ROLLING PLAINS QUAIL RESEARCH FOUNDATION

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STATEWIDE QUAIL SYMPOSIUM

Abilene, Texas
September 17-19, 2025

QUAIL COALITION

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Welcome to the 2025 Statewide Quail Symposium!

We are excited to gather once again to celebrate and explore the fascinating world of quail and their invaluable contributions to Texas landscapes, communities, and culture. As we step into 2025, the importance of quail conservation and research has never been more relevant. Texas continues to face challenges from drought cycles, habitat loss, and changing land-use patterns, making our shared efforts to preserve quail populations vital for the future of our state.

Quail remain one of Texas' most iconic species, offering benefits that extend far beyond their small size. They play a critical role in dispersing native plant seeds, maintaining healthy rangelands, and supporting overall biodiversity. For generations, quail hunting has been a beloved tradition that fosters camaraderie, strengthens rural economies, and connects Texans to the land.

In recent years, advances in research and habitat management have given us new tools and insights to support quail recovery. These efforts not only help quail populations rebound but also improve the health of the ecosystems we all depend on.

Over the next few days, you'll hear from researchers, land stewards, and conservation leaders who are shaping the future of quail management. Together, we'll explore innovative strategies, celebrate conservation successes, and collaborate on solutions to the challenges ahead.

Let's use this Symposium as an opportunity to strengthen partnerships, share knowledge, and inspire action—ensuring that future generations of Texans will continue to experience the joy of hearing a bobwhite call at dawn.

Sincerely,
Dr. Ryan O'Shaughnessy
Executive Director
Rolling Plains Quail Research Foundation

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SCHEDULE

Wednesday, Sept. 17 – Tour of the Rio 42 Ranch

1:30 pm Welcome to Rio 42 Ranch – *Randy Rodgers*

2:00 pm Tour Rio 42 Ranch

Comprehensive Habitat Management Plan—*Matt Coffman, NRCS*

Soil Disturbance & Food Plots for Quail—*Rio 42 Ranch Staff*

Prescribed Burning for Quail—*Mitchell Riggs, RPQRF*

Habitat Restoration/Native Planting for Quail—*Patrick Schutz, TPWD*

BREAK—*Sponsored by Ekdahl Real Estate*

5:00 pm Depart Rio 42 Ranch—Dinner on your Own

6-7:00pm Symposium Registration in DoubleTree Hotel

Thursday, September 18 – Abilene Convention Center

7:30 am Registration

8:00 am Plant Identification Contest

Session I – Moderator: Dr. Ryan O'Shaughnessy

8:30 am Opening Comments—*Dr. Ryan O'Shaughnessy, Rolling Plains Quail Research Foundation*

8:40 am Keynote Address—*Dr. Dawn Buckingham, Texas General Land Office Commissioner*

9:00 am Return on Conservation—*Joni Carswell, Texan by Nature, CEO & President*

9:20 am State of Quail in Texas—*Patrick Schutz, TPWD, Upland Game Bird Program Leader*

9:40 am Virtual Fencing: How it Works & Implication in Wildlife Management—*McCalley Cunningham, Merck Animal Health-Vence*

10:00 am BREAK—*Sponsored by Capital Farm Credit*

Session II – Moderator: Dr. Dale Rollins

10:20 am Warren CAT Leasing Program—*Lee Conley, Warren CAT*

10:40 am Conservation Incentive Programs & Partnerships—*Derek Wiley, TPWD, Conservation Delivery Specialist*

11:00 am USDA-NRCS, Helping People Help the Land—*Ryan McClintock, NRCS, Wildlife Biologist*

11:20 am A Beacon of Hope Behind the Pine Curtain: Restoring Quail in a Forgotten Landscape—*Dr. Brad Kubecka, Tall Timbers Research Station*

11:40 am QuailMasters Recognition—*Dr. Dale Rollins, Rolling Plains Quail Research Foundation*

NOON LUNCH (Betty Rose's)
Sponsored by Chas S. Middleton & Son

12:40 pm Luncheon Remarks—*Allie Allcorn, Texas Brigades Executive Director*

Session III – Moderator: Dr. Dan Foley

1:00 pm Technology & Quail—Dr. Dan Foley, *RPQRF Research Scientist*

1:20 pm Testing the Benefits of an Integrated Treatment of Predator Reduction & Broadcast Supplemental Feed—*Dr. Brad Dabbert, Texas Tech University*

1:40 pm The Value of Incorporating Stakeholder Perspectives into Wildlife Conservation—*Kristyn Stewart-Murphy, Texas A&M University-Kingsville*

2:00 pm West Texas Quail Research Update—*Dr. Ryan Luna, Borderlands Research Institute*

2:20 pm Updates from East Foundation's Sustainable Harvest Project—*Dr. Abe Woodward, Range & Wildlife Scientist, East Foundation*

2:40 pm Medicated Feed for Quail—*Dr. Ron Kendall, TTU Wildlife Toxicology*

3:00 pm BREAK—*Sponsored by Guitar Ranch*

Session IV – Moderator: Mitchell Riggs

3:20 pm Quail Coalition—*Jay Stine, Quail Coalition*

3:40 pm Bobwhites and Beyond: Building Bird-Friendly Rangelands—*Anita Gilson, Range Ecologist, Audubon Texas*

4:00 pm Wildlife Habitat Federation's Collaborative Conservation Efforts with USDA-NRCS in Texas—*Garry Stephens, WHF*

4:20 pm Overview of Quail Forever's Efforts and Impacts in Texas—*Thomas Janke, State Coordinator, Quail Forever*

4:40 pm Texas Wildlife Association—*Justin Dreibelbis, TWA*

5:00 pm PLANT ID CONTEST ENDS

5:30 pm SOCIAL MIXER - *Sponsored by Quail Coalition Association*

6:30 pm DINNER – *Sponsored by the Texas Parks & Wildlife Department*

Friday, September 19 – Abilene Convention Center

Session V – Moderator: Kyndal Underwood

8:00 am Prickly Pear and the South American Cactus Moth—*Dr. Barron Rector, Texas A&M AgriLife Extension Service*

8:20 am Research on the Montezuma Quail—*Alberto Macias Duarte, Sonora State University*

8:40 am Rattlesnakes & Dogs—*Dr. Buck Neal*

9:00 am Considerations for Guiding Quail Hunts—*Dr. Ryan O'Shaughnessy, Rolling Plains Quail Research Foundation*

9:20 am Gun Dog Supply—*Steve Snell*

9:40 am Field Trials—*Matthew Puckett*

10:00 am BREAK—*Sponsored Quail Forever*

Session VI – Moderator: Megan Pineda

10:20 am Public Hunting in Texas—*Kyle Hand, TPWD, Statewide Game Bird Specialist*

10:40 am 3-Minute Thesis

Making Connections Through Quail Science: How Stakeholder Perspectives Shape Quail Manage ment—*Kristyn Stewart-Murphy, Caesar Kleberg Wildlife Research Institute*

How do Northern Bobwhite Respond to Prescribed Fire? - *Carolina Munoz, Caesar Kleberg Wildlife Research Institute*

10:50 am Factors Influencing Geographic Variation in Color imetry of Male Montezuma Quail Plumages—*Rene Toscano-Melendrez, Sonora State University*

11:10 am Distribution & Habitat Connectivity of Montezuma Quail in the Sky Islands—*Oscar Lopez-Bujanda, Sonora State University*

11:30 am Panel Discussion: Quail Research Needs

11:50 pm Closing Comments—*Dr. Ryan O'Shaughnessy Rolling Plains Quail Research Foundation*

12:00 pm Adjourn

HISTORY OF THE ROLLING PLAINS QUAIL RESEARCH FOUNDATION

Dale Rollins, Rolling Plains Quail Research Foundation, Roby, TX

The Rolling Plains Quail Research Ranch (RPQRR) "hatched" in February 2006 on the tailgate of a pickup truck at the end of three days of productive quail hunting in Fisher County. While cleaning birds at sunset, the idea of creating a research facility that focused solely on bobwhite quail was discussed at length. Aware of the decline of quail across its range, and the resolve to avoid such a decay put the wheels in motion. The hunters that day included Prosser Mellon and Mike Watson of the Richard King Mellon Foundation in Pittsburgh, PA, and local quail enthusiasts Paul Melton and Dale Rollins. The Mellon Foundation has a history of quail philanthropy and has been a key partner for the growth of Tall Timbers Research foundation in Florida and Georgia. A few weeks thereafter the idea sprouted, Melton was asked to be on the lookout for potential properties. Melton identified the current site as a "plum" for what we were seeking, and six months later (December 2006), the RPQRR became a reality. The funding for the purchase of the 4,720-acre ranch ($3.8 million, and another $700,000 for start-up), was provided by the Mellon Foundation. In 2007, a 501(c)(3) non-profit foundation was established. The mission of the RPQRF is "to preserve Texas' heritage of wild quail hunting for this, and future, generations." That mission is advanced through an integrated approach of focused applied research and complementary outreach efforts that seek to promote quail conservation. A Board of Directors comprised of quail hunters and landowners seeks to implement the mission statement. Dr. Rollins was hired as the Executive Director and served in that capacity from 2007-2021. Dr. Brad Kubecka succeeded Rollins then Dr. Ryan O'Shaughnessy was named the Executive Director in 2023. Nearly all of the RPQRF's annual budget is provided by private philanthropy, with the most important donor to date being the Park Cities Quail Coalition. Research efforts over that time have addressed long-term management and monitoring, disease ecology, predator-prey relationships, and translocation of wild quails (bobwhite and scaled) as a tool for restoring quail populations. The Ranch has served as a backdrop for the development and implementation of best management practices, e.g, brush sculpting and prescribed burning. The RPQRF produces an extensive list of outreach efforts including a monthly newsletter, webisodes, social media (Facebook), and a monthly podcast. For more information, check out www.quailresearch.org.


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QUAILRESEARCH.ORG
DR. DALE ON QUAIL PODCAST
NEWS
E-QUAIL NEWSLETTER
FACEBOOK.COM/RPQRF
INSTAGRAM.COM/RPQRF/

COMPREHENSIVE HABITAT MANAGEMENT PLANNING

Matt Coffman, Range Management Specialist/Grazing Specialist. USDA-NRCS. Snyder, TX,

Habitat management planning is a process and not a project. Managing a piece of property towards a specific goal or set of goals is a long term and time-consuming endeavor. One must start with direction and intention. Without a map we won't know where we're headed, and without knowledge of where we are, we won't be able to navigate our way to the goal. Starting with an inventory of what a given ranch or property has (plants and infrastructure) is the only way to know how far away we are from our goals. To do this, the NRCS can build detailed ranch maps using GIS technology. For the plant data, we will run transects and collect data on plant community composition across the dominant ecological sites or soil types of a ranch. After we have the numbers, the data must be interpreted. What does the data say? What does it mean? The next step is when is it critical, for us as land managers to have a baseline knowledge of our local plants and what they need. Then comes the final step: What do we do? This process must be repeated for each pasture, or property in general. A specific example on the Rio 42 is the 480 Pasture:

What does the inventory and assessment say? The higher quality warm season forages on the south side of the pasture appear to be over utilized in the peak heat and dry of the summertime. What does it mean?

Cattle are avoiding the Texas Wintergrass in the heavy brush on the north side of the creek (which isn't the best quail habitat) and potentially harming our good habitat of bunch grasses. What do we do?

It is well known that livestock will preferably graze burned areas for up to three years. A cool season prescribed burn in avoided areas *should* correct the problem of poor grazing distribution, in addition to a well-managed grazing rotation.

MAKING THE BUSINESS CASE FOR CONSERVATION

Joni Carswell, Texan by Nature, Austin, TX

Conservation is good. It's good for our natural resources. It's good for our economy. It's good for our health. But how good? What is the actual return on the money we invest in conservation on an annual basis? We often hear from conservation, industry, and community leaders alike that accessible, standardized, and trusted data is needed to evaluate the impact of conservation is scarce. While we may understand a single metric such as acres of land or gallons of water, we don't have data capturing the full ecosystem impact or economic value of the conservation work performed. This leads to incomplete business case analysis, fewer partnerships, and less funding than is available in a state filled with global leadership in industry, conservation, and academia. To realize the full potential of funding, activity, and partnership for conservation, Texan by Nature works to not only bring industry and conservation together, but to highlight and provide sound data that makes the case for conservation.

STATE OF QUAIL IN TEXAS

Patrick Schutz, Upland Game Bird Program Leader, Texas Parks and Wildlife Department, Graham, TX

The outlook for quail across Texas provided cautious optimism coming off a productive 2024-25 quail season. Following widespread rainfall and favorable climatic conditions, much of the state entered spring with good habitat for breeding and nesting opportunities. As a result, early reports suggested an increase in both quail production and abundance, leading to improved hunting opportunities for the 2025-26 quail season. Harvest numbers and hunter participation are up from the previous year—welcome news for both land managers and quail enthusiasts.

This presentation will highlight roadside survey data from across multiple ecological regions, offering an up-to-date snapshot of quail abundance trends. While recent numbers are encouraging, they must be viewed within the context of long-term declines driven by habitat loss, land fragmentation, and inconsistent weather patterns. Yet, amid these challenges, success stories continue from both private and public lands where targeted habitat management is yielding results. Texas Parks and Wildlife Department remain committed to funding and supporting collaborative research conducted by universities, NGO's, and other agency partners. These projects are advancing our understanding of quail ecology, informing management decisions, and building momentum for conservation.

Now more than ever, the path forward requires strong communication, cooperation, and commitment to conserving Texas' quail species. This session will explore not only the current state of quail, but also the management, research, and partnerships needed to sustain them for generations to come.

VIRTUAL FENCING TECHNOLOGY: VENCE

McCalley Cunningham, Merck Animal Health, College Station, TX

Vence, a subsidiary of Merck Animal Health, is virtual fencing technology that is transforming the way ranchers manage cattle, grazing systems, and wildlife habitats across the United States. This innovative system uses GPS-enabled collars to create flexible, fenceless boundaries that optimize land use, enhance cattle production, and restore wildlife habitats. This presentation reviews how Vence works, its applications in diverse regions, and the opportunity it creates for sustainable land and livestock management.

TPWD, JOINT VENTURES, AND CONSERVATION DELIVERY

Derek Wiley, Texas Parks & Wildlife Department, Conservation Delivery Specialist

Texas Parks and Wildlife Department (TPWD) has invested in various habitat conservation programs over the last decade, often with a native grassland or grassland bird species focus (e.g., northern bobwhite, western meadowlark). Examples include the Grassland Restoration Incentive Program (GRIP), Coastal GRIP (C-GRIP), Habitat Incentive Program (HIP), Landowner Incentive Program (LIP), Panhandle GRIP (P-GRIP), Pastures for Upland Birds (PUB), and South Texas GRIP (STX GRIP). These programs are often administered in association with regional, self-directed partnerships called Joint Ventures (JV). There are 5 JVs covering every ecoregion of Texas that provide landscape level planning and conservation priorities within their geographies. The original JV habitat conservation program, GRIP, is within the Oaks and Prairies geography and geared toward grassland bird conservation with bobwhites being a major focus. Through these programs TPWD and partners offer technical and financial assistance to private landowners to assist with management actions recommended in wildlife habitat management plans. These partnerships have led to grant awards exceeding $15 million dollars and provided funding for conservation action on >215,000 acres, providing not only improved wildlife habitat, but ecosystem services for the benefit of all Texans.

USDA-NRCS, Helping People Help the Land

Ryan McClintock, USDA-NRCS, San Angelo, TX

Derived from the Dust Bowl era of the 1930's, the Natural Resources Conservation Service (NRCS) was originally called the U.S. Department of Agriculture (USDA) Soil Conservation Service (SCS). Originally developed to address the millions of tons of topsoil that was blowing away, the NRCS has transitioned today into an agency that helps producers conserve all natural resources on their lands. With approximately 2,300 Service Centers nationwide, NRCS employees work one on one with agricultural producers on a voluntary basis. The goal of the agency is to provide sound technical advice and answers to conservation issues. This in turn helps agriculture producers achieve their individual goals and objectives, while also addressing resource concerns on the land. In addition to technical assistance, NRCS provides several financial assistance programs that can help producers in achieving their conservation goals. NRCS is dedicated to assisting all sectors of the agriculture community, no matter the size of the operation. Whether it is working with farmers to improve irrigation efficiency, enhancements that create backyard pollinator habitat, or developing a livestock grazing management strategy for ranchers, your local NRCS Service Center is available and willing to help.

A BEACON OF HOPE BEHIND THE PINE CURTAIN: RESTORING QUAIL IN A FORGOTTEN LANDSCAPE

Bradley W. Kubečka, Tall Timbers Research Station and Land Conservancy, Tallahassee, FL

For the past several decades, the lion's share of quail research and management has been focused to south Texas and the Rolling Plains with less attention paid to other regions or public lands such as those in the Pineywoods of Texas. This ecoregion is bequeathed with abundant rainfall, and more than 600,000 acres of national forests can be accessed within a 2-hour drive of Lufkin. Restoring habitat in landscapes where populations are virtually extirpated may or may not result in colonization and expansion of bobwhite populations. Conservation planning in landscapes with highly fragmented habitat require thoughtful execution to maximize successful population outcomes. Here, I report two case studies as examples for population expansion in the Pineywoods by 1) successfully utilizing translocation as a recovery tool on private lands, and 2) identifying remnant populations on public lands where a population response is most likely to occur from habitat management without a need for translocation. Concepts therein can be used for focal area prioritization and conservation and research funding. The Pineywoods of Texas has incredible potential to once again be a quail hunting destination. Making this a reality will first require collective efforts in habitat management, notably timber thinning and the frequent application of prescribed fire.

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TEXAS BRIGADES

Allie Allcorn, Executive Director of Texas Brigades, New Braunfels, TX

The Texas Brigades is a 501(c)(3) nonprofit organization that began 30+ years ago as a single youth camp focused on the ecology of bobwhite quail. Since then, it has expanded to include additional programming in pursuit of furthering natural resource conservation education, strengthening leadership development and connecting youth across Texas to the outdoors. Texas Brigades aims to ensure that land stewardship and conservation are a long-term priority and passion for urban and rural backgrounds alike. Texas Brigades offers transformative educational initiatives and leadership training for adolescents across Texas through three comprehensive, conservation-focused programs: Summer Brigade Camps, Experiences, and Wildlife Intensive Leadership Development (W.I.L.D.). Annually, these programs shape the lives of nearly 300 young leaders. Texas Brigades has extended its positive influence to over 1,000 communities through its empowered participants, who depart equipped with the confidence to initiate conservation dialogues in their communities. Beyond enriching their understanding of natural resources stewardship, participants forge valuable professional connections that pave the way for their future endeavors.

TECHNOLOGY AND QUAIL

Dr. Dan Foley, Research Scientist, Rolling Plains Quail Research Foundation, Rotan, TX

The Rolling Plains Quail Research Ranch is experimenting with emerging technologies to address persistent challenges in quail management. Autonomous recording units (ARUs) provide continuous, non-invasive monitoring of vocalizations, while GPS tracking collars yield detailed insights into movement and habitat use. Preliminary data from these efforts, though still undergoing validation, show promising potential to enhance detection probabilities, improve population assessments, and inform management interventions. These technologies represent a forward-looking approach to evaluating habitat quality and guiding conservation strategies. Early results suggest that ARUs and GPS collars could become valuable tools in strengthening quail management across Texas landscapes.

QUAIL COALITION

OUR MISSION

"To sustain and restore huntable wild quail populations, to encourage and educate interested youth, and to celebrate our quail hunting heritage in this region."

CHAPTER LOCATIONS

Big Covey - Wichita Falls
Cross Timbers - Ft. Worth
Greater Houston - Houston
Hill Country - Austin
Park Cities Quail - Dallas
Permian Basin - Midland
San Antonio - San Antonio
South Texas - Kingsville
Trans Pecos - Alpine
Sooner State - Oklahoma City

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TESTING THE BENEFITS OF AN INTEGRATED TREATMENT OF PREDATOR REDUCTION AND BROADCAST SUPPLEMENTAL FEED FOR BOBWHITE POPULATIONS

Dr. Brad Dabbert, Texas Tech University, Lubbock, TX

We are testing the benefits of an integrated treatment of predator reduction and broadcasting supplemental feed into suitable habitat on bobwhites on the Pitchfork Ranch. This integrated treatment includes a water-resistant high protein feed pellet designed for bobwhite chicks, as well. Bobwhite chicks must have high protein insects in their diet the first few weeks of life or they will not survive. Our feed pellet is designed to provide chicks with protein when insects are not available because of drought; the number one foe of bobwhites in western Texas. The Texas Tech™ Quail research team documented reduced chick growth during the 2011 drought and chick survival was essentially zero. Hens brought broods to broadcast feed lines during the drought, but sorghum does not have sufficient protein for chicks. We developed our feed pellet to be broadcast with sorghum to overcome this deficiency. Our experiment compares survival of adults, nests, and chicks in a 3,500 acre treatment area to bobwhites living in a control area. Data from the third year of the experiment shows the continued effectiveness of our integrated treatment compared to the control. Population growth in the treatment area has greatly outpaced growth in the control area. Our treatment area held a fall 2024 bobwhite density of 0.41 birds per acre. This density is 3 times the density of bobwhites on the control site (0.14 birds per acre). Our integrated treatment positively influences both survival and reproduction. We have noticed a profound effect on adult survival during the winter of 2024-25. Survival of bobwhites in the treatment area between November 1, 2024 and February 28, 2025 was 74%. Survival of bobwhites in the control area was only 15%.

THE VALUE OF INCORPORATING STAKEHOLDER PERSPECTIVES INTO WILDLIFE CONSERVATION: A CASE STUDY OF THE NORTHERN BOBWHITE DECLINE IN TEXAS

Kristyn G. Stewart-Murphy, Caesar Kleberg Wildlife Research Institute, Texas A&M University–Kingsville, Kingsville, TX, 78363, USA

Wildlife management and research generally fall within 1 of 3 categories of the wildlife management triad: 1) habitat, 2) wildlife populations, or 3) stakeholders. If conservation is to be effective, then conservation efforts should include all 3 components when managing wildlife, especially those of highest conservation concern. The northern bobwhite (*Colinus virginianus*) is a popular gamebird with high social and economic value that have garnered much research attention due to their alarming distribution-wide decline. However, the majority of this research has focused on their habitat and population dynamics with virtually no attention devoted to the stakeholder component. To bridge this knowledge gap, our objective was to document stakeholder perspectives on the bobwhite decline in Texas, with specific focus in the northern and southern part of the state. We distributed an online survey (n = 45 questions) in November 2024 that remained open until February 2025, during which we received 2,240 responses (43% northern Texas; 36% southern Texas). More respondents in northern Texas (86%) believed quail were declining in their region compared to respondents from southern Texas (58%). In addition, although most respondents agreed on the primary factors influencing quail populations (e.g., habitat loss and rainfall), we documented that a higher percent of stakeholders in northern Texas (42%) believed parasites were a significant factor impacting quail compared to respondents from southern Texas (25%). We discuss the broader significance of these and other findings and provide implications for the conservation and management of the species across its geographic distribution.


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WEST TEXAS QUAIL RESEARCH UPDATE

Dr. Ryan Luna, Borderlands Research Institute, Sul Ross State University, Alpine, TX

The Trans-Pecos is blessed to be the only portion of the state with all four quail species. As such, we focus our research efforts on the projects targeting scaled quail, Montezuma quail and Gambel's quail. Our current projects on Montezuma quail are targeting ways to determine occupancy and population estimates. We are using ARUs (Autonomous recording units) to record vocalizations of Montezuma quail throughout the region. We created a habitat suitability map and are currently surveying across the gradient of habitat qualities to determine occupancies that could then be used to determine our overall population of Montezuma quail in the state. Additionally, we have research ongoing that is assessing habitat selection and survival across seasons for Scaled quail. We have quail backpacked with satellite backpacks to obtain fine scale movements each day and overlay this with habitat characteristics. We also have a habitat restoration project ongoing that is targeting removal of undesirable brush species, reseeding, and building structures such as trincheras and waddles to influence sedimentation and soil moisture retention.

UPDATES FROM EAST FOUNDATION'S SUSTAINABLE HARVEST PROJECT

Dr. Abe Woodard, Range and Wildlife Scientist, East Foundation, Hebbronville, TX

The East Foundation is an Agricultural Research Organization that owns and manages over 217,000 acres in South Texas. Our quail research program is an integral part of the East Foundation's mission to promote the advancement of land stewardship through ranching, science, and education. In 2018, we began a long-term study to address the unanswered questions related to the harvest of northern bobwhites (Colinus virginianus) and the effects of harvest-related pressures on bobwhite populations. We are evaluating the harvest rate recommendation for South Texas (~20%), the spatial and temporal dynamics of bobwhite hunts and the effects on bobwhite distributions, the viability of various spring densities post-harvest, and many other critical questions. The investigations began on 30,000 acres but have now expanded to include over 70,000 acres in Jim Hogg and Kenedy Counties. This presentation will provide an update on the project, discuss a few key findings, and outline future objectives.

MEDICATED FEED FOR QUAIL

Ronald J. Kendall, Ph.D., Professor of Environmental Toxicology, Head of the Wildlife Toxicology Laboratory, Texas Tech University, Lubbock, TX

The northern bobwhite (Colinus virginianus) is generally experiencing continued decline in Texas in spite of some good years (2016) followed by dramatic decrease (2018, 2019, 2020, etc.). The goal of the Wildlife Toxicology Laboratory (WTL) at Texas Tech University is to provide scientific data and demonstration of sustainable huntable wild quail (particularly northern bobwhite) populations. Significant disruption in quail populations in Texas is parasitic disease including the eyeworm (Oxyspirura petrowi) and the cecal worm (Aulonocephalus pennula), among other factors. To date, the WTL has invented, patented, and registered with the United States Food and Drug Administration an anthelmintic medicated feed now known as QuailGuard®. It has been proven to be safe and effective in removing parasitic infection from quail and the human food tolerance does not require a withdrawal period. The WTL has been testing QuailGuard® on five ranches in the Rolling Plains of Texas and Oklahoma for a number of years and the results in sustaining wild quail populations has been very positive. Using a "weight-of-the-evidence" scientific approach supported by 52 peer-reviewed scientific publications to date from the WTL, the hypothesis of parasitic disease influencing quail populations is not only plausible but a biological reality that can be positively influenced by strategically introducing a medicated feed article into the natural habitat of northern bobwhite and other quail for a treatment period of three weeks in the spring and fall of each year. Scientific data as well as hunting activity and success will be discussed from information collected from medicated feed demonstration ranches.

NGOs IN TEXAS; HOW TO GET INVOLVED

Jay Stine, Quail Coalition, Dallas, TX

The emergence of Quail Coalition began in Dallas, TX, when the leadership of Park Cities Quail Unlimited decided to form its own independent 501(c) 3 non-profit organization. The drive behind this effort was the desire to retain ownership of funding raised at local events, of which Park Cities Quail achieved the designation as the largest grossing chapter in the nation. The ability to direct their funds raised to quail conservation beneficiaries of their choice was appealing to the other local quail groups in Texas, and the consolidation was initiated to form what is now known as Quail Coalition. By only having a single employee and limiting operational overhead, we are able to direct virtually 100% of every dollar raised towards quail research, habitat improvement, and youth outreach programs like Bobwhite Brigade. The mission statement of Quail Coalition is "to sustain and restore huntable wild quail populations, to encourage and educate interested youth, and to celebrate our quail hunting heritage in this region." Quail Coalition works toward this mission by minimizing overhead, and targeting approximately $1.4 million annually towards quail research and conservation. The Tall Timbers, Rolling Plains Quail Research Ranch, Caesar Kleberg Wildlife Research Institute, Quail Tech, Borderlands Research Institute, American Bird Conservancy and The Wildlife Habitat Federation count themselves among the beneficiary groups working to solve the puzzling decline of the bobwhite quail in our region.

BOBWHITES AND BEYOND: BUILDING BIRD-FRIENDLY RANGELANDS

Anita Gilson, Audubon Texas, Sweetwater, TX

The whistle of a bobwhite or flush of a covey is music to any quail enthusiast's ear. However, amidst the songs of our prairie idol there lies a chorus of other grassland birds. While we may not all hold the same accord for the flutelike notes of an eastern meadowlark, or the dry buzz of a grasshopper sparrow, we can agree that a complex chorus alongside our beloved bobwhite whistle is often an anthem of healthy habitat. This presentation will highlight how the very practices that create quality bobwhite habitat, such as structural diversity, native plant cover, and well-managed grazing, also sustain a wider community of declining grassland birds. Drawing on case studies from Texas ranches enrolled in the Audubon Conservation Ranching (ACR) program, we will examine the ecological connections between quail and other grassland specialists. We will see how best management practices for quail ripple across the ecosystem, from enhancing soil health to improved wildlife habitat. By viewing bobwhites as both a cherished game species and a gateway for broader conservation, we can strengthen the role of hunters and land stewards in securing the future of America's grasslands.

WILDLIFE HABITAT FEDERATION'S COLLABORATIVE CONSERVATION EFFORTS WITH USDA-NRCS IN TEXAS

Garry Stephens, President/CEO, Wildlife Habitat Federation, Cat Spring, Texas

Wildlife Habitat Federation (WHF) will showcase its statewide efforts to restore and enhance quail habitats through a cooperative agreement with the USDA's Natural Resources Conservation Service (NRCS). Leveraging NRCS programs like the Conservation Stewardship Program (CSP), Environmental Quality Incentives Program (EQIP) and Working Lands for Wildlife, WHF supports private landowners in implementing conservation practices to improve the quality of habitat of Northern Bobwhite (Colinus virginianus) and other quail species. These practices promote early successional habitat on native grasslands, shrublands, and pine savannah, which is essential for quail nesting, brooding, and foraging. WHF encourages adoption of techniques such as brush sculpting, native plant restoration, prescribed burning, and planned grazing to enhance habitat connectivity and quality for quail across Texas.

This agreement enables WHF to provide planning services at no cost to landowners to assess the opportunities available and obstacles on their properties in order to develop conservation alternatives. WHF continues to work with property owners and land managers to finalize plans, aid in seeking financial assistance, supervise implementation of the prescribed practices, certify completion, and aid in monitoring the effects on the natural resources present on the landscape.

This presentation highlights WHF's partnerships with the NRCS, Rolling Plains Quail Research Foundation, Texas Grazing Land Coalition, Audubon Texas, Texas Parks and Wildlife Department, Texas A&M AgriLife, Quail Coalition chapters and Texas Wildlife Association, emphasizing cross-boundary collaboration.

Attendees will gain actionable insights into sustainable habitat management, equipping landowners, project partners, and conservationists with solutions to ensure the long-term viability of Texas' quail populations.

OVERVIEW OF QUAIL FOREVER'S EFFORTS AND IMPACTS IN TEXAS

Thomas S. Janke, State Coordinator, Quail Forever, Gouldbusk, TX

What originally started as a small group of hunters concerned about declining pheasant populations and habitat loss in Minnesota 40+ years ago, has evolved into the nation's largest nonprofit organization dedicated to upland habitat conservation. Today, Pheasants Forever (PF) and Quail Forever (QF) consists of 750+ local chapters, and more than 480,000 members, supporters and partners dedicated to the protection of our uplands through habitat improvement, public access, education, and advocacy. Since its creation in 1982, the organization has dedicated more than $1 billion to 580,000 habitat projects benefiting 28.8 million acres. PF and QF currently has >600 employees, nearly 500 of which are biologists, spread across 40+ states. PF and QF chapter presence in Texas has roots dating back nearly 30 years and has now grown to 20+ chapters across the state. The organization's abilities and strategies to positively impact upland habitat conservation in the Lone Star State continue to rise with the growing number of dedicated biologists, members, partners, and supporters. Since 2018, our Texas staff have helped plan >650,000 acres of habitat treatments across state (most of which have been on private lands). In just the past 5 years, Texas QF staff have been involved with nearly 200 Rx burns, directly enhancing ~30,000 acres of habitat through the efforts! Ultimately, PF and QF's efforts and impacts are both complimentary and additive to the ongoing conservation efforts of our federal, state, NGO, and industry partners working towards making our state's and country's natural resources as healthy and sustainable as possible.

TEXAS WILDLIFE ASSOCIATION

Justin Dreibelbis, Texas Wildlife Association, New Braunfels, TX

Founded in 1985, the Texas Wildlife Association (TWA) is a private landowner and hunter rights organization based in New Braunfels, Texas. Through education, advocacy, and private land stewardship, TWA partners with landowners, researchers, and conservationists to implement habitat management practices that support healthy wildlife populations statewide. Attendees will gain insight into the organization and learn how TWA's science-based strategies and outreach programs are helping to sustain wild quail populations for future generations.

PRICKLY PEAR AND THE SOUTH AMERICAN CACTUS MOTH

Barron S. Rector, Texas A&M AgriLife Extension Service, Rangeland, Wildlife and Fisheries Department

The South American Cactus moth (Cactoblastis cactorum) was used in Australia as a biological control agent for prickly pear introduced from Central and South America in the 1920's and 1930's and within 10 years had brought about the general collapse and destruction of cactus plants that had overrun nearly 90 million acres of pastureland and farmland. The cactus moth is astonishingly destructive and is now a threat to the native cacti in the genus Opuntia of Texas including 19-25 species, but none are federal, or state listed as threatened or endangered species. The prickly pear species susceptible to the cactus moth have modified, somewhat round or oblong pads or cladophylls. Work in Georgia using cages demonstrated that all known prickly pear species in Texas have the potential to be a host plant for the cactus moth. The Cactus Moth is a native insect to the South American counties of Brazil, Argentina, Uruguay and Paraguay. The moth made its way from Cuba to Key West Florida in 2004 and was predicted by USDA Agricultural Research Service models to be in Texas by 2007 but halted it's westward movement on the Gulf Coast at Dauphin Island. In 2010 the cactus moth was found on dredging islands by a fisherman in the New Orleans port. The first documented occurrence of the cactus moth in Texas was confirmed on June 29, 2018, in Brazoria County in the town of Angleton infesting a spineless prickly pear species from the state of Tamaulipas in Mexico. The moth was trapped on June 29th in Matagorda County, found in pads on October 19th in Jackson County, found infesting prickly pear in Chambers County on March 17, 2020 and in Colorado County in 2021. Since native prickly pear species are a valuable group of plants in the Texas rangeland ecosystem, a pro-active educational and survey program was established in 2006 by Texas A&M AgriLife Extension Service and survey efforts reached 52 counties by 2012 as the moth was expected to enter Texas in 2007 from Central Louisiana or on ships entering the many Texas ports from the Caribbean Sea or Gulf of America. The establishment of the cactus moth in Texas threatens to severely compromise the integrity of the extensive semi-arid to arid ecosystems of Texas and particularly the delicate and precious desert environments valuable to native wildlife and a healthy Texas rangeland ecosystem. With the occurrence of the Uri polar vortex freeze in February 2021, it was suspected that the Cactus Moth might have been killed out, but infected prickly pear plants examined in March were found to have live

larvae that over-wintered inside the prickly pear pads from the previous fall. Since this period, researchers at the UT Brackenridge Field Lab have found the cactus moth in new additional counties in the coastal bend north of Nueces County. From research and rancher observations, quail do prefer perennial bunch grasses for nesting but any grass that offers good concealment will do. On years when grass was scarce, quail have seen using green forbs that were temporarily offering cover-probably because the quail had no other option. Dr. Dale Rollins once stated, that as much of our native bunch grasses like little bluestem have been grazed out of our rangeland, quail have an alternative nesting site available in prickly pear.

RESEARCH ON THE MONTEZUMA QUAIL (Cyrtonyx montezumae) AT SONORA STATE UNIVERSITY

Alberto Macías-Duarte, Academic Group of Natural Resources, Sonora State University, Hermosillo, Sonora 83100, Mexico

Abstract: Temperate forests and savannas, particularly those in sky islands, are shrinking throughout Mexico and the borderlands. The Montezuma quail is closely associated to grasses and oak trees, and the persistence of its populations is uncertain under the predictions of climate change. Sonora State University started a research program on Montezuma quail in 2015 to provide relevant information for the species' conservation under a changing environment. This research program has investigated factors that determine diet composition, population density, and genetic variation in U.S. populations. Geographic variation in diet composition is related to climatic, ecological, and intrinsic factors. Montezuma quail specializes on wood sorrel bulbs and sedge tubers and rhizomes, but its ability to feed on alternative food items suggests resilience to environmental change. In 2022, Sonora State University started a collaborative with Purdue University under the sponsorship of Texas Parks and Wildlife Department to expand previous research on genomic variation of Montezuma quail populations throughout the entire species' geographic range. Under this project, we collected 200 quail specimens in 10 Mexican States (Sonora, Chihuahua, Coahuila, Nuevo León, Zacatecas, Durango, Michoacán, Tlaxcala, Hidalgo, State of Mexico), West Texas and the Edwards Plateau. Collections of quail specimens at numerous locations revealed that shrub encroachment and exotic grasses (from both the tropical and Nearctic fronts), interacting with loss of grass cover for inadequate grazing practices, are accelerating the loss of Montezuma quail habitat in the Sierra Madre Occidental. Montezuma quail abundance is apparently higher in central Mexico, but the species is under strong pressure there from urbanization and development there.

HUNTING GEAR & NEW TECHNOLOGY

Steve Snell, Gun Dog Supply, Mathiston, MS

Technology has fundamentally changed the way we live our everyday lives, and hunting is no different. Keeping up with your bird dogs in the field no longer has to be difficult. We will discuss the current options for tracking and training your bird dogs in the field, plus gear to help keep you safe.

Topics will cover the dog tracking platforms Garmin Alpha and Astro, the Pro 550 Plus, Garmin watches that have dog tracking features, DriveTrack for tracking from a vehicle, the Garmin Explore App, and the Inreach options.

TPWD'S PUBLIC HUNTING OPPORTUNITIES

Kyle Hand, Texas Parks & Wildlife Department

Texas Parks and Wildlife Department (TPWD) offers public hunting opportunities on over 1 million acres of land throughout Texas. These areas consist of property owned by TPWD as well as acreage leased by the department from other state and federal agencies, forest products industries, and cooperating private landowners. These differing land types result in public hunting areas having great diversity in size, habitats, intensity of management, ease of access, and available game species. Public hunting opportunities throughout the state can be placed into three categories: Special Permit, E-Postcard, and Annual Public Hunting Permit (APHP) Walk-in Hunts. Through the public hunting system, TPWD also provides mentored hunts to introduce new hunters to the sport. Hunters taking part in TPWD's public hunting program have opportunities to hunt multiple species of upland game birds including northern bobwhite, scaled quail, wild turkey, ring-necked pheasant, and chachalaca.

MAKING CONNECTIONS THROUGH QUAIL SCIENCE: HOW STAKEHOLDER PERSPECTIVES SHAPE QUAIL MANAGEMENT

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Fidel Hernández, Caesar Kleberg Wildlife Research Institute, Texas A&M University–Kingsville, Kingsville, TX.
Jon S. Horne, Idaho Department of Fish and Game, Boise, ID
Sabrina H. Szeto, Sabrina Szeto Consulting, Isen, DE
Alejandra Olivera-Mendez, Colegio de Postgraduados, San Luis Potosí, MX
Angela M. Guerrero, Queensland University of Technology, Brisbane City QLD, AU

The conservation environment can be viewed as a suite of interconnected components comprised of habitat, wildlife, and people that form a social-ecological system. Northern bobwhite (*Colinus virginianus*) is a species that has experienced long-term population declines across its geographic distribution, and habitat loss and fragmentation are considered ultimate causes of this decline. There has been much research focused on habitat and population dynamics of bobwhites; however, very few studies have incorporated a human-dimensions perspective, and never as a social-ecological system. Our study investigates the bobwhite decline in Texas as a social-ecological system, focused on northern and southern Texas, where we quantified bobwhite habitat, population growth, and stakeholder perspectives. Preliminary survey responses (n = 1416) indicate similarities between northern and southern Texas stakeholders regarding habitat and weather topics; however, we found differences in stakeholder responses when asked if quail were declining in their area. We plan to quantitatively relate habitat and population growth data with stakeholder responses to provide data-driven results highlighting alignments (or mis-alignments) between stakeholder perspectives and on-the-ground conditions. This project represents a first approximation analysis of the bobwhite decline as a social-ecological system that will provide an analytical and conceptual framework for conservation that can be used with other species.

HABITAT LOSS AND FRAGMENTATION: HOW MUCH DO THEY REALLY INFLUENCE BOBWHITE POPULATIONS IN TEXAS?

Kristyn G. Stewart-Murphy, Caesar Kleberg Wildlife Research Institute, Texas A&M University–Kingsville, Kingsville, TX.

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Habitat loss and fragmentation are considered primary causes of species endangerment world-wide. For northern bobwhite (*Colinus virginianus*), habitat loss and fragmentation are considered ultimate factors influencing the species' decline. Although bobwhite habitat needs are well known, this life history knowledge is more relevant for management at a local scale but less so for addressing ultimate factors of the species' decline, given that habitat loss and fragmentation operate at broad spatial scales. Effectively addressing the bobwhite decline therefore requires knowledge of bobwhite habitat amount and connectivity at large scales. In Texas, population abundance of bobwhites differs between northern and southern Texas, and it is hypothesized that differences in habitat connectivity between regions may be a reason. The objective of our study was to evaluate this hypothesis and quantify and compare bobwhite habitat amount, configuration, and connectivity between northern and southern Texas. We used 2019 National Land Cover Data (NLCD) imagery to develop a map of bobwhite habitat. The NLCD imagery also was used to create a cost raster for calculating the least-cost path of bobwhite movement. We then used Program Conefor to estimate habitat connectivity with the least-cost paths using the equivalent connected area (EC) metric. Here we report on metrics of bobwhite habitat configuration (e.g., percent of habitat, largest patch index, and mean patch area) and connectivity (EC) between southern and northern Texas in the context of contrasting bobwhite population trajectories. The findings from this study will provide a better understanding of the degree of fragmentation in bobwhite habitat in Texas and help guide species conservation at regional scales.

HOW DO NORTHERN BOBWHITE RESPOND TO PRESCRIBED FIRE?

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Alejandro Bazaldua, Caesar Kleberg Wildlife Research Institute, Texas A&M University–Kingsville, Kingsville, TX, 78363, USA

Prescribed burning is a cost-effective and ecologically beneficial management tool used to improve habitat for northern bobwhites (Colinus virginianus). While the benefits of fire for promoting forb and bunchgrass growth are well established, less is known about how bobwhites respond to fire events. In spring 2025, we initiated a study to assess bobwhite survival, nesting behavior, and space use in response to prescribed fire using solar-powered GPS backpack transmitters. These GPS units collect location points every 6 hours, which allows for high-resolution tracking of individual birds without the intensive labor associated with traditional VHF telemetry. In early March 2025, we deployed transmitters on 20 bobwhites days prior to a 450-ac prescribed burn. We obtained fine-scale satellite imagery (3-meter resolution) of the study area the day after the burn and classified it into burned and non-burned areas using machine learning classification. We will use this classified map to evaluate the impact of landscape characteristics (percent are burned, mean burn-patch size, edge density, etc.) on bobwhite survival, nesting success, and space use. Preliminary data from pre- and post-burn periods suggests minimal displacement of bobwhites, possibly due to the patchy nature of the burn thereby providing areas of refuge. We will replicate this study next spring in a different prescribed burn area. This study represents the first use of solar GPS technology to document fine-scale bobwhite response to prescribed burning. Our results aim to inform land managers on how quail interact with recently burned landscapes and improve conservation practices on South Texas rangelands.

FACTORS INFLUENCING GEOGRAPHIC VARIATION IN THE COLORIMETRY OF MALE MONTEZUMA QUAIL (Cyrtonyx montezumae) PLUMAGES

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J. Andrew DeWoody, Department of Forestry and Natural Resources, Purdue University, West Lafayette, Indiana 79707, USA

The Montezuma quail is considered an ecological indicator of oak-pine grasslands in Mexico and the southwestern United States. Male Montezuma quail display subtle variations in their plumage throughout their geographic range. However, whether this variation is random or has adaptive value is still unknown. In this regard, the objective of this work was to determine whether colorimetric variation in Montezuma quail plumages is associated to environmental factors and geography. We examined 72 quail collected in Mexico (Sonora, Chihuahua, Coahuila, Nuevo León, Zacatecas, Durango, Michoacán, Tlaxcala, Hidalgo, State of Mexico) and 92 museum specimens from the USA (Arizona, New Mexico and Texas). We took four high-resolution photographs (6000×4000 pixels) per quail using a Canon® R6 Mark II camera equipped with a RF24-105mm F4 lens in sequence around craniocaudal axis every 90°. We used a multivariate multiple linear regression analysis to determine whether geographic variation in plumage colorimetry is associated with environmental factors. The multivariate response for each photograph were the average coordinates L*, a*, and b* in the CIELAB color space across pixels. We used threshold segmentation to eliminate the background. We included 19 bioclimatic variables from the WorldClim repository, altitude, latitude, longitude, region (Sierra Madre Oriental, Sierra Madre Occidental, Neovolcanic Axis and USA) and age (adult or juvenile) as explanatory variables. The explanatory variables influenced colorimetric responses of male plumages (standard multivariate hypothesis, Pillai's trace $V = 1.424$, Rao's F approximation = 20.453, d.f. = 75, 1698, $P < 0.001$). The colorimetric response of quail from Arizona, New Mexico and Texas differed from those originating from the Sierra Madre Occidental and Neovolcanic Axis (central Mexico).

DISTRIBUTION AND HABITAT CONNECTIVITY OF MONTEZUMA QUAIL IN THE SKY ISLANDS OF NORTHERN MEXICO AND SOUTHWESTERN UNITED STATES

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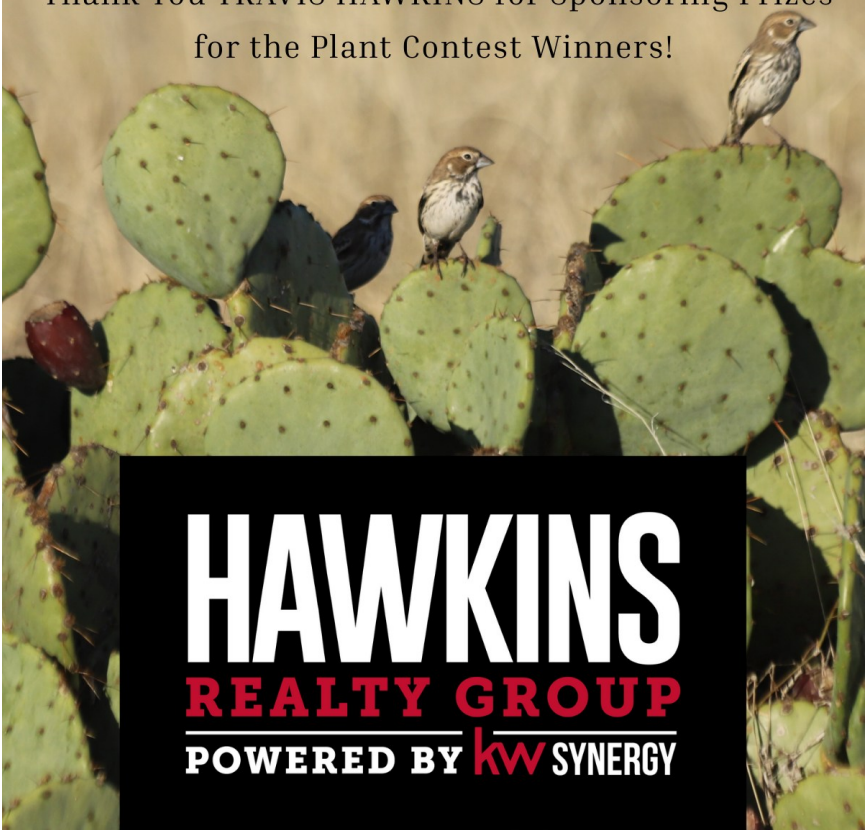
The Montezuma quail (Cyrtonyx montezumae) is a charismatic ground-dwelling bird distributed in a sky island pattern of temperate savannas and forests through its geographic range. Recent genetic studies have provided evidence of gene flow between distant populations, suggesting movement among a metapopulation's patches across the inhospitable seas of desert grasslands and shrublands valleys. To understand the current distribution of the Montezuma quail it is important to consider how historical climatic periods have shaped the quail's presence in the North American Sky Islands region. In this regard, our objectives are to determine the current corridors and the historical distribution of Montezuma quail in Mexico and southwestern U.S., including West Texas and the Edwards Plateau. We used circuit theory and ecological niche models (present and past) to determine current habitat connectivity and historical distribution of Montezuma Quail, respectively. Our best niche model identified continuous habitats and sky islands habitat, the latter present in the grasslands and shrublands of the Mexican Plateau. Circuit theory models showed connectivity between "island" patches to "continent" continuous habitat, reflecting the current existence of biological corridors for Montezuma quail that maintain the metapopulation. Furthermore, our past niche models show the evolution from a large continuous habitat during the Last Glacial Maximum to a fragmented current habitat, possibly following the appearance of grasslands after the postglacial period in northern Mexico and southwestern United States. The presence of perennial grass and forbs allows quail to move and colonize new islands, but this may be intermittent depending on year-to-year variations in biomass due to pressure of grazing, agriculture, and climate change.

PLANT ID CONTEST

Special thanks to: Hailey Hawkins, Hunter Hopkins and Annaliese Scoggin with the Texas Parks & Wildlife Department for organizing the Plant Identification Contest.

"What is a weed? A plant whose virtues have not yet been discovered." Ralph Waldo Emerson

Thank You TRAVIS HAWKINS for Sponsoring Prizes for the Plant Contest Winners!



Important Silent Auction Information

· All initial bids must include your **name, bid amount, and preferred contact information (phone or email)**. Subsequent bids must include bid amount and name.

· Winning bids must meet the age requirements (if stated), **minimum starting bid and minimum bid increments** listed for each item. If the final bid does not meet these requirements, the last valid bid will be honored.

· **All items must be picked up at the event**. If shipping is required, the winning bidder must make arrangements and cover all costs by Oct 31, 2025 or forfeit item.

· Payment is due at the event by **cash, check, or credit card**. No invoicing will be provided.

Thank you for supporting quail conservation, research, and education!

Special thanks to Natalie Wolff for organizing the silent auction!

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PRESERVING TEXAS' WILD QUAIL
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AND FUTURE, GENERATIONS.
Photo by Katy Hoskins