East FOUNDATION

ANNUAL 2025

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

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 established with a bequest from the estate of Robert East in 2007. In pursuit of our mission, we use our 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

Publications Staff

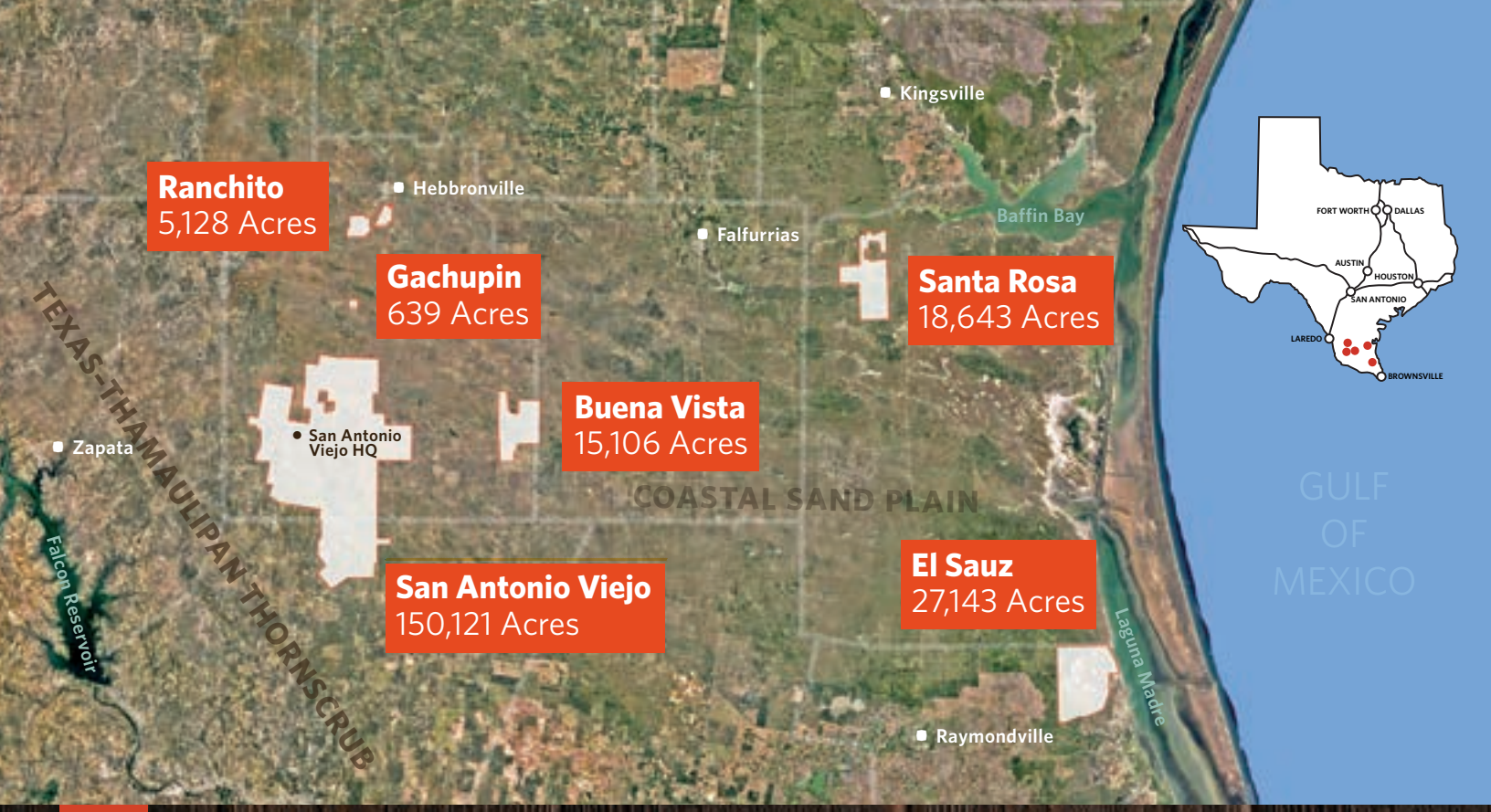
Neal Wilkins, CEO and Publisher
James Powell, Editorial Director
Kristine Robb, Managing Editor
Todd Snelgrove, Editor
Shawn McCraw, Creative Director and Graphic Designer

Cover Photos

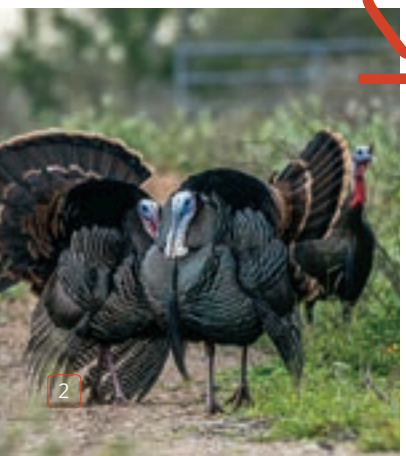
Emily McCartney, Knox Kronenberg

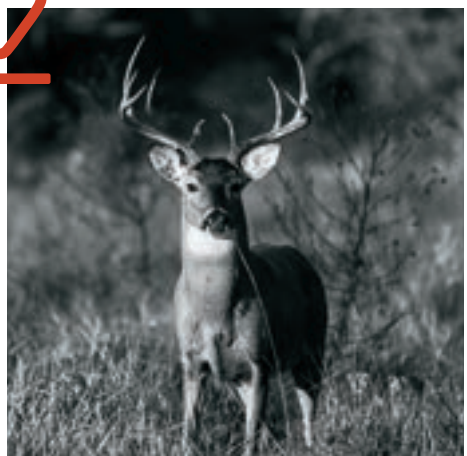
Printer

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



About East Foundation





Knox Kronenberg, Emily Stribliing, Jonathan Vail

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.

Emily Stribling

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

Our Land & Operations

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. East Foundation was established with a bequest from the estate of Robert East in 2007.

Today, we operate 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.

SCREWWORMS AGAIN?

Neal Wilkins, East Foundation President & CEO

In our recent newsletters, on our website, and through our social media, we have highlighted the reemerging New World Screwworm threat, including the historic work of Edward Knipling and Raymond Bushland in developing the Sterile Insect Technique, the primary method for eradicating New World Screwworms. Knipling and Bushland pioneered the use of sterile screwworm flies to eliminate screwworm infestations throughout North America.

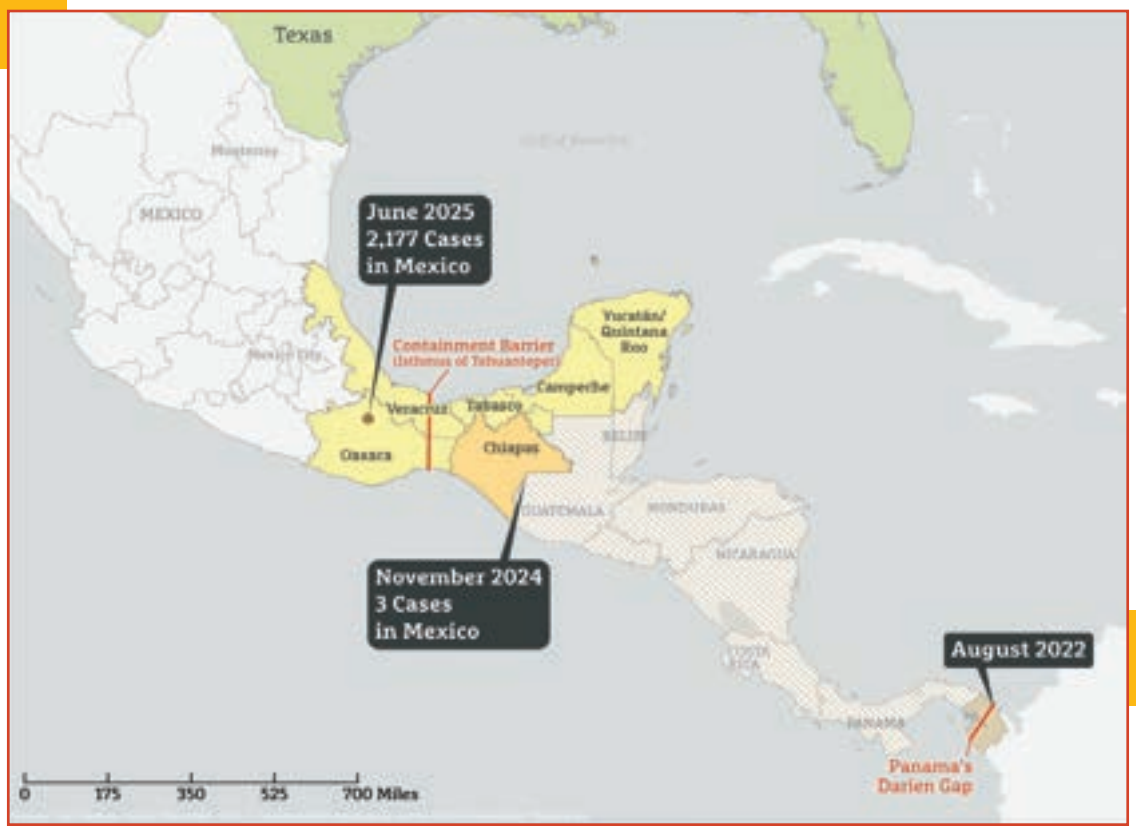
Last winter (2024), screwworms had advanced into southern Mexico, with three reported cases in livestock in the state of Chiapas. This prompted the USDA to temporarily close the U.S. border to Mexican cattle imports. The most recent movement began when screwworms breached the containment barrier at Panama's Darién Gap in 2022. By November 2024, screwworm infestations had spread over 1,000 miles through Central America and entered Mexico.

Over the past five months (through June 17, 2025), the number of reported screwworm cases in Mexico has surged from three to 2,177, with the count increasing weekly – even as you read these words. During this period, reported cases have spread northward over 300 miles and are now present in seven Mexican states. In early May 2025, the USDA again closed the U.S. border to Mexican cattle imports after Mexico reported screwworms in livestock in Oaxaca and Veracruz—approximately 127 miles north of a secondary containment barrier at the Isthmus of Tehuantepec, the narrow region of southern Mexico. As of now, the closest reported case is about 700 miles from the U.S. border.

WHAT ABOUT STERILE FLIES?

This progression through Central America and southern Mexico occurred despite the application of sterile screwworm flies from the sole production facility in Panama. At full capacity, the Panama facility produces approximately 100 million flies per week. During the previous U.S. infestation, three sterile fly production facilities operated in Mission, Texas; Chiapas, Mexico; and Panama. At their peak, these

facilities collectively produced up to 700 million sterile flies per week for dispersal. This stark contrast highlights the need to restore greater production capacity for sterile flies. Efforts are underway to address this issue.



Through the Texas and Southwestern Cattle Raisers Association, Texas Wildlife Association, South Texans Property Rights Association, and other groups, ranchers are urging Congress and the USDA to allocate funds for a new U.S.-based facility to produce sterile screwworm flies as well as a dispersal facility in Texas. Additionally, the Secretary of Agriculture has committed funding to equip an existing fruit fly facility in Mexico to produce sterile screwworm flies. It remains unclear how long it will take for these new facilities to become operational, but some estimate it could take two to three years to achieve the production levels needed to push screwworms back toward the former containment barrier. In the meantime, we must optimize the use of the limited sterile screwworm flies available.

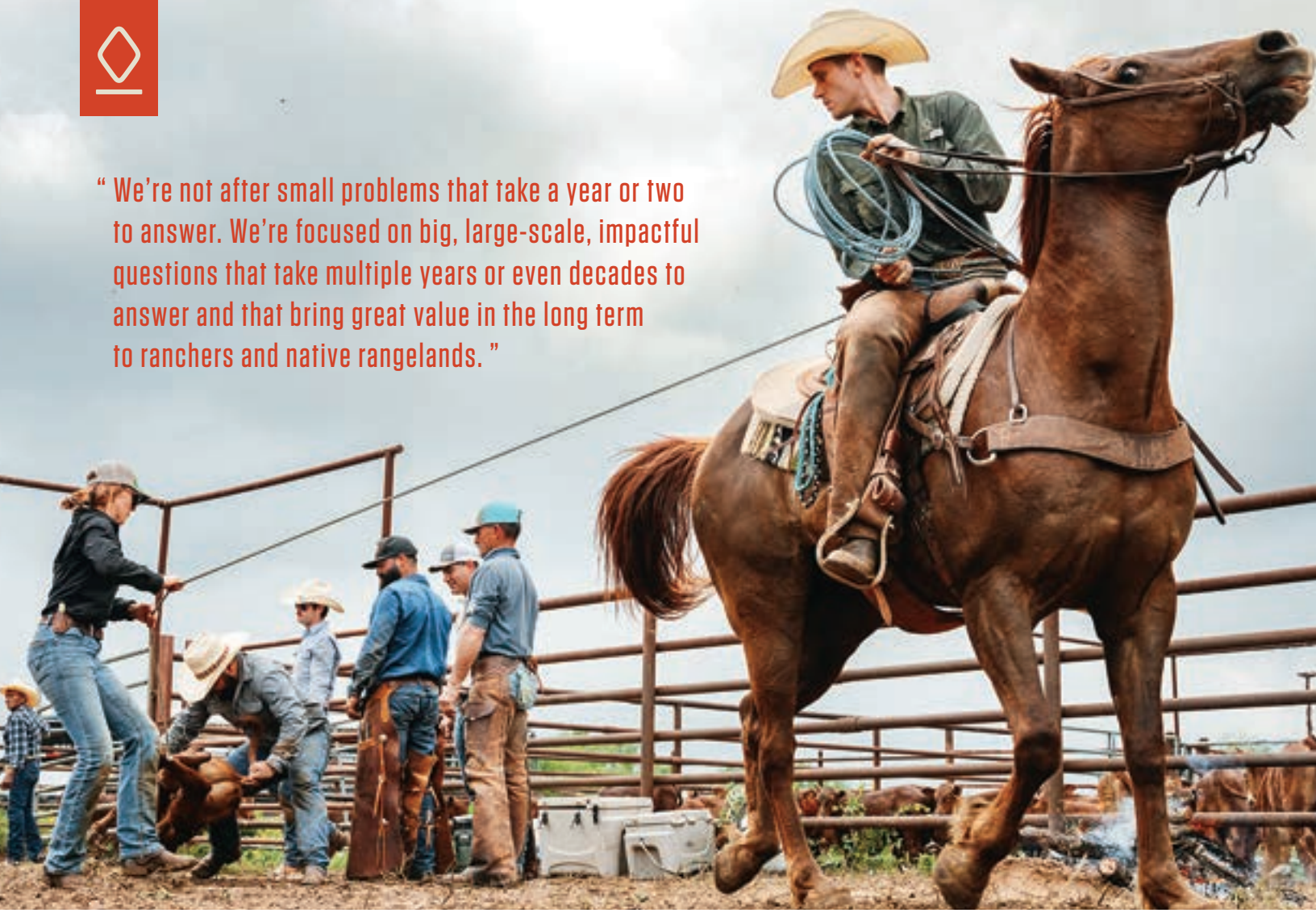
At the USDA, there is growing attention to the looming risk of infestation in the U.S. Scientists at the USDA's Knipling-Bushland U.S. Livestock Insects Research Laboratory in Kerrville have been researching innovative methods for more effective screwworm control. One promising approach involves a genetically modified strain of screwworms that can be manipulated for a process that only yields sterile males. This method effectively doubles production capacity while reducing the radiation required for sterilization, as female flies require more radiation to sterilize. If authorized, this technology could significantly enhance screwworm eradication efforts. Other innovations, if implemented, could further strengthen the arsenal for screwworm control. A group of scientists recently published an overview in the journal *Science* discussing the ethical arguments for using these innovative technologies to deliberately eradicate screwworms. It is an insightful read.

WHAT DO WE DO NOW?

While efforts to increase capacity for combating screwworms through both traditional and new technologies are encouraging, immediate action is still needed. Hoping screwworms do not cross the U.S. border is insufficient as a strategy. Ranchers who experienced the hardships of screwworm infestations through the 1960s are valuable advisors on the challenges we may face. In the short term, we need guidance on the legal and ethical use of drugs for preventive treatment in cattle and wildlife. Clear direction on surveillance, reporting protocols, containment, and response measures is also essential. For this, we must rely on agency officials at the USDA, the Texas Animal Health Commission and Texas Parks and Wildlife Department. For education and outreach, the Texas A&M AgriLife network is critical. Additionally, we must stay engaged with USDA scientists and officials as they develop tools for control.

We may not be able to completely prevent screwworm infestations, but through preparation, we can mitigate their impact while developing the means to eradicate them once again.

With luck, we might avoid the worst.



“ We’re not after small problems that take a year or two to answer. We’re focused on big, large-scale, impactful questions that take multiple years or even decades to answer and that bring great value in the long term to ranchers and native rangelands. ”

SCIENCE WITH ITS BOOTS ON THE GROUND

Science is the Bedrock of East Foundation’s Mission

By Burt Rutherford

It's easy to assume, given an outfit whose reputation is so firmly rooted in science as East Foundation, that crystal balls aren't part of the planning process. But that doesn't mean that the people both inside and outside the organization don't have the future firmly in mind.

"We want to anticipate those issues that would present the biggest challenges or greatest opportunities for native rangelands and their managers in Texas and elsewhere. Then, we focus on developing science-based answers to help ranchers and other land stewards solve the problems we're going to face in the future with better decision making."

In a nutshell, that's how East Foundation President & CEO Neal Wilkins describes what they're about. And science will get them there.

"We're not after small problems that take a year or two to answer. We're focused on big, large-scale, impactful questions that take multiple years or even decades to answer and that bring great value in the long term to ranchers and native rangelands," he adds.

Easy, right?

"Well, we do work in a harsh environment," Wilkins admits of the 217,000 acres of South Texas rangeland where the Foundation's ranches are that all but guarantees a significant set of challenges when doing research on a large scale in a harsh environment. "But if you can prove things work in a harsh environment, you can often make them work in a more moderate environment."

East Foundation, a respected but relative newcomer to the scientific research scene, carries out that mission in three different areas—livestock production, wildlife conservation, and range science, with rangeland tying everything together. After all, you can't have efficient livestock production and healthy wildlife populations without a healthy landscape.

SCIENCE ON THE RANGE

To that end, East Foundation is conducting large-scale and long-term range science research that's already been underway for longer than many similar trials, according to Dr. Andrea Montalvo, who leads the research from her location in Hebbronville.

She's been studying the impacts of different grazing applications on bobwhite quail for around 10 years. The research is unique, given the nature of the South Texas landscape. "There have been a lot of grazing studies all over the country, particularly in Texas, but few that replicate real-world scenarios, in our opinion," she says (See sidebar).

Another research trial goes to the heart of the Foundation's ranching business. Foundation staff have been on a long-term herd improvement effort to produce the ideal South Texas cow. Enter the genomics project.

Genomics is the process of sequencing the DNA of an individual animal, identifying the genetic potential that animal possesses, and then including that in an EPD, or expected progeny difference estimate, for greater genetic accuracy.

" East Foundation is conducting large-scale and long-term range science research that's already been underway for longer than many similar trials. "

"My view is that most of the efforts to incorporate genomics into cattle breeding have been on the seedstock side," according to Dr. Jason Sawyer, Chief Science Officer for East Foundation. "For commercial producers, it is difficult to feel you can get any direct value from genomics," he adds, "other than buying bulls that have genomically enhanced EPDs."

So, Sawyer and his team developed an approach where they can get genomic information on every cow, use that to make better decisions in their herd improvement program, and turn it into a research project at the same time.

They reached out to Dr. David Riley, a geneticist at Texas A&M University (TAMU), to join the project. He not only collaborates with Sawyer and his team on their genomics program, but he also uses that data in his own research.

"We are going to use the East Foundation herd as a discovery and validation herd for what we're doing in our own research herds," he says. "We want to use genomics in combination with what we know about hybrid vigor with Bos indicus (Brahman-based) crosses."

Some degree of Brahman influence is essential in East Foundation's crossbred cattle. But how much is enough? That's one of the data points that Sawyer seeks as they work toward an ideal South Texas cow. "This is one way that we envision direct use of genomic information," says Sawyer. "Pedigree based estimates of breed composition are not always accurate, and we want to know not just what percentage Brahman is ideal, but where in the genome it is most valuable."

“ We don’t pretend that our results apply everywhere. You can’t take our research outcomes in South Texas and apply them directly to Nebraska. But we can certainly apply them to tens of millions of acres in Texas, and in the process, train scientists who can then ask the same kinds of questions in a different environment.”

Crossbred cattle have hybrid vigor or heterosis, which is the genetic boost from crossing a cow and a bull of different breeds. By its nature, it creates cattle with more robust DNA, referred to as heterozygosity.

“The thing I really want to know is how does heterosis correspond to genuine heterozygosity in the genome,” Riley explains. “We try to draw conclusions from our own research, and we will check those by doing similar things in (the Foundation’s) work.”

Reproductive traits are the most important traits in beef production, Riley says. Indeed, you can’t sell a calf that’s never born. But they’re hard to improve through genetics because they aren’t very heritable. However, reproductive traits are responsive to heterosis.

"So, some of the things we want to do is look at the regions of the genome and heterozygosity and compare that to heterosis," he says.

The long-term goal? "(If) we could make an animal where they're heterozygous in all the right places, that would result in really high performance for reproduction."

WIN-WIN COOPERATION

Indeed, collaborating with scientists at Texas A&M University and Texas A&M University-Kingsville only strengthens the East Foundation's science program as well as its outreach.

"A lot of questions come up that other people may not have the ability to study," Montalvo says, because universities are often limited by their funding. But when scientists from TAMU and TAMU-Kingsville cooperate on research with East Foundation scientists, everyone wins.

Cooperative research projects with East Foundation have a lot of advantages, according to Dr. David Hewitt, executive director of the Caesar Kleberg Wildlife Research Institute (CKWRI) at TAMU-Kingsville.

"One is to do the types of science (involved with) long-term research projects that can answer questions in this highly variable environment. That's a huge advantage because those kinds of research projects are really difficult, first, to get funded, and secondly, to have places to do them over the long term and at large scale," Hewitt says. "One other big reason is the strategic vision that East Foundation has and how science can fulfill it," he adds. "The grazing projects, the ocelot conservation work that the Foundation is doing, science is a big part of those. So being able to bring our expertise and our scientists to those efforts that have bigger strategic value has been very rewarding."

It doesn't stop there. The partnerships the Foundation and university partners forge not only bring additional science brains to the research, but they also provide fertile ground for master's and Ph.D. students. While the focus of all the research conducted on Foundation ranches is long term, learning comes one data set at a time.

"Most master's and Ph.D. students design a study and produce results within two to three years, and then get out papers," Montalvo says. "That's a good thing for us because any short-term progress we make, we can usually get it published and out into the world for other land managers to learn from."

In addition to published research, working with graduate students enhances the education aspect of East Foundation's mission in other ways.

Glossary of Terms

Genomics: the process of sequencing the DNA of an animal and using this information to predict the genetic production potential of that animal.

EPD: acronym for Expected Progeny Difference estimate. An EPD expresses the relative breeding value of a parent, and its accuracy can be enhanced with results from DNA sequencing.

Heterosis: hybrid vigor, or heterosis, is the production boost from crossing a cow and a bull of different breeds, where the potential of the calf exceeds the average of the parents.

Heterozygosity: the degree of difference among the two versions of each gene in DNA inherited from parents or ancestors. The more different the genes of the parents are, the more heterozygosity is expected in the progeny.

New World Screwworms (NWS): New World screwworm flies *(Cochliomyia hominivorax)* are a devastating pest. NWS fly larvae (maggots) burrow into the flesh of a living animal and cause serious, often deadly damage. NWS can infest livestock, pets, wildlife, occasionally birds, and in rare cases, people.

Cattle Fever Ticks: Cattle fever ticks *(Rhipicephalus (Boophilus) annulatus* and *R. (B.) microplus)* are important cattle ectoparasites in the United States. These ticks have been a threat to American agriculture for generations because they can spread the often fatal disease bovine babesiosis, commonly called cattle fever.

" It's important that we deploy all these research questions in the context of our ranching enterprise or our wildlife management. And the benefit of that is we're measuring how things actually work in a realistic setting. "

"We don't pretend that our results apply everywhere," Wilkins says. "You can't take our research outcomes in South Texas and apply them directly to Nebraska. But we can certainly apply them to tens of millions of acres in Texas and in the process, train scientists who can then ask the same kinds of questions in a different environment."

To that end, East Foundation recruits the best and brightest upcoming scientists from across the country.

"Then we bring them to South Texas, train them here, and work with them to make sure that they end up in positions of importance and influence elsewhere in the country."

So far, East Foundation has trained scientists from around 20 different states and has helped them get placed in positions in states like Maine, Oregon, Virginia, and Florida, as well as Texas.

BOOTS ON THE GROUND

"As a science program, we see our purpose as enhancing decision-making capability for land stewards," adds Sawyer. "That's why we exist as a science program, so every project that we think about then needs to be in that context. Can it fulfill that purpose?"

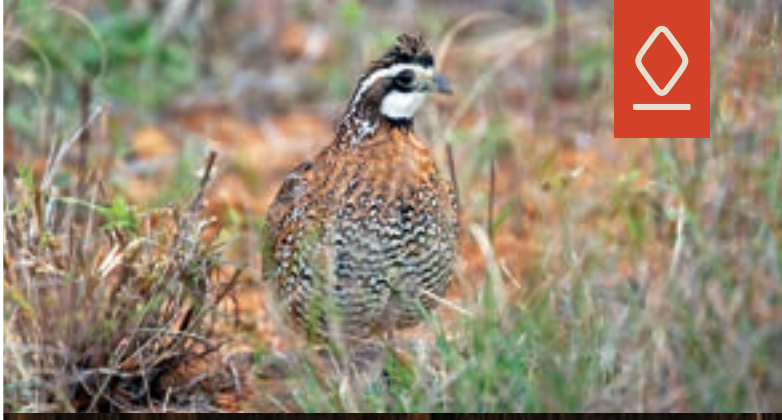
However, while East Foundation is a science-based organization, it's also a working cattle ranch. "It's important that we deploy all these research questions in the context of our ranching enterprise or our wildlife management," he says. "And the benefit of that is we're measuring how things actually work in a realistic setting."

That's where the intersection of science and running an efficient ranch come to a mutually beneficial confluence.

"It's increasingly obvious to us that the next decade in ranch management—livestock management and wildlife management—we're going to have more wildlife and livestock disease interaction," Wilkins says.

Think of current issues like New World Screwworms and cattle fever ticks, for starters.

"So, we try to look around the corner and not just go for whatever the hot topic is at any one moment but anticipate what those hot topics are going to be," Wilkins says. "We're not always right because you can't see the future, but that's our role—take those risks and anticipate what those hot topics are going to be so that we're helpful in leading the development of solutions. Just in time, not too late.



Quail in the Crosshairs

According to Dr. Andrea Montalvo, who heads one of the largest landscape research trials under the East Foundation umbrella, it's common practice for a South Texas rancher (or one anywhere else, for that matter) to look at a pasture and say, "Well, it looks like it'll run a pair to 35 acres."

And they will hold it there indefinitely, inflexible to change, Montalvo says. That may be okay in an area where it rains a little more consistently. But the South Texas drought in 2017 showed clearly what happens to the inflexible.

"Our (percentage of) bare ground skyrocketed, our biomass declined, our bobwhite population declined. And we had to make a decision to destock."

The trial is now looking at how adaptive grazing treatments interact with bobwhite quail and other wildlife. "Our stocking rates fluctuate every fall," she explains. "We measure biomass in every pasture, and we stock cattle based on the standing crop of grass and preferred forbs."

Two different stocking rates are applied based on target forage removal by cattle—25 percent, which is the typical 'take half, leave half' rate that considers both grazing and forage that disappears from trampling and other losses, and a more conservative 12.5 percent harvest target (half as much grazing removal as the 25 percent treatment).

"We have the advantages of time and size, and we're trying to capture fluctuations in grass growth, forb growth," she adds.

While Montalvo's research is focused on livestock and quail, the trial offers other research scientists an opportunity to look at other wildlife, game species, and non-game wildlife alike.

As such, other research is focused on white-tailed deer, she says. "We also look at grazing effects on small mammal and bird populations on those pastures. So pretty much anything that can happen, we try to monitor that change through time and at large scale."

LAND STEWARDSHIP AMBASSADORS

FOSTERING THE NEXT GENERATION

By Landen Addison

What if we could take smart, hard-working students from South Texas high schools and instill in them both knowledge and passion for land stewardship and conservation? Well, that's exactly what East Foundation's Land Stewardship Ambassadors (LSA) program is doing.

Spanning the diverse landscapes of South Texas, Land Stewardship Ambassadors bridges different perspectives by bringing together students from Bexar, Cameron, and Webb counties through a partnership between East Foundation and the Witte Museum. While some participants arrive with a lifelong connection to the land, others are discovering the natural landscapes found across South Texas for the first time—yet all leave with a deeper understanding of how stewardship shapes our collective future.

"Land Stewardship Ambassadors is cultivating the next generation of conservation leaders," notes Neal Wilkins, President & CEO of East Foundation. "These students will go on to make decisions that impact Texas landscapes for decades to come, so we're working to equip them with the knowledge, connections, and confidence to become effective stewards regardless of their background or career path."

The Land Stewardship Ambassadors program stands on three foundational pillars:

- Increase awareness of land stewardship principles
- Promote civic engagement in today's youth
- Inspire careers that support land stewardship

Since its inception, the program has mentored 221 ambassadors, with 45 bright minds recently working their way through the 2025 curriculum. Each graduate carries forward a simple but powerful message: caring for our land means caring for our future.

PROGRAM STRUCTURE AND CURRICULUM

San Antonio, Laredo, and Brownsville all have at least one thing in common: the Land Stewardship Ambassadors program meets students wherever they are in their education journey. East Foundation and the Witte Museum have worked together over the years to establish three learning hubs for the program: The Witte Museum in Bexar County, Camp Rio in Cameron County, and the Falcon Bank in Webb County. These partners have a sense of pride that their program isn't one's typical classroom experience—Land Stewardship Ambassadors students don't just learn about the land; they have a unique opportunity to immerse themselves in a working ranch environment and learn valuable lessons first-hand from various experts.

" These students will go on to make decisions that impact Texas landscapes for decades to come, so we're working to equip them with the knowledge, connections, and confidence to become effective stewards regardless of their background or career path."

"Our program welcomes applications from ambitious high schoolers across South Texas," says Tina Buford, Director of Strategic Partnerships for East Foundation. "The in-person nature of these transformative gatherings means students should be prepared to travel to these central locations. It's this face-to-face interaction—between peers, mentors, and the land itself—that creates the program's distinctive magic."

Once applications are reviewed and participants are selected, students dive into the Land Stewardship Ambassador's 10-session curriculum. Each week, they engage in two-hour sessions that go beyond theory and into practical application. The program covers essential topics including land stewardship fundamentals, conservation history, watershed management, the economics of resource management, effective advocacy techniques, and the critical importance of diversity in conservation efforts.

Students don't just absorb information; they debate real issues, develop practical skills, and connect classroom concepts to the landscapes around them. This hands-on approach transforms their understanding of stewardship from an abstract concept to a potential career path. Upon completing the program, graduates earn a $400 stipend, but most alumni point to the knowledge, connections, and opportunities gained as the program's most valuable rewards.

LSA ALUMNI – MAYRENA LUGO

Mayrena Lugo, a member of the 2023 Land Stewardship Ambassadors cohort, grew up in Laredo, Texas, and learned about the Land Stewardship Ambassadors program through her high school. Her attention was immediately caught by the phrase "seeking students

221
GRADUATES

45
ENROLLED
IN THE 2025 COHORT

3
COUNTIES SERVICED

64
LSA ALUMNI
ENROLLED IN COLLEGE CLASSES THAT SUPPORT/FOCUS ON LAND STEWARDSHIP

14
LSA ALUMNI
IN THE WORKFORCE
WITH JOBS THAT SUPPORT LAND STEWARDSHIP

who want to learn about the environment and hone their leadership abilities." This resonated with her existing interest in wildlife conservation.

Mayrena admits that she didn't know much about land stewardship before joining Land Stewardship Ambassadors and wouldn't have been able to offer a definition. However, she saw the program as an opportunity to build upon her interests and gain potential career knowledge—and her instinct proved correct. Today, as a senior at Texas A&M University-Corpus Christi majoring in environmental science with a chemistry minor, she's presented her research at both the Texas Chapter of The Wildlife Society and Southeastern Association of Fish and Wildlife Agencies conferences and completed an internship with Texas Sea Grant.

When asked about her favorite Land Stewardship Ambassadors activity, she quickly recalled a memory of a scavenger hunt at the Witte Museum. "We gained knowledge as we hurried around the packed museum, eager to find out more and answer questions to get puzzle parts. After only meeting two hours prior, the time we had together was filled with laughter and joy."

Mayrena's experience exemplifies how Land Stewardship Ambassadors focuses on education and that the program strives to provide meaningful connections.

She mentioned that the mentorship component particularly impacted her journey. "Masi (Mejia) was super encouraging throughout the program and became a close friend of mine," Mayrena shared. "Interacting with different mentors gave me a sense of understanding of the different roles in land stewardship and conservation."

One of the most remarkable outcomes of Land Stewardship Ambassadors is that these relationships continue to open doors for her professional development. Now approaching graduation, her goal is to secure an internship with Texas Parks and Wildlife or become an Adult Leader for Texas Brigades Summer Camps before pursuing a master's degree.

"Land Stewardship Ambassadors truly expanded my understanding of land stewardship, transforming it from a passing interest to a career passion," Mayrena reflects. "It gave me the tools, mentorship, and connections to pursue my dreams in conservation and solidified my commitment to making a positive impact on the environment."

CURRENT LSA STUDENT – MICHAEL VILLAREAL

While Mayrena represents a Land Stewardship Ambassadors success story, Michael Villarreal represents

" Land Stewardship Ambassadors truly expanded my understanding of land stewardship, transforming it from a passing interest to a career passion."

– Mayrena Lugo, Land Stewardship Ambassador Alumni

the program's bright future. Michael is one of the current Land Stewardship Ambassadors students enrolled in the 2025 cohort, and a connection to land stewardship runs deep in his family history.

"My family has a rich history in agriculture," Michael explained. "Both sides growing up were invested in growing gardens for the community or being ranch hands in the fields. So naturally, I wanted to be a part of that as well." But Michael sought more than just participation—he wanted to understand. "I thought to myself, 'How can I be a part of this culture and have better knowledge and understanding of this?'" When a pamphlet advertising the Land Stewardship Ambassadors program crossed his path, he immediately recognized it as his opportunity.

The program's structured approach stood out to Michael. "Each week's topic and projects are very informative and exciting," he shared. "The weekend at the Witte Museum, for example, was very fun and educational. The curriculum that the Land Stewardship Ambassadors staff has for the students is challenging, yet once we go through it, we have a better understanding of what it was and how we can become better land stewards."

Beyond environmental education, Michael credits Land Stewardship Ambassadors with significant personal growth. "The teamwork aspect of the program continues to challenge me and has brought me out of my comfort zone to be more open and outspoken. I have become a better presenter and public speaker," he reflects. His current project synthesizes everything he's learned, with the added goal of encouraging others to join the program and "get the experience of a lifetime."

Michael's future ambitions highlight how Land Stewardship Ambassadors inspires concrete career pathways. "I plan on getting my PhD in horticulture at Texas A&M University-Kingsville," he says. "After that, my goal is to become a plant scientist at NASA and maybe one day work at a national park." As his time in the program continues, Michael already recognizes its transformative impact. "Once this program is done, I feel like I will come out way differently than who I was when I first started, and that I have to thank the Land Stewardship Ambassadors staff for that."

THE WITTE MUSEUM

It's evident that the Land Stewardship Ambassadors program changes lives, but East Foundation couldn't do this alone; this program thrives on the partnership between East Foundation and the Witte Museum. Helen Holdsworth is the Witte Museum's Director of Stewardship Education, and she has worked in natural resources, agriculture, and wildlife education for 30 years. Her role is recruiting students from high schools in Bexar and surrounding counties, assisting in hosting each session, and facilitating discussion amongst students.

The students accepted into the program already show leadership traits, whether within their school curriculum or in an extracurricular activity. Throughout the program, they have opportunities to hone those skills through team building, class discussions, and public speaking. The ultimate goal is for them to leave educated about private land stewardship and empowered to be Land Stewardship Ambassadors.

“We continue to communicate with our alumni and keep track of their educational and career paths,” Helen noted. “Some alumni have changed their initial majors based on their experience with Land Stewardship Ambassadors. Many have had no idea about what happens ‘behind the gates’ of a working cattle ranch, but it’s our hope that they leave and share their new knowledge with their communities.”

Helen mentioned that they also look for opportunities beyond the program for Land Stewardship Ambassadors graduates to shine.

“For example, we had a Land Stewardship Ambassadors alumni speak during the Wildlife Seminars at the San Antonio Livestock Show & Rodeo last year.” The program's impact extends well beyond graduation.

As Helen proudly shared, "We've seen alumni go on to do remarkable things, and their achievements demonstrate how Land Stewardship Ambassadors not only educates students about conservation but transforms them into confident advocates who continue to advance land stewardship principles throughout their educational and professional journeys.”

MEASURABLE IMPACTS AND OUTCOMES

As the East Foundation team likes to say, "You can't manage what you don't measure." This principle guides not only their land management but also their educational initiatives.

Although Land Stewardship Ambassador graduates move on to new adventures, they remain a part of the program in many ways. The Foundation tracks how these young stewards carry their experiences forward through ongoing alumni surveys, and the results tell a compelling story: more than two-thirds (67.42 percent) report a deeper understanding of land stewardship principles. This transformation goes beyond facts and figures to a fundamental shift in perspective.

Nearly half of all graduates (44.34 percent) have amplified their civic engagement, applying their classroom discussions directly towards community action. Perhaps most telling, almost 50 percent of alumni are now pursuing educational paths or careers directly aligned with land stewardship, a powerful testament to the program's lasting influence.

Land Stewardship Ambassadors alumni continue to grow and evolve. Today, 32 alumni are still completing their high school journey, 64 have carried these principles into their college education, and 14 have already begun applying their knowledge in professional roles. Each represents a ripple effect of impact across Texas landscapes.

As Masi Mejia, Manager of Education Programs for East Foundation explained, "These numbers aren't just statistics—they're individual students who are reshaping how their generation thinks about conservation." "

VISION FOR THE FUTURE

East Foundation and the Witte Museum's partnership remains focused on their core mission of developing conservation leaders across South Texas as their Land Stewardship Ambassadors program continues to evolve. "We're not just building a program; we're working to cultivate a movement," explains Wilkins.

One thing's for sure—the program embodies East Foundation's commitment to responsible land management through education—transforming principles into practical skills that our future generations can carry forward. For those inspired by this mission, opportunities exist to encourage students to apply for upcoming cohorts, provide mentorship to graduates, or support the program's continued development.

As Texas continues to face growing challenges at the intersection of development and conservation, Land Stewardship Ambassadors graduates represent a generation equipped with both the knowledge and passion to find solutions that secure our shared future.

Students can apply for the 2026 LSA cohorts in the fall of 2025 on our website at https://eastfoundation.net/land-stewardship-ambassadors/.

Education

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 2024-2025 SCHOOL YEAR, OUR EDUCATORS HAVE REACHED:

7,640
Classroom Students Reached With Wildlife By Design Programs

4,324
Students On Ranch Field Days

45
Land Stewardhip Ambassadors Graduates

153
Teachers Who Participated In Summer 2024 Teacher Workshops

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

Our Land Stewardship Ambassadors program is made possible in partnership with the Witte Museum, and the following generous donors:

San Antonio Stock Show & Rodeo

Our Texas Our Future H-E-B

TEXAS FARM CREDIT

SWBC

Albert and Margaret Alkek Foundation

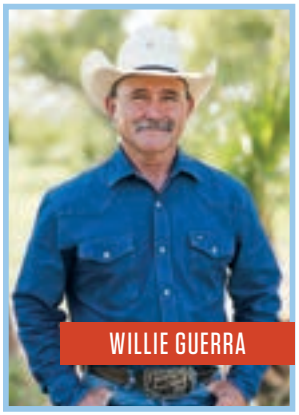
Our People

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, management-focused research, and informative educational programs. Below are highlights of the Foundation's recent hires and news regarding recent awards.

NEW TEAM MEMBERS

Marissa Ruiz
Administrative Coordinator
June 2024

Marissa Ruiz is the Administrative Coordinator for East Foundation. She is responsible for supporting the Chief Science Officer by maintaining efficiency, such as managing calendars, coordinating travel, coordinating meetings with internal and external partners, and special project support. In addition, she works with the Chief of Staff to coordinate and prepare for meetings, staff events, and maintain office efficiency. Marissa has a B.A. in Psychology of Organizations & Development from the University of the Incarnate Word. Over her 30-year career, she has gained valuable experience working in various fields, such as clinical and pharmaceutical research, mortgage and property tax, and healthcare insurance.



Willie Guerra
Unit Foreman
July 2024

Willie Guerra is a Unit Foreman for East Foundation's San Antonio Viejo. In his role, he is responsible for cattle health and condition, grazing rotations, and maintenance of equipment and infrastructure. Willie Guerra grew up on the Bentsen Ranch in South Texas where he found a love for ranching and learned how to cowboy from his father and godfather. Willie has worked on ranches throughout South Texas, several feedyards, and at Tijerina Ranch for 22 years before joining us at East Foundation.

AWARDS AND APPOINTMENTS

Land Stewardship Award from Texas Chapter of The Wildlife Society

East Foundation was awarded the Land Stewardship Award, recognizing landowners who excel in developing, applying, and promoting sound wildlife management principles on their land by the Texas Chapter of The Wildlife Society.

This award recognizes landowners who have been instrumental in the development, application, and promotion of sound wildlife management principles on their land. Special consideration is given to those individuals who, through their leadership, have set an example of hard work and dedication to wildlife resources.

Lead the Pack Bronze from Texas A&M University-Kingsville Foundation

Dr. Rick Machen and Anne Thurwalker presented Neal Wilkins and East Foundation with the Lead the Pack bronze on behalf of the Texas A&M University-Kingsville Foundation. East Foundation has been a supporter of numerous programs at Texas A&M University-Kingsville (TAMUK), but their unwavering commitment to the King Ranch® Institute for Ranch Management and the Caesar Kleberg Wildlife Research Institute has resulted in numerous opportunities for students to engage in applied research through various projects and internships.

Buford Appointed to the Texas State Soil and Water Conservation Board


TINA BUFORD

Governor Greg Abbott reappointed East Foundation's Tina Buford to the Texas State Soil and Water Conservation Board. The Texas State Soil and Water Conservation Board, established in 1939, administers Texas' soil and water conservation law and delivers coordinated natural resource conservation programs to agricultural producers through the state's 216 Soil and Water Conservation Districts. It is the lead agency for planning, implementing, and managing programs for preventing and abating agricultural and silvicultural nonpoint sources of water pollution.

Abe Woodard elected Chairman of South Texas Chapter of Quail Coalition

Abe Woodard, Range and Wildlife Scientist for East Foundation, was elected President of the South Texas Chapter of the Quail Coalition, where he will continue the Coalition's long-standing mission of sustaining, educating, and celebrating quail conservation and quail hunting in South Texas.

DEER CAPTURES

HANDS ON RESEARCH AND TRAINING

By Landon Schofield

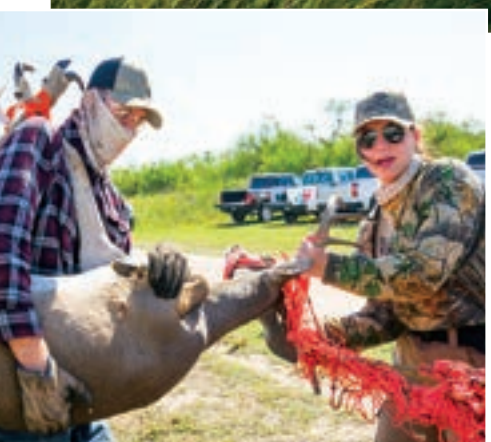
Each fall, East Foundation conducts a large-scale scientific endeavor that goes far beyond simple wildlife tracking. Our annual white-tailed deer captures represent a unique blend of ranching, science, and education—bringing our mission to life in the most hands-on way possible.

The capture process combines expertise from wildlife biologists, veterinarians, and wildlife agency personnel. Using net guns from helicopters, our team conducts health assessments and collects data that provide insights into regional white-tailed deer populations. During these operations, each captured deer undergoes a medical examination, including blood sampling and disease screening, which helps track potential health threats that could impact both wildlife and livestock.

These captures serve multiple purposes in better understanding white-tailed deer. By tagging individuals and collecting detailed data, researchers track population demographics, reproductive rates, and movement patterns. This information is essential for understanding ecological health and provides insights into the complex dynamics of deer populations in South Texas.

The timing and methodology of our captures are carefully considered to minimize stress on the animals.

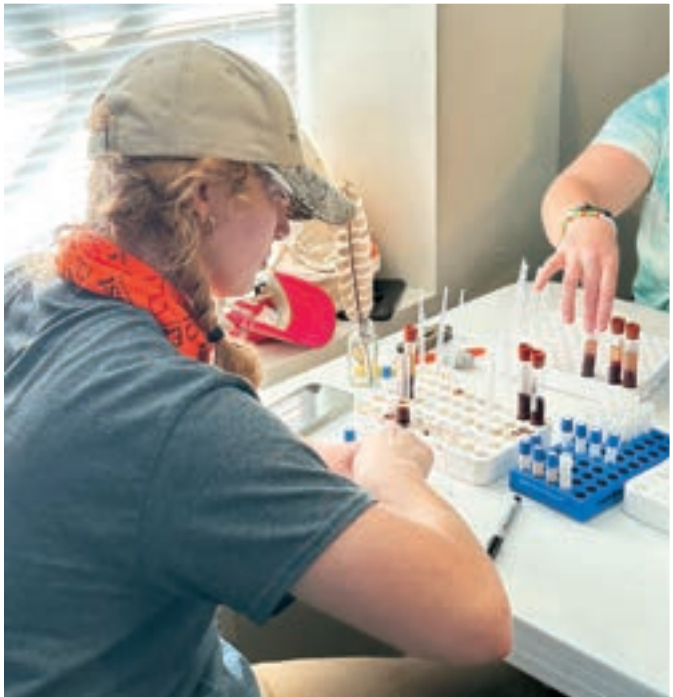
Since 2011, when the first capture took place on East Foundation ranches, the process has evolved to ensure a safe, efficient, and effective approach to capturing and handling white-tailed deer. Over that time, more than 7,500 captures have taken place on roughly 5,200 individual deer while recapturing deer more than 2,300 times.



Annually, over 200 undergraduate students from Texas, Louisiana, and Oklahoma work alongside experienced professionals, learning animal handling, scientific data collection, and biological sample management. This training is crucial for developing future professionals who will continue to advance ecological research and conservation efforts.
Over time, more than 2,000 students have gained practical experience through East Foundation's deer capture program.

This research also addresses concerns for South Texas landowners, hunters, and others by investigating significant ecological questions. Our data explores the relationships between environmental factors and deer populations, examining how drought, lactation, rainfall, and forage quality influence animal health and reproduction. These insights help landowners and managers make informed decisions about land stewardship and wildlife management.

Partnerships are central to the success of our deer capture program. We collaborate closely with organizations like the Ceasar Kleberg Wildlife Research Institute and various state wildlife departments, including Texas Parks and Wildlife, ensuring rigorous scientific standards and regulatory compliance. These partnerships amplify our research's impact and contribute to a broader understanding of wildlife ecology.



Each capture represents more than just a scientific expedition. They embody a careful approach that balances research, conservation, and a charge to do right by the land. By continuing to study and understand this important wildlife species in a working cattle ranch environment, East Foundation strives to maintain healthy, balanced ecosystems that support both wildlife and the communities that depend on them.

CURRENT SCIENCE SPOTLIGHT

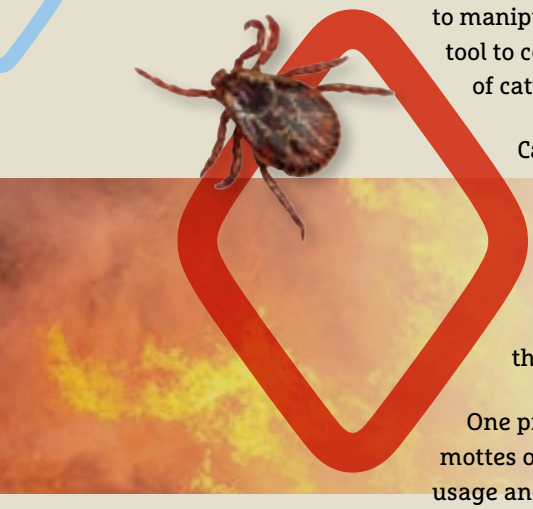
By Lindsay Martinez

SCREENING FOR ZOONOTIC PATHOGENS AT RANCH WATER SOURCES

In a new Texas A&M University pilot project, researchers have begun collecting environmental samples from East Foundation's Santa Rosa and screening the samples for pathogens. Their focus is on looking for signs of zoonotic pathogens, including the bacteria that can cause tuberculosis, leptospirosis, and brucellosis in humans, wildlife, and livestock. On working rangelands such as East Foundation's, pathogen surveillance is important for managing healthy populations of wildlife and livestock and for safeguarding human health. This is especially true in South Texas, where the climate is ripe for the spread of disease.

In Texas A&M's project, environmental samples are collected once per season from Santa Rosa's water troughs, which can be utilized by both wild animals and cattle. Researchers swab biofilm (the thin, slimy layers of microorganisms) from the surface of a water trough, collect a sample of the water, and take soil samples from near the troughs. Then, they use molecular methods to identify pathogens and other microbial organisms present in their samples. Along with testing for the presence of the bacteria linked to zoonotic diseases, researchers are also interested in understanding how season and the presence of other microorganisms impact the occurrence of pathogenic bacteria. As a first step, it is important to understand what pathogens might be present and how an important nexus like watering points can create interactions between wildlife and livestock that are important for both. Understanding the microecology of disease-causing bacteria will ultimately help in assessing the potential for—and preparing for—pandemic or endemic zoonotic disease spread in South Texas.

CAN PRESCRIBED FIRE CONTROL TICKS?



Across East Foundation's ownership, we use prescribed fire as a land management tool to manipulate vegetation communities. Now, researchers are asking if fire may also be a tool to control ticks in South Texas, a region on the first line of defense against the potential spread of cattle fever ticks northward from the U.S.-Mexico borderlands.

Caesar Kleberg Wildlife Research Institute (CKWRI) at Texas A&M University-Kingsville started a project in 2023 to assess whether fire reduces tick densities and whether long-term or short-term between-burn intervals impact tick populations differently. For two years, CKWRI has utilized the setting of East Foundation's long-term burn study at El Sauz, visiting monthly to conduct "tick drags" through burn plots and non-burned control areas. Researchers measure the abundance and density of ticks picked up during their drags, and they identify the life stages and species of their specimens.

One preliminary finding from the research is that tick densities on El Sauz are higher close to mottes of clumped trees and brush than they are on open grasslands. Mottes have high wildlife usage and a shadier and cooler microclimate—and unlike grasslands, they don't catch fire during prescribed burns. Early results support the researchers' hypothesis that burning can reduce tick densities.

RESEARCHERS STUDY WHITE-TAILED DEER RECRUITMENT TO INFORM MANAGEMENT

Research on white-tailed deer biology and management is important across Texas given that every year, deer hunting contributes over four billion dollars to the state's economy. Recently, Caesar Kleberg Wildlife Research Institute (CKWRI) at Texas A&M-Kingsville used the East Foundation's San Antonio Viejo as a living laboratory for researching factors that impact the survival of white-tailed deer fawns. These factors included livestock grazing, environmental conditions, habitat features, predation, and disease. From 2020-2023 at San Antonio Viejo, CKWRI captured many dozens of breeding age does and their neonate (very young or newborn) fawns, placed collars on the deer, and then tracked fawns' movements and survival through the first year of life.

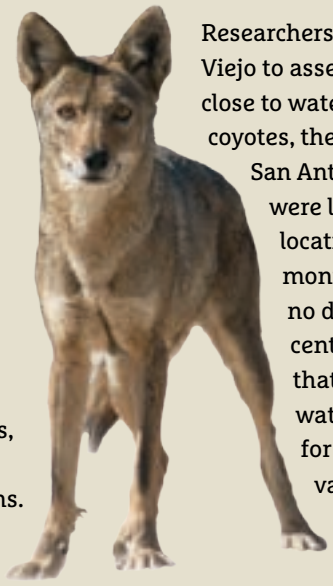
The research produced several findings. First, neonate deer survived the first three months of life at higher rates if born in pastures without cattle than in pastures with cattle. This result suggests that rotational cattle grazing strategies that leave some pastures unoccupied by cattle could better support deer recruitment. Next, deer fawns survived best in years with higher spring rainfall and in areas with more brush cover. Though land stewards can only pray for rain, they can manage their properties to provide the brush that fawns need to hide from predators. CKWRI found that fawns' main predator at San Antonio Viejo are coyotes, who caused nearly half of all known fawn deaths in the study.

Finally, researchers evaluated the effects of toxoplasmosis. They found that about half of does in the study tested positive for exposure to the bacteria causing the disease. In one year of the study where San Antonio Viejo experienced above average rainfall, fawns born to toxoplasmosis-infected does had lower survival rates than fawns born to uninfected does, providing evidence that toxoplasmosis could influence deer recruitment under some conditions.

In total, deer fawn survival on San Antonio Viejo during the study period was low; one-year survival ranged from 12% to 24% across the four years of the study. The low fawn survival rates highlight the importance of CKWRI's research on factors that could maintain or increase deer recruitment and support sustainable populations.

RESEARCH INFORMS CANINE RABIES PREVENTION

Canine rabies is a disease that infects wild foxes and coyotes and can be transmitted to domestic dogs, creating a human health risk. Luckily, canine rabies was eradicated from Texas after extensive oral vaccination efforts for wildlife began following multiple disease outbreaks in the late 1980s. Canine rabies vaccination efforts are still important today for keeping the virus from reentering Texas. Present-day oral rabies vaccination programs involve aircraft flying over South and West Texas near the Rio Grande and dropping fishmeal-baited vaccination packets from the sky. Over one million oral rabies baits are dropped in Texas each year, with the hope that they will be quickly eaten by wildlife before the vaccines break down in the environment and become ineffective.



Researchers at Texas A&M University worked at San Antonio Viejo to assess whether placing rabies vaccination baits close to water sources can increase bait consumption by coyotes, the target of vaccination efforts in South Texas. At San Antonio Viejo, researchers placed baits in grids that were located either around a water point or at a random location. Then, they set up camera traps at the baits to monitor consumption. Ultimately, researchers found no difference between bait consumption at water-centered versus random locations. This suggests that targeting baited vaccine drops to areas near water sources would not be an optimal strategy for increasing coyotes' consumption of oral rabies vaccine in South Texas.

THE PRODUCER'S EQUATION

CATTLE VALUATION AND DECISION MAKING IN A COMPLEX AND EVOLVING MARKET

Jason Sawyer, Garrett Stribling, Eddie Reyna

Apart from land, the most valuable asset for most ranching enterprises is the inventory of livestock that they hold. For cow-calf operations, the cow herd is a producing asset, allowing the conversion of land-based natural resources (cows eating rangeland grasses) into marketable products (more valuable cows) that generate value. A key strategic objective of our ranching enterprise is to maximize the long-term value of livestock production and these assets, as one component of the long-term value of land stewardship. But a cow herd is not a uniform, singular, or monolithic asset. Instead, it is a collection of distinct individuals of different ages, production potential, and risk profiles. We aim—through our science-based data collection efforts—to continue to advance our herd management and land stewardship by making better decisions and developing better tools for managing a complex and dynamic portfolio.

DEFINING VALUE IN THE "PORTFOLIO"

First, it is essential to develop frameworks for describing the value of a cow, and by extension, the value of the herd portfolio (the sum of values of the individual elements of the portfolio). How we assign value can depend on the context.

For example, cows are a capital asset, and we recognize this on the balance sheet. For this purpose, cows are 'valued' at the cost of placing them into service, and we refer to this as their 'book value.' Of course, like many assets with finite usefulness, we expect that the cow loses value over time, and we may recognize an annual depreciation expense that reduces this 'book value,' so that 'net book value' is the initial book value, less accumulated depreciation. Of course, this is an accounting construct and may or may not truly reflect the 'market value' of the cow at any given time. Market value is an important feature but can only be realized if the cow is sold, i.e., the asset is liquidated. While the ranch receives cash for this sale, it also loses a capital asset and must recognize the change in total asset value as capital gain or loss on the sale of the asset.

Book value, market value, or capital gains all fail to capture the most important part of valuation of a producing asset—its capacity to generate additional value, typically cash, through sales of a product. For cows, their critical value determinant is the sum of cash flows generated by producing calves over their lifetime, or their production value. A well-accepted practice for estimating this value is Net Present Value estimation. Net Present Value, or NPV, is meant to represent the net cash flows (revenue minus costs) generated from a capital investment (here, a cow) over time, with the periodic cash flows discounted to present value. A common application of the NPV framework is to compare alternative investments that can vary in duration, payouts, or risk profile in order to make an investment decision.

We used an NPV analysis to drive initial decisions about reinvestment in improving our cow herd, based on expectations about the average productivity of the herd and how that would change given investment in improved genetics. Our efforts to continuously improve key indicators of productivity such as pregnancy rate, average weaning weight, and market desirability of the average calf produced also have the potential to increase the NPV of the cow herd, and we continue to pursue these types of productivity and efficiency gains. As these efforts are paying off, we are looking to find ways that continue to increase the value of the herd.
If we look beyond these traditional management approaches and think of the cow herd not as a monolithic asset, but instead as a portfolio of unique production units that may differ in their features and production potential, we can continue to seek improvement in long-term value by dynamically adjusting the composition of the herd to achieve the portfolio that maximizes NPV within a set of governing constraints.

DEVELOPING A DECISION-MAKING PROCESS

Achieving our goal requires that we make progress on several fronts. We recently collaborated with the King Ranch® Institute for Ranch Management to initialize an NPV model that can be applied to individual classes of cows, where each class might have different production potential. This is a step toward individual assessment and gives us a platform for development.

In its current form this model can help us make decisions at key moments about the relative value of resident cows in the herd compared to incoming replacements, and the value of cows of different classes. Because we can determine our annual carrying capacity (total inventory size) based on forage conditions at different points in time, this foundational model can be applied to help make decisions about culling and replacement that seeks to avoid 'rules of thumb' and instead gives us the opportunity to optimize value constrained by capacity.

While this was an important first step, it is not the last. This model has 'structural' elements, 'functional' elements, and 'forecasting' elements. We will continue to refine the 'structural' elements by testing the elements of the basic NPV model, like how we represent initial investment and terminal liquidation (cash value or capital gains?), avoidance of sunk cost fallacies (do cows already in production require a representation of initial investment?), and method of selecting discount rates. While NPV models are very well accepted for capital decisions and asset replacement evaluation, they are sensitive to these sorts of framing elements, and we expect that some of the primary assumptions need to be refined and evaluated. We will assess these elements based on how different structural features relate to simulated outcomes like cash flow, net income projections, and enterprise equity—all common metrics of financial outcomes for a business.

How does the market value cows?

The market value of a beef cow is dynamic and affected by many different factors and even competing views of the utility of the cow. First, cows are breeding animals, and a key source of their value is expectations about their ability to produce calves now and into the future. Of course, these expectations depend on the information available to prospective buyers, all of whom might have different expectations, and thus may generate different bids for the same cow. Generally, younger cows are expected to have a longer productive life ahead of them, and therefore produce more calves to sell, so market value tends to decrease with the age of the cow. Different breeds of cows may be expected to have different productivity, and this can be location dependent.

For example, in South Texas, cows with no Brahman influence might not be expected to be well adapted and therefore might not be as valuable, but that same cow would be more valuable than her Brahman influenced counterpart in Nebraska. Pregnant cows are expected to have a marketable calf much sooner (and with lower risk) than a cow that first has to be bred, so pregnant cows are typically more valuable. All expectations about future production depend on the buyers' expectations about how much calves will be worth in the future, and so the trend of the calf market can alter the value of breeding age cows.

Cows have other utility also, as they are a significant contributor to the beef supply. While some buyers are interested in future production of calves, others are interested in the value of beef from a cow. Current beef prices and the current supply of ground beef in the marketplace are important value determinants for cows. If a cow is being valued based on beef, then the expected yield (amount of beef as a percentage of the weight of the live cow) and quality of beef (suitable for ground beef only, or for higher value products) are important factors. Yield and quality increase with body condition score up to a point, after which quality may not increase, and yield may decline. Both also decline with advanced age and are lower for pregnant cows. Breed also might influence yield, and because cows sold for beef are typically sold by the pound instead of per animal, her weight is also a factor.

Market value is ultimately determined by competition between two groups of possible buyers—those interested in producing calves and those interested in producing beef. Each buyer in each group might form expectations about the implied value of a cow offered for sale, and generate a bid, and the highest bidder wins. Because there are many external factors (beef supply, retail beef prices, season of the year) as well as individual factors (age, type, status, and size) that influence expected values, market prices are dynamic and can change rapidly. Local conditions like drought (or abundant rainfall) can cause local depressions (or spikes) in the market value of cows as these are drivers of the supply of cows offered for sale. All of these variables make market value a moving target, and a reason that we recognize asset value at cost on our balance sheet.

The 'functional' elements of this model are the relationships that will allow us to move from 'class' comparison to individual animal comparisons. Currently, we are working in conjunction with the Department of Animal Science at Texas A&M University to gain better estimates of functional relationships based on observable sets of features that relate to expectations about future production.

Another way to think of this is the set of conditional or joint probabilities of future outcomes, such as the likelihood that an individual cow becomes pregnant in future years, given certain conditions like her age, her prior production record, and ultimately, her genetic makeup. Successfully accomplishing these goals requires that we continue to improve our ability to capture individual production data from our cattle, and to link this data across generations.

For example, it is very difficult for large, extensive operators like East Foundation to know which calf comes from which cow each year, and thus impossible to know whether two cows are equally productive. Using genomic analysis to determine parentage, we can inform a production record of each cow, and her daughters and granddaughters, and thus differentiate among individuals. We can jumpstart this process by utilizing data from cows of similar types from other operations and link that data to our own using genomic features.

In parallel, we have increased our internal capability to create and maintain individual production records, so that as our own database grows these conditional models rely increasingly on self-generated information. We are seeking innovative ways to both capture and evaluate this type of data to develop new approaches to define functional relationships and probabilities that are at the heart of describing the production value of an individual cow in the herd.

Finally, the valuation models are dependent on some forecasting elements. Future net revenues (which combine to define value) are a combination of production expectations (the 'functional' elements) and price expectations for the products. The development of a consistent framework for setting price expectations is an important element of value, and we aim to innovate in this area as well. It may be as important that we are consistent as it is for us to be accurate—and we may be best served by creating several forecasting alternatives to combine into an 'ensemble' of price forecasts to inform our decisions. In some published examples of using different price expectation models for cow replacement decisions, we know that different frames of expectation alter the decision set, and we need to understand the errors of forecasting to build 'confidence zones' around decisions that rely on these types of forecasts.

In addition to price, our expectations about the weather are also important. Weather, especially the amount and timing of rainfall, conditioned on (correlated with) temperature, impacts our total capacity and therefore the allowable size of the cow herd. In our environment, the capacity constraint is not a constant, and making decisions about which cows should be removed or retained—given our expectations about future changes in carrying capacity (and its variability)—are also important elements of value creation.

DYNAMIC DECISIONS

It is human nature to reduce complex, dynamic decisions to 'heuristics' or 'rules of thumb.' These shortcuts serve the purpose of reducing complexity and enabling action, but they often result in short-sighted or sub-optimal decisions. On the surface, rules of thumb such as 'cull any open cow,' or 'set a maximum age target for cows in the herd' have enough merit not to cause significant damage but can be shown to result in less than maximal value creation. Even knowing this, they are still employed because of the complexity involved in decision making when lacking those simple, fallback assumptions.

In a dynamic decision environment, outcomes depend on many variables. If we consider every cow an element of our portfolio, we must re-value every animal every year as conditions and information change. This will only be possible if we can effectively develop the structural, functional, and forecasting tools that help to automate evaluation, and a self-learning approach where the more information we gain, the more effective our tools become.

It will take time to fully realize the full potential of portfolio management, but along the way we will continuously improve our decisions and ensure that as resource stewards, we make the best decisions to maximize the utility of our land and the enterprises that depend on it.

Glossary of Terms

Capital Asset – Items held that are expected to last a relatively long period of time. Many times, these are the productive foundation of a firm, such as the machine tools for a manufacturing business, that enable production of the items sold to generate revenues.

Book Value – The value recorded on the firm's balance sheet. According to accounting standards, these values are often recorded as the cost of acquisition or placement into service; when this is unknown the value may be recorded at 'the lower of cost or market'

Net Book Value – The original asset value less any accumulated depreciation. In principle, it represents the current recognized value of the asset to the firm.

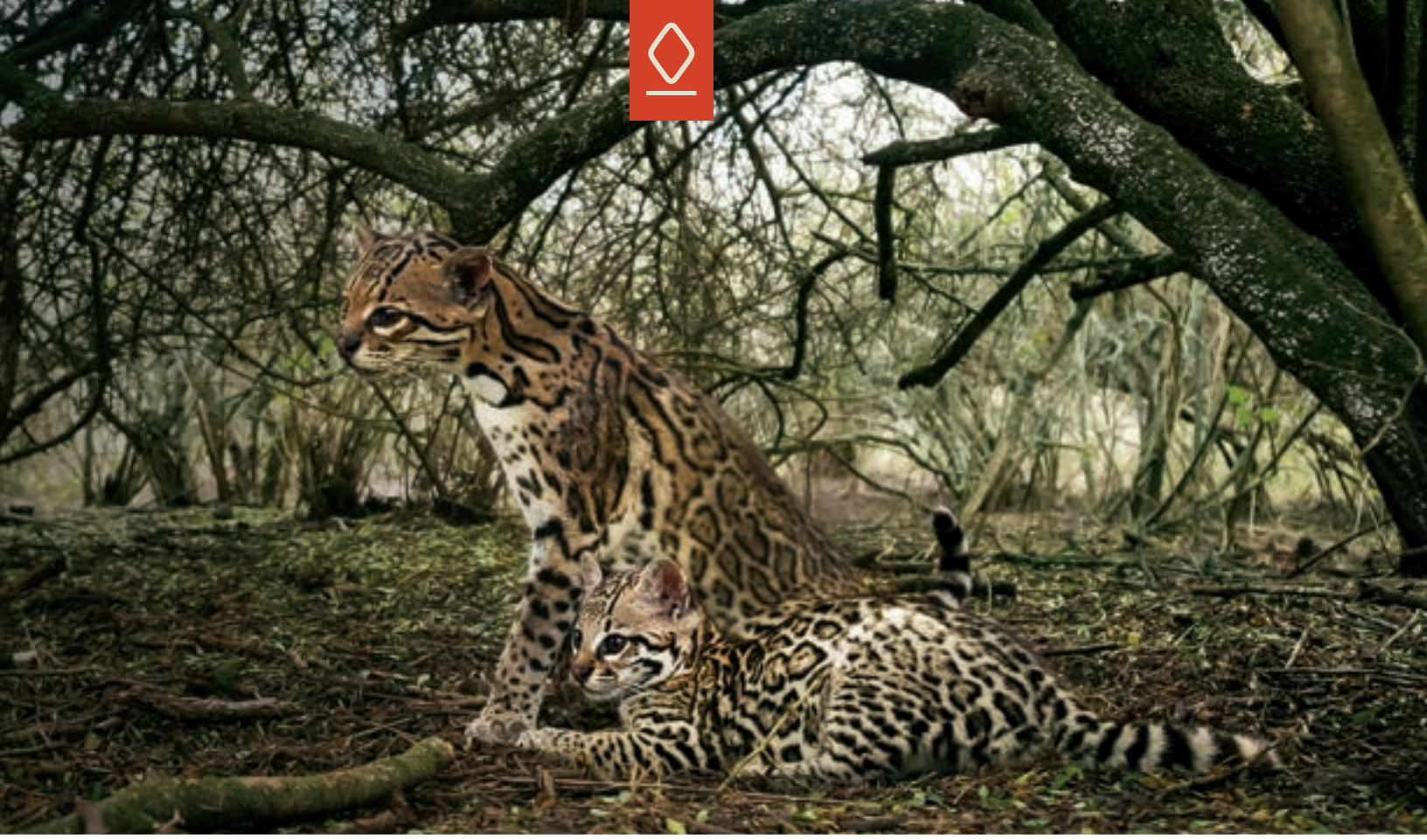
Market Value – The value of an item is what it can be sold for to a buyer or consumer. Market value is not controlled by the firm, but by larger market forces, and thus market value may be higher or lower than the cost of an asset or its net book value.

Capital Gain/Loss – When assets are sold, the cash generated from sale represents the exchange of a valuable item for a different type of value (cash). The value of the asset is lost (removed from the balance sheet) and the value of cash is added to the balance sheet. The difference between cash received and the recorded value is recognized as a capital gain (or loss) on the sale of the asset and is a clearer representation of the effect of the sale on the equity position of the firm.

Net Present Value (NPV) – net present value is the sum of all future net cash flows resulting from a capital investment less the initial investment cost, where future period cash flows are discounted to the present. A dollar today is worth more than a dollar next year; this discounting helps to account for investments with different time horizons and payout structures.

Herd Productivity – The rate at which it produces marketable products. Herd productivity is driven by reproductive rate, death losses, and other attrition (which affect weaning rate) and the weight of weaned calves. Each of these is in turn affected by range conditions, weather, disease, and the capacity of management to influence these factors.

Carrying Capacity – Carrying capacity is the maximum population size of a species that can be sustained in an environment based on the resources it provides. Annual carrying capacity is an estimate of this metric based on resources currently available or expected over the course of a single year, given that current year resource use impacts future productivity. Balancing herd size with ranch carrying capacity is a primary tool of resource stewardship.



EVALUATING AND MANAGING ENDANGERED SPECIES ON PRIVATE LANDS–A PROACTIVE APPROACH

Lindsay Martinez

East Foundation manages six ranches that comprise more than 200,000 acres of South Texas rangelands. These lands serve as working cattle ranches, living laboratories for scientific research, and outdoor classrooms that help educate the next generation of leaders and professionals. East Foundation ranches are also home to native plant and animal species, including some species that are federally protected by the federal Endangered Species Act (ESA) as either threatened or endangered, as well as some "sensitive" species that could warrant protection from the ESA in the future.

Like many other private landowners, East Foundation views the presence of rare species on its lands as an indicator of successful stewardship.

"East Foundation's mission to promote land stewardship on our ranches and our commitment to 'doing what's right for our land and the life that depends on it' has allowed for a vast, intact landscape in which endangered species can thrive," explained Dr. Ashley Reeves, East Foundation's Research Veterinarian. Reeves engages in scientific studies across the Foundation's six ranches in South Texas, with a current focus on endangered ocelots found at El Sauz.

Ocelots, Texas horned lizards, monarch butterflies, and white-tailed hawks are just a few of the threatened, endangered, and sensitive species known to be found on private lands in South Texas, including East Foundation lands.

"As a result of their strong land ethic, stewardship, and commitment to conservation, species like the ocelot still persist in Texas thanks to private landowners and their ranching enterprises," said Daniel Kunz, who has long collaborated on East Foundation's ocelot research and conservation efforts as a Technical Guidance Biologist with the Texas Parks and Wildlife Department (TPWD).

East Foundation's stewardship activities for ocelots on El Sauz have included preserving thornscrub and live oak forest habitat utilized by ocelots and other wildlife, monitoring ocelot populations, and researching the cats' biology and ecology to inform conservation practices.

"The persistence of a significant number of ocelots on our land is a real testament to our practices to operate on and protect the land," said Reeves. "We not only lead significant research to improve ocelot survival and promote future persistence, but we are also a leading voice in ocelot recovery efforts," she added.

Reeves has conducted research on assisted reproductive technologies in ocelots since earning her PhD while working with East Foundation. Her research supports plans by East Foundation and partners to recover ocelots from endangered status by starting an ocelot breeding program on the Texas A&M-Kingsville campus and later reintroducing a population of ocelots to the Foundation's San Antonio Viejo Ranch (which is within ocelots' historic but now unoccupied range).

REGULATORY CHALLENGES FROM PROTECTED SPECIES

When conserving threatened, endangered, and sensitive species on their working ranchlands, East Foundation and other private landowners face challenges stemming from ESA regulations that could restrict or penalize land uses and ultimately threaten the viability of operations. Namely, landowners are exposed to ESA prohibitions on "take" of threatened and endangered fish and wildlife (plants are specifically excluded from this regulation) without a permit. Take includes intentional activities such as hunting, trapping, or harming listed animals. It also includes "incidental take" where a listed animal is harmed unintentionally during otherwise legal activities. On working lands, "incidental take" can potentially occur due to land use.

"For landowners and operators on working lands, the perceived liability of incidental take provisions is a substantial concern, and uncertainties associated with incidental take can create disincentives" said Dr. Jason Sawyer, East Foundation's Chief Science Officer. "Addressing and resolving these uncertainties and liabilities—real or perceived—is vital to facilitating conservation on private lands."

With that, East Foundation has begun investigating strategies to manage the potential regulatory and operational risks of protected species while still contributing to their conservation.

CONTENDING WITH REGULATIONS – DATA PRIVACY

Location-specific data about protected species' presence on private lands, if made available to the public or the federal government, could expose a landowner to federal ESA regulation. Maintaining data privacy is a strategy that landowners can use to protect themselves from ESA regulations. It is also one that East Foundation has explored, with assistance from partners at Caesar Kleberg Wildlife Research Institute (CKWRI) and TPWD.

"Data privacy is essential to wildlife research in South Texas because research occurs almost exclusively on private lands," noted Dr. Dave Hewitt, the Executive Director of CKWRI. "Research should not result in outside influences on a landowner's decisions for their property."

While landowners have the option to never share any information about conservation or research on their

properties, private lands data is needed for assessing the true status of rare species and developing future conservation plans.

"While it is important to maintain data privacy when studying endangered species, the knowledge resulting from research has great value," Hewitt explained.

To maintain their privacy while still providing valuable information for conservation, landowners can cooperate with trusted partners like CKWRI and TPWD to collect data from their lands. Partners such as these can then keep the data confidential, and only ever release data at broad scales that show a species' status and inform conservation, but do not reveal any specific private property locations.

"Maintaining data privacy allows us to learn about wildlife and management options while making sure individual landowners are able to manage their property as they see fit," Hewitt added.

East Foundation plans to collaborate with CKWRI and TPWD on providing landowner privacy for the future ocelot reintroduction project and other research and conservation projects for protected species.

LANDOWNER ASSURANCE TOOLS

"Real or perceived regulatory threats related to endangered species can create significant barriers to conservation efforts that might benefit that species," explained TPWD's Kunz.

One way for private landowners to remove these barriers is to utilize "landowner assurance tools" that allow landowners to address their exposure to the ESA and gain regulatory certainty and predictability. Using landowner assurance tools, landowners can obtain legal assurances that they will have no additional conservation requirements, land use restrictions, nor incidental take liability for species that they agree to conduct conservation work for.

In 2024, East Foundation agreed to a programmatic Safe Harbor Agreement for ocelot reintroduction on private lands in South Texas with the U.S. Fish and Wildlife Service. Under the Safe Harbor, which is one type of landowner assurance tool, East Foundation can reintroduce endangered ocelots to San Antonio Viejo—a property that currently has no ocelots—with certainty of the continued freedom to operate the ranch without any new ESA regulatory exposure related to ocelots. East Foundation also negotiated with the U.S. Fish and Wildlife Service to allow other nearby landowners to receive identical regulatory certainty so that their ranchlands are also protected from ESA regulation following ocelot releases.

"The Safe Harbor Agreement for Ocelot Reintroduction is a great example of a tool that removes ranch operators' uncertainty and ensures that they can continue to operate

while aiding the recovery of an endangered species," said East Foundation's Sawyer. "Tools like this can be the difference maker in putting conservation action in concert with working landscapes."

Texas Parks and Wildlife also supports the removal of uncertainties for private landowners.

"Through clear communication and assurances that endangered species work will not impact ranching operations for both participating and non-participating landowners, East Foundation has helped lay the groundwork for successful reintroduction of the ocelot and recovery of the species," added Kunz. "Their approach is an exemplary model that should be replicated in future endangered species work in Texas."

ECONOMIC INCENTIVES FOR ENDANGERED SPECIES

Removal of the ESA's regulatory disincentives alone may not be enough to empower land stewards to conduct overt conservation on their private properties.

"Economic incentives could be important for rewarding private landowners that currently have endangered species present on their lands and showing appreciation for their land management practices that have allowed for species persistence," explained Reeves.

East Foundation scientists and land managers have learned that a suite of land stewardship practices are necessary for sustaining and recovering threatened, endangered, and sensitive species. These practices include habitat protection and management, non-habitat management activities (such as releasing animals), research and monitoring, and collaborating with partner groups to make larger conservation plans.

"Economic incentives could also incentivize other landowners to put some of those research and conservation practices into place, expanding the places rare species could call home," Reeves added.

EAST FOUNDATION'S APPROACH TO ENDANGERED SPECIES

Private working lands like the East Foundation's provide food, fiber, and other products and services for society. They also play a role in the conservation of threatened, endangered, and sensitive species held in public trust.

"In fact," explained Kunz, "with 95 percent of Texas privately owned, landowner trust and cooperation are essential for achieving meaningful, landscape-level conservation."

UPDATE ON EAST FOUNDATION'S RESEARCH AND CONSERVATION PROGRAM FOR ENDANGERED OCELOTS

March 2024 – East Foundation and U.S. Fish and Wildlife Service agree on a programmatic Safe Harbor Agreement for ocelot reintroduction on San Antonio Viejo in Jim Hogg and Starr counties, Texas. The agreement allows East Foundation to release ocelots onto its ranch within historic ocelot range to start a new population. The agreement assures the continued freedom to work the lands without any new restrictions or requirements. Other landowners can sign up to participate in the agreement if they cooperate with East Foundation on ocelot conservation. East Foundation and the U.S. Fish and Wildlife Service also negotiated to provide identical regulatory assurances to any landowners within 50 kilometers (approximately 31 miles) of San Antonio Viejo, even if they choose not to participate in the Safe Harbor.

October 2024 – On the Texas A&M University-Kingsville campus, East Foundation, Caesar Kleberg Wildlife Research Institute, and other partners ceremonially break ground on the Ocelot Conservation Facility. The Facility will be constructed throughout 2025 and once operational, will be used by East Foundation to breed ocelots and behaviorally prepare offspring for life in the wild. Ocelots born at the Ocelot Conservation Facility will eventually be released on San Antonio Viejo to start a new ocelot population in Texas.

January through April 2025 – East Foundation, in collaboration with Caesar Kleberg Wildlife Research Institute and the U.S. Fish and Wildlife Service, holds a successful ocelot field research season at El Sauz Ranch. Ocelots are monitored using a ranch-wide grid of camera traps, canine conservationists visit El Sauz to sniff out ocelot scats, and researchers safely capture ocelots for scientific studies. Captured ocelots are sedated for physical exams and sample collection before being released with GPS collars to track their movements on El Sauz.

Spring 2025 – Zoos across the United States agree to an action plan for a "Saving Animals From Extinction" (SAFE) Program for ocelots. Under the plan, the zoo-based ocelot population will be managed to support ocelot recovery in Texas. Select ocelots from American zoos will be transferred to the Ocelot Conservation Facility for breeding, helping to develop a source population for ocelot reintroduction. Zoos will also help educate the public about ocelot conservation efforts in Texas.

THREATENED, ENDANGERED, AND SENSITIVE SPECIES FOUND IN SOUTH TEXAS

Federally endangered
Ocelot, star cactus, northern aplomado falcon

Federally threatened
Cactus ferruginous pygmy owl, eastern black rail

Sensitive
Monarch butterfly, white-tailed hawk, Texas horned lizard

Further, added Sawyer, "keeping working lands working helps ensure economic viability and sustain intact landscapes, which is ultimately beneficial for wildlife and habitat conservation."

East Foundation has discovered that managing protected species on working lands requires a multi-dimensional approach; ecology is important for knowing how to manage species on-the-ground, policy for understanding the ways to protect a working operation from ESA regulations, and economics for obtaining incentives for conservation work. In its developing program for threatened, endangered, and sensitive species, East Foundation is committed to discovering reliable information across disciplines, developing innovative management solutions, and documenting the results of its efforts in terms of how they impact the species, rangelands, landowners, and other stakeholders.

"East Foundation understands the value and role private lands ownership plays in conservation, and the concerns associated with endangered species some landowners have," said Kunz.

With this understanding—and a background as a private property owner, cattle ranch operator, and land steward itself—East Foundation is uniquely positioned to provide valuable information to other landowners who are contending with management of threatened, endangered, and sensitive species on their lands.

"As a private landowner ourselves, we aim to do our best to lower barriers, innovate approaches, and learn from our own experiences in the endangered species space," said East Foundation CEO Neal Wilkins. "We want others to see us as honest brokers, and a trusted and reliable source of information, when they are making their own best decisions. We believe that well-informed decisions, including those that utilize strategies that acknowledge and limit liabilities from endangered species, will create best possible outcomes for land stewardship."

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 East Foundation's mission, programs, and facilities.

DOUGLAS J. KISGEN

ENBRIDGE

Our Texas Our Future H-E-B

San Antonio Stock Show & Rodeo

TEXAS FARM CREDIT

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 East Foundation through sponsorship opportunities, contact Tina Buford at tbuford@eastfoundation.net.

PROUD PARTNER

One thing every Texan has in common is our love for this state. And as Texans ourselves at H-E-B, we couldn't agree more. That's why we are committed to ensuring that our state is just as great 100 years from now as it is today through H-E-B's commitment: Our Texas, Our Future.

This is a promise to you, our customers, that we will help preserve Texas' natural resources: through how we source products and what we carry, to how we manage surplus food and recycling efforts, to investing in renewable energy. Together we can have an impact and protect our treasured Texas land, water, and air for future generations.

At H-E-B, there are millions of reasons we care about conserving and protecting Texas' resources. That's because millions of families rely on us for their food, and as a company, we rely on the richness of Texas' land, water, and air to supply that food.

Preserving our land is a shared value with East Foundation and their Behind the Gates℠ education program. After all, the Texas Landscape doesn't just provide beautiful views, but plentiful agriculture, too. Our partnership plays a vital role in promoting land stewardship through ranching, science, and education.

To learn more about H-E-B's sustainability commitment, visit https://ourtexasourfuture.com/

"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."

Our Texas Our Future
H-E-B

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.

Neal Wilkins, Ph.D. President & CEO

Final Thoughts

Volatility and Diversification

Neal Wilkins, President & CEO

For any ranching enterprise, long-term value lies in stabilizing rangeland productivity, cattle production, and wildlife populations. This value created ultimately contributes to long-term sustainability, keeping ranches intact, profitable, and productive. Much of our 2025 annual report focuses on preparing for uncertainty and risk in the factors influencing our rangelands, cattle, and wildlife.

We rarely use the term "volatility" to describe the changing environment of native rangelands, but it offers a useful analogy. Measures of volatility describe the degree of variation in the price of a financial asset over time. Diversifying investments in a portfolio helps manage such volatility and maintains stability. Similarly, promoting plant diversity and enhancing habitat diversity can mitigate the impacts of variable rainfall patterns (such as recurring droughts) by stabilizing rangelands, maintaining productivity, and enhancing recovery.

For our cattle herd, our efforts in genomic selection and crossbreeding aim to stabilize production. By combining genomics and hybrid vigor, we aim to create a more robust animal that can consistently survive harsh environments and produce a calf despite environmental stresses such as drought and disease. In other words, diversifying genetics helps establish a cattle herd more adaptable to the volatility of the South Texas ranch environment.

This concept of addressing volatility through diversification extends to our long-term research, where we vary grazing pressures over time, adapting to forage availability. Consequently, we monitor the influence of this adaptive grazing on long-term vegetation response, bobwhite quail populations, white-tailed deer reproduction, and a wide range of other birds and mammals. Moreover, our recent approach to endangered species management—specifically, efforts to recover endangered ocelots—reflects the “volatility addressed by diversification” approach.

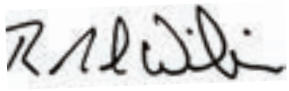
Traditionally, the administration of the Endangered Species Act has conflicted with private property rights, creating volatile situations. However, many private property owners take pride in their stewardship of habitats supporting rare and threatened species. Our recent Safe Harbor Agreement with the U.S. Fish and Wildlife Service deliberately included a diverse group of partners—landowners, university researchers, state and federal agency biologists, veterinarians, and policy experts, each with a unique role. The result is an agreement that now incentivizes effective conservation action for this species.

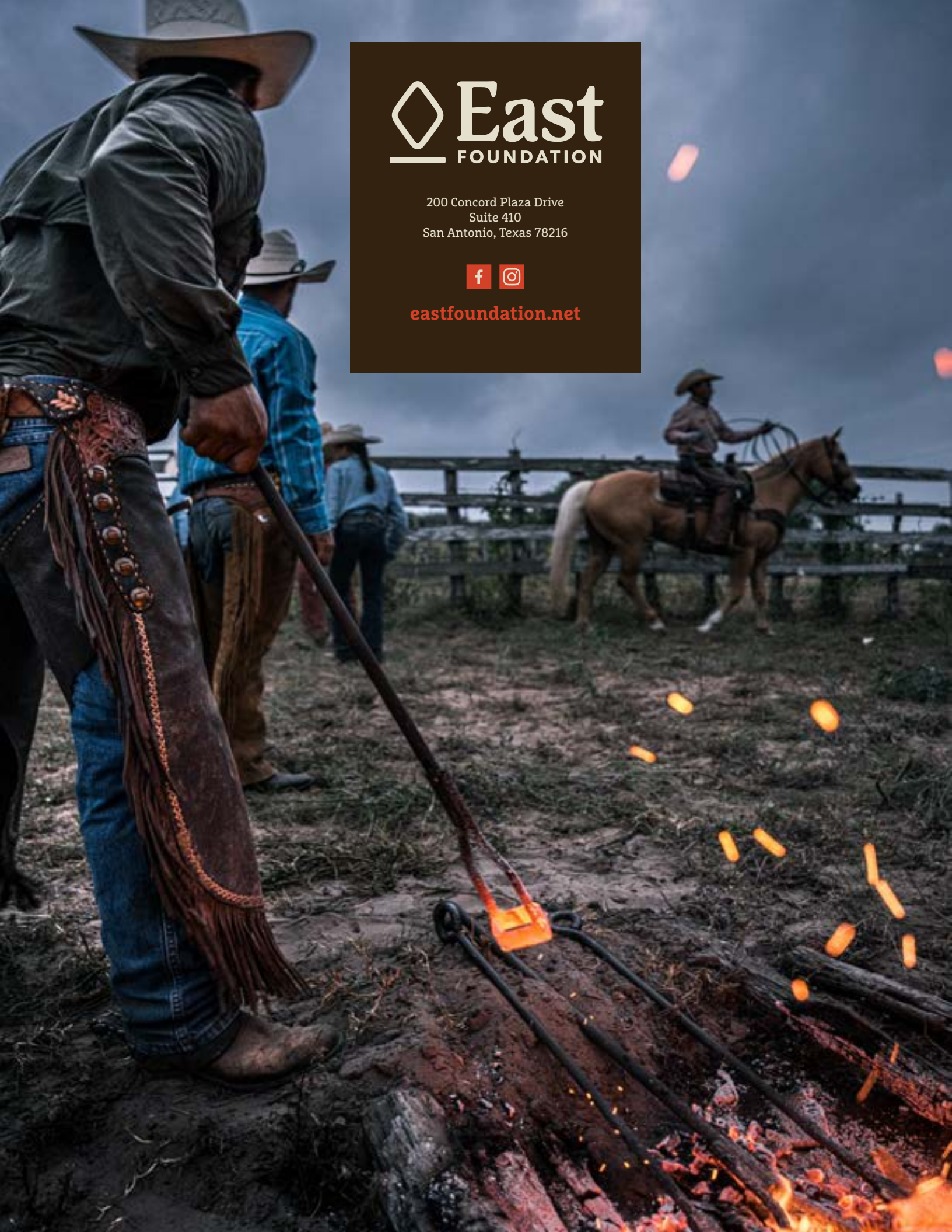
The science and technology required to measure, monitor, and validate our approaches to stabilizing rangeland productivity, cattle production, and wildlife populations are not yet fully developed. We need tools to capture more reliable, frequent, high-resolution data on rangeland production and plant communities. Additionally, we must advance cost-effective remote data collection through AI-assisted camera grids and drone-based wildlife surveys. Furthermore, we need methods to acquire individual production records for our cattle.

We also face risks that could disrupt operations and pose new challenges. Cattle fever ticks, which have remained stable for the last several years, could spread further through South Texas. Chronic Wasting Disease could threaten our native white-tailed deer populations. Additionally, an old threat has reemerged—the New World Screwworm is currently spreading through southern Mexico and could reach the U.S. border for the first time in 50 years. Rather than watching and worrying about these threats, we are preparing for surveillance efforts, collaborating with experts to develop action plans, and partnering with other ranching and wildlife stakeholders to help mitigate the impacts should they arise.

There is much to contemplate in these pages. We are grateful for the opportunity to share this year’s report with you.

Neal Wilkins





East
FOUNDATION

200 Concord Plaza Drive
Suite 410
San Antonio, Texas 78216

eastfoundation.net