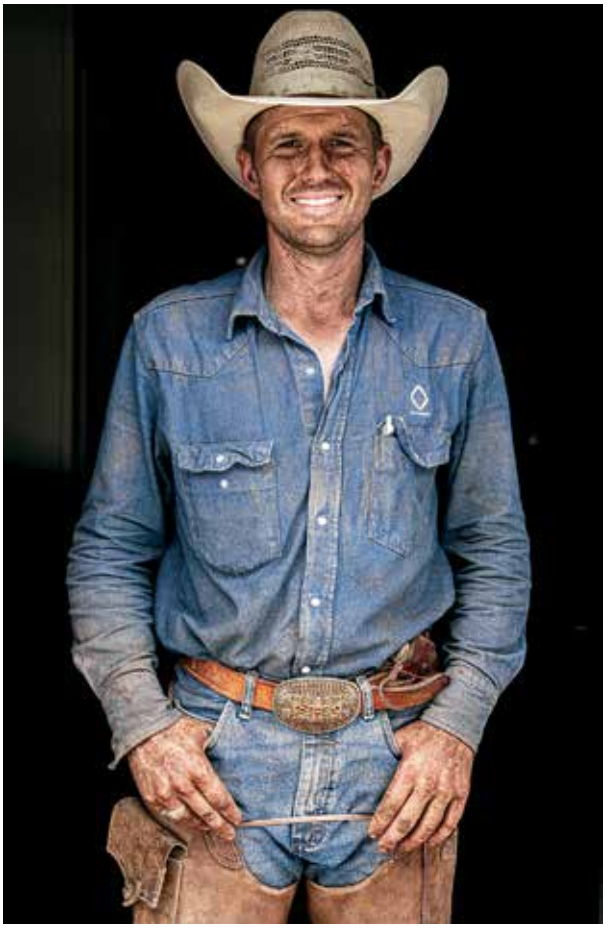
> " Documenting the outcomes of these experiments using scientific principles gives us reliable information about both the outcomes and impacts of our implementation "
>
> – Neal Wilkins, East Foundation CEO

We expect to operate Phase II for at least two more years, to complete two full three-year grazing cycles in the system. We have continued to monitor wildlife and vegetation responses, and while we are not yet prepared

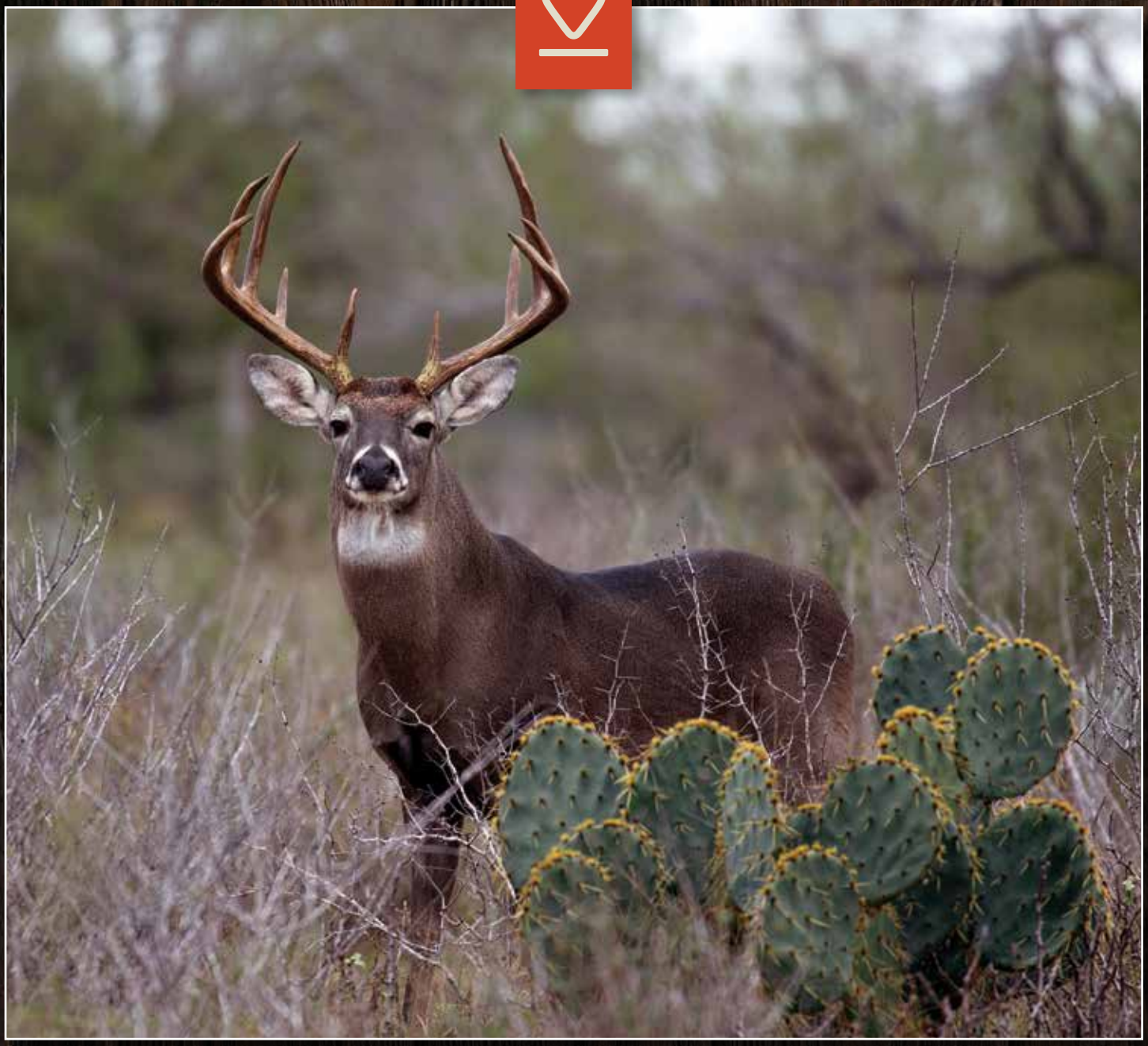
to draw final conclusions, we see enough benefits in some elements of the strategy that we have adopted components across all our ranches where infrastructure can support a similar approach. A unique opportunity in our design is that if a particular strategy does result in more productive rangelands, then the adjustments to carrying capacity will be reflected in increased headcount over time compared to areas managed under other strategies.

Innovation in grazing management will protect and improve our soils, increase our carrying capacity for livestock and wildlife, and enhance the resilience of these systems to disturbances and variability inherent to ranching in South Texas. As we discover the drivers and outcomes in this complex system (experiment for management), we can continue to develop better strategies (management by experiment).

"Documenting the outcomes of these experiments using scientific principles gives us reliable information about both the outcomes and impacts of our implementation," says East Foundation CEO Neal Wilkins. "This is the information that managers require to make the most informed stewardship decisions, and where experimentation for management and management by experiment merge to advance land stewardship."



Knox Kronenberg, Emily Stribling



THE LONG GAME

GAME SPECIES RESEARCH AND MANAGEMENT IN SOUTH TEXAS

By Greg Simons

Greg Simons is the General Manager and owner of Wildlife Systems, Inc., and co-owner of Conservation Equity Partners, inc., and has served in a variety of roles with Texas Wildlife Association, Dallas Safari Club, National Deer Association, and many others. An author in many publications, his most recent is the book The Hunting Business. He is a Texas A&M graduate, and resides with his wife in San Angelo, Texas.

As our American – and South Texas – society transformed into a more agrarian culture during the 19th and early 20th century, dependence on wild game as a primary source of food was increasingly replaced with that of farmed animals and plants, giving rise to a farming and ranching industry that emphasized large-scale commercial food and fiber production to satisfy a growing and expanding human population. At the same time, a new land stewardship ethic based on developing conservation principles – one that would eventually influence the formation of the East Foundation and its unique mission – was taking hold.

HUNTING AS A VALUE-SOURCE FOR PRIVATE LANDOWNERS

Over time, by virtue of necessity and innovation, ranchers and farmers have shifted their focus back to wildlife and began looking at hunting as a means of diversifying income from their working lands while also better managing populations of wildlife in their care. By the 1960's, fee-based hunting programs were becoming more commonplace as a revenue generator on private lands. With Texas lands being almost 96% privately owned, this state was – and remains – at the tip of the spear regarding the ever-evolving efforts to monetize hunting as a means of driving revenue and managing populations.

These days, profit-based ranching operations in Texas often rely on hunting income to ensure the financial health of their ranch-based business portfolios, with game resources often generating as much or more profit than livestock enterprises. With the growing trend of more Texas acreage being owned by "new" landowners whose ownership is not motivated by income from the ranch, these landowners often value their personal hunting activities on the property more than any other feature, thus translating into hunting as a driver for increased land values in many areas of Texas.

In parts of South Texas, quail leases can fetch up to $20 per acre. Recent research at Texas A&M University found that hunting-related expenditures from white-tailed deer hunters is $4.3 billion annually in Texas. Bobwhite quail and white-tailed deer are the breadwinner game species over much of South Texas, but waterfowl and doves provide substantial income for landowners in some locales of this region. Recent decades have also seen a major uptick in hunting markets for exotics. Nilgai antelope, for example, are abundant in portions of South Texas, and nilgai hunting has grown in popularity due to nilgai meat being excellent table fare. Hunting is not only a big business in Texas, but also an important part of our Texas culture.

A GROWING NEED FOR MORE ANSWERS

Because hunting represents a huge asset for ranches and is an important feature of rural land values, there is a need for land stewards to have clear and reliable information to enable sound management decisions that ensure sustainable health of game resources on public and private lands.

East Foundation was created through a generous gift in 2007 from the East family, resulting in the East Foundation's mission to promote the advancement of land stewardship through ranching, science, and education. The Foundation's 217,000 acres, made up of six ranches scattered across South Texas, serve as working laboratories where scientists and managers work together to address issues important to wildlife management, rangeland health, and ranch productivity.

Robert East, who bequeathed his family assets to the East Foundation upon his death, stipulated that the East Foundation would keep the ranches whole and would use them for wildlife research and to investigate relationships between rangeland stewardship and cattle ranching. Further, the lands are not hunted purely

Research questions for Northern Bobwhites

- Is the commonly accepted 20% harvest rate recommendation for South Texas sustainable?
- What is a viable spring density (breeding population) for bobwhites?
- Does hunting impact bobwhite distributions and the use of available space?
- Does road baiting affect bobwhite distributions and harvest efficiency?
- How many bobwhites are unknowingly crippled during hunts?
- What are the best methods for estimating bobwhite populations, and can those be refined?
- How does grazing method and stocking rate of cattle impact bobwhite abundance and distribution?
- How do parasites, such as eyeworms (Oxyspirura petrowi), impact Northern bobwhites in South Texas?
- Does strategic distribution of quail hunting lanes enhance the ability to apportion hunting pressure more evenly across the property, avoiding over-harvest of some local areas?
- Should quail harvest timing consider high quail hatch levels that occur late in the nesting season?

Wyman Meinzer

for commercial purposes, so any hunting enterprise is embedded in the Foundation's research efforts related to the stewardship of natural resources on these native rangelands.

"The East family laid out a goal that was simple and forward-thinking," says East Foundation CEO Neal Wilkins. "They recognized that native rangelands can be used for cattle production while also assuring effective wildlife management and conservation. Today, we want to know how we can best mesh wildlife conservation and working cattle operations on the same landscape. In many cases, healthy wildlife populations continue to exist because of cattle ranching, not in spite of it."

East Foundation and its many partners have initiated research programs that are centered around questions that will allow themselves and other landowners to shorten their learning curves and make sound management decisions that achieve their goals, including those related to game species and hunting enterprise development.

In reality, most management for game species now occurs in the context of a hunting enterprise. To maintain relevance to other land managers, East Foundation has strategically designed programs that incorporate select hunting activities as an element of the research.

"On East Foundation properties, these efforts not only help fund the costs associated with certain research projects, but in many cases, the hunters serve as integral members of the 'boots on the ground' research team," said Jason Sawyer, chief science officer for the East Foundation. "This ultimately creates greater cost efficiency for the program, while also demonstrating how hunters can effectively be part of the management team for landowners and ranchers."

EAST FOUNDATION RESEARCH ON GAME SPECIES

East Foundation utilizes research scientists, technicians, and interns who work in conjunction with various academic institutions on a number of research studies related to the management of iconic and important game species including Northern bobwhite quail, white-tailed deer, and nilgai.

"We want to understand more about the population dynamics of these common South Texas game species and how they affect, or are affected by, common land management practices and livestock production," said Andrea Montalvo, research scientist for the East Foundation. "The Foundation seeks strategies that ensure the long-term sustainability of these culturally and economically important populations on our rangelands."

Bobwhite quail are a valuable asset. Nationwide, the Northern bobwhite quail population has been in decline for decades. The South Texas Sand Plains (Sand sheet) is one of a very few regions that maintain substantial populations of bobwhite. Population models suggest that bobwhites in South Texas can withstand a 20% harvest rate from hunting and recover prior to the next season. This essential concept

of a harvestable surplus is important for wildlife management. East Foundation set out to test this threshold with a large, controlled experiment where hunter harvest is applied, and population response is compared to reference sites that remain unhunted. Currently, this effort is being deployed on portions of four of the six ranches, with harvest pressure applied on more than 30,000 acres to be compared with equivalent reference acreage. Because East Foundation can deploy research projects like this at scale, they are relevant to other landowners, and allow an understanding of the interaction of harvest pressure and the effects of environmental variability that are known to impact quail populations.

By studying hunter behavior, they have developed models that allow optimum infrastructure development in quail hunting areas (roads and lanes), evaluated the performance of quail dogs, and conducted extensive and ongoing surveys for parasites that may (or may not) impact quail survival.

"The value of establishing large-scale, long-term experiments is they allow for the development and evaluation of additional questions along the way," said Abe Woodard, a range and wildlife scientist for the East Foundation. "Answering these questions will provide a source of reliable information for other resource managers that enables effective decision making within their own operations."

White-tailed deer are arguably the most iconic and sought after game species in South Texas. Although decades of effort have been put into researching the species, additional harvest-based research geared toward population stability remains important, especially in the face of emerging threats.

Deer populations, even when protected from over-harvesting, can fluctuate in size due to fawn recruitment rates and adult survival. Predation, disease, weather conditions, forage availability and nutrition interact to play a role in these fluctuations. In South Texas, population stability likely depends on high levels of adult survival to buffer variable recruitment rates. Significant disease threats can result in substantial population reduction by reducing adult survival, and when coupled with erratic recruitment rates, pose a threat to long-term population stability. Some have suggested that in this region, introduction of a chronic disease pressure at even low prevalence could result in a population that could only be sustained by eliminating harvest, which would have significant cultural and economic impacts.

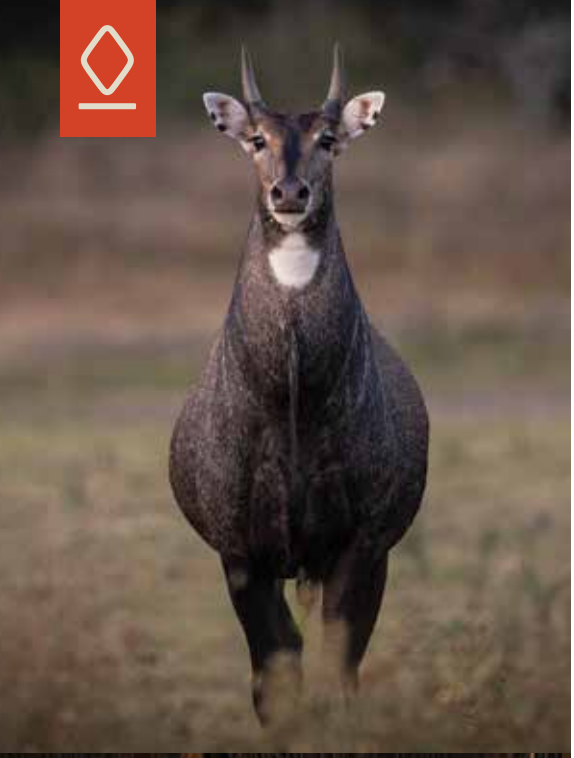
East Foundation aims to advance the stewardship of this important resource by utilizing a unique case-control system to develop management approaches that enhance the resilience of white-tailed deer populations, and result in population structures most likely to persist in the face of environmental or infectious disease impacts.

"Our research prescribes a portion of the San Antonio Viejo deer herd to typical South Texas manipulations through hunter harvest and compares outcomes to their prior, natural, and unmanaged state," said Jason Sawyer. "The project also compares, over time, deer within

Wyman Meinzer

Research questions for White-tailed Deer

- How do body weights, body condition, antler size, lactation status, and age structures differ across Foundation lands? What factors contribute to this variability?
- What is the best way to count deer? How accurate are current traditional surveys in assessing population densities and characteristics of large mammals in South Texas?
- What are the linkages between environmental stressors, selective harvest, and population dynamics? Can the population sustain harvest in the face of emergent disease pressure?
- Why are recruitment rates so variable in South Texas?
- Are deer infected with pathogens from ticks or other sources? How does this affect population resilience?
- Do deer compete with cattle for shade? If so, which critter wins and why? How do deer and cattle share the landscape?



Research Questions for Nilgai Antelope

- What is the actual population size of nilgai? Can their range and movement patterns be defined?
- Do nilgai compete with livestock, deer, or both for landscape resources?
- Do nilgai carry babesia, the pathogen causing cattle tick fever?
- Can population dynamics models be constructed to predict changes in the nilgai population?
- What are optimal nilgai population densities for ecological and economic outcomes, in conjunction with cattle grazing and native wildlife populations?

'managed' areas to the 'unmanaged' portions of San Antonio Viejo and other East Foundation ranches, to separate management effects from environmental effects."

This is a unique approach, given that most deer herds are subject to harvest pressure, and it is rare to be able to compare to a population in its 'natural' state. Even where harvest management is aimed at increasing average age, there is a lack of a comparable control to assess management effects. Understanding of the relationship between selective harvest, population dynamics, and behaviors associated with disease transmission will provide data for models of disease impact and population resilience. Data collected through harvest will also inform key parameters that impact population dynamics and help to identify high-leverage strategies to ensure population viability.

Nilgai antelope present interesting challenges for land managers. Some view them as competitive invaders, potentially competing with white-tailed deer and cattle for browse and forage resources. There is often concern that they may contribute to the transmission of high-consequence diseases affecting livestock. Alternately, they provide an increasingly valuable harvestable resource and, in some cases, have helped land managers diversify their income. East Foundation projects aim to address many of these questions.

By applying a harvest strategy and evaluating annual population dynamics, the Foundation is gaining insight on the influence of harvest on population stability. Using these harvest opportunities to collect data, research is providing insight into the role of these unique animals as grazers, vectors, and assets. Population parameters such as age structure, reproductive capacity, and movement ranges, in combination with other outcomes, are essential to inform and develop effective management strategies, whether aimed at stabilizing or reducing local nilgai density.

"Nilgai present many unique challenges for land stewards. Much of the foundational ecology and biology of the species is unknown as well as their influence on the rangelands of South Texas. Our research aims to answer questions relevant to South Texas landowners, and to better understand the economic and environmental opportunities and challenges that nilgai present." said Landon Schofield, range and wildlife biologist for the East Foundation.

LOOKING FORWARD

There is a growing sense of urgency to sort out conservation solutions that ensure the sustainability of the public benefits tied to ecosystem services provided by working rangelands. These include clean air, clean and abundant water, food and fiber, recreational activities including hunting, the important economic benefits to nearby communities, and the emotional and spiritual values which are part of the entire ecosystem services suite.

Katy Baldock

Jonathan Vail

Further, the current yield of wild game meats across the country is huge. The Wild Harvest Initiative estimates that approximately 5.8 million deer are harvested each year in the U.S., yielding some 870 million meals. When you consider the aggregate yield of all game animals and exotics that are hunter-harvested each year, this staggering number is large enough to add to our nation's food security, further illustrating the importance of these diverse ecosystem services. Assuring that this yield of wild game is sustainable is critically important.

In a state like Texas, successful conservation solutions that ensure sustainable natural resources are inextricably linked to private lands stewardship, and game species and hunting incentivize private landowners to re-invest in the very resources that generate these human life-support systems. Hunting not only equals enhanced private lands values and economic viability – hunting also equals conservation. And, central to all Texans, hunting equals human health.

East Foundation is committed to ranching and investing in research and education efforts, and through using its land as outdoor laboratories, ensuring that private land stewards are best equipped with the intellectual tools to advance the sustainable health of those resources that benefit all of society – each and every one of us.

East Foundation is committed to ranching and investing in research and education efforts, and through using its land as outdoor laboratories, ensuring that private land stewards are best equipped with the intellectual tools to advance the sustainable health of those resources that benefit all of society – each and every one of us.

Our People

Just as the East Foundation mission drives our organizational focus, our people are the boots on the ground who work diligently to promote land stewardship through our ranching operations, science-focused research, and informative educational programs. Below are highlights on the foundation's recent hires, as well as news regarding recent promotions and awards.

RECENT HIRES

Jennifer Benke
Staff Accountant
May 2023

Jennifer Benke is the Staff Accountant for the East Foundation. As part of the accounting team, she assists with accounts payable, Sage Intacct functionality, financial reporting, fixed assets, reconciliations, journal entries and the annual audit. Jennifer has a B.B.A. and M.B.A. in Accounting from the University of Texas at San Antonio and is a licensed Certified Public Accountant. She has almost 30 years of experience in various business office responsibilities.

Katarina Johnson
Hebbronville Business Coordinator
September 2023

Katarina Johnson is the Hebbronville Business Coordinator for the East Foundation. In this role she is responsible for managing financial and contractual records, providing investment portfolio support, and various administrative tasks. She engages with the surrounding communities and supports the delivery of educational programs both in traditional classroom settings and on East Foundation ranches. Katarina has a B.B.A. in Management from St. Mary's University in San Antonio.

Lindsay Martinez
Research Program Coordinator
September 2023

As Research Program Coordinator, Lindsay Martinez supports research and conservation projects for ocelots and other species of conservation concern in South Texas. Lindsay has a B.S. in Ecology and Evolutionary Biology from Princeton University and an M.S. in Wildlife and Fisheries Science from Texas A&M University. For the last three, she has worked with East Foundation as an intern, a technician, and as a graduate student while completing her master's thesis.

Elisa Velador
Educator
October 2023

As an Educator for East Foundation, Elisa Velador brings conservation education to teachers and students in the classroom and on the land and helps instruct our Land Stewardship Ambassador program. For the past nine years she was a Conservation Educator for our partner, Texas Wildlife Association, and helped to develop the education programs that are currently utilized at the East Foundation today. Elisa has a B.S. and M.S. in Biology from the University of Texas at Brownsville & Texas Southmost College. She taught high school science for eight years and is a certified Texas Master Naturalist.

Gilberto Lopez, Jr.
Shop Assistant
February 2024

As Shop Assistant for the East Foundation, Gilberto Lopez' role is to assist in keeping the truck, UTV, and

equipment fleet in optimal condition. Gilbert has a background in automotive technology and agriculture. Operating heavy equipment and growing up with an agricultural background helped facilitate his passion for problem solving and turning wrenches.

Stephanie Campbell
Bookkeeper
March 2024

Stephanie Campbell is the Bookkeeper for East Foundation. In her role, she supports the Finance Team with payroll, accounts payable, and accounts receivable. Prior to joining us at the East Foundation, Stephanie was working in the real estate industry in residential appraisals.

Ricardo "Damian" Martinez
Unit Foreman
March 2024

Damian Martinez is the Unit Foreman for East Foundation's Ranchito and Buena Vista ranches. In his role, he is responsible for the cattle health and condition, grazing rotations, and maintenance of equipment and infrastructure. Damian is a generational cowboy and started his ranching career by spending nearly nine years at King Ranch Santa Gertrudis division before joining us at East Foundation.

PROMOTIONS

Andy Lopez
Shop Foreman

As Shop Foreman at East Foundation, Andy Lopez is responsible for all equipment repairs and maintenance including vehicles, tractors, and trailers. Prior to joining us, Andy worked for Enterprise Product, Hilcorp Energy, and M.C.C. Repairs. He brings 29 years of industrial equipment and automotive repair experience to the Foundation.

Dylan Durbin
Unit Foreman

Dylan Durbin is a Unit Foreman for East Foundation. He is responsible for maintaining the health and condition of cattle, pasture rotations, infrastructure, and other needs of his unit at our El Sauz Ranch in Port Mansfield, TX. Before joining us at the Foundation, Dylan worked for the Bar Z Ranch in Brady, Texas. He has a background in wind turbine construction and the gas pipeline industry and spent many years running his own cattle alongside his father and uncle in Lasara, Texas.

RETIREMENTS

Carrie Gomez
Accountant

Carrie Gomez retired in January 2024 after more than 10 years with the East Foundation. As the Accountant for the East Foundation, Carrie was responsible for many day-to-day accounting functions during her tenure, including accounts payable, payroll, general ledger accounting, and accounts receivable. Prior to joining the East Foundation, Carrie worked for the Alamo Regional Mobility Authority and retired from North East Independent School District in 2010 after 20 years of service. We were lucky that Carrie chose to come out of retirement to assist us at the East Foundation and we're proud to have worked with her. Please join us in wishing her a wonderful and well-deserved retirement.

Awards

Clarence Cottam Award at Texas Chapter of the Wildlife Society

The Clarence Cottam Award is the most prestigious student award given by the Texas Chapter of the Wildlife Society to recognize and promote student research excellence in wildlife biology, conservation, and management. Participants present their research to the entire membership at the conference and winners are recognized for their outstanding research contributions, awarded a scholarship, and become part of the more than 30-year history of the Clarence Cottam Award. Lindsay won first prize at this year's Cottam Awards with her presentation, Science and Policy Behind Plans for Reintroducing Ocelots to Historic Range in Texas.

Harvey Weil Professional Conservationist of the Year

The Harvey Weil Professional Conservationist of the Year is presented to individuals who have been leading conservationists in either the marine or wildlife environments. Recipients of Professional Conservationist of the Year continue to promote conservation and environmental interests in the same manner Harvey Weil did during his lifetime. Harvey Weil was a longtime South Texas sportsman, attorney, conservationist, and Rotarian who dedicated his life to the preservation of nature and sportsmanship. The East Foundation is proud that the Rotary Club of Corpus Christi has acknowledged Tina's dedication to conserving South Texas's natural heritage and nurturing a generation of informed conservationists.

THE EAST FOUNDATION RANCHES

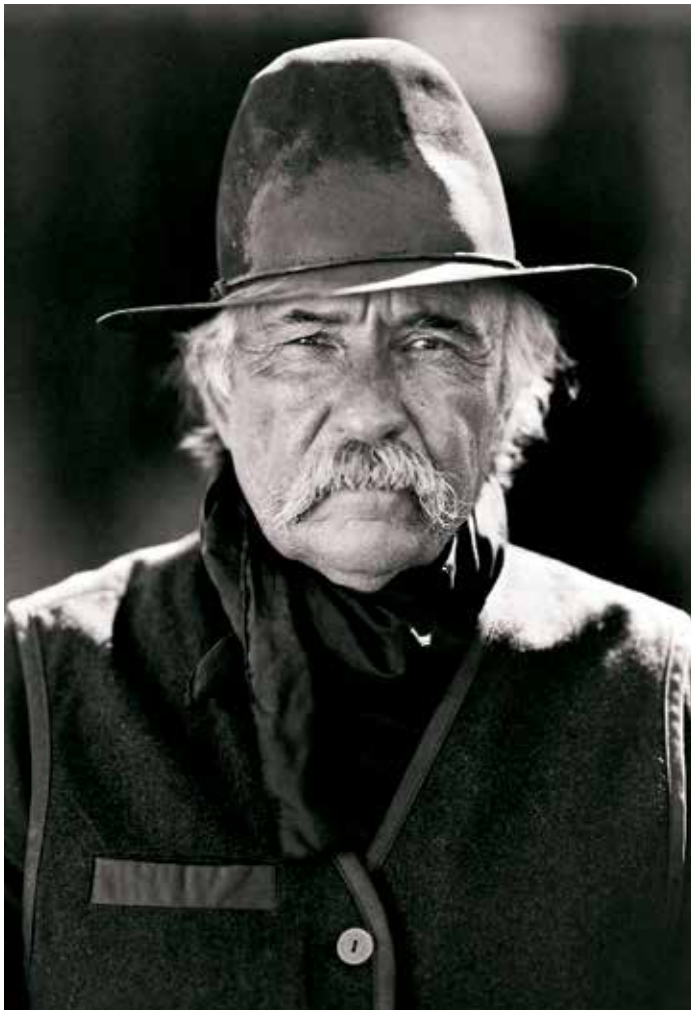
– A PHOTOGRAPHIC JOURNEY

The six East Foundation ranches have served many roles over the decades – most importantly, their rangelands have provided sustenance and a way of life for the people, livestock, and wildlife that have called these 217,000 acres home for many generations. They have also provided the backdrop for an unfolding story of survival in a harsh but beautiful land, of Texas and American history, and of the development of a unique ranching culture in South Texas.

The following images, taken by visiting photographers over the past decade and beginning with Wyman Meinzer – Texas' Official Photographer – tell a compelling visual story impossible to describe with words alone. Many of these images have found their way into state and national publications over the years, and some of Wyman's may be found in the book Horses to Ride, Cattle to Cut – The San Antonio Viejo Ranch of Texas.

In celebration of the land and of the life that depends on it, the following photographic journey honors Wyman Meinzer, and the succeeding photographers – many inspired by Wyman's legacy of photographic excellence – who continue to capture with their artistic eyes what makes South Texas rangelands so special and unique.

PHOTOGRAPHING THE SAN ANTONIO VIEJO, BY WYMAN MEINZER



I believe it to be true that every serious camera-wielding person entertains visions of documenting a location or region that has never hosted the likes of a professional photographer, and by good chance, having be the one chosen to do so. In 2013, that dream became a reality after a conversation with my good friend and fellow photographer, David Langford, when he called and asked if I would be interested in documenting all aspects of a large South Texas ranch, the San Antonio Viejo, that had been impassible to almost everyone except family members since the early 20th century. Despite my living some 500 miles distant, I immediately agreed to do the job. After visiting with the East Foundation's Neal Wilkins, it was decided that Sylinda and I would visit the ranch almost every month for some five days per trip, over a several year period, and document the work, wildlife, and history that defines the 150,000-acre ranch as well as other foundation properties and submit the final images to be used for both historical research and publication purposes by the Foundation.

Being very familiar with documenting the lifeway, landscape, history, and wildlife on many iconic ranches from Texas to Wyoming, I understood the significance of this work, especially in these rapidly changing times. The "Viejo" had been in a virtual time warp since the early 20th century; thus, it was imperative to document the ranch in its entirety before inevitable change would alter its face forever. Like the other ranches I had photographed, it was a job I embraced with enthusiasm.

Having engaged major projects on ranches such as the famed 6666, W.T. Waggoner, and other historic holdings, I understood the expectations of Neal Wilkins and delved into documenting the capture of maverick cattle, branding efforts, wildlife, research efforts, landscape, and weather. It was an effort of love on my behalf, and I hoped one that would enrich the Foundation's photo files and educate students of history for years to come.

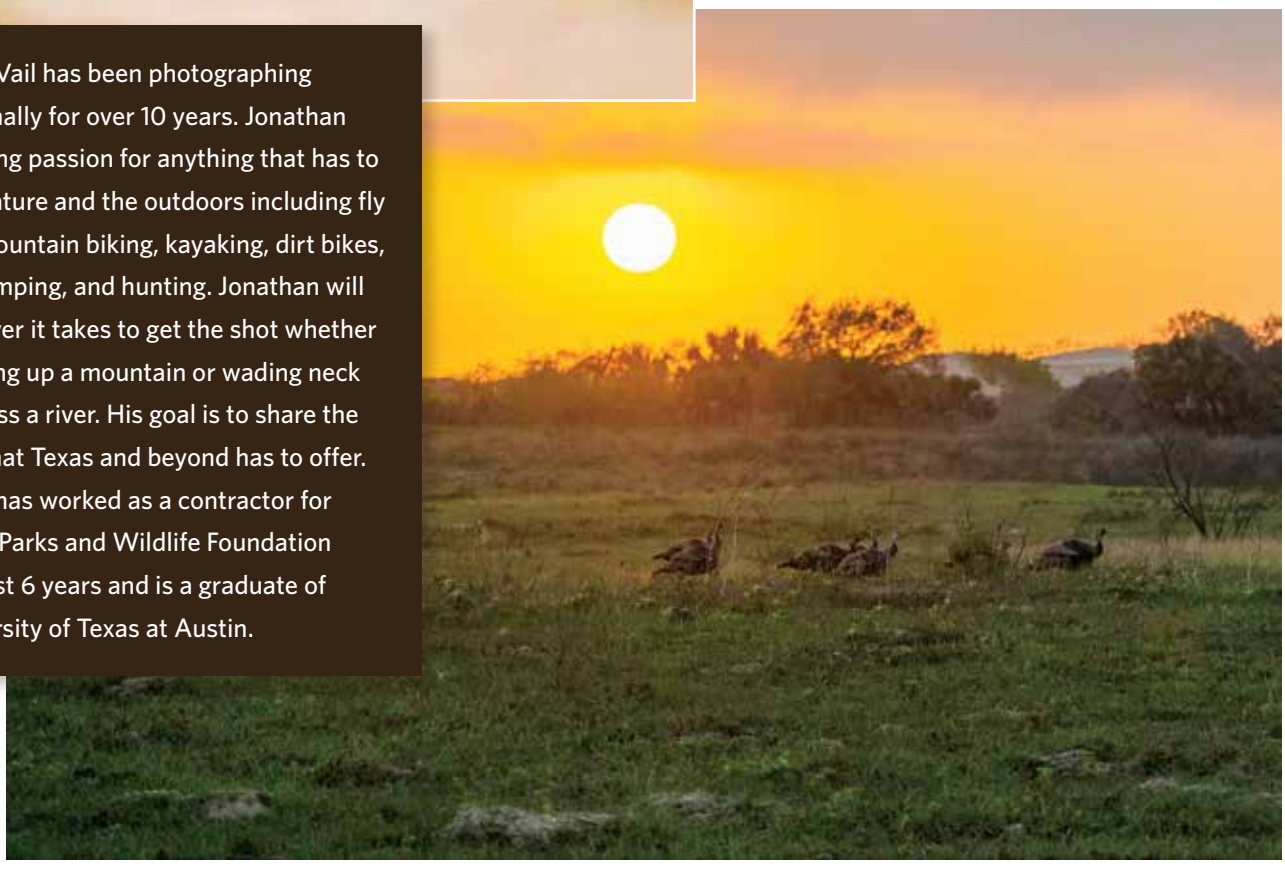
Be it in late summer, autumn, winter, or springtime, the San Antonio Viejo, El Sauz, and adjoining Foundation properties, the wealth of knowledge and photographic files gained from the years traversing this intriguing landscape has enriched not only my own appreciation for the physical features and life in the Wild Horse Desert region of South Texas but too, the culture that has defined it for centuries past. It is my opinion that the years spent on such a monumental endeavor has enriched my own life beyond all expectations. For that I want to thank Neal Wilkins, David Langford, and the board members of the East Foundation for entrusting me to engage so intimately with a piece of our Texas representing a history so fragile and fleeting, and so reveal its intriguing past and hopeful present to all who share our love for what once was, and what remains, carefully managed and nurtured, to this day.

WYMAN MEINZER

Wyman Meinzer is a photographer and naturalist and was appointed in 1997 by Gov. George W. Bush and the state legislature as State Photographer of Texas. He is the creator of more than two dozen pictorial works, including Horses to Ride, Cattle to Cut – The San Antonio Viejo Ranch of Texas. From his home base in Benjamin, Texas, he continues to explore Texas and the West to share his vision in some of the world's most prestigious wildlife publications and ambitious book projects.

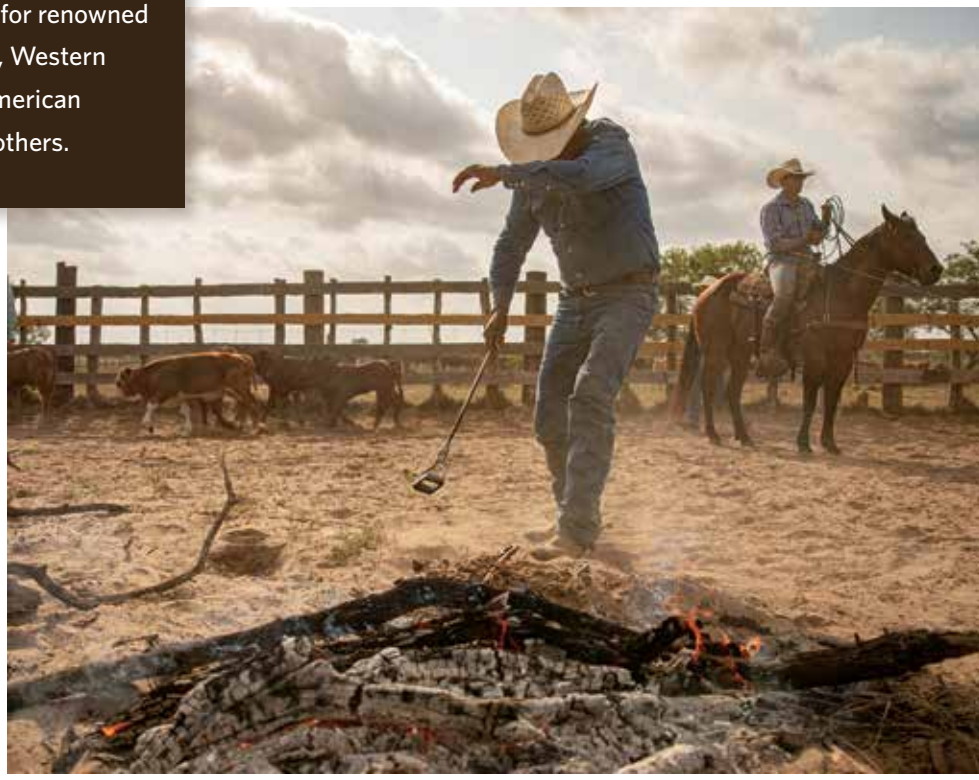
JONATHAN VAIL

Jonathan Vail has been photographing professionally for over 10 years. Jonathan has a strong passion for anything that has to do with nature and the outdoors including fly fishing, mountain biking, kayaking, dirt bikes, hiking, camping, and hunting. Jonathan will do whatever it takes to get the shot whether it's climbing up a mountain or wading neck deep across a river. His goal is to share the best of what Texas and beyond has to offer. Jonathan has worked as a contractor for the Texas Parks and Wildlife Foundation for the past 6 years and is a graduate of the University of Texas at Austin.



EMILY MCCARTNEY EIGUREN

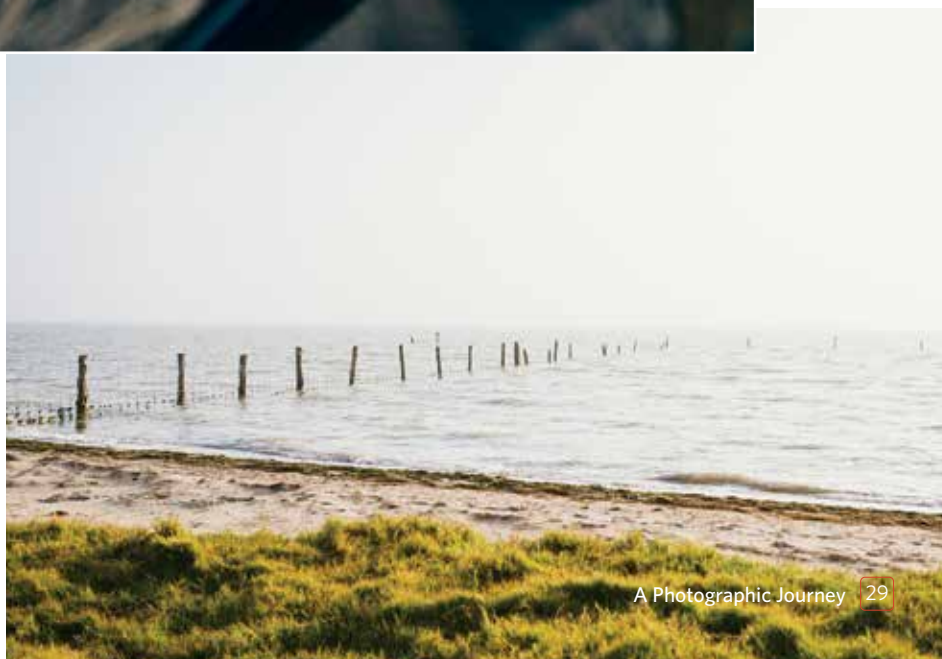
True to her roots, Emily McCartney Eiguren specializes in western photography where she combines her love for the ranching way of life with her creative image making and passion for art. Emily graduated from Texas Tech University in 2017 and launched her career as a full-time freelance photographer. In December of 2019, Emily opened Roadrunner Gallery in her hometown of Throckmorton, Texas. Emily stays busy shooting for renowned outdoor companies such as YETI, Western Horseman, B&W, Resistol, the American Quarter Horse Association, and others.



With a keen eye for the perfect angle, photographer Knox Kronenberg creates stunning large-scale works that transport viewers to a world both timeless and contemporary. Knox explores the complexities of the human experience and the way history and tradition intersect with modernity. His photographs showcase the beauty of the natural world, as well as the structures and artifacts that make up our built environment.

NICK KELLEY

Nick Kelley is a photographer who lives in Colorado with his wife Maddie and dog Tuco. He can be found near water, mountains (small ones), people doing what they love, and sometimes by a TV if there is a soccer game or folks playing sports. His work has been featured in dozens of publications including Garden and Gun, Outside Magazine, Town and Country, and Outdoor Life.



CURRENT

SCIENCE SPOTLIGHT

By Lindsay Martinez

INVESTIGATING HOW GRAZING STRATEGIES IMPACT LIVESTOCK PRODUCTIVITY

In 2014, the East Foundation established the Coloraditas Grazing Research and Demonstration Area in the northernmost part of the San Antonio Viejo Ranch. The 18,538-acre Coloraditas was divided into ten pastures to study different cattle grazing strategies, including continuous grazing within pastures versus rotational grazing between pastures that provides consistent rest for the pastures. In a long-term experiment, East Foundation prescribes cattle grazing in areas of the Coloraditas under these two strategies and then compares outcomes related to livestock productivity and rangeland conditions.

> " If rotational grazing results in greater improvements in range condition over time compared to continuous grazing, modest short-term depressions in cattle productivity could be offset by increases in overall carrying capacity in the long term. "

East Foundation found that livestock weaning weights were slightly lower under rotational grazing systems than continuous ones. Now in Phase II of the Coloraditas study, East Foundation is investigating the mechanism behind this result. To do so, East Foundation and Texas A&M University are monitoring cattle diet and total intake in the Coloraditas by collecting regular fecal samples and weights, respectively. This research will help uncover whether diet quality or quantity of consumed forage – or a combination of both – is causing the lower livestock weight gains observed under rotational grazing.

Knowing why rotational grazing may lead to lower productivity can help adapt the grazing strategy and achieve better cattle production results. Alternatively, if rotational grazing results in greater improvements in range condition over time compared to continuous grazing, modest short-term depressions in cattle productivity could be offset by increases in overall carrying capacity in the long term. We are continuing these experiments to evaluate these long-term responses.

MONITORING RANGELANDS AT THE SAN ANTONIO VIEJO RANCH

In summer and fall seasons, a group of East Foundation rangeland ecology technicians sample vegetation at points throughout the 10 pastures of the Coloraditas Grazing Research and Demonstration Area at the San Antonio Viejo Ranch. Technicians identify all grass and forb species within 50-centimeter by 50-centimeter quadrats at the designated points. Then, they clip and dry the vegetation in the quadrant to calculate the amount of biomass present. Like many ranch operators, East Foundation uses the vegetation sample data to estimate total standing forage crop within entire pastures and then prescribe appropriate cattle stocking rates for the season. In the Coloraditas, each sampling point also has a small exclosure nearby to allow monitoring of grazed versus ungrazed vegetation and quantification of any changes in vegetation composition resulting from grazing treatments.

Long-term, East Foundation also uses rangeland monitoring data to investigate how continuous and rotational cattle grazing strategies impact the quantity and quality of vegetation available to both cattle and wildlife. Further, East Foundation monitors how rainfall and drought impact vegetation. We aim to continue to explore methods to effectively increase the scale and quality of our data collection efforts, so that better decisions can be made from better information. In total, our monitoring efforts provide a unique opportunity for collecting long-term data to explore how both ranch management and environmental conditions impact South Texas working rangelands.

OCELOT FIELD RESEARCH SUPPORTS CONSERVATION

From December 2023 to April 2024, four male and three female free-ranging ocelots were captured for research on East Foundation's El Sauz Ranch before being safely released back to the wild. East Foundation and partner Caesar Kleberg Wildlife Research Institute (CKWRI) collected biological samples from the captured ocelots to study their genetics, reproduction, health, and diet. Captured ocelots were also fitted with GPS-equipped collars that can track the cats' movements for up to a year. Meanwhile, East Foundation and CKWRI also monitored ocelots at the population level at El Sauz, using methods such as an increasingly expansive game camera grid and working dogs trained to sniff out ocelot scats.

In 2024, East Foundation and CKWRI plan to break ground on an Ocelot Conservation Facility in Kingsville, Texas. There, ocelots can be bred naturally, and East Foundation can conduct assisted reproduction procedures using genetic samples collected from wild ocelots at El Sauz. East Foundation's work to research ocelots and conduct captive propagation supports implementation of a March 2024 Safe Harbor Agreement to reintroduce endangered ocelots to the Foundation's San Antonio Viejo Ranch – a property with available habitat but no existing ocelot populations.

Landen Addison

ONE STEP AT A TIME

BUILDING THE NEXT GENERATION OF LAND STEWARDS

Landen Addison is the Digital Communications Coordinator for the East Foundation, where she works with the Communications Team and other Foundation staff to create and distribute informative and engaging content that advances land stewardship through the Foundation's social media, web, and other digital platforms.

"Land stewardship is a deeply held inner conviction that compels and inspires people to be responsible caretakers of the land entrusted to them. The motivation for this stewardship is based on three essential things: present benefits to the landowner; benefits to future generations; and the benefits that accrue to society outside of the boundary of the land." - Steve Nelle.

In Texas, effective land stewardship involves conserving natural resources, defending ecosystems, sustaining agriculture practices, mitigating natural disaster risks, and supporting the state's economic and cultural well-being - it's about all these aspects working in harmony, each dependent on the other, to ensure a sustainable future for our lands.

"East Foundation is focused on developing land stewards and leaders by providing opportunities and experiences at every stage possible - from grade school to postgraduate education and even into their early professional years. We are shaping the future of land stewardship. Our programs, events, internships, research positions, and more are not just about learning but about transformation," said Tina Buford, the Foundation's director of education.

By encouraging students throughout their critical developmental years, their educators can instill a deep appreciation for Texas' natural resources and inspire them to implement responsible land stewardship practices in their personal and professional lives.

The future of land stewardship in Texas is not just a distant concept but a reality that we all have the power to shape together. The outcome depends on what current generations of students, professionals, and leaders are learning from today's land stewards and what they will add to our understanding of land stewardship over the coming decades. East Foundation's education team teaches students that furthering their education and gaining valuable experience allows them to be active participants in the journey rather than passive observers.

PROGRAMMING FOR SUCCESS

So, how are land stewardship-minded leaders developed? Therein lies the challenge. In the Foundation's experience, these leaders are not fostered or empowered with one exposure or touch. The barrier educators face is that, for most, they have to start with the basics of the subject to build a strong foundation for the fundamentals of land stewardship.

East Foundation's Behind The Gates education programs offer lessons through classroom learning experiences, trips behind the gates of their working cattle ranches, and virtual interaction. Additionally, they run a 10-week Land Stewardship Ambassadors (LSA) program in partnership with The Witte Museum for high school students. The immersive course covers a range of natural resource-related subjects, equipping the next generation with the knowledge and skills to make informed decisions about land management.

Behind The Gates Field Days occur at the San Antonio Viejo and El Sauz Ranch locations, where students are encouraged to connect with the natural world while learning about ranching, wildlife, and land stewardship. From virtual classroom visits to immersive field experiences, these multifaceted educational programs are planting the seeds of environmental consciousness in young minds, nurturing a lifelong commitment to sustainability.

PARTNERING FOR PROGRESS

Of course, East Foundation's programs would not be as impactful or far-reaching without the help of their valued conservation partners. Buford mentioned, "When I think of the East Foundation and our collaboration with partners, I think one of the greatest impacts results from our connections with higher institutions and those like-minded organizations that can further shape students' lives."

East Foundation's Behind The Gates programs can be seen as a pipeline - trickling into new learning opportunities for students each step of the way. "We first want to introduce them to the land at a basic level, but the possibilities are endless from there," said Buford.

By providing various intensities of engagement and learning, South Texas students have the means to graduate from high school and go into college, if desired, with a peaked interest and passion for land stewardship and conservation. This becomes a step where the Foundation's partners are instrumental, as leaders at Texas A&M Natural Resources Institute, Caesar Kleberg Wildlife Research Institute, Texas Wildlife Association, and others step up as mentors and guides, nurturing that initial spark into a potential career path or educational opportunity focused on environmental conservation and responsible land management.

Roel Lopez, Department Head for Rangeland, Wildlife, & Fisheries Management, and Director of the Texas A&M Natural Resources Institute, provides leadership in wildlife ecology and natural resource management. In his role, he leads efforts in developing the next generation of field experts, lifelong learners, and professionals who will work at the nexus of research and outreach in rangeland grazing, land stewardship, aquaculture, and wildlife management.

With NRI being one of East Foundation's well-established partners, they can offer a more significant impact through combined resources and expertise. "Empowering the next generation of land stewards can be accomplished through our partnership with East Foundation by offering a place and opportunity for such development," said Lopez. "The Foundation develops science-minded managers and management-minded scientists, which best captures the value and strength of our partnership. East provides a mechanism and place for accomplishing this key objective of ours."

CLIMBING THE LEADERSHIP LADDER

By cultivating a new generation of stewardship-minded leaders, there is a greater possibility of responsible management for Texas's valuable land, water, and natural resources for generations to come. These leaders will be better equipped to navigate complex challenges, assist with collaborative solutions, and uphold the principles of sustainability and environmental protection - all of which reflect the goals our education department strives to accomplish through various efforts in South Texas.

The Foundation recognizes that stewardship-minded students can become stewardship-minded citizens, who can then "climb the ladder" to pursue careers as resource professionals, and ultimately transforming into stewardship-minded leaders capable of influencing management, policy, and broader public awareness. East Foundation is confident that teaching students about stewardship early on will continue to develop new leaders driven to care for the environment sustainably. It all starts with the first rung of the ladder – educating the next generation to first think like stewards.

THE TOP RUNG - ACTIVE, EDUCATED, AND EXPERIENCED STEWARDS

"For us, success comes in many forms," said Buford. "A student who participated in Behind The Gates at the Elliff-El Sauz Education Center has since been inspired to practice conservation within their community. Another one of our students participated in a Field Lesson on the San Antonio Viejo Ranch and, as a result, applied and participated in East Foundation's and The Witte Museum's LSA (Land Stewardship Ambassadors) program. That same student applied as a summer intern with the Foundation while aspiring to join the CKWRI (Caesar Kleberg Wildlife Research Institute) research team. Each one is a win. We consider all scenarios that include students inspired by the natural world to be a success so that they take part in conserving the land and all the lives that depend on it."

Justin Dreibelbis, Chief Executive Officer at the Texas Wildlife Association (TWA), has a unique perspective on land stewardship, as it has ultimately shaped his life each step of the way.

He started his career during an internship with a hunting outfitter and wildlife biologist in San Angelo, Texas, with whom he still has a close relationship. "It was because I volunteered as an adult herd leader at the North Texas Buckskin Brigade that I was able to meet several people who either worked for or were passionate volunteer leaders at the TWA."

By the time he was defending his thesis at Texas A&M University for his master's in wildlife, he had a job at TWA in their education program, Conservation Legacy. "I defended my thesis on a Thursday and started work at TWA on a Monday due to the relationships built along the way. I owe a lot of thanks for the opportunities I have personally been given to the leaders who helped me throughout the years - the investment that organizations make in young professionals has a lasting impact," said Dreibelbis.

A SENSE OF PLACE FOR THE FUTURE

With the help of partners, East Foundation plays a vital role in cultivating Texas's next generation of land stewards. They implement a multifaceted approach integrating land stewardship into curricula, promoting community partnerships, and highlighting potential career pathways.

As Dreibelbis explained, "One aspect that makes East Foundation truly special is the South Texas-specific sense of place they instill. Helping kids and future generations from this region understand why it's unique to be from South Texas – learning the history and importance of the natural resources here. It inspires people to return after training and become leaders in conservation for their South Texas communities."

From here, the Foundation continues to inform and educate, combating the statewide issue of disconnected future generations who will one day be charged with caring for our land, water, and wildlife. They are working to solve this issue by relying on valued partnerships, which will continue to result in the expansion of education and opportunities for South Texas. As East Foundation's Behind The Gates programs press on, passionate land stewards and conservationists continue to step up to make better-informed decisions regarding our assets.

"Ensuring children and young adults remain interested in and participate in natural resource conservation is

imperative to protecting our land's future," said Neal Wilkins, East Foundation's president and CEO. "We are committed to this critical work, partnering with others to spark and sustain that passion among youth. By developing a deeper connection to their home region's environment from an early age, our hope is that today's students can become tomorrow's empowered stewards of Texas landscapes."

Education

The East Foundation has been working hard to expand our education opportunities in South Texas, while ensuring that we are developing future land stewards. Our education programs focus on delivering effective programs in the classroom, on the land, and in partnership with like-minded organizations.

DURING THE 2023-2024 SCHOOL YEAR, OUR EDUCATORS HAVE REACHED:

9,929
Classroom Students Reached With Wildlife By Design Programs

1,480
Students On Ranch Field Lessons

42
Land Stewardship Ambassadors Graduates

189
Teachers Who Participated In Summer 2023 Teacher Workshops

3,122
Students At El Suaz and San Antonio Viejo Behind The Gates

East Foundation is committed to providing future generations with the tools to make educated decisions and do what is right for the land and the life that depends on it.

Emily Stribling

MANAGING EAST FOUNDATION RANGELANDS WITH **FIRE**

FLAMES ON THE RANGE

Sandra Rideout-Hanzak is a certified Senior Wildland Fire Ecologist, and she has been a Lead Burn Instructor for Texas' Certified and Insured Prescribed Burn Manager program since 2012. She currently serves as Research Scientist and Professor at the Caesar Kleberg Wildlife Research Institute and Dept. of Rangeland and Wildlife Sciences at Texas A&M University-Kingsville.

Sandra Rideout-Hanzak

Prescribed burning is both an art and a science. It has recent roots in what was formerly called "controlled burning." But it is actually a practice that evolved with humans over millennia. Before European settlement of North America, Native Americans used fire at a landscape scale, and they likely used it more often than we once believed.

There is ample evidence that Native Americans increased the occurrence of fires on the landscape and lengthened the natural fire season. They burned for many reasons including attracting wildlife to freshly burned areas to facilitate hunting; improving their own health by reducing pests such as fleas, mosquitoes and ticks around their villages; increasing the yields of important food plants such as American chestnut and oak trees; driving animals off a cliff as a harvest method (for example, a bison jump); and a wide variety of other reasons at local levels.

Native people had shaped most of the terrestrial ecosystems in North America with fire before Europeans arrived. It was, after all, the most efficient tool they had for manipulating their environment. But their influence wasn't fully recognized, even by ecologists, until we began to understand how drastically ecosystems had changed with the removal of these fires.

LEARNING TO BURN

European settlers had to be quick studies to survive on a continent unfamiliar to them. They learned from watching Native Americans burn frequently and witnessing the resulting benefits to the landscape. Some of the newcomers adopted the tool themselves, but not nearly at the continental scale of the native people. Landowners used fire to clear the land for crop production; improve the quality of forage on their rangelands; and improve deer hunting. They recognized the benefits, even if they didn't always know why or how burning worked.

Today we call the purposeful application of fire to forest or range lands, "prescribed burning." As the name implies, it is a prescription for the improved health of the land, the wildlife, the livestock, and the humans that rely on it. We choose the timing and intensity of the fire, the condition of the fuels, the weather parameters, and the firing plan to create the desired benefit.

While fire is used on East Foundation and other ranches, the use of prescribed fire is not as widespread as it could be. We have a state-wide program for certifying prescribed burners who have taken an approved course and have the proper experience and insurance. This certification program has helped legitimize the practice and provides education courses for people interested in learning how to burn properly. Over the past decade, the reported number of acres treated with prescribed fire annually is typically between 300,000 and 400,000. That may sound like a lot at first blush, but it is considerably less than 1% of the land area of Texas. Thus, the need to educate future generations about the beneficial uses of prescribed burning has never been greater.

BURNING RESEARCH AT EL SAUZ

Enter the East Foundation's cooperative prescribed burning research program at El Sauz Ranch with the Caesar Kleberg Wildlife Research Institute (CKWRI) at Texas A&M University-Kingsville. This program began in 2016 with a patch burning design using 10 patches of at least 500 acres each. Patches were randomly assigned to either summer burning, winter burning, or control (no burning) treatments. Patch burning is a method of using prescribed fire in patches within large pastures. Livestock remain free to graze throughout the larger pasture before, during and after burning. This allows them to self-regulate their grazing and move into a recently burned area when there is sufficient regrowth. The result is a dynamic mosaic of both burning and grazing pressure across the larger landscape.

> " From a landowner's perspective, there is a very visual, almost visceral, demonstration of the benefits of burning when you see areas that were dominated by old stands of Gulf cordgrass exhibit greater diversity after burning. "

The first round of burning at El Sauz was concentrated along the Gulf Coast. Much of this area was dominated by Gulf cordgrass along low-lying, clayey flats. Gulf cordgrass is a large bunchgrass with coarse leaves that will poke you. When it's mature it is poor forage for livestock and has little value for wildlife. Initially, researchers and graduate students focused on mortality of Gulf cordgrass and herbaceous plant diversity. The Foundation and CKWRI partners found that season of burning had no impact on mortality of Gulf cordgrass, but hotter fires resulting from higher fuel loads killed more cordgrass. Plant diversity was increased with burning in either season. We also studied nutritional quality of forage and distribution of cattle and found that winter burning was better than summer burning for increasing nutritional quality. Both seasons improved cattle distribution, attracting cattle from rangelands adjacent to the burned area.

BURNING FOR BENEFITS

"From a landowner's perspective, there is a very visual, almost visceral, demonstration of the benefits of burning when you see areas that were dominated by old stands of Gulf cordgrass exhibit greater diversity after burning," said Jason Sawyer, East Foundation's chief science officer. "This project has given us the advantage of creating beneficial grazing pressure across large pastures without the cost of adding infrastructure required to move livestock around."

The prescribed burning project was expanded in 2019, and currently there are 16 patches that range from 500 to 1,200 acres. Patches continue to receive either summer or winter burning (or control treatments), and some patches are burned on a short interval of three years while others are burned on a long interval of five years. Short-interval patches have all received their second or third treatment, while long-interval patches have received one or two. Most recently, researchers have investigated effects of the prescribed burns on butterfly populations, nearest neighbor relationships in herbaceous plants, and tick populations, as well as Texas tortoises with colleagues at Texas A&M University.

Researchers found that neither season of burning had a positive impact on butterfly abundance or diversity; however, summer burning sometimes negatively impacted butterfly abundance, while winter burning did not. The study also determined there is no difference between winter and summer burning in fire temperatures. Texas tortoise, herbaceous nearest neighbor relationships, and tick studies are ongoing. Findings to date lend support for burning during the winter over burning during the summer, which also has the added benefit of being less physically demanding for burn crews with reduced risk of heat-related injuries and illnesses.

BURNING AS LEARNING

One of the unique aspects of these prescribed burns is the use of a burning crew that is largely made up of both undergraduate and graduate students and supplemented by East Foundation employees and interns. Over the years, approximately 470 burn days have been completed by Texas A&M University-Kingsville students alone, and East Foundation interns from other universities have also participated. This is experience not often provided in a university course and is sometimes difficult to obtain through other avenues.

"Before coming to South Texas, I had been on many prescribed fires before, but nothing even close to the magnitude of what we do at El Sauz," said current M.S. student, Forrest Fay. "This project has given me a new understanding and appreciation of fire as a land management tool, as I get to see the conditions beforehand, then personally conduct the fires, and finally see how the landscape changes over time following fire."

These opportunities have given students a head start on the experience requirements for becoming certified burners in Texas, and East Foundation employees have gained valuable experience that has allowed them to begin applying prescribed fire to other foundation properties.

> " East Foundation exists to answer land stewardship questions that no one else can. "
>
> – Tyler Campbell, Science Manager East Foundation

However, the opportunities for education at El Sauz reach even further than college students and foundation employees.

"Acre per acre, El Sauz receives more traffic than any other East Foundation property, and it has a 12,000-acre prescribed fire experiment," says Neal Wilkins, East Foundation's President & CEO. "The exposure to everyone from elementary school children to Texas Master Naturalist groups to U.S. Fish and Wildlife Service personnel is fantastic. Everyone who visits El Sauz for any reason gets a lesson on fire ecology at various stops right along the main road. They see a control area, areas that have been burned three times, and areas that have recently been burned within the past few months. Where else can you see that much diversity of fire history within an hour?"

Ultimately, the value of the prescribed fire program at El Sauz lies in the knowledge and understanding gained through the project.

"East Foundation exists to answer land stewardship questions that no one else can," said Tyler Campbell, East Foundation's science manager. "Our prescribed fire project is unique and important in that it is being conducted on an operational scale (average treatment plot/patch is 735 acres) and over a long period of time (decades). The greatest benefit from this project is knowledge. Prescribed fire recommendations generated from our study of coastal rangelands in South Texas will equip landowners with knowledge to apply fire to their lands for maximum benefit – to livestock and wildlife."

GULF CORDGRASS AND FIRE

GULF CORDGRASS (SPARTINA SPARTINAE), ALSO CALLED SACAHUISTA, is a large bunchgrass species along the South Texas coast that can be a management challenge for ranchers. The grass features evergreen leaves that become stiff and unpalatable as it matures. Over time, unmanaged gulf cordgrass can reduce plant diversity and form a monoculture, limiting the growth of other grasses and forbs under its thick canopy at maturity. Once it reaches this stage, gulf cordgrass is poor forage for cattle and wildlife, who often prefer not to even travel through these stands.

Fire on these landscapes opens the cordgrass canopy and allows for a diversity of plant species to emerge and establish. This increase in diversity has been shown to directly benefit a wide range of wildlife species including bobwhite quail, white-winged dove, migratory songbirds, waterfowl, and white-tailed deer. Removing the mature, coarse portions of the cordgrass canopy also stimulates new growth on those plants and makes that new growth more accessible for herbivores. In burn plots on our El Sauz ranch, gulf cordgrass crude protein content more than doubled for at least 90 days following a burn.

Increases in plant diversity and forage quality also make burned sites more attractive to livestock and wildlife. Cattle increased time spent in burned areas four-fold over unburned sites – meaning that they spent less time on other sites, effectively resting them from grazing. Burning patches within large pastures may create similar benefits as rotational grazing strategies, but without the costs associated with fencing and moving cattle. These combined effects benefit both cattle and wildlife and improve overall rangeland heal.

For more information on our El Sauz patch-burn study, read our Management Bulletin #5, Patch Burning as a Management Tool for Coastal Rangelands in South Texas, at https://eastfoundation.net/media/management-bulletins/.

PROUD PARTNER

Texas Farm Credit is dedicated to fostering the future of conservation through education in collaboration with the East Foundation. As a proud partner of the East Foundation's Behind the Gates program, they extend their support to promote land stewardship and environmental education in South Texas.

Through Behind the Gates, Texas Farm Credit joins hands with the East Foundation to provide students from diverse backgrounds, including underserved communities, with immersive learning experiences. These experiences, held on the Foundation's expansive ranches, offer interactive lessons that encourage students to forge connections with the natural world through hands-on outdoor activities.

"At Texas Farm Credit, we're honored to stand alongside the East Foundation in championing the Behind the Gates educational program," said Texas Farm Credit Chief Operating Officer, Jolene Curtis.

Through this partnership, Texas Farm Credit continues to invest in the region's youth, ensuring that they are equipped with the knowledge, skills, and leadership qualities necessary for the sustainable management of South Texas' precious rangelands. Their collaboration with the East Foundation exemplifies a dedication to building a brighter, more environmentally conscious future for generations to come.

" OUR PARTNERSHIP UNDERSCORES OUR FIRM BELIEF IN NURTURING THE NEXT GENERATION OF STEWARDS FOR OUR LAND AND WILDLIFE. TOGETHER, WE'RE INVESTING IN A FUTURE WHERE AGRICULTURE AND CONSERVATION THRIVE THROUGH KNOWLEDGE AND ACTION. "

TEXAS FARM CREDIT

East FOUNDATION

SPONSORS

Investing in a Bright Future for South Texans

Engaging with like-minded Sponsors is an important aspect of the East Foundation's mission to promote the advancement of land stewardship through ranching, science, and education.

Support from our Sponsors functions as a force multiplier for the Foundation, enhancing our ability to deliver on our mission and programs. Together, we educate and promote future leaders, professionals, and conservation-minded citizens who will value and support Texas' rangelands, as well as the private land stewards who make Texas a vibrant, diverse, and unique place for people and wildlife to live.

A special thanks to the following Sponsors that have invested in the East Foundation's mission, programs, and facilities.

JAMES R. AND JUDY C. ADAMS

Duck Camp

East FOUNDATION BOARD OF DIRECTORS

ENBRIDGE

Fin&Fur FILMS

VICTORIA FLAVIN AND FAMILY

Our Texas Our Future H-E-B

H. YTURRIA FAMILY

DOUGLAS J. KISGEN

MAKENA

Mays Family FOUNDATION

San Antonio Stock Show & Rodeo

TEXAS FARM CREDIT

TEXAS REGIONAL BANK
The people you know.™

TEXAS SECTION SOCIETY FOR RANGE MANAGEMENT

THOMAS AND SONJA VANDIVIER CHARITABLE FUND

WILDLIFE SYSTEMS EST. 1987 SAN ANGELO, TX

To find out more about partnering with the East Foundation through sponsorship opportunities, contact James Powell at jpowell@eastfoundation.net.

Thank You To Our Partners

East Foundation engages with like-minded partners, both at the individual and organizational level, to fulfill our mission. Our partners consistently demonstrate a commitment to excellence in land stewardship and education regarding the conservation of our natural resources.

East
FOUNDATION

200 Concord Plaza Drive
Suite 410
San Antonio, Texas 78216

eastfoundation.net