Sessions Agenda & Descriptions
Last Updated: September 29, 2026

Please Note:
All items on the agenda are tentative and subject to change prior to event registration and the final event agenda.

Please consider the environment before printing this 50+ page agenda.

OUR MISSION

To develop a corps of well–informed volunteers to provide education, outreach, and service dedicated to the beneficial management of natural resources and natural areas within their communities for the State of Texas.

Program State Sponsoring Agencies:

About the 2026 Annual Meeting

Welcome to Waco, Texas! This year marks our 27th Annual Meeting and the 28th year of the Texas Master Naturalist Program. We have scheduled over 150 different presentations and field sessions with a variety of topics and speakers from around the state. Outside of the classroom, we also have plenty of opportunities to meet new friends and old friends alike, beautiful artwork and photos entered into our annual contest, and a wide variety of chapter projects on display in the Project Fair. Enjoy this weekend of comradery and learning! Thank you for being here with us to celebrate another year of incredible conservation impacts on the land!

KEY for Agenda

Field Session
Advanced Training Session
Meal

Wednesday October 21st, 2026

8:00 AM - 12:00 PM

Texas Stream Team Citizen Science Training

- *Michaela McCown, McLennan Community College*
- *Nora Schell, City of Waco*

Field Session

Texas Stream Team is a citizen science program that tests water quality across Texas to help better understand our 191,000+ miles of waterways. This session will train participants to become a Texas Stream Team Citizen Scientist using the Standard Core, or chemical, training parameters.

After training, citizen scientists are asked to make a commitment to monitor at least one site monthly for at least one year. Citizen scientists performing water quality are encouraged to monitor their site(s) monthly at the same time of day each month. Citizen scientists are not provided a kit after training; they will need to either purchase a kit (approximately $700 - $800) or borrow one from an active testing group in their local area.

Participants must complete the online module prior to coming or you will not be able to participate; this provides essential background information that is needed to understand the testing. This module takes less than an hour to complete.
Link for online module:
https://storymaps.arcgis.com/stories/efa910ed3c3e40dca41fbae67e5a9e0c

9:30 AM - 4:30 PM

Industry Insiders Discovery Tour of Fossil Rim Wildlife Center

- *Karen Aho, Fossil Rim Wildlife Center*

Field Session

Fossil Rim Wildlife Center is a non-profit 501(c)3 entity, specializing in captive breeding programs for indigenous and exotic endangered and threatened species, and our mission is to create a better future for wildlife through our passion, place, and partnerships.

Join us for an “Industry Insiders” Discovery Tour of our 1,800 acre conservation-breeding facility! Participants will ride on open-air, safari-style vehicles, meet several Animal Care Specialists to learn how we conserve species, and experience how Environmental Engagement staff carefully interpret the work we do for our guests. The tour will be approximately 4.5 hours long, with a rest break, and we will stop for lunch around 1 pm, over halfway through the tour. Participants may purchase lunch at the Overlook Cafe or are welcome to bring their own lunch to enjoy in our picnic facilities.

Participants are responsible for a $65 tour fee, payable directly to Fossil Rim Wildlife Center prior to the event. Payment instructions will be provided to registered participants, and payment must be received in advance to confirm participation.

Following the tour, you will have several optional opportunities to learn more about how our Environmental Engagement team facilitates experiences that encourage guests to discover their roles and responsibilities within the natural world, including the use of nature trails, interpretive signage, and our interactive exhibit space, “Conservation Investigations.”

Please note that, due to behind-the-scenes access, the tour includes short walks and stairs. Please reach out to education@fossilrim.org if you have any accessibility or mobility concerns. Please also note your registration so we can ensure we accommodate your needs appropriately.

1:00 PM - 5:00 PM

TMN Annual Meeting - BioBlitz

- *Rachel Grotte, Texas Parks and Wildlife Department*
- *Wendy Anderson, Texas Parks and Wildlife Department*

Field Session

Join us for a hands-on bioblitz at a nearby natural area! In this interactive field session, participants will explore local habitats, document species using iNaturalist, and sharpen their observation and ID skills. Learn tips for leading bioblitzes, engaging the public, and contributing valuable data to citizen science.**0/21/2026**

8:00 PM - 11:00 PM

Blacklighting/Mothing at Mother Neff State Park (limited vehicles!)

- *Sam Kieschnick, Texas Parks and Wildlife Department*

Field Session

Blacklighting/Mothing at Mother Neff State Park (limited to 20 vehicles, so please carpool!)

Thursday October 22nd, 2026

8:00 AM - 10:00 AM

On the Water with a Limnologist: Brazos River Field Experience

- *Thad Scott, Biology Department, Center for Reservoir and Aquatic Systems Research- Baylor University*
- *Melissa Mullins, Center for Reservoir and Aquatic Systems Research (CRASR), Baylor University*

Field Session

Step aboard for a boat-based exploration of the Brazos River through downtown Waco and into the Bosque River just below Lake Waco Dam. Guided by Baylor water researchers, this field session offers a behind-the-scenes look at how limnologists study rivers in real-world settings.

Participants will cruise along an impounded section of the river while learning how water movement, structure, and upstream management shape what we see on the surface—and what's happening beneath it. Along the way, we'll introduce core limnology concepts in an informal, conversational format: what we measure (like temperature, dissolved oxygen, and clarity), how we measure it, and why those data matter for understanding river health.

This is a hands-on experience. Participants will have the opportunity to interact with field equipment used in aquatic science research and see how data are collected directly from the water. We'll also discuss current water quality issues affecting the Brazos River and how scientists and communities work together to respond.

By the end of the session, participants will:
-Gain a practical understanding of how limnologists study rivers
-Recognize how dams and impoundments influence river systems
-Connect field measurements to real-world water quality challenges
-Feel more confident interpreting what they observe in their own local waterways

Whether you're new to aquatic science or looking to deepen your field knowledge, this session offers a unique chance to experience the Brazos River from the perspective of a working limnologist—on the water, where the science happens.

8:00 AM - 12:00 PM

A Walk in the Park - Plants of Mother Neff State Park

- *Rebecca Roe, Good Water Chapter*
- *Carol Smith, Central Texas Chapter*

Field Session

Mother Neff State Park became the inspiration for the Texas State Park system when, in the 1920s, Isabella Neff, mother of Governor Pat Neff, donated 6 acres of land along the Leon River to the people of Texas. It has now grown to 400 acres.

The park is located at the convergence of three ecological zones—Lampasas Cut Plain, Washita Prairie, and Blackland Prairie — forming four distinct habitats from the Leon River bottomland to the upper prairie. This diverse geography supports rich biodiversity, with numerous species of plants, insects, birds, and other animals.

Learn some of the history and geology that make this park special. Then go for a walk to observe the plants (and maybe some other wildlife) that call these diverse habitats their home.

8:00 AM - 12:00 PM

Habitat for Fishes (Session 1)

- *Michael Baird, Texas Parks and Wildlife Department*
- *Andrew Althoff, Texas Parks and Wildlife Department*

Field Session

Participants may log either Advanced Training or Volunteer Service hours for the applicable portions of the session, based on the activities they complete.

Reservoirs in Texas are aging, and woody structures (e.g., standing timber, lay downs, stumps and root wads) which were once healthy and strong are slowly weathering and eroding away. This loss of hard structure effects fishes and many other aquatic organisms by reducing habitat complexity needed for important aspects of their life cycle. Hard structures help prevent erosion, provide surfaces for algal growth and early food-chain activities, provide refuge and cover for small fishes and prey species, and serve as ambush sites for sport fishes of all kinds. They also provide areas of opportunity for anglers seeking sport fishes which is an important aspect of all fisheries.

Many states, including Texas, have developed formal habitat programs where the addition of artificial (i.e., man-made) habitats are helping to replenish lost habitat and improve fisheries. All of these programs depend heavily on partnerships with other state and federal agencies, small groups, private citizens and volunteers. There are many habitat styles being used in Texas, but we've chosen to work with a few of our own designs which are simple, inexpensive and attempt to emphasize the use of natural materials.

During these field sessions, participants will learn about the different types of contemporary artificial habitats being used in Texas, their pros and cons from a Fisheries standpoint, along with their utility in Fisheries Management. Participants will receive training on how to design and build artificial habitats currently being used by the Waco District. And lastly, participants will help construct habitats that are going to be used in nearby Lake Whitney as part of an actual Fisheries Management Project. This is a hands-on field session that will culminate in hundreds of usable fish habitat structures by the end of the field sessions! Participants will leave with the ability to train others throughout the state and use the knowledge gained to improve fish habitat within any private or public water body in need.

8:00 AM - 12:00 PM

Lake Waco Wetlands

- *Nora Schell, City of Waco*

Field Session
Enjoy a hay less hayride around the Lake Waco Wetland and learn about the history and on-going projects associated with the man-made Wetland. Learn about the Brazos River and Bosque River Watersheds and how Lake Waco provides the drinking water source for the City of Waco and surrounding cities dependent on Waco water.

8:00 AM - 12:00 PM

Cretaceous Marine Fossils of Central Texas: Waco Shale Pit

- *Elizabeth Petsios, Baylor University*

Field Session
This field session will focus on the Waco Shale Pit one of the most fossiliferous Upper Cretaceous (100 to 65 million years ago) marine sites in Central Texas. The site is part of the located in the Lake Waco Research Area overseen by the US Army Corps of Engineers, with exposed marine sedimentary deposits of the Grayson Formation (Del Rio Clay member). These marine sediments were deposited within the Western Interior Seaway approximately 90 million years ago (Cenomanian Age), the site preserves a diverse assemblage of marine invertebrates that inhabited the shallow tropical seas covering Texas during this time. Participants will explore the geology and stratigraphy of the Waco Formation, with emphasis on the depositional environments, sedimentology, and faunal assemblages recorded within these shale deposits.
The Waco Shale Pit is particularly well known for its abundant and exceptionally preserved fossils, including ammonites (both planispiral and heteromorphic types), inoceramid bivalves, scallops, oysters, gastropods (sea snails), echinoids (sea urchins, sand dollars, and sea biscuits), and shark teeth. The locality was also historically known for a remarkable lagerstätte deposit containing fully articulated ophiuroids (brittle stars), though such finds are now exceptionally rare. Depending on the composition of the original seashell, some fossils are preserved with little physical and chemical alteration compared to their living forms, while others, like the ammonites and gastropods, have been completely replaced with pyrite. An equally interesting assemblage of ichnotaxa (trace fossils) can be found at this location as well, revealing interesting interactions between these organisms and the substrate on which they lived. These fossils and the rocks in which they occur provide insight into ancient marine ecosystems, paleoecology, and environmental change during a time of globally elevated sea levels and greenhouse climates. Participants will learn how paleontologists use fossil assemblages and stratigraphic relationships to interpret ancient environments, correlate rock units across Texas, and reconstruct the history of the Cretaceous seaway. The field session will include hands-on examination of fossils in situ and discussion of the broader geologic history of Central Texas during the Cretaceous Period.

10:00 AM - 12:00 PM

Citizen Science - Assist the Park Paleontologist (Session 1)

- *Lindsey Yann, National Park Service*

Field Session
Assist the Park Paleontologist with the hunt for microfossils!
The site is known for the giant Columbian mammoths, but fish, lizard, and small mammal fossils that are only 1-3 millimeters in size help us better understand the

environment ~67,000 years ago. Sediment collected from around the Columbian mammoth fossils needs to be wet screened to look for these hidden microfossils. The session will start with an introduction to the small fossils examined through a microscope. The group will then move outside to learn both how to screen wash and how researchers use these fossils to reconstruct the environment.
Additional opportunities are available for those interested in local volunteering opportunities.

10:00 AM - 12:00 PM

On the Water with a Limnologist: Brazos River Field Experience

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10:30 AM - 12:30 PM

Cameron Park Zoo Behind the Scenes Tour

- *Holley Day, Cameron Park Zoo*

Field Session

We will go behind the scenes of the zoo, touch a rhino, discuss our compost program, and end the visit with a trip to our new and improved Butterfly Garden.

11:00 AM - 2:00 PM

Chapter Leadership Luncheon - Chisolm Hall

- *Michelle Haggerty, Texas Master Naturalist Program*
- *Mary Pearl Meuth, Texas Master Naturalist Program*
- *Hannah Ferguson, Texas Master Naturalist Program*

Advanced Training Session

This session is for Chapter Presidents, Chapter Advisors or the Chapter President Designee to attend, hear about statewide initiatives, program updates and accomplishments. There is also usually time for an open format forum.

1:00 PM - 3:00 PM

Citizen Science - Assist the Park Paleontologist (Session 2)

- *Lindsey Yann, National Park Service*

Field Session

Assist the Park Paleontologist with the hunt for microfossils!
The site is known for the giant Columbian mammoths, but fish, lizard, and small mammal fossils that are only 1-3 millimeters in size help us better understand the environment ~67,000 years ago. Sediment collected from around the Columbian mammoth fossils needs to be wet screened to look for these hidden microfossils. The session will start with an introduction to the small fossils examined through a microscope. The group will then move outside to learn both how to screen wash and how researchers use these fossils to reconstruct the environment.
Additional opportunities are available for those interested in local volunteering opportunities.

1:00 PM - 3:00 PM

Forest Bathing: Gifts from the Trees (And Should I Bring a Towel?)

- *Margaret Tolboom, Dairy Solutions, Inc*

Field Session

NOTE - Not Advanced Training
Does being outdoors in the forest help you feel better? Science now supports your sense of well-being. Find out the amazing how's and why's of forest bathing, or shinrin-yoku in Japanese. Shinrin-yoku is using your senses while being in the forest to reduce your stress levels. During a hike along a forest trail, you will learn how to get the maximum benefits that lead to lowered blood pressure, increased energy, lowered stress and much more. Forest bathing originates from Japan, but studies from around the world will be discussed. Afterwards, you will be able to share this information with your chapter and community through an enjoyable nature walk, discussing how we can have the gift of improved health from the nature surrounding us. (And don't worry… you don't need a towel. Benefits still happen while fully dressed.)

1:00 PM - 5:00 PM

Stewards of the Land: Ecology Walk and Habitat Management at Malone Preserve

- *Daniela Parker, Texas Land Conservancy*
- *Jack Cearley, Texas Land Conservancy*

Field Session

Join us at Malone Preserve for a field session exploring habitat management, prairie restoration, and community stewardship within the Cross Timbers ecoregion. Participants will enjoy an ecology walk while learning about the preserve's history, restoration efforts, and the annual "Bison Stomp," where native seed is spread and stomped into the soil to mimic historic bison activity and encourage prairie growth. The session will also highlight how community partnerships and the local Texas Master Naturalist chapter help support conservation and engagement at one of the only protected preserves in the Rio Vista area.

1:00 PM - 5:00 PM

The 2025 Texas Hill Country Floods: Restoration Efforts and Lessons Learned - McLennan Hall - 207

- *Ryan McGillicuddy, Texas Parks and Wildlife Department*
- *Gaby Tamez, Texas Parks and Wildlife Department*
- *Lexy Salinas, Texas Parks and Wildlife Department*
- *Angela England, Texas Parks and Wildlife Department*

Advanced Training Session

Over the 4th of July weekend in 2025, catastrophic flooding occurred in several watersheds throughout the Texas Hill Country. Flood waters along the upper Guadalupe River in Central Texas rapidly crested near 300,000 ft^3/s, reaching a gage height of 37.52 ft above baseflow. In addition to the tragic loss of 119 lives in Kerr County alone, ecological impacts were also significant, with ~52% of vegetation within the floodway lost or denuded. Extensive geomorphic alterations to the river's pattern and profile also occurred. Additionally, post-flood debris clean-up efforts removed substantial amounts of beneficial biomass from the riparian corridor while compacting soils and exposing bare ground to erosion. While tragic in nature, such devastating events also offer an opportunity to adjust land management practices and establish more resilient ecosystems within the developed landscape. Numerous partners have coalesced in the aftermath of the flood to assist affected communities and landowners with restoration. Against the backdrop of the 2025 Texas Hill Country floods, participants will share experiences and lessons learned related to restoration strategies, habitat monitoring, invasive species management, outreach, service projects, and working with the public, local, state, and federal agencies following a natural disaster and resulting cleanup activities.

1:00 PM - 5:00 PM

Invasive Species Removal and Trail Maintenance at Fort Parker State Park

- *Leah Turner, Fort Parker State Park*

Field Session

Participants may log either Advanced Training or Volunteer Service hours for the applicable portions of the session, based on the activities they complete.

Participants will step into the natural beauty of Fort Parker State Park in Mexia, Texas, to support hands-on conservation efforts. This immersive field session focuses on removing invasive plant species and performing light trail maintenance—directly contributing to the health and accessibility of this lush, tree-shaded park. As volunteers hike through scenic trails surrounded by rich foliage and diverse native habitats, they'll learn how to identify invasive species, understand their impact on the ecosystem, and apply practical techniques to restore balance to the landscape.

Expect an active, outdoor experience that requires sturdy footwear, water, sun protection, work gloves, and simple removal tools (with some supplies provided by the park). By the end of the session, participants will have gained ecological insight, stewardship skills, and the satisfaction of helping preserve a local hidden gem enjoyed by hikers, campers, boaters, and nature enthusiasts alike.

1:00 PM - 5:00 PM

Wildlife K9s for Black Bear Management in Texas

- *Rachael Connally, Certified Wildlife Biologist (Self)*

Field Session

Rachael will give a brief presentation about the use of Wildlife K9s (WK9s) in human-bear conflict management and introduce opportunities for their use in Texas. Participants will meet WK9s and learn about their gear and handling methods. WK9s will be used to simulate response to several potential human-black bear conflict scenarios. WK9s will demonstrate tasks including scent detection, tracking, and hazing of black bears. Participants will see how the WK9-handler team works to address human-black bear conflict scenarios. Participants will be able to interact with the WK9s. WK9s act as ambassadors and help the public engage with conservation messages, especially surrounding a species which is often involved in human-wildlife conflict, such as black bears. WK9s are an exciting tool that can be used in Texas to further conservation initiatives for the black bear.

2:00 PM - 3:00 PM

Friends of Texas Master Naturalist: Who We Are and What We're Doing - Chisolm Hall

- *Donna Cole, Friends of Texas Master Naturalist*
- *Julie Vickers, Friends of Texas Master Naturalist*
- *Jeanette Geimann, Friends of Texas Master Naturalist*
- *Carolyn Langlinais, Friends of Texas Master Naturalist*

Advanced Training Session

Friends of Texas Master Naturalist (FoTMN) is a 501(c)(3) volunteer organization that supports the mission of the Texas Master Naturalist state program by providing financial administration for the Annual Meeting. In this session, we will explain our role in supporting TMN, give you an update on our activities in the last year, and explain how you can support the organization.

2:00 PM - 5:00 PM

Great Texas Bat Bridge Survey - Texas Room South - 118

- *Wendy Anderson, Texas Parks and Wildlife Department*
- *Samantha Leivers, Texas Parks and Wildlife Department*
- *Noah Ray, Texas Parks and Wildlife Department*
- *Lauren Young, Texas Department of Transportation*

Field Session

Is the lack of data on Texas Bats driving you batty? Texas Nature Trackers is debuting a new citizen science project starting with those chapters in the San Antonio area and wants you to be involved! Texas Nature Trackers is recruiting Texas Master Naturalists to survey for bat roosts and bat colonies in bridges. During this field session we will go over the importance of the project, the goals, and how to conduct bat bridge surveys. Volunteers will be trained on how to use the Survey123 app, learn the protocol, and learn how their work will improve conservation of our state's bats. Training is limited to 50 participants.

5:00 PM - 8:00 PM

Welcome Reception - Brazos Ballroom

Meal

Join fellow Texas Master Naturalist members and community partners for a casual and social dinner, get to see everyone again in person, and share experiences from the last year.

8:00 PM - 11:00 PM

Blacklighting/Mothing at Location TBD

- *Sam Kieschnick, Texas Parks and Wildlife Department*

Field Session

Blacklighting/Mothing at Location TBD

Friday October 23rd, 2026

7:00 AM - 8:00 AM

Morning Coffee & Networking - Brazos Ballroom

Meal

Take time before the day's sessions begin to connect with fellow attendees and prepare for a full day of learning. Breakfast is not included with conference registration, though many of our contracted hotels offer breakfast options for their guests. Coffee will be available each morning in the conference center prior to the start of sessions.

8:00 AM - 9:00 AM

Cellphone Video Production - Ranger Room – 110 & 109

- *Lee Smith, Texas Parks and Wildlife Department*

Advanced Training Session

Most people have a powerful video production tool in the palm of their hand. In Cell Phone Video Production, Lee Smith will guide you through how to use your cell phone to tell compelling stories. He will explain what settings to use and what accessories to add (or ignore). He will discuss basic composition and production techniques to record the necessary content for you to create engaging videos. The workflow using video editing systems to complete a program also will be covered, along with exporting your story to social media or other platforms.

8:00 AM - 9:00 AM

iNaturalist 101: How to make observations with your smartphone - Texas Room South - 118

- *Rachel Grotte, Texas Parks and Wildlife Department*

Advanced Training Session

Download the app to your smart phone and get ready to learn useful tips and tricks along with a solid understanding of the core features of iNaturalist. We will walk through how to use the software with maximum impact. The session will be focused on the smartphone app but will have some information about using the website. There will also be a summary of current Texas Nature Tracker projects hosted on iNaturalist.

8:00 AM - 9:00 AM

Keeping it Green with Houston Parks Board - Texas Room North - 115

- *Karastin Katusin, Houston Parks Board*

Advanced Training Session

Houston Parks Board partners with a TMN volunteers to expand, improve, and protect our parks and greenspaces in the Houston region. Our conservation team needs volunteers to help to revitalize and establish native habitats along the 150 miles of Bayou Greenways.

All chapters are invited to join the discussion to learn about our projects and collaborations through our Conservation Academy, our natives Nursery, and our habitat stewardship along the Bayou Greenway trail system.

If you are looking for a new way to get TMN hours and partner with local nonprofits your city, we would love to have you join us today!

8:00 AM - 9:00 AM

Birding 101: Getting Started and How To's - McLennan Hall - 209

- *Anna Kurtin, Texas Parks and Wildlife Department*

Advanced Training Session

Have you ever been hiking with a friend who gets unreasonably excited about a brown blur in the bush? Do you wonder how to tell apart the various cheeps and chirps you hear? Are you curious what all the bird hype is about? Come to Birding 101 to ask all of the questions you've always wondered and get a beginner-friendly introduction to birding! We will cover how to identify birds, walking through step by step and focusing on building the knowledge and skills that will help you learn the birds around you on your own. This session will consist of half classroom time and half outdoor time near the conference. Wear comfortable clothes for walking around outside, and you are welcome to bring binoculars but they are not required!

8:00 AM - 9:00 AM

Nature and Society in Texas State Parks- Ranger Room - 109

- *Jason Julian, Texas State University, Geography and Environmental Studies*

Advanced Training Session

The story of state parks in Texas is a compelling one, rich with interwoven environmental and cultural history. Using archival research, historical data analyses, more than a hundred interviews, and visits to all 85 state parks, I describe these dynamic social-ecological systems. Dominant themes include land use legacies, biodiversity hotspots, climate change, resilience, relational values, and tourism trends. The Texas State Parks system represents a remarkable achievement that has evolved to meet the demands of a rapidly growing population and changing environment, from preserving historic and cultural sites to embracing recreational needs to prioritizing environmental stewardship. Over the last 100 years, state parks have expanded throughout the state, increased in size, and connected a broader, more diverse society to nature's benefits.

8:00 AM - 9:00 AM

Owls Aren't Wise and Bats Aren't Blind - Helping Dispel Popular Wildlife Myths - Texas Room South - 117

- *Jerrel Geisler, Heartwood Chapter*

Advanced Training Session

Many non-naturalists believe popular fallacies regarding local wildlife. We, as master naturalists, have the duty to share proper information with the public regarding positive things about popular wildlife. We will survey several members of the wildlife world and identify the truth about these fallacies that many believe are true.

8:00 AM - 10:10 AM

From Consultation to Conservation-A Pollinator Garden Assistance Playbook - McLennan Hall - 207

- *Sheryl Pender, Hill Country Chapter*
- *Kathy Webster, Hill Country Chapter*
- *Ben Dubose, Hill Country Chapter*
- *Jean Nunnally, Hill Country Chapter*

Advanced Training Session

Learn how a high-impact TMN service project connects volunteers with the public, deepens native-plant knowledge, and assists with creating intentional native plant habitats for pollinators.

The Pollinator Garden Assistance and Recognition Program (PGARP), developed by the Hill Country chapter in 2018, offers a proven, volunteer-powered model for guiding individuals through the steps to champion gardening support pollinators' life cycles.

Learn how our technical assistance-outreach program gives chapter visibility and develops more pollinator habitats in urban and rural settings. It's perfect for scaling across diverse counties and communities, new home developments, libraries and post offices, and established yards with 30-year old landscapes!

We'll offer our playbook: the tools, templates, and strategies that make the program work: volunteer training, team roles, pre-visit planning, on-site assessment procedures, and the resource packets that help homeowners, businesses, and schools succeed long after the visit ends.

The session will also explore the human side of this work—how TMN volunteers act as interpreters, myth-busters, and educators. We'll discuss common questions and misconceptions, ways to navigate "loaded" topics with confidence and kindness, and what inspires landowners to take the next step.

8:00 AM - 10:10 AM

Botany Skills for Naturalists: Learning to Really See the Plants Around You--Part 1 (everything but the flowers) - McLennan Hall - 208

- *Carol Clark, Monarch Watch, Native Plant Society of Texas*

Advanced Training Session

Do you visit natural spaces and just see undifferentiated blobs of green ? Maybe it all looks pleasant, but you don't really see individual plants. You aren't alone! Lots of people experience plants that way. You might even recognize cars or lizards but leafy things all look the same. Knowing which plants are present can influence purchases, management plans, restoration plans, and biological survey efforts. Because the plants influence the insects present and every other part of the food web, it's important for naturalists to see plants as individuals with their own needs and stories. This entry level workshop is designed to show you where to start to really "see" the pieces of plants. We'll look at and learn to describe the details that set them apart from each other and

enable us to use botanical keys. The workshop will use a combination of slides interspersed with hands on practice with real plants. Handouts to keep are included.

8:00 AM - 10:10 AM

Interpretation 101 - Texas Room North - 113

- *Ben Horstmann, Texas State Parks - Texas Parks and Wildlife Department*

Advanced Training Session

Do you love sharing your knowledge of our resources with people? Come learn how to make the best of your limited time with the public so you can make lasting connections. We will discuss what interpretation is and discuss some tips and tricks to help you reach hearts and minds instead of just throwing facts at them.

8:00 AM - 10:10 AM

Interpretive Trail Guiding to Help Adults and Children to Enjoy Being Outdoors - Texas Room North - 114

- *David Powell, Blackland Prairie Chapter*

Advanced Training Session

How to interpret nature in a way that is informative and exciting, how to us some tools to get adults and children involved while outside. The first hour will be held inside the classroom, the second hour will be outside.

8:00 AM - 11:00 AM

Reading the Landscape Through Lichens: A Field Introduction

- *Gina Ruiz, Forest Bathing and Wellness / Lichen Pathways*

Field Session

Lichens are everywhere quietly growing on bark, limestone, wood, and soil- yet most people walk past them without ever realizing the extraordinary diversity at their feet. This guided field session invites participants to slow down, sharpen their observation skills, and explore the hidden world of lichens through hand lenses, close observation, and citizen science.

Participants will learn how to recognize major lichen growth forms, identify several common Central Texas species and substrates, and understand how lichens function as indicators of air quality, moisture, habitat continuity, and ecological health. Along the way, participants will work together to search for a featured “challenge species” with distinctive visual traits while learning practical field identification techniques that can be applied far beyond the session itself.

The walk will also introduce participants to the TMN-approved "Texas Lichen Biodiversity” iNaturalist biodiversity project, where observations made during the session can contribute to ongoing citizen science and biodiversity documentation efforts. Participants are encouraged to bring smartphones or cameras for optional observation uploads and hand lenses if available.

Through guided interpretation, field photography, and hands-on exploration, attendees will leave with a deeper understanding of lichens, stronger naturalist observation skills, and a new appreciation for the overlooked partnerships quietly shaping Texas ecosystems.

8:00 AM - 11:00 AM

From Fear to Fascination: Using Simple Tools to Build Comfort and Curiosity on the Trail

- *Nancy Escobar, North Texas Chapter*

Field Session

As public interest in local biodiversity grows, extending outdoor nature education to hesitant students and adults is vital for meaningful community engagement—yet many educators and volunteers hesitate to lead insect-focused hikes due to participant fear and "bug anxiety." This session demonstrates that deep entomological expertise is not required to facilitate welcoming, psychologically safe, and educationally rich nature initiatives.

In this outdoor field lesson, participants will see real-world examples of how simple tools can instantly transform fear into curiosity. This session will take you on a deep dive into hands-on field techniques, teach how to effectively use sweeping nets, transparent viewing containers, petri dishes, and portable digital microscopes to allow for close-up observation without direct physical contact. Finally, you will learn how to leverage these everyday tools alongside targeted group-management strategies to manage participant anxiety, establish clear comfort boundaries, and bridge the gap between hesitation and scientific wonder on the trail. Attendees will leave with a better understanding on how to encourage curiosity, increase physical and emotional comfort, and utilize simple tools to enhance outdoor exploration.

8:00 AM - 11:20 AM

Texas Waters Day - Texas Room South - 116

- *Melissa Felty, Texas Parks and Wildlife Department*

Advanced Training Session

The Texas Waters Specialist (TWS) program develops a corps of well-informed volunteers dedicated to the beneficial management of aquatic resources and aquatic habitats. Advanced training and service opportunities are aligned to four categories: Conservation, Ecology, Education, and Stewardship. Texas Waters Specialists are fundamental to informing their communities of conservation issues specifically related to the need for fishable, swimmable, and drinkable waterways for our state.
At Texas Waters Day (TWD), attendees will participate in hands-on, aquatic-based activities connecting us to Texas aquatic resources. TWD is open to TWS certified, in-progress, and newly curious. Each TWD offers different activities so if you participated in the past, join again for continued learning. In addition, Texas Water Specialist will be recognized for their dedication to the program, along with special awards to those who have gone above and beyond as water ambassadors in their community.

8:00 AM - 12:00 PM

Habitat for Fishes (Session 2)

- *Michael Baird, Texas Parks and Wildlife Department*
- *Andrew Althoff, Texas Parks and Wildlife Department*

Field Session

Participants may log either Advanced Training or Volunteer Service hours for the applicable portions of the session, based on the activities they complete.

Reservoirs in Texas are aging, and woody structures (e.g., standing timber, lay downs, stumps and root wads) which were once healthy and strong are slowly weathering and eroding away. This loss of hard structure effects fishes and many other aquatic organisms by reducing habitat complexity needed for important aspects of their life cycle. Hard structures help prevent erosion, provide surfaces for algal growth and early food-chain activities, provide refuge and cover for small fishes and prey species, and serve as ambush sites for sport fishes of all kinds. They also provide areas of opportunity for anglers seeking sport fishes which is an important aspect of all fisheries.

Many states, including Texas, have developed formal habitat programs where the addition of artificial (i.e., man-made) habitats are helping to replenish lost habitat and improve fisheries. All of these programs depend heavily on partnerships with other state and federal agencies, small groups, private citizens and volunteers. There are many habitat styles being used in Texas, but we've chosen to work with a few of our own designs which are simple, inexpensive and attempt to emphasize the use of natural materials.

During these field sessions, participants will learn about the different types of contemporary artificial habitats being used in Texas, their pros and cons from a Fisheries standpoint, along with their utility in Fisheries Management. Participants will receive training on how to design and build artificial habitats currently being used by the Waco District. And lastly, participants will help construct habitats that are going to be used in nearby Lake Whitney as part of an actual Fisheries Management Project. This is a hands-on field session that will culminate in hundreds of usable fish habitat structures by the end of the field sessions! Participants will leave with the ability to train others throughout the state and use the knowledge gained to improve fish habitat within any private or public water body in need.

8:00 AM - 12:00 PM

Burleson Prairie

- *Lynn Fleming, Central Texas Chapter*

Field Session

The Burleson family property contains probably the oldest and most successful native prairie restoration site in Texas. Mickey Burleson and her late husband, Bob worked for more than two decades to reintroduce and cultivate native forb and grass species from hay meadows in Bell County, which have since been converted to other land uses. This property has been used as a source of native seed and hay for restoration of other projects in the region. Parts of the property are currently in crop and hay production. Burleson Farm lies within the Texas Blackland Prairie region that runs north-south through the midsection of the state. The Blackland Prairie is an extension of the North American tallgrass prairie with little bluestem as a climax dominant. Other important

grasses are big bluestem, yellow Indiangrass, switchgrass, sideoats grama, Eastern gamagrass, and tall dropseed.
During this field session, participants will learn to identify many of the native prairie grasses and wildflowers found on the property while exploring one of Texas' premier restoration sites. Attendees will also gain insight into the restoration techniques, management practices, and lessons learned over decades of work to establish, maintain, and expand native prairie habitat in the Blackland Prairie region.
The Burlesons also wrote one of the earliest Texas tallgrass restoration guides: "The New Southern Reconstruction – Home Grown Prairies." which can be accessed on the Native Prairies of Texas website.

~~**8:00 AM - 12:00 PM**~~ **CANCELLED**

~~Grazing Beyond the Ranch Gate: Fire Mitigation and Vegetation Management in Modern Landscapes~~

- ~~*Morgan Treadwell, Texas A&M AgriLife Extension Service*~~
- ~~*Sarah Robinson, Texas A&M AgriLife Extension Service*~~
- ~~*Haley Gosnell, Texas A&M AgriLife Extension Service*~~

~~**Field Session**~~

~~This immersive field session will explore how grazing and prescribed disturbance can be intentionally used as tools for land stewardship across working lands, wildland interface areas, and urban or municipal settings. Participants will receive hands-on training and field-based demonstrations focused on four interconnected approaches: patch-burn grazing, wildfire fuel mitigation, targeted grazing, and municipal grazing programs. Through guided observations and on-site discussion, participants will examine how livestock can be used to manage fine fuels, influence plant community diversity, improve wildlife habitat, and support public land management goals. The session will emphasize adaptive decision-making, planning considerations, and real-world constraints faced by land managers, conservation practitioners, and municipalities. This training will connect ecological principles to practical applications, highlighting how grazing strategies can be scaled and adapted across ownerships and landscapes. Participants will leave with a stronger understanding of how managed grazing fits into broader conservation, wildfire resilience, and rangeland management objectives in Texas.~~
~~Summary for Agenda~~

~~Join us in the field for a hands-on look at how grazing can be used as a proactive land management tool across rangeland, wildland, and urban interface settings. This field session moves beyond theory to show how livestock are intentionally integrated into land management plans to reduce wildfire risk, enhance habitat diversity, and meet conservation and community goals.~~

~~Participants will walk through active management sites and engage in guided discussion around real-world examples of patch-burn grazing, targeted grazing, and municipal grazing programs. You will see how fire and grazing are strategically paired to create habitat variability, how grazing is used to manage fine fuels and invasive vegetation, and how municipalities are partnering with land managers and producers to meet public land objectives.~~

~~Attendees will learn:~~
~~How patch-burn grazing mimics natural disturbance and promotes plant and wildlife diversity~~
~~How targeted grazing reduces wildfire fuels and manages vegetation in high-risk areas~~
~~How grazing fits into wildfire mitigation planning at multiple scales~~
~~How livestock are being used safely and effectively on public and municipal lands~~
~~Key considerations for planning, timing, and evaluating grazing as a management tool~~

~~This field experience is designed to give Texas Master Naturalists practical knowledge they can apply in volunteer service, outreach, and local conservation efforts.~~
~~Participants will leave with a clearer understanding of how grazing systems can support resilient landscapes, reduce wildfire risk, and strengthen collaboration between private landowners, conservation professionals, and communities.~~

8:00 AM - 12:00 PM

Lake Waco Wetlands

- *Nora Schell, City of Waco*

Field Session

Enjoy a hay less hayride around the Lake Waco Wetland and learn about the history and on-going projects associated with the man-made Wetland. Learn about the Brazos River and Bosque River Watersheds and how Lake Waco provides the drinking water source for the City of Waco and surrounding cities dependent on Waco water.

8:00 AM - 12:00 PM

Sharing The Legacy of Mother Neff: A Closer Look at the History, Preservation, and Programming

- *Melissa Chadwick, Texas Parks and Wildlife Department, Mother Neff State Park*
- *Britton Trotter, Texas Parks and Wildlife Department, Mother Neff State Park*

Field Session

Mother Neff State Park:
Situated in the Grand Prairie natural region of Texas, the park is a narrow boot-shaped slice of land starting from the Leon River and gaining almost 200 feet in elevation to the upper prairie. At only 400 acres, this small park is filled with stories from the past and incredible biodiversity.

Affectionately known as Texas' first state park1, Mother Neff State Park provides a peaceful, natural gathering place along the Leon River where the public can enjoy opportunities for outdoor recreation, education and inspiration in a community-oriented park setting.

Participants will learn from the park team and dedicated Central Texas Master Naturalist volunteers while exploring the beauty of Mother Neff State Park on their own self-guided journey. Stations will be at various locations throughout the park discussing habitat management, Civilian Conservation Corp history, and legacy of the park and its

influence on the creation of Texas State Parks. Participants will gain an overall understanding of the site's significance as a Texas State Park.

Stations (possibly subject to change depending on volunteer support):
A map of the park will be provided upon checking in that will show where the locations are for the stations below. All stations will be a come and go style that participants can visit while on their self-guided hike.

Prairie Habitat Management & Exploring the Park:
Learn how the park manages restoration efforts in the upland prairie section of the park. We will discuss planning efforts for prescribed burn plans, grant opportunities, invasive weed control, and other practices that are helping us to retore and maintain the prairie section of the park. This initiative has been highly volunteer and grant driven over the last decade.
Participants will be able to explore the different communities on approximately 4 miles of hiking trails that traverse this 400 acre park. Mother Neff State Park is located near a natural convergence of the Lampasas Cut Plain and the Washita Prairie (subdivisions of the Grand Prairie) resulting in an ecotone that fosters a unique blending of plant and animal communities. There are four distinct plant community types found within the park which TPWD has identified to be of moderate to high regional significance.

Special Events & Fieldtrips at a Small Park:
This station will demonstrate how Mother Neff State Park holds events and larger field trips in a small venue and overcomes challenges of parking constraints. Examples of maps, station locations, entrance fee/participant counts, and how we utilize volunteers will be covered at this station. Special stations may also be throughout the park showcasing some of the activities we may include for field trips and larger events.

Park History and Civilian Conservation Corp (CCC):
Participants will learn why Isabella Eleanor Neff came to be known as "Mother Neff" in her community. How her youngest son, Pat Neff, honored his mother's wishes by building and operating Mother Neff Memorial Park as a community gathering place for recreation and education during the 1920s and 1930s. They will also learn how Pat Neff's roles as governor, leader of the state parks board and president of Baylor University created a legacy of partnership between Mother Neff State Park and Baylor University that continues even today. Wrapping up about the park's unique history with the CCC and the instrumental influence Pat Neff had in helping get the CCC to build Texas State Parks and continued to use his political influence to fulfill his vision for Mother Neff State Park.

9:10 AM - 10:10 AM

Nature Storytelling with Your Smartphone - Ranger Room - 110

- *Rob Hull, Elm Fork Chapter*

Advanced Training Session

Your smartphone is more than a convenient camera—it is a practical storytelling tool you can carry into the field every day. For Texas Master Naturalists, photographs can document projects, interpret habitats, highlight species, support outreach, and

communicate why the natural world matters. This session is designed for volunteers who want to use their smartphone more effectively to share the story of the work they do.

Participants will learn how to move beyond simple snapshots and create images that are more purposeful, informative, and engaging. Topics will include recognizing story opportunities in the field, understanding the difference between a record shot and a storytelling image, improving composition, using light more effectively, and making stronger close-up, landscape, and habitat photographs with a smartphone. The session will also address practical ways to photograph people involved in service projects so images communicate both the work and the mission behind it.

The focus is on helping Texas Master Naturalists become better visual storytellers who can use images to support interpretation, education, conservation, and community engagement. Participants will leave with practical ideas they can apply while documenting chapter projects, sharing images on websites and social media, creating presentations, or helping their communities better understand Texas natural resources.

This session is appropriate for beginners and casual photographers, and it may also be valuable for experienced photographers who want to better adapt their visual storytelling skills to the strengths and limitations of a smartphone.

9:10 AM - 10:10 AM

Sharing Ancient Texas Critters with Texans of All Ages – Ranger Room - 109

- *Lynn Seman, Rolling Plains Chapter, Horned Lizard Conservation Society, Whiteside Museum of Natural History*

Advanced Training Session

As Texas Master Naturalists, we have many opportunities to share information about Texas critters with others from Texas horned lizards to their predator, the Greater Roadrunners, but what about the Texas critters of the past? Our Rolling Plains Chapter is fortunate to have a unique opportunity to share information on PAST Texas critters also! Archer, Wichita, and Baylor counties (in our region) are one of the best places in the world to find fossils from Permian time, about 290 million years ago! In this session, you will learn about several of these intriguing Permian creatures, including the early land dwelling Dimetrodon, Diadectes, Diplocaulus, and more! You will get an up-close look at various fossils collected from the famous Permian “red beds”. In addition, you will receive instruction on ways to discover YOUR region’s past critters and methods to share their ancient past with Texans of all ages. You will receive a list of activities to apply to your own ecoregion involving ancient Texas critters.

9:10 AM - 10:10 AM

Coyotes and Other Small Animals - Texas Room South - 117

- *Thomas Cole, Panhandle Chapter*

Advanced Training Session

Participants will discover the ways of coyotes and other small animals in a classroom setting with interactive questions and discussion…Unique characteristics of coyotes,

grey fox, skunks, raccoons, and opossums will be discussed and their unique role in the eco-system…Emphasis will be on urban areas…

9:10 AM - 10:10 AM

A Problem Becomes Habitat - Texas Room North - 115

- *Valarie Atwood, Blackland Prairie Chapter*
- *Lynda Delsol, Blackland Prairie Chapter*

Advanced Training Session

What happens when TMNs, city staff, and an HOA come together with a shared purpose? Amazing things can grow. Join us for the story of how an eroding creek bank in a riparian area was transformed into a native pollinator space through cooperation, persistence, and partnership.

Discover how collaboration can turn challenges into lasting community wins. This workshop shares the story of a restoration project completed in partnership with an HOA and a municipality to address severe creek bank erosion. Along the way, we'll challenge the common belief that municipalities and HOAs are too difficult to work with—and show how meaningful progress is possible when people come together. What began as a drainage and erosion problem became an opportunity to create a thriving native pollinator habitat.

You will leave inspired, encouraged, and equipped with practical ideas for creating your own successful community partnerships and turning local environmental problems into opportunities for lasting change.

9:10 AM - 12:30 PM

Bird's-Eye View on Behavior - McLennan Hall - 209

- *Kristine Rivers, Birding for Fun*

Advanced Training Session

Join Kristine for this entertaining presentation featuring her personal videos of a variety of birds in action to learn how you can use behavior to help with identification. Birds are an amazingly diverse group of animals, with an estimated 10,000 species worldwide. This diversity reflects how birds evolved to adapt to a wide variety of habitats and modes of life. Distinctive bills, bodies, wings, legs, feet, physiologies, diets, and behaviors enable birds to take advantage of specialized resources. Each species lives within the habitat type that provides the unique resources it needs to survive. If you observe carefully as birds move about within their environment, behavioral adaptations can provide visual clues and clinch identification.

The presentation will be divided into two parts: water birds and land birds. As a participant, you will enjoy seeing close views of dozens of Texas bird species and learn:

• Valuable observation techniques you can use in the field
• Tips and tricks for differentiating between similar species
• How to use behavioral clues to help with identification
• How to find more species using habitat clues

Videography by Kristine and her husband Bobby, who share an insatiable curiosity about birds and their behavior. They enjoy roaming around together capturing exciting and interesting moments on video to share with others. Exploring whenever possible - at all times of day, in all seasons, in all types of weather - has given them remarkable opportunities to observe the fascinating life of Texas birds.

9:10 AM - 12:30 PM

What 9 million animal and 6 million plant observations on iNaturalist can tell us about biodiversity, bioabundance, and biogeography in Texas. - Texas Room South - 118

- *Mike Quinn, University of Texas Insect Collection*

Advanced Training Session

What 9 million animal and 6 million plant observations on iNaturalist can tell us about biodiversity, bioabundance, and biogeography in Texas. We will explore Texas's rich and vast natural history through a wide range of flora and fauna species and examine their biotic and abiotic influences. We will attempt to untangle observer bias from species' true distributions. We will go back 250 years and note our spread across the continent with repeated overlap in patterns of development corridors with biodiversity corridors. We will examine the nine Texas counties of greatest observed diversity from the Metroplex to the Rio Grande Valley to the Upper Texas Coast. We will discuss factors leading to what I call 'The Diversity Corridor' through central Texas. We will compare national and global examples of the relative importance of biodiversity versus biomass. Finally, we will re-examine data from the most significant quantitative all-taxa arthropod study in central Texas.

10:20 AM - 11:20 AM

Sensory Superpowers - how Texas raptors perceive the world compared to humans - Texas Room North - 114

- *Monica Gonzalez, Heartwood Chapter*

Advanced Training Session

If you were a raptor in Texas, how would you perceive the world? While as humans we are limited by the way we perceive the world, in this presentation we will compare the unique adaptations Texas raptors and other birds have developed to be able to survive versus human capabilities. More importantly, we will explore how the way that humans perceive the world affects Texas raptors and other birds' senses to bring more awareness to how we can coexist.

10:20 AM - 11:20 AM

Long Live the Cat: The Collaborative Effort to Restore Texas's Most Endangered Wild Cat - Texas Room South - 117

- *Meghan Riley, Texas A&M University*
- *Monica Morrison, Texas Native Cats*

Advanced Training Session

The ocelot (Leopardus pardalis) is one of North America's most endangered wild cats, with fewer than 100 individuals remaining in the United States. Once widespread

throughout South Texas, habitat loss, fragmentation, vehicle collisions, and reduced genetic diversity have left the species confined to a few isolated populations.

This presentation will explore the story of ocelot recovery in Texas and the partnerships working to prevent the species' extinction. Attendees will learn about the formation of the Recover Texas Ocelots initiative and how federal and state agencies, private landowners, conservation organizations, universities, and zoological institutions joined together to develop a comprehensive recovery strategy.

The presentation will highlight key milestones in the recovery effort, including the development of the Programmatic Safe Harbor Agreement with the East Foundation, which supports ocelot reintroduction on private working lands while maintaining ranching operations. Participants will also learn about the Ocelot Conservation Facility at the Caesar Kleberg Wildlife Research Institute (CKWRI) and its role in captive breeding, assisted reproduction, and preparing animals for future release. Finally, the session will discuss the Association of Zoos and Aquariums' SAFE (Saving Animals From Extinction) Ocelot Program and how coordinated conservation efforts are helping establish new populations and improve the species' long-term prospects.

Through the story of one of Texas's most iconic native species, this presentation demonstrates how science, land stewardship, and collaborative conservation can create new opportunities for wildlife recovery.

~~**10:20 AM - 11:20 AM**~~ - **CANCELLED**

~~From Lawn to Living Habitat: Practical Lessons for Helping Homeowners Create Native Landscapes~~ ~~– Texas Room North – 115~~

~~○ *Lisa Hamid, Blackland Prairie Chapter*~~

~~**Advanced Training Session**~~

~~This classroom session will use a real suburban yard transformation as a case study for turning traditional lawn space into functional native habitat. Participants will learn practical steps for observing a site, removing turf and invasive plants, managing the "messy middle" stage, improving water function, selecting native plant layers, and using simple propagation and planting techniques.~~

~~The session will also address how to make native landscapes look intentional and how to communicate their ecological value to neighbors, schools, and community members. Designed for Texas Master Naturalist volunteers and native plant advocates, this session connects ecological principles to hands-on residential and community habitat work.~~

~~Participants will leave with practical ideas they can apply to outreach, demonstration gardens, school gardens, neighborhood education, and volunteer service projects.~~

10:20 AM - 11:20 AM

Using Uncrewed Aircraft Systems (Drones) and Artificial Intelligence to Identify Protected Plant Species - Ranger Room - 109

- *Edgar Kraus, Texas A&M Transportation Institute*
- *Harshit Shukla, Texas A&M Transportation Institute*

Advanced Training Session

The Texas A&M Transportation Institute is leading research efforts sponsored by the Texas Department of Transportation (TxDOT) to identify and manage protected plant species within state department of transportation rights-of-way. Protecting native vegetation, such as milkweed, is critical for maintaining ecological integrity and supporting species like the monarch butterfly, which depend on these plants for survival. Transportation corridors often intersect with sensitive ecosystems, creating both challenges and opportunities for conservation.

The 1973 Endangered Species Act (ESA) protects wildlife and plants that are listed as threatened or endangered, including the species and their habitats. Compliance with ESA's requirements is typically addressed in the Threatened, Endangered, and Candidate Species section of an environmental assessment (EA) or environmental impact statement (EIS) as part of the National Environmental Policy Act (NEPA) process. ESA requires that federal agencies conserve federally listed species and ensure that actions are not going to jeopardize continued existence of such species or modify or destroy critical habitats. On projects involving federal aid, the Federal Highway Administration (FHWA) has assigned all NEPA responsibilities to TxDOT based on a 2014 memorandum of understanding between FHWA and TxDOT.

Traditional approaches to habitat identification rely on manual field surveys, which are labor intensive, time-consuming, and costly, especially across large and remote areas. Recent advancements in uncrewed aircraft systems (UASs) and artificial intelligence (AI) offer innovative solutions to automate and enhance these processes. These technologies enable high-resolution data collection, image-based species identification, and integration of environmental parameters such as growth cycles and seasonal variations. By leveraging UASs and AI, transportation agencies can improve accuracy, efficiency, and compliance while reducing costs and project delays.

TxDOT research project 0-7258, Using UAS to Identify and Manage Protected Species Habitat, will develop guidance on the use of UAS to identify and manage protected species habitat and determine the efficacy of multi- and hyper-spectral imagery for identifying and mapping endangered plant populations and potential pollinator conservation areas. This session will provide an overview of the project and highlight opportunities for volunteers to gather imagery plant species. The imagery will then be used by the research team to train an AI tool for the automatic detection of the plant species in imagery taken by UAS.

10:20 AM - 11:20 AM

How to Lead a Boring Hike - Texas Room North - 113

- *Kelsey Low, Houston Arboretum & Nature Center*

Advanced Training Session

Whether it's uncooperative weather, the wrong season, or just a slow day, sometimes there's nothing to see outside – and that's a bad thing for anyone trying to lead an engaging nature walk! However, a good interpreter can always find something fun to do

or talk about to keep participants' interest. In this session we'll discuss tips and tricks for "boring" hikes, including the power of leading by example, sensory exploration, and the endless possibilities of plants. Whether your audience is adults or preschoolers, you'll find ideas that can liven up even the "dullest" nature walk!

10:20 AM - 11:20 AM

Real or Not Real? How Generative AI Tools Pose a Threat to Conservation Work - Ranger Room - 110

- *Rachel Grotte, Texas Parks and Wildlife Department*

Advanced Training Session

Scrolling the Internet in 2026 can be an alarming place. With AI generated images becoming increasingly sophisticated, one has to really stop and examine photos to determine if the subject matter is real. This can create many problems in the worlds of conservation and environmental communications. AI generated wildlife images designed to insight fear and spread misinformation can harm conservation messages and damage initiatives. AI chatbots that use human generated content to learn and build their algorithm, may confidently state inaccurate information and may have racial or other biases that impact scientific investigation. This session will walk through hilarious examples of AI generated images and chatbot absurdity while exploring the potential impacts to conservation.

10:20 AM - 11:20 AM

A Pollinator Garden, a Mosque and a Church - McLennan Hall - 207

- *Ruth Nasrullah, Galveston Bay Area Chapter*

Advanced Training Session

This session will explore the connection between faith and nature and how the presenters approached this connection through the creation of a pollinator garden at the Clear Lake Islamic Center (CLIC), and suggestions for how people of any faith or no faith can increase interest in pollinators, conservation, and caring for the earth.

In 2025, Galveston Bay Area Chapter members Mohammed and Ruth Nasrullah successfully applied for a grant from the Pollinators for Texas program to create a pollinator garden on a patch of land on the grounds of the Clear Lake Islamic Center, the mosque they have attended for many years. Their goal was of course to benefit the local ecosystem and to support pollinators, but they also wanted to educate and increase awareness of their fellow CLIC attendees.

In this session, Mohammed and Ruth will discuss how they incorporated the Islamic view of nature into educational activities and worked with volunteers from the neighboring Bay Area Unitarian Universalist Church as well as CLIC attendees to form a multi-faith workforce. They will share tips based on their experience in creating educational materials and why this became a deeply meaningful project for many. Key takeaways will include:

1.The challenges and rewards of creating a pollinator garden and recruiting a volunteer corps to create and maintain it.

2.The Islamic Center community's response to the garden.
3.Incorporating religious topics into nature education – finding the right balance.
4.A few interesting facts about the Islamic view of nature.
5.How we managed to find continuing support for the garden.

Attendees of all faiths or no faith are welcome. This is not intended to be a religious program, but rather one that shares the experience of creating something beneficial in nature in the setting of faith.

10:20 AM - 11:20 AM

Yucca-If it isn't a cactus, what is it? - McLennan Hall - 208

- *Rebecca Roe, Good Water Chapter*

Advanced Training Session

Yucca is a fascinating native plant. It is native to Texas, and beyond and is important to the environment it occupies. We'll look at the botanical characteristics and see how humans have utilized it for centuries.

10:20 AM - 11:20 AM

From Plans to Plants: How Master Naturalists Can Shape Watershed Protection – Texas Room North - 115

- *Mary Michael Zahed, Texas Water Resource Institute*

Advanced Training Session

Watershed Protection Plans aren't just plans—they're opportunities for local action. Learn how Watershed Protection Plans are developed, how to find one in your community, and where Master Naturalists can make a difference. The Medina River Below Diversion Lake WPP provides a real-world example, including how Master Naturalists helped transform a riparian restoration plan into a hands-on native plant demonstration project at Castroville Regional Park.

10:30 AM - 11:30 AM

Tour of Waco Mammoth National Monument (Session 1)

- *Lindsey Yann, National Park Service*

Field Session

Waco Mammoth National Monument preserves the remains of the only known nursery herd of Columbian mammoths. The remains of nearly 20 other Pleistocene taxa. National Park Service staff will provide tours of the active excavation. Cost per person: $4

11:30 AM - 12:30 PM

Municipal Mutualism: Creating Win-Win Relationships with our Communities. - Texas Room North - 115

- *Rick Travis, Blackland Prairie Chapter*

Advanced Training Session

A personal narrative reviewing the steps taken over the past several years to develop a strong, productive, and trusting relationship between the Blackland Prairie Chapter and the Parks Department in Frisco, TX. This discussion will include examples of the

significant positive impact this relationship has had on the inclusion of natural areas in the planning and design of parkland, as well as increasing chapter involvement in other education/restoration/conservation efforts within the city.

11:30 AM - 12:30 PM

Use of Environmental DNA (eDNA) in Wildlife and Plant Research in Texas. – Ranger Room - 109

- *Sylvia Forbes, Good Water Chapter*

Advanced Training Session

This presentation focuses on one of the most rapidly evolving fields in conservation science: environmental DNA (eDNA). Over the past decade, eDNA has moved from a promising experimental technique to a widely used tool that is transforming how scientists monitor wildlife, assess biodiversity, detect invasive species, and manage ecosystems.

Texas, with it's wide variety of habitats, supports a great amount of ecological diversity, including many rare, threatened and endangered species. These conditions have made Texas an important center for eDNA research and innovation.

In this introductory talk on eDNA, I will explain what eDNA is, talk about different types of sampling, and explore how researchers, wildlife biologists, conservation agencies and universities are applying eDNA across the state - in differing habitats, and looking at differing species. We will cover some examples of implementation, and also discuss emerging technologies, such as airborne DNA sampling and metabarcoding.

By the end of the presentation, attendees should understand more about eDNA, what it is, how it is being used, and how it is becoming one of the most important tools used for conservation and environmental management in Texas.

11:30 AM - 12:30 PM

Building a water feature for birds and pollinators in your garden - McLennan Hall - 207

- *Thomas Dillig, Fivemile Hill*

Advanced Training Session

Water is a scarce resource of vital importance for birds and pollinators in Texas. A reliable, running source of water is a lifeline for birds, insects, and other wildlife, especially during hot summers and winter freezes. Running water enables birds not only to drink, but also clean themselves, remove parasites, and melt ice on their wings.

Building a stream and pond in your garden (or land) is the most effective way to attract a diversity of birds to your property and help our feathered friends at home (in addition to feeders). It also creates a tranquil oasis for humans and brings the sound of running water, birds, pollinators, and other wildlife into our lives.

In this presentation, we will describe how to design and build a stream and pond for birds on your property, what design features matter to attract a diverse set of birds, and

which birds we have observed in our own garden. We will show the example transformation of a 0.1 acre suburban backyard from an empty patch of brown grass to an oasis teeming with 35+ bird species. We will discuss design criteria, key engineering considerations, and the best way to plan and execute such a project.

11:30 AM - 12:30 PM

Wild Neighbors: Coexisting with Bobcats and Coyotes - Texas Room South - 117

- *Karin Saucedo, Song Dog Watch*
- *Roberto Saucedo, Song Dog Watch*

Advanced Training Session

Urban sprawl is reshaping Texas, but a few native carnivores are successfully navigating these new landscapes. In this session, we'll explore the lives of two of Texas' most adaptable carnivores: bobcats and coyotes. We'll share insights into their behavior, urban ecology and coexistence strategies, along with stories and observations from the field. Discover how these species thrive in human-dominated landscapes and how education plays a key role in living alongside them.

11:30 AM - 12:30 PM

Tour of Waco Mammoth National Monument (Session 2)

- *Lindsey Yann, National Park Service*

Field Session

Waco Mammoth National Monument preserves the remains of the only known nursery herd of Columbian mammoths. The remains of nearly 20 other Pleistocene taxa. National Park Service staff will provide tours of the active excavation. Cost per person: $4

11:30 AM - 12:30 PM

From Data to Action: Engaging Communities in Watershed Protection Planning – Lessons from Brushy Creek - Texas Room South - 116

- *Sarah Stannard, Texas Water Resources Institute*

Advanced Training Session

Watershed Protection Plans (WPPs) are voluntary, stakeholder-driven efforts designed to protect and improve water quality through science-based decision making and community engagement. Using the ongoing Brushy Creek Watershed Protection Plan in Central Texas as a case study, this presentation will provide an overview of the WPP development process, including watershed characterization, water quality assessment, stakeholder involvement, and identification of management strategies. Participants will learn how technical data and local knowledge are combined to prioritize water quality concerns, build community consensus, and develop locally supported solutions. The presentation will also highlight opportunities for Texas Master Naturalists and other volunteers to contribute to watershed planning and implementation efforts in their own communities.

11:30 AM - 12:30 PM

Advancing Access in the Outdoors - McLennan Hall - 209

- *Jessica Burke, Texas Parks and Wildlife Department*

Advanced Training Session

Texas Master Naturalists create meaningful opportunities for people to learn, serve, and connect with the natural works but for Texans with disabilities, volunteering can present significant barriers. This session will explore practical, realistic ways that chapters can improve participation for all members through thoughtful outreach, reasonable modifications, communication, and program planning. Attendees will learn the basics of compliance with the Americans with Disabilities Act and how going beyond minimum requirements can strengthen programs and expand community engagement.

11:30 AM - 12:30 PM

Beginner Spanish for Naturalists - Ranger Room - 110

- *Anna Kurtin, Texas Parks and Wildlife Department*
- *Jennifer Marrugo, Texas Parks and Wildlife Department*

Advanced Training Session

Beginner Spanish for Naturalists will provide an introduction to the use of the Spanish language in naturalist contexts. Students will be first introduced to Spanish vocabulary relevant to ecosystems and wildlife and tips on pronunciation and use. Next, students will learn different resources to continue their learning of the Spanish language in different dialects and practice using these tools. The session Advanced Spanish for Naturalists will build upon this foundation by providing an opportunity to practice using Spanish vocabulary in the field.

11:30 AM - 12:30 PM

Propagating Native Plants - McLennan Hall - 208

- *Mark Maxwell, The University of Texas at Austin*

Advanced Training Session

Several propagation techniques of a variety of Texas native plants will be demonstrated. Most of the presentation will have participants practicing these techniques using their own hands.

All participants will be able to take home their starts and will be challenged to keep them alive. All participants will learn techniques to be able to propagate rare, or unavailable, plants native to their ecoregion.

11:30 AM - 12:30 PM

Venomous Snakes of Texas and Management of Snakebites - Texas Room North - 114

- *Robert Plemmons, Retired physician*

Advanced Training Session

A brief review of the venomous snakes found in Texas, including identification, venom composition, habitats, and behavior. Presentation of data covering venomous snakebites in Texas including incidence, species most commonly involved, and outcomes. Review of current guidelines for pre-hospital management of snakebite. Review of current standard of care for snakebite in medical facilities with discussion of "dry bites" and

pitfalls of management. Participants should come away familiar with the most common venomous snakes in Texas, basic management of a venomous snakebite before reaching a medical facility, and likely course of treatment for a venomous snakebite upon reaching a medical facility.

12:30 PM - 2:00 PM

Lunch - Brazos Ballroom

Meal

Join us for lunch to meet your fellow master naturalists from around the state.

1:30 PM - 2:30 PM

Tour of Waco Mammoth National Monument (Session 3)

- *Lindsey Yann, National Park Service*

Field Session

Waco Mammoth National Monument preserves the remains of the only known nursery herd of Columbian mammoths. The remains of nearly 20 other Pleistocene taxa. National Park Service staff will provide tours of the active excavation. Cost per person: $4

2:00 PM - 3:00 PM

iNaturalist - advanced usage - Texas Room South - 118

- *Wendy Anderson, Texas Parks and Wildlife Department*

Advanced Training Session

Take your iNaturalist skills to the next level! This session dives into advanced features like projects, annotations, data quality, and filters. Participants will learn how to batch edit observations, create projects, analyze data, and/or use iNaturalist for education, outreach, and conservation.

2:00 PM - 3:00 PM

Protecting our Watersheds: The Power of "See Something, Say Something" - Texas Room South - 116

- *Jennifer Stewart, Heartwood Chapter*

Advanced Training Session

While enjoying a bicycle ride on the Spring Creek Greenway in Harris County, my observation of normally dry gully now gushing with muddy storm water led to the discovery of a major environmental violation: a large construction site pumping sediment-laden stormwater directly into Spring Creek, an critical Houston watershed. This presentation details the journey from discovery to stopping the activity to successful enforcement. It highlights how citizen-led documentation and action, using ground-level photography, drone based photography and social media provided the critical evidence and pressure needed to alert the proper authorities and stop the activity. By reporting the incident to agencies such as the Texas Commission on Environmental Quality (TCEQ) and the Harris County Flood Control District (HCFCD), the illegal discharge was halted and the operators were held accountable.

The session will be content rich with pictures and video and will examine the severe ecological and community costs of siltation, including "gill clogging" in fish, the destruction of macro-invertebrate habitats, and increased regional flood risks. Attendees will leave with a practical framework for the "See Something, Say Something" philosophy, learning how to identify sediment-control failures and which local and state agencies to contact to ensure our watersheds remain protected.

2:00 PM - 3:00 PM

Seed Balls Unpacked: Successes, Challenges, and Lessons Learned. - Texas Room North - 115

- *Crystal Flannery-Bachicha, City of Frisco Parks and Recreation Division*

Advanced Training Session

Learn how the City of Frisco's Natural Resources Division has been using seed balls to promote awareness and education about the Texas's most endangered ecoregion, the Blackland Prairie. Seed balls provide an easy, hands-on way for communities to support prairie conservation while learning about native plants and local ecosystems. Seed-ball outreach events encourage public participation, build personal connections to restoration projects, and spark conversations about local biodiversity. However, these events do not come without challenges. Discover how Frisco's Natural Resources Division has worked through those challenges, transforming obstacles into valuable teaching moments of the realities of habitat restoration and community education. Through collective action and shared learning, seed-ball projects foster stewardship and strengthen community commitment to preserving the Blackland Prairie.

2:00 PM - 3:00 PM

Romance in the Natural World – Part 2 - Texas Room North - 114

- *Melissa Felty, Texas Parks and Wildlife Department*
- *Jerrel Geisler, Heartwood Chapter*

Advanced Training Session

Come enjoy an entertaining, yet fact packed presentation highlighting unusual courtship, mating rituals, and reproductive techniques of Texas wildlife. We will use some mature language as we reveal riveting details on how wildlife has adapted to successfully propagate. If you joined us last year, come again to be wooed by song and dance of different species.

2:00 PM - 3:00 PM

Monarch Current Research & Habitat Needs in Texas - McLennan Hall - 207

- *Katie Harris, The Xerces Society for Invertebrate Conservation & NRCS*

Advanced Training Session

Monarch butterflies (Danaus plexippus) have experienced significant declines driven by multiple factors, including the loss and degradation of habitat across their range, placing their remarkable transcontinental migration at risk. This session will explore what monarchs need to thrive by sharing new research findings on habitat context dependency and how insect community interactions affect monarch egg abundances, while guiding participants through the scientific methods used to conduct these studies.

Attendees will also learn about current Xerces Society monarch tracking efforts and Texas specific conservation goals that shape on the ground management. The session concludes with practical tools and regionally tailored resources to help participants confidently select native milkweeds and high value nectar plants for supporting monarchs across Texas.

2:00 PM - 3:00 PM

TMN Communications Director Round Table - Ranger Room - 110

- *Hannah Ferguson, Texas Master Naturalist Program*

Advanced Training Session

An opportunity for Texas Master Naturalist Communication Directors to meet with one another and participate in a guided discussion about challenges, tips and tricks, and other insights about the Communications Director role.

2:00 PM - 4:00 PM

Interpreting Natural Disasters

- *Melissa Chadwich, Texas Parks and Wildlife Department, Mother Neff State Park*
- *Britton Trotter, Texas Parks and Wildlife Department, Mother Neff State Park*

Field Session

At Mother Neff State Park, we are no strangers to natural disasters. Nearly every year, the park's historic section faces significant flooding that have forced a third of the park to remain closed for 11 years. These experiences have shaped how we understand, interpret, and communicate the story of a landscape shaped by water, weather, and time.

For both professional and volunteer interpreters, disaster interpretation can be one of the most challenging topics to approach. The loss of property, natural resources, cultural sites, and even lives can leave even seasoned interpreters shaking in their boots. Yet these events are part of the natural world we steward, and they demand thoughtful, compassionate interpretation.

Natural disasters often leave the public confused, grieving, or searching for meaning. Rather than avoiding these difficult moments, interpreters have an opportunity to guide understanding, foster resilience, and help communities make sense of change.

In this session, we will explore the aftermath of natural disasters, strategies for addressing them with care, the ecological and geological reasons they occur, and ways to bring clarity, context, and hope to audiences experiencing or remembering loss.

2:00 PM - 4:00 PM

Rooted in Learning: Exploring Trees at McLennan Community College

- *Michaela McCown, McLennan Community College*

Field Session
This guided tree tour invites participants to explore the diversity, ecological value, and historical significance of trees at McLennan Community College (MCC) while highlighting the institution's commitment to sustainability through the Tree Campus Higher Education Program. Participants will learn how to identify a variety of native tree species, gain insight into campus tree management practices, and will discuss how MCC uses its campus as a living laboratory to engage students in hands-on learning.

2:00 PM - 4:10 PM
Making the Case for Bird Identification: Part 1 - McLennan Hall - 209
- *Emily Grant, Texas A&M AgriLife Extension Service*
- *Liz Tidwell, Texas A&M AgriLife Extension Service*

Advanced Training Session
Join us for an engaging and interactive bird identification experience! In this presentation, participants will discover how to identify birds using six essential clues that every birdwatcher can use. Through a dynamic, clue-based approach, attendees will be guided step-by-step to sharpen their observational skills and unlock the basics of bird identification. Each clue will be introduced in an interactive style, allowing participants to apply their knowledge in real-time with case files to solve. By the end, you'll not only recognize birds more confidently, but also deepen your connection with nature through the art of identification. Are you up for the challenge and a little bit of fun? If so, dust off your magnifying glass and come ready to test your skills with bird identification!

2:00 PM - 4:10 PM
Telling Nature's Story with Your Digital Camera - Ranger Room - 109
- *Rob Hull, Elm Fork Chapter*

Advanced Training Session
A digital camera can be a powerful tool for documenting the natural world and sharing the story of the work Texas Master Naturalists do across the state. From habitats and species to volunteer projects and community outreach, thoughtful images can help others better understand both the beauty of nature and the importance of conservation. This session is designed for volunteers who want to use a digital camera more effectively as a storytelling tool.
Participants will learn how to create photographs that are not only stronger technically but also more meaningful and informative. Topics will include recognizing story opportunities in the field, understanding the difference between a record shot and a storytelling image, improving composition, working with natural light, and creating stronger images of landscapes, habitats, wildlife, plants, and people engaged in volunteer service. The session will also explore how a series of images can work together to tell a broader environmental or project-based story.
The class will focus primarily on still photography, while also providing an introduction to using a digital camera for video.

Participants will be introduced to practical ways video can complement still images in documenting projects, interpreting natural areas, and sharing stories with the public through presentations, websites, and social media.
The focus is on helping Texas Master Naturalists become better visual storytellers who can use their cameras to support interpretation, education, conservation, and community engagement. Participants will leave with practical ideas they can apply while documenting chapter projects and helping others better understand Texas natural resources.
This session is appropriate for participants who use a digital camera and want to strengthen their ability to tell nature stories through images.

2:00 PM - 4:10 PM

Mud Monsters of Texas Bays - Texas Room South - 117

- *Cindy Howard, Galveston Bay Area Chapter*

Advanced Training Session

What lies beneath the surface of the mud? So much life! In this session we will explore the fascinating world of the tiny benthic invertebrates that inhabit the sediments of the bays and estuaries along the Texas coast. If you have never heard of polychaetes or nemerteans or ostracods or amphipods or tardigrades, this AT is for you! We'll learn about the different taxa, their ecology and importance in the food web, and what benthic communities can tell us about the health of our bay ecosystems.

2:00 PM - 4:10 PM

Botany Skills for Naturalists: Learning to Really See the Plants Around You--Part 2, Flowers - McLennan Hall - 208

- *Carol Clark, Monarch Watch, Native Plant Society of Texas*

Advanced Training Session

Do you judge a flower by its color, or visit a woods or a prairie and just see undifferentiated blobs of green ? Maybe it all looks pleasant, but you don't really see individual plants. You aren't alone! Lots of people experience plants that way. Maybe you already have observation skills and can even see the differences between different birds, or lizards, or model years of cars, but everything leafy looks the same to you. Knowing which plants are present can influence purchases, management plans, restoration plans, and biological survey efforts. Because the plants present influence the insects present and every other part of the food web, it's really helpful for a naturalist to start seeing plants as individuals with their own needs and stories. This entry level workshop is designed to show you where to start to really "see" the pieces of plants. "Part 2--Flowers" is a stand-alone class and does not require taking Part 1. We'll learn to describe the details that set them apart from each other and enable the observer to use botanical keys. The workshop will use a combination of slides and hands-on lessons with plant pieces the instructor provides, including flower dissection. The class will include reference materials to take home.

2:00 PM - 5:00 PM

Advanced Spanish for Naturalists

- *Anna Kurtin, Texas Parks and Wildlife Department*
- *Jennifer Marrugo, Texas Parks and Wildlife Department*

Field Session

Building on the foundation established in the Beginner Spanish for Naturalists course, the Advanced Spanish for Naturalists course places learned vocabulary and phrases into a conversational, field-based context. Participants will explore terminology and expressions specific to the ecoregions of Texas, providing ecological relevance for Master Naturalists. This session emphasizes immersion and hands-on practice in outdoor settings to strength language skills and deepen the learning experience. Participants will also receive reference materials for continued study and future reference.

2:00 PM - 5:20 PM

Curating Discovery: Designing Interactive Programs, Activities, & Exhibits for All Ages - Texas Room North - 113

- *Karen Aho, Fossil Rim Wildlife Center*

Advanced Training Session

Do you want to help your audience enhance their sense of wonder and curiosity? Are you looking for ways to infuse inquiry and discovery into your public and direct outreach? In this session, we'll share our experiences at Fossil Rim Wildlife Center, both challenges and successes, in developing our interactive exhibit space, "Conservation Investigations." This space engages visitors of all ages through play, exploration, and critical thinking. If you would like to further develop your skills in interpretive planning, creative program design, and coaching others, this is the session for you!

We will focus on creating holistic, themed programs that spark curiosity, while offering tips and tricks for planning and implementing on a budget. This ability to curate discovery is applicable to anyone designing interpretive experiences—whether it's for signage, outreach booths, field trips, or overnight camps. Participants will gain access to a framework and checklists that will assist in brainstorming innovative, cohesive, and impactful programming focused on empowering audiences to engage in scientific inquiry. This framework considers various audience and logistical factors, drawing on interpretation principles to help guide others in their own design journeys.

The last portion of the session will be set aside as a time for you to test out the framework with your own programs and ideas, share your experiences, and collaborate with other participants. Feel free to bring along electronic or hard copies of existing programming materials that you are looking to enhance, or ideas for new program topics and themes that you want to experiment with.

2:30 PM - 3:30 PM

Tour of Waco Mammoth National Monument (Session 4)

- *Lindsey Yann, National Park Service*

Field Session

Waco Mammoth National Monument preserves the remains of the only known nursery herd of Columbian mammoths. The remains of nearly 20 other Pleistocene taxa. National Park Service staff will provide tours of the active excavation. Cost per person: $4

3:10 PM - 4:10 PM

Nature Pays: How Wildlife Tourism Powers Local Economies - Texas Room North - 115

- *Cheryl Johnson, Bird Nerd Publishing, LLC*

Advanced Training Session

Nature tourism is one of the fastest-growing sectors of travel, bringing visitors, revenue, and conservation awareness to communities that celebrate their natural assets. This presentation explores how nature-based tourism—such as birding, wildlife viewing, and outdoor exploration—can generate meaningful economic benefits for local communities while encouraging stewardship of natural habitats.

Attendees will learn how successful nature tourism initiatives support local businesses, strengthen community identity, and create sustainable economic opportunities. The session will also provide practical ideas, examples, and communication strategies that Texas Master Naturalists can use to help their own communities get excited about developing a local nature tourism plan and showcasing the wildlife and landscapes that make their regions unique.

3:10 PM - 4:10 PM

Ecospheres: Life in a Jar and Using them to Survey Aquatic Micro and Macro Organisms - Texas Room South - 116

- *Jerrel Geisler, Heartwood Chapter*

Advanced Training Session

Ecospheres illustrate life's interconnectedness and biodiversity. Creating miniature jar habitats with plants, animals, and substrate demonstrates these relationships. Such models are valuable for classrooms, museums, or nature centers, making abstract ecological concepts tangible by showing how small ecosystems mirror larger environmental systems. We will discuss and demonstrate these concepts.
We will also show how to use them to survey aquatic macro and micro-organisms.

3:10 PM - 4:10 PM

Mission First: Building TXMN Websites That Welcome, Inform & Inspire - Ranger Room - 110

- *Ashley Westerfeld, Texas A&M AgriLife Extension Service*

Advanced Training Session

Is your chapter website helping you fulfill the Texas Master Naturalist Program's mission—to develop a corps of well-informed volunteers providing education, outreach, and service for Texas's natural resources? Ashley Westerfeld, TXMN Project Coordinator, certified Master Naturalist, and marketing-trained web professional, will show why clear, accessible, and mission-driven content should lead your website decisions—not glossy graphics or complex designs.

In this session, Ashley will guide participants through:

- Understanding our Volunteer Personas: Identify who we want to attract—whether it's nature enthusiasts, retirees, young adults, or working professionals. Ashley will show how to define their motivations, what information they are searching for, and the barriers they may face. Establishing a baseline for these target audiences helps us build websites that inspire and welcome new members into active participation and service.
- Answering Essential Questions: Learn how to ensure your site clearly communicates: Who are we? What do we do? How do you become one of us? Discover how presenting key information up front helps convert visitors into volunteers.
- Showcasing Participation and Learning: Get practical advice for organizing content so current and prospective volunteers can easily find where members volunteer, what events and learning opportunities exist, which projects are ongoing, and how to get involved.
- Prioritizing Accessibility and Ease-of-Use: See strategies for making content accessible and easy to find, so everyone—from curious newcomers to seasoned volunteers—can engage with your chapter.
- Mission-Focused Website Decisions: Reframe your website choices through the lens of the TXMN mission. Will a design upgrade help attract volunteers, or is clear information and authentic community-building more impactful?

Ashley will provide real examples and actionable steps to help chapters declutter, reorganize, and maximize their online presence, making sites welcoming, informative, and inspiring service.

This session is perfect for webmasters and coordinators looking to recruit and retain Master Naturalists through practical, mission-driven website strategies.

3:10 PM - 4:10 PM

Butterflies At Risk - Exploring Disappearing Butterflies of Eastern Texas - McLennan Hall - 207

- *Laurie Sheppard, Blackland Prairie Chapter*

Advanced Training Session

In early March, 2025, major news outlets shared dire headlines like, "Butterfly populations plummet by 22% in US since turn of century" (Reuters; March 6, 2025). This one-hour presentation will focus on the plight of many butterfly species found in Texas but leading to more detailed information about six species in eastern Texas. It will explain what the conservation status of a species means and how it is determined. It will also describe the process within the U.S. Fish and Wildlife Service that results in listing a species on the Endangered Species List. The six highlighted species which may be most at risk in eastern Texas are Frosted Elfin, Arogos Skipper, Bay Skipper, Byssus Skipper, Dukes' Skipper, and Monarch. Both Frosted Elfin and Monarch butterflies are monitored annually at Hagerman National Wildlife Refuge in north Texas.

3:10 PM - 5:20 PM

Brush Busters - Individual Plant Treatment Options - Texas Room South - 118

- *Megan Clayton, Texas A&M AgriLife Extension Service*
- *Barron Rector, Texas A&M AgriLife Extension Service*
- *Stacy Hines, Texas A&M AgriLife Extension Service*

Advanced Training Session

Though Texas is home to some of the most diverse, useful, and beautiful brush plants compared to...well...anywhere!, sometimes it can get to be too much! Maintaining a healthy plant diversity and balance is key, but how do you get rid of the unwanted brush on a site? We would like to introduce you to BRUSH BUSTERS. This program was developed by AgriLife Research & Extension back in 1995 for the selective removal of brush species growing out of balance or not playing well with others!

Brush Busters is an effective, user-friendly, do-it-yourself approach to brush management on rangeland that stresses the use of individual plant treatment to reduce treatment costs, improve control effectiveness, limit damage to desirable livestock and wildlife food plants, and lengthen treatment-life of broad-scale practices where this program can be used for successful follow-up management. This program is highly selective and effective, environmentally-friendly, and usually much less expensive than conventional broadcast mechanical or herbicide control methods.

Come enjoy some fresh Waco air outside of the conference building and learn how to 'Bust Some Brush'!

3:10 PM - 5:20 PM

Wild Romance - Texas Room North - 114

- *Kelsey Low, Houston Arboretum & Nature Center*

Advanced Training Session

Animals have come up with a bewildering variety of answers to the problem of finding partners and making babies. From self-cloning, lesbian lizards to slugs that battle for the right to NOT be pregnant to beetles that form long-term bonds by singing to their children, it's a messy and fascinating world. In this session we'll discuss why "romance" is even worth the effort from an evolutionary perspective, how it may take far more than "two to tango," how sex is a lot more complicated than "male" and "female", strange and wonderful courtship techniques, and the pros and cons of commitment. We will treat the topic with sensitivity and a strong sense of fun, but be warned: things will get explicit! However, we'll also discuss ways to gently and age-appropriately answer questions about animal courtship, mating, and diverse sex and gender identities.

4:20 PM - 5:20 PM

Energizing the Web of Life- New ideas for Teaching Ecological Concepts - Texas Room South - 117

- *Julie Napier, Big Country Chapter*

Advanced Training Session

Teaching the Web of Life and other natural science concepts has long been a mainstay of the Master Naturalists playbook.
When was the last time you heard someone say "Wow! That was fun" after you taught Web of Life? We hear that often since developing new and effective ways of engaging students (and teachers) in group activities.

The Big Country Chapter of TXMN conducts field trips to Abilene State Park for over 1000 third graders every year. We conduct 20 to 30 minutes sessions with classes of 20-30 students on 12 different days of the year. Our approach is factual, complies with TEK standards and can be personalized to the region and the age group.
Bring your ideas to the discussion. Join us for a bit of fun, learn something new and energize your approach to teaching.

4:20 PM - 5:20 PM

Seeing the Unseen: Lichens as Teachers of Ecology and Symbiosis - McLennan Hall - 208

- *Gina Ruiz, Forest Bathing and Wellness / Lichen Pathways*

Advanced Training Session

Lichens are among the most overlooked — and ecologically important — organisms in our landscapes. Though often dismissed as background texture on bark or stone, lichens are estimated to cover nearly 8% of the Earth's land surface. Found growing on bark, rock, soil, and even urban surfaces, these remarkable symbiotic partnerships quietly shape ecosystems by building soil, filtering air, cycling nutrients, providing wildlife habitat, and responding sensitively to environmental change.

In this engaging introduction to the world of lichens, participants will learn how to recognize the major lichen growth forms, understand the fascinating biology behind fungal-algal symbiosis, and explore the important ecological roles lichens play in Texas ecosystems and beyond. The session will also highlight how lichens can be used as bioindicators of air quality, climate health, and habitat continuity.

Through vivid field photography, storytelling, scientific research, and hands-on observation techniques, participants will discover how slowing down and closely observing lichens can deepen ecological awareness and strengthen naturalist skills. The presentation will include examples from Texas landscapes as well as field observations from Alaska and Colombia, demonstrating the incredible adaptability and diversity of lichens across environments.

Participants will leave with practical tools for observing and identifying lichens in the field, a greater appreciation for these often-overlooked organisms, and new ways to interpret ecological relationships through the lens of symbiosis, resilience, and biodiversity.

~~4:20 PM - 5:20 PM~~ - CANCELLED

~~Birds as Community Builders~~ - McLennan Hall - 209

- ~~*Katy Kappel, Bird City Kerrville*~~

~~Advanced Training Session~~

~~The stated goals for trained Master Naturalists include outreach, education and service to support our natural resources. We excel in providing education and service, but outreach to non-naturalists is often difficult. The Bird City Program offers an effective paradigm for community involvement in the interest of conserving and improving our environment. In this session we will share approaches that have worked in this small city and search for solutions to barriers in your community.~~

~~Strategies may include:~~
~~Select a cause or an avatar~~
~~Build a coalition~~
~~Develop an annual public relations plan~~
~~Train public speakers~~
~~Develop a reputation with local legislative bodies~~
~~Thoroughly investigate funding strategies for projects~~
~~Develop grant writing skills~~

4:20 PM - 5:20 PM

The Pollinators for Texas Initiative: Reflections and Looking Forward - McLennan Hall - 207

- *Cristian Lopez, Texas Master Naturalist Program*

Advanced Training Session

This presentation looks back at the past two years of the Pollinators for Texas Initiative, a collaborative effort between H-E-B and the Texas Master Naturalist Program. It will provide a brief overview of the Initiative's impact to date, tips for next year's application with examples from previous award cycles, and project management considerations for 2026 awardees. The goal is for all attendees to leave with actionable advice that can be applied to their projects and applications.

4:20 PM - 5:20 PM

VMS Roundtable - Ranger Room - 109

- *Cheryl Foster, TMN VMS*

Advanced Training Session

Join the state VMS team to get a summary of the VMS System and yearly program data trends.
Discuss issues and review questions with the state team and other VMS admins.

4:20 PM - 5:20 PM

How to Get the Most out of Your Canva - Ranger Room - 110

- *Hannah Ferguson, Texas Master Naturalist Program*

Advanced Training Session

This session will go over a few tips and tricks to best utilize your Canva Pro account. We'll look at how to add branding colors to the sidebar, ways to organize folders, and more.

4:20 PM - 5:20 PM

State Parks are here for YOU! - Texas Room North - 115

- *Ben Horstmann, Texas State Parks - Texas Parks and Wildlife Department*

Advanced Training Session

Need a place to meet? What about a place to volunteer? A unique training space with tons of resources? We got you covered! Texas State Parks can provide all of those things for your chapter. No matter where your chapter is, there's likely a State Park close by

that needs your help and is willing to provide you with a great space. Find out what Texas State Parks have to offer, what your nearest one is, and how to reach out to them.

4:20 PM - 5:20 PM

Shell by shell: community-based oyster gardening for ecosystem recovery - Texas Room South - 116

- *Amy Nowlin, Matagorda County AgriLife Extension*

Advanced Training Session

This project highlights the development and expansion of an oyster gardening program along the Texas Mid-Coast as a community-driven approach to coastal restoration. What began as a pilot project led by the Mid-Coast Texas Master Naturalists (TMN) Chapter has since expanded into a broader public program under the continued guidance and supervision of the chapter. This growth reflects both the ecological success of the effort and the strong community interest in hands-on coastal restoration.

Oyster gardening involves the off-bottom cultivation of oysters in specialized cages maintained by volunteers at private docks, piers, and waterfront properties. While these oysters are not intended for consumption, they function as living infrastructure—filtering water, improving clarity, enhancing habitat complexity, and supporting broader ecosystem resilience. By engaging residents directly in restoration activities, the program fosters stewardship while generating measurable environmental benefits.

During the 2025 season, the program was implemented across two bay systems—Matagorda Bay and Aransas Bay—each requiring separate permits, highlighting the importance of coordination with Texas Parks and Wildlife. A key component of the program was the collection and relocation phase, which was strengthened through partnerships with the Matagorda Bay Foundation and Dog Island Nature Preserve, as well as collaboration with the "Sink Your Shucks" program in conjunction with Goose Island State Park. These partnerships supported the efficient transfer of cultured oysters to restoration sites and helped expand the reach and impact of the project across multiple coastal areas.

Participants received hands-on training in oyster husbandry, standardized monitoring protocols, and habitat stewardship practices to ensure consistency and reliability in maintenance and data collection. Volunteers tracked oyster growth, survival, biofouling, and basic water quality parameters such as temperature and salinity, generating valuable baseline data to inform adaptive management and restoration planning.

Over the course of the season, more than 2,200 oysters were successfully relocated from gardens to protected restoration sites, directly contributing to reef-building efforts and enhancing local oyster populations. High survival rates and measurable shell accretion demonstrated that oyster gardening can produce viable, restoration-ready oysters while also engaging the community in meaningful conservation work.

Building on these outcomes, the 2026 season will incorporate spat-on-shell provided by Palacios Marine Agricultural Research (PMAR). This addition will expand data collection to evaluate recruitment success across environmental gradients and assess restoration potential in areas with historically low natural recruitment. It will also allow for comparisons between naturally settled oysters and hatchery-produced spat-on-shell, further refining restoration strategies.

This presentation will share program outcomes, key partnerships, and a scalable framework for oyster gardening as a community-based restoration tool along the Texas

coast. By combining scientific monitoring with volunteer participation, oyster gardening continues to demonstrate its value as both an ecological restoration strategy and a powerful model for coastal stewardship.

6:00 PM - 7:00 PM

Dinner - Brazos Ballroom

Meal

Join fellow Texas Master Naturalist members and community partners for a fellowship dinner to share experiences.

8:00 PM - 11:00 PM

Blacklighting/Mothing at Lake Waco Wetlands

- *Sam Kieschnick, Texas Parks and Wildlife Department*

Field Session

Blacklighting/Mothing at Lake Waco Wetlands

Saturday October 24th, 2026

7:00 AM - 8:00 AM

Morning Coffee & Networking - Brazos Ballroom

Meal

Take time before the day's sessions begin to connect with fellow attendees and prepare for a full day of learning. Breakfast is not included with conference registration, though many of our contracted hotels offer breakfast options for their guests. Coffee will be available each morning in the conference center prior to the start of sessions.

7:00 AM - 12:00 PM

Making the Case for Bird Identification: Part 2

- *Emily Grant, Texas A&M AgriLife Extension Service*
- *Liz Tidwell, Texas A&M AgriLife Extension Service*

Field Session

Join us for an engaging and interactive bird identification experience! After learning about the six clues of bird identification in the classroom, let's put your detective skills to the test in the field. Now that you are an expert detective in bird identification put your skills to the test. A professional bird guide will lead this session to help you translate what you have learned in the classroom to real life scenarios.

8:00 AM - 9:00 AM

From Source Water to FLOWS: Municipal Water Treatment, Coagulation-Flocculation, and a NOAA/GRP-Funded Partnership with the Sabine-Neches TMN Chapter - Ranger Room - 109

- *Thinesh Selvaratnam, Lamar University*

Advanced Training Session

Clean, reliable drinking water is one of the most important public services in any community, yet most people rarely get to see what happens between the river, reservoir, bayou, or groundwater source and the water that finally arrives at the tap. This classroom session will give Texas Master Naturalists a practical, engaging introduction to how municipal drinking water treatment works, why each treatment step matters, and how understanding water systems can strengthen community education, stewardship, and resilience. The presentation is designed for a broad audience and assumes no prior background in engineering or chemistry.

The session will begin with a plain-language overview of the municipal water treatment process from source to tap. Participants will be introduced to common source waters used in Texas communities and will learn how raw water quality can vary depending on rainfall, runoff, drought, watershed conditions, algal growth, turbidity, organic matter, and seasonal changes. The presentation will then walk through the major components of a conventional surface-water treatment train, including intake, screening, rapid mixing, coagulation, flocculation, sedimentation, filtration, disinfection, and finished-water storage. Rather than focusing on formulas or design equations, the session will

emphasize what each step is intended to accomplish, how the steps work together, and what treatment operators are trying to remove or control at each stage.

A special focus of the session will be coagulation and flocculation, because these are two of the most visually interesting and conceptually important processes in drinking water treatment. Participants will learn why very small suspended and colloidal particles often do not settle on their own, how coagulants help destabilize those particles, and how gentle mixing during flocculation allows them to form larger, heavier flocs that can then be removed more effectively. To make these ideas concrete and memorable, the session will include a short benchtop demonstration using small water samples that shows the visible transformation from turbid water to clarified water. This demonstration will help participants connect engineering practice to public understanding.

Throughout the session, attendees will be encouraged to think like interpreters and community educators as well as learners. In addition to learning the treatment sequence itself, participants will hear practical examples of how water-treatment concepts can be explained to the public in everyday language, how misconceptions about "chemicals in water" can be addressed constructively, and how discussions about drinking water can be connected to broader topics such as watershed health, stormwater, flood resilience, land use, public trust, and environmental literacy. For Texas Master Naturalists, this provides a useful bridge between natural-resource education and community outreach.

The session will also connect municipal water treatment to current community-engaged work in Southeast Texas through FLOWS: FloodSmart Southeast Texas Youth Initiative for Environmental Literacy and Community Resilience, a project led by Lamar University and supported by the Gulf Research Program of the National Academies in partnership with NOAA's Environmental Literacy Program. FLOWS engages students in grades 8-10 in Beaumont, Port Arthur, and Orange in hands-on learning related to flooding, stormwater management, and nature-based solutions such as rain gardens. The project combines TEKS-aligned classroom instruction with field investigations and is designed to strengthen environmental literacy and community resilience in a region that regularly experiences flooding and other water-related challenges.

An important part of that story is the involvement of the Sabine-Neches Chapter of the Texas Master Naturalists as a community partner in FLOWS. The session will briefly share this success as an example of how TMN chapters can contribute meaningfully to science communication, youth environmental education, and place-based resilience efforts. By highlighting this partnership, the presentation will show attendees that Master Naturalists are not only interpreters of ecosystems and natural history but also valuable collaborators in interdisciplinary projects that connect water, people, infrastructure, and community action.

Participants in this session will see a concise slide presentation, a live coagulation-flocculation demonstration, and examples that connect treatment concepts to real communities and educational practice. They will learn the basic steps of municipal drinking water treatment, the purpose and science of coagulation and flocculation, the

relationship between source-water quality and treatment performance, and the value of environmental literacy partnerships such as FLOWS.

8:00 AM - 9:00 AM

From Overwhelmed to Confident: First Steps in Tree ID - Texas Room North - 114

- *Lisa Travis, Blackland Prairie Chapter*

Advanced Training Session

This presentation helps naturalists move past the overwhelm of "too many trees" into a simple, confident approach to identification—and to teaching others to do the same. Participants will learn how to observe key features such as leaf arrangement, shape, and branching patterns, and use practical strategies to narrow down possibilities without memorizing dozens of species.

Using a field-tested, award-winning brochure featuring 50 common North Central Texas trees, along with a custom web-based interactive Tree ID Key designed to align with the brochure, attendees will practice identifying samples and compare approaches to find what works best for them and their audiences. We'll also explore tips for making tree ID engaging and accessible for learners of all ages.

Attendees will leave with a clear framework, ready-to-use tools, and the confidence to take their own first steps—and help others do the same.

8:00 AM - 9:00 AM

Midnight Magic: The Essential Power of Dark Skies for People, Wildlife, and Plants - Texas Room South - 116

- *Cindy Luongo Cassidy, DarkSky Texas*

Advanced Training Session

Step into the dark and discover a side of nature most of us never see. In this talk, we'll journey into the nighttime world, where the absence of artificial light quietly powers navigation, reproduction, circadian rhythms, competition, predation, and the protection of entire habitats. You'll learn why wildlife depends on natural darkness, why our own bodies and minds do too, and how each of us can expand our conservation efforts beyond daylight—helping the night sky, and the life under it, shine more brightly than ever.

8:00 AM - 9:00 AM

Caterpillar Identification - Texas Room South - 117

- *Wizzie Brown, Texas A&M AgriLife Extension Service*

Advanced Training Session

Everyone loves butterflies (except Sheldon Cooper), so caterpillars are often overlooked in favor of their adult counterparts. This class will introduce participants to the world of caterpillar identification, covering the common families, genera, and species found in Texas. While the focus will be on identifying caterpillars, information will be given on adults and possible host plants.

8:00 AM - 10:10 AM

Native Plants and Pollinators: Getting the Biggest Bang for you Bucks - McLennan Hall - 207

- *Criag Hensley, Retired Texas Parks & Wildlife Department*

Advanced Training Session

With so much attention these days on growing native plants for pollinators and those critters that feed on them, it can be quite challenging to know where to start, which species to add, cultivars vs. actual natives, and where to find them. This presentation is built on the many experiences of the presenter in observing native plants that our pollinators actually seem to prefer, from bumblebees to butterflies. We'll take time to review who our pollinators are, introduce a variety of native plants that are robust pollinator attractors, and provide tips on how you can join the gathering momentum for the use of native plants that will actually benefit your local pollinators. Craig will also share the plethora of resources available to you for finding those best plants in your area, as well as touch on how to grow your own from seed.

8:00 AM - 10:10 AM

Connect, Engage, Learn: Using Project WILD to Enhance Texas Master Naturalist Initial Training - Ranger Room - 110

- *Anna Raumaker, Texas Parks and Wildlife Department*
- *Leslie Albrecht, Oso Bay Wetlands Preserve & Learning Center Corpus Christi*

Advanced Training Session

Looking for ways to make your Texas Master Naturalist Initial training more interactive, engaging, and memorable? This session will demonstrate how Project WILD activities can energize training classes—regardless of your prior teaching experience. Project WILD is an award-winning conservation education curriculum focused on wildlife, habitats, and environmental stewardship.

Participants will actively engage in hands-on activities and games that build community, strengthen background knowledge, and support interpretive and observation skills. Through demonstrations and discussion, attendees will explore practical ways to integrate Project WILD into classroom sessions, field trips, guest presentations, and field-based learning experiences. Participants will leave with adaptable, ready-to-use strategies and activities that can enhance volunteer training.

8:00 AM - 10:10 AM

Texas Wildlife Census: Building the First Statewide Wildlife Monitoring Network Through Citizen Science - Texas Room South - 118

- *Ty Werdel, Texas A&M University*

Advanced Training Session

The Texas Wildlife Census (TWC) is an ambitious new initiative led by Texas A&M University, the Natural Resources Institute to create the first standardized, statewide wildlife monitoring network in Texas. By combining infrared cameras, artificial

intelligence, and citizen science, TWC will generate repeatable estimates of wildlife abundance and distribution across Texas's diverse landscapes.

This session will introduce the project vision, scientific framework, volunteer opportunities, camera deployment protocols, data collection procedures, and expected conservation benefits. Participants will learn how local monitoring efforts contribute to a statewide wildlife database that can support land stewardship, wildlife management, disease surveillance, and conservation planning. The session will also provide an opportunity for volunteers and chapter leaders to discuss implementation strategies and future participation in the Texas Wildlife Census.

8:00 AM - 10:10 AM

Geologic Time - Take a Walk Along a 456 meter Scale Model of Earth's History - Texas Room North - 115

- *Dan Northcut, North Texas Chapter*

Advanced Training Session

Most people have no perception of where we fit in the grand scheme of our planet's history. Walking a 456 meter-long scale model of earth's history is the best way to gain real perspective on the vastness of time through which evolution has changed life on Earth. After a short introduction inside, we will head outside and walk along a 456 meter-long line representing the 4.56 billion years of our planet's existence. Beginning at the time of the Earth's formation, our walk will take us by the points in time where major events in the evolution of life occurred, from Cyanobacteria creating a newly oxygenated atmosphere through the reign of the dinosaurs and all the way to the end (present day) where humans occupy the last few centimeters of our timeline. You will be surprised along the path by where many of evolution's advances actually occurred. You will leave this experience with a new perspective on the history of life and, most importantly, how humans fit into it. The appreciation of the timing and scale of life on earth will add to the significance of your future experiences as a master naturalist!

8:00 AM - 10:10 AM

Making birding interpretive - Texas Room North - 113

- *Montse Canedo, Texas Parks and Wildlife Department*
- *Kristina del Pino Borgstrom, Texas Parks and Wildlife Department*

Advanced Training Session

Do you like guiding birding tours or teaching birding 101 to others? Or is that something you would like to do, but don't know where to start? This session will teach you how to make birding interpretive by going beyond the facts and information, and making birding relevant to your audience, enjoyable and engaging, and making deeper connections with your visitors. We will cover some tips and tricks with you, and have hand-on activities you can easily incorporate to your next birding tour!

8:00 AM - 10:10 AM

Head, Hands, and Heart in Earth-Centered Learning: In the Field Frameworks & Mapping Service-Learning Ecosystems - McLennan Hall - 209

- *Rachel Weaver, Native Prairies Association of Texas | The PETAL Project*

Advanced Training Session

"All Education is Environmental Education" is the guiding proposition of Earth-Centered Learning, and provides us with a deep-rooted foundation for meaningful conservation conversations, community engagement, and ecosystem restoration. The ecological work of land stewards, project coordinators, volunteers, and educators does not happen in silos – the work requires connection, collaboration, and moves along a restorative continuum. This presentation provides frameworks and community mapping principles that improve environmental education and volunteer engagement programs in conservation work, and our communities as a whole, by creating holistic pathways for lifelong learning and caring stewardship.

Frameworks, principles, and methodologies for this presentation include: Earth-centered learning, participatory values, principles of restoration ecology, systems ways of thinking, transformational strategies, field environmental philosophy, the seasonal body framework, compassionate leadership traits, and social change maps. These provide conceptual and practical tools that aid in the interdisciplinary and multifaceted environmental issues our communities face. As Master Naturalists, volunteers, and community members, we provide opportunities for connection between field experts, land stewards, fellow naturalists, and members of the public. Mapping our local community or project-specific "Service-Learning Ecosystem" with these frameworks allows for individual expertise and contributions to integrate with the larger (eco)system and community, find and fill gaps, and create authentic foundations and deep roots for the long-term restoration of our environment (and ourselves).

The "Head-Hands-Heart" analogy exemplifies the interconnected components of Earth-Centered Learning, moving us towards environmental literacy. The frameworks presented will have multi-layered applications in supporting earth-centered actions, whether the focus is information and knowledge-sharing (head/mind), land management (hands), or care and connection (heart). While focal points may fluctuate, every element interacts in holistic earth-centered practices, where the whole is greater than the sum of its parts. These frameworks and analogies are often embedded in our conservation programs, whether explicitly stated or underlying the values and ethics of field practitioners. The Head-Hands-Heart analogy helps restore the interdisciplinary connections among fields such as scientific research, restoration ecology, management practices, and the creative and artistic expressions that help our broader communities care for nature.

We will look at mapping programs at two organizations to see how these tools may help programs grow greater environmental literacy. The PETAL Project is a Denton-based, community-centered environmental program that blends art, education, and conservation. Native Prairies Association of Texas (NPAT) is a non-profit land trust dedicated to the conservation, restoration, and appreciation of native prairies, savannas, and other grasslands in Texas. From hyper-local to statewide programs, Texas Master Naturalists, Native Prairies Association of Texas, and The PETAL Project represent "Service-Learning Ecosystems" that connect community participation and conservation ethics through environmental education, volunteer service, and ecosystem restoration.

Earth-Centered Learning and programs like these are essential to engage community members, seek out connections, enhance our knowledge, comprehend interrelatedness, and embrace an attitude of care and stewardship.

For the two-hour workshop format, we can utilize the frameworks and mapping tools with specific Master Naturalist projects from the audience. Tools include the Social Change Map, Compassionate Leadership Traits Assessment, Field Environmental Philosophy methodology, the Seasonal Body Framework for Accessibility, and the Ecological Recovery and Social Benefits Wheels. Attendees will receive references and resources to access materials and apply them to projects in their communities.

8:00 AM - 10:10 AM

Nature Has No Native Tongue: Tools for Inclusive, Bilingual Programming & Outreach - McLennan Hall - 208

- *Nancy Escobar, North Texas Chapter*

Advanced Training Session

As Texas demographics evolve, extending conservation education to Spanish-speaking communities is vital for regional outreach. However, many volunteers hesitate to lead bilingual programming due to language confidence. This session provides a practical roadmap for creating and facilitating accessible English/Spanish nature initiatives—even for leaders with little to no Spanish fluency.

Participants will learn how to use mobile technology like phones and tablets/iPads, apps like iNaturalist and Seek, and bilingual field guides and books to bridge communication gaps on the trail and in the classroom. Moving from field tools to long-term community engagement, the session will detail strategies for proactive networking and building lasting relationships with local youth organizations, churches, scout troops, and municipal parks departments.

Attendees will leave with an actionable toolkit to lower language barriers, serve a wider range of audiences, and establish formal partnerships. Ultimately, this session will provide Master Naturalists with a scalable blueprint for inclusive programming that drives volunteer service and local community impact.

9:10 AM - 10:10 AM

Walking with Fireflies - Texas Room South - 117

- *Mary Dobberstine, Galveston Bay Area Chapter*
- *Alyssa Goforth, Galveston Bay Area Chapter*

Advanced Training Session

Join members of the Glow Patrol Firefly Survey Team for Walking with Fireflies, a program that brings to life the hidden world of these remarkable insects through an engaging, immersive experience focused on the fireflies of the Galveston Bay Area. The program features guided virtual “walks”—from a daytime exploration to nighttime journeys that reveal fireflies in action—all while participants gather comfortably in a classroom setting.

Stunning photos and videos bring the story to life, showcasing firefly habitats, life cycle, anatomy, flashing patterns, and mating behaviors. Participants will also discover differences among species, as well as distinctions between males and females.

While rooted in the Galveston Bay Area, this program offers insights and approaches that can be applied to firefly observation and conservation efforts across Texas and beyond. The program highlights the Glow Patrol Firefly Survey Team's citizen-science efforts and introduces the Xerces Society's Firefly Atlas, home to a national database used to document and share firefly field observations. Along the way, participants will explore how volunteers contribute to ongoing efforts to study and protect these glowing ambassadors of the night.

9:10 AM - 10:10 AM

Nature's Best Hope: Behind Bars - Ranger Room - 109

- *Gwen Lanning, Heartwood Chapter*
- *Scooter Langley, Lee College*

Advanced Training Session

Discover how a unique partnership among the Texas Master Naturalist Program, Lee College, and the Texas Department of Criminal Justice is bringing conservation education into the Ellis Unit prison horticulture program. This presentation shares the story of developing a Texas Master Naturalist intern class for incarcerated students, the challenges and rewards of teaching behind prison walls, and the lessons learned along the way. Presenters will discuss program organization, adapting teaching methods for a correctional setting, hands-on activities that engage diverse learners, and inspiring student success stories. Attendees will gain practical ideas for expanding conservation education to new audiences and learn how stewardship of natural resources can foster curiosity, growth, and a sense of purpose.

9:10 AM - 10:10 AM

Riparian Rock Stars: North Texas Trees Highly Prized by Wildlife - Texas Room North - 114

- *Rick Travis, Blackland Prairie Chapter*

Advanced Training Session

We'll take a virtual walk through our North Texas woodlands, focusing our attention on native north Texas trees that are most valuable to wildlife as a haven, food source, and host for reproduction. In our review, you'll also learn keys for identifying these valuable tree species, their native range, habitat preferences, natural history, and additional values they provide our ecosystems.

9:10 AM - 12:30 PM

Lights & Glass – Build a Toolkit to Facilitate 'Lights Out Texas' Education - Texas Room South - 116

- *Mei Ling Liu, Texas Conservation Alliance*

Advanced Training Session

Texas is located in the Central Flyway, welcoming billions of migratory birds each spring and fall. Unfortunately, light pollution and reflective glass structures pose severe, fatal

threats to these travelers. To scale conservation efforts across the state, this interactive, hands-on workshop empowers Texas Master Naturalists and informal educators to facilitate engaging informal education programs back home.

Participants will explore these issues in two dedicated parts, focusing first on the impacts of light pollution and then diving into window collisions. Throughout the workshop, attendees will create and assemble corresponding components for a mobile, interactive outreach kit ("Discovery Trunk") to take back to their communities in order to facilitate outreach programs and tailor to their needs.

Note: Because materials are limited, members from the same chapter are asked to team up and build a shared kit together for the chapter. Come prepared to create, collaborate, and take home a visual aid for public outreach and classroom engagement!

10:20 AM - 12:30 PM

Conservation in Camouflage: Understanding Hunting's Wildlife Benefits - McLennan Hall - 209

- *Marcus Blum, Texas A&M AgriLife Extension Service*

Advanced Training Session

Hunting has played a central role in the conservation and management of wildlife across North America for more than a century, yet its contributions are often misunderstood or overlooked. This presentation will explore how regulated hunting supports wildlife conservation through science-based population management, habitat conservation funding, and long-standing stewardship traditions. Participants will learn how hunting programs contribute to healthy wildlife populations, support habitat restoration efforts, and provide critical financial resources for conservation agencies and research. Attendees will leave with a broader understanding of the North American Model of Wildlife Conservation and the important connection between hunters, conservation funding, and sustainable wildlife management in Texas and beyond.

10:20 AM - 12:30 PM

Dragons and Damsels, Oh My: An introduction to the world of Odonata - McLennan Hall - 209

- *Craig Hensley, Retired Texas Parks & Wildlfie Department*

Advanced Training Session

With 160 and 77 species of dragonflies and damselflies statewide, respectively, the Odonata play major roles in our ecosystems from master predators as both nymphs and adults to prey for a host of animals from birds to one another. Like butterflies and birds, many are sexually dimorphic and come in a variety of amazing colors and sizes. During this presentation you will be introduced to the natural history of "odes," how to identify them, who they are and delve into their roles in nature's grand story. Bring your field guides with you to help learn more about their identification in real time.

10:20 AM - 11:20 AM

Purple Martin Madness-Learn a Little or a Lot and Make a Difference - Texas Room North - 113

- *Julie Napier, Big Country Chapter*

Advanced Training Session

More than almost any animal in North America, the Purple Martin is dependent on humans for the future survival of the species. You can be apart of this effort! This session will introduce you to Purple Martins in Texas, teach you about their world and how you can make a difference with a little or a lot of effort. We will share experiences and encourage participants to share your stories as well.

10:20 AM - 11:20 AM

From Wilderness to Stewardship: The Legacy of American Naturalists - Texas Room North - 115

- *Katie Paul, Panhandle Chapter*

Advanced Training Session

From Wilderness to Stewardship: The Legacy of American Naturalists traces the evolution of the naturalist tradition—from early observation and personal connection to modern conservation and community-based stewardship.

Through the voices and ideas of Henry David Thoreau, John Muir, and Aldo Leopold, this presentation explores how Americans have understood, valued, and cared for the natural world over time. It connects these national movements to Texas landscapes and local figures, highlighting the role of citizen science, interpretation, and volunteerism in shaping today's conservation efforts.

Designed specifically for Texas Master Naturalists, this talk bridges history, philosophy, and practice—showing how field observation, public engagement, and ethical stewardship remain at the heart of the program. Attendees will leave with a deeper understanding of their place within this legacy—and a renewed sense of purpose in the work they do to inspire others and care for the land.

10:20 AM - 11:20 AM

Alamo Area's Camera Trap Project - Texas Room South - 118

- *Bethany Snowden, Alamo Area Chapter*

Advanced Training Session

Discover how community scientists are helping uncover the hidden wildlife of Central Texas through the Alamo Area Camera Trap Project. This session will provide an inside look at how motion-activated trail cameras are used to monitor local species, collect valuable ecological data, and contribute to conservation efforts across the region. Participants will learn how camera traps are deployed, how images are analyzed and managed, and how citizen scientists play a critical role in documenting wildlife presence and behavior. Through real project examples and captivating wildlife photos, attendees will gain insight into the species being detected in urban, suburban, and natural landscapes—including animals that are rarely seen by the public.
Whether you are new to wildlife monitoring or an experienced naturalist, this presentation will demonstrate how camera trapping can support conservation, research, and community engagement while providing practical information on how to get involved in local wildlife monitoring efforts

10:20 AM - 12:30 PM

Heritage Tree Registry - Texas Room North - 114

- *Hector Marines-Chio, Texas A&M Forest Service*

Advanced Training Session

Cities like Fort Worth, Dallas, and Houston have some form of Historic or Heritage Tree Registry. Local sustainability and natural resource groups have joined to recognize and protect their historic and important trees in their own communities. Aside from clean air and water, large trees provide communities with a sense of belonging and identity. Memorable moments throughout a community's lifetime have spanned generations. City of Waco, Baylor University, and the McLennan County Urban Forestry Council have joined to nominate and recognize these important trees that have gone unnoticed in our own community. This presentation will cover important and historic trees within the Greater Waco Area and help bring in new nominations to raise awareness of the social, financial, environmental, and health benefits trees bring to their communities. Attendees will get a classroom overview of the program as well as get to visit 2 Heritage Trees just a short walk from the convention center in a field portion of this presentation.

10:20 AM - 12:30 PM

Unlocking Adult Learning: The Art of Andragogy - Ranger Room - 110

- *Michael Mitchell,*

Advanced Training Session

Embark on a journey of adult education exploration in this session tailored for the modern educator. Distinguishing itself from pedagogy, we delve into the unique realm of andragogy, recognizing the distinct ways in which adults learn and grow. Through an engaging discussion, participants will gain invaluable insights into enhancing their effectiveness as instructors among adult learners.

Drawing upon cognitive developmental theory, this session illuminates the pathways to deeper understanding and engagement with our audience. Uncover strategies and practical techniques aimed at bridging the gap between educator and adult learner, paving the way for transformative learning experiences.

Join us as we culminate our exploration with a concise roadmap: four actionable steps designed to empower educators in effectively connecting with their audiences and fostering meaningful learning journeys.

10:20 AM - 12:30 PM

Teaching Observational Skills Through Nature Journaling - McLennan Hall - 208

- *Kristy Daniel, Research Rangers (HCMN & TXST)*
- *Jill Zipperer, Texas State University & Hays County Chapter*

Advanced Training Session

Calling all artists (and artists-to-be)! Join the Texas State University and Hays County Master Naturalist's Research Rangers team as we celebrate nature through art. In this workshop, participants will learn how to better observe and document nature through journaling, sketching, and other artistic formats. Follow along with the Research

Rangers to learn the basics of capturing observations through drawing by starting with basic geometric shapes, artistic talent is not needed to take part in this nature exploration. Presenters will share tips for enhancing your sketches, adding color and relevant details, and documenting scientific characteristics that can help nature journals provide valuable evidence to document natural trends over time. Transform your nature journaling techniques into memorable chronicles of our environment. The Research Rangers will also discuss steps you can take to develop and implement your own nature journaling-based, environmentally mindful outreach programs in your community. All Research Rangers programming is available for free access online through the team's project website. You are welcome to bring your own supplies, or creative materials will be provided for your use during the workshop! Participants will create their own hand-crafted masterpiece to take home!

11:30 AM - 12:30 PM

The History of the Audubon Christmas Bird Count - Texas Room North - 113

- *Suanne Pyle, Hill Country Chapter*

Advanced Training Session

Many birders and Texas Master Naturalists look forward to the Christmas season, not for Christmas trees and presents, but because of the Audubon Christmas Bird Count (CBC). I have participated in quite a few and organized the last two years. I was asked to do a presentation at the local nature center on the CBC and found out it has a very interesting history. So come find out about it and you'll appreciate your local CBC this Christmas season even more.

11:30 AM - 12:30 PM

A Story of Texas -- In Human and Natural History - Texas Room North - 115

- *Sheri Wilcox, Gideon Lincecum Chapter*
- *Frank Michel, Gideon Lincecum Chapter*

Advanced Training Session

Did Stephen F. Austin and early Texas settlers have the equivalent of a drive-through Starbucks? How was William B. Travis able to achieve immortality at the Alamo with the help of a minuscule insect and a mighty oak tree? What mind-numbing natural science secret could early inhabitants of our state sink their teeth into?

These and other intriguing questions will be answered as we closely examine the fabric that has been woven together by our state with the threads of both human and natural history.

Georgia O'Keffee said she could hardly believe Texas was real. "It is the same big wonderful thing that oceans and our highest mountains are."

Learn about all this and get tips for an exciting way to teach nature topics and engage new audiences. Strengthen your chapter's collaboration with local and state historic groups. And broaden your understanding of how this "big wonderful thing" came to be and continues to be.

11:30 AM - 12:30 PM

The Amazing Variety of Native Bee Lifestyles - Texas Room South - 117

- *Deidre Hardiman, Highland Lakes Chapter*

Advanced Training Session

I believe that most master naturalists understand that native bees are very different than honeybees. Let's dive deeper into the vast variety of native bee lifecycles and what science knows and does not know about these vital and mysterious animals.

11:30 AM - 12:30 PM

Observations from the Swamp - Texas Room South - 118

- *Mike Farley, Good Water Chapter*

Advanced Training Session

A closer look at a habitat specialist and a generalist. Lets compare behavior, morphology, and physical appearances of two Sylvilagus species, Swamp rabbit and Eastern Cottontail, whose range overlap in the eastern half of Texas.

12:30 PM - 2:00 PM

Lunch and Science Fair Winners Presentation - Brazos Ballroom

Meal

Lunch and learn! Hear from our Junior and Senior Science Fair winners! Each of these students earned a certificate from the Texas Master Naturalist program for their conservation focused science fair project at the state Science and Engineering Fair. Incredible young minds at work! (one or both depending on final student availability)

2:00 PM - 5:20 PM

Understanding New World Screwworm: Impacts on Wildlife, Livestock, and Land Stewardship - McLennan Hall - 207

- *Marcus Blum, Texas A&M AgriLife Extension Service*
- *Sonja Swiger, Texas A&M AgriLife Extension Service*

Advanced Training Session

New World screwworm was once eradicated from the United States, but renewed concerns about its spread have raised important questions for wildlife professionals, livestock producers, and land stewards across Texas. This presentation will provide an overview of screwworm biology, transmission, and identification, while exploring how infestations can affect wildlife populations, livestock operations, and routine land management activities. Participants will learn how wildlife and livestock management practices may need to be adjusted in areas at risk for screwworm occurrence. Attendees will leave with a better understanding of the ecological and economic implications of this parasite, along with practical considerations for surveillance, prevention, and coordinated response efforts on Texas landscapes.

2:00 PM - 3:00 PM

Volunteering to learn, to help, to have a good time: a research project exploring the motivations of long-term conservation volunteers - Texas Room South - 117

- *Julia Freeman, University of Illinois at Urbana-Champaign*

Advanced Training Session

Volunteers are a powerful force in conservation. In the underfunded field of plant conservation, a robust pool of dedicated volunteers can monitor populations, contribute to habitat restoration, and raise public awareness of the importance of protecting native species. Yet, long-term retention of volunteers is a perennial challenge for conservation organizations. In this presentation, I will give an overview of the psychological research on volunteer motivations and involvement, and how understanding these drivers of behavior can help coordinators develop a committed pool of volunteers that return year after year. I will also present preliminary results from my own research into the psychological drivers of volunteering behavior. Last year, I developed a survey in collaboration with Texas volunteer coordinators to better understand how psychological drivers could predict volunteer dedication. In particular, I explored six motivations for volunteering and how those motivations interacted with the relevance of an activity to an individual's life overall. Texas Master Naturalist state coordinators and other volunteer coordinators from more than 10 Texas conservation organizations, representing over 14,000 volunteers, reviewed the survey and assisted me with administering it online. Results from the survey will lead to actionable recommendations for volunteer retention—allowing conservation organizations to spend less time and resources on recruiting new volunteers, and more on conservation action.

2:00 PM - 3:00 PM

Lights Out, Y'all: The Case of the Missing Texas Fireflies - Texas Room South - 116

- *Ben Pfeiffer, Firefly Conservation & Research, Lindheimer Chapter*

Advanced Training Session

Fireflies are among Texas' most beloved and mysterious insects - yet some of our most remarkable species have quietly vanished from view. In this highly engaging and visually rich talk, Ben Pfeiffer takes audiences deep into the world of Texas fireflies, blending natural history, field research, and conservation with an unfolding scientific mystery.

Participants will learn about the diversity of fireflies (family Lampyridae) found in Texas and across the United States, how to recognize common species by their flash patterns, and why fireflies use light to communicate. Drawing from years of fieldwork in Texas river basins, riparian corridors, and private lands, Ben will highlight the habitats that fireflies depend on - and why these ecosystems are increasingly under threat.

A central focus of the talk is Ben's ongoing search for some of North America's most elusive and "lost" firefly species, including two that occur in Texas. Audiences will be introduced to Photinus immaculatus, a firefly not documented in decades, and the enigmatic Amber Comet (Pyractomena vexillaria), whose unusual behavior and rarity present one of the great unsolved puzzles in North American firefly research. These

species offer a rare window into how much we still don't know—and what may already be slipping away.

The talk also explores the modern threats contributing to firefly decline, including habitat loss, light pollution, pesticides, and changes to hydrology. Ben concludes with hopeful, practical steps audiences can take—such as habitat restoration, native planting, and property certification—to help ensure fireflies remain part of Texas nights for generations to come.

2:00 PM - 3:00 PM

TMN Bat Acoustic Monitoring Program Closing Knowledge Gap for Bat Species Distributions Across Texas - Texas Room South - 118

- *Rachel Grotte, Texas Parks and Wildlife Department*

Advanced Training Session

Texas is home to over 30 species of bats, more than any other state, yet due to the size of the state and the fact it is predominantly privately owner, much remains to be learned about species occurrence and distribution. Acoustic monitoring is revolutionizing the research process through the passive collection of data. The Bat Acoustic Monitoring Program, created by Texas Nature Trackers, taxa specialists and Texas Master Naturalists, seeks to help close the knowledge gap and contribute to the North American Bat Monitoring Program.

We will be summarizing the project at a high level, including 2025 final results, 2026 preliminary results and the future of the project. While we are offering a virtual option, I will say it won't be a perfect experience. We will be joining the meeting via a web cam, and we will only be allowing text chat for the virtual option.

Session open to both current project participants, as well as anyone interested in learning more.

2:00 PM - 3:00 PM

Wildlife Belongs to Everyone—Now What? - McLennan Hall - 209

- *Michael Mitchell,*

Advanced Training Session

New this year! First time program.

The Public Trust Doctrine is a foundational yet often overlooked principle shaping how wildlife and natural resources are managed in the United States. Rooted in ancient Roman law and carried through English common law into American jurisprudence, the doctrine establishes that certain natural resources—such as navigable waters, wildlife, and shorelines—are held in trust by the government for the benefit of all people, present and future. This session introduces participants to the origins, legal evolution, and core principles of the doctrine, including its role in defining public rights and the state's responsibility as trustee. Through key court cases and real-world examples, attendees

will gain a practical understanding of how this doctrine continues to influence conservation policy and resource management today.

Moving beyond theory, this presentation explores how the Public Trust Doctrine intersects with modern conservation challenges, particularly in Texas and across the broader North American Model of Wildlife Conservation. Participants will examine tensions between private property rights and public interest, shifting societal values toward wildlife, and the growing complexity of managing shared resources in an increasingly urbanized landscape. The session emphasizes the role of informed and engaged citizens—especially Master Naturalists—as essential stewards and advocates within this framework. By the end, attendees will be equipped to recognize how their actions, outreach, and community engagement contribute to upholding the public trust and sustaining wildlife resources for generations to come.

2:00 PM - 3:00 PM

TMN Conservation Award Winners 2026 - Supporting Youth Research Projects – Ranger Room - 109

- *Lynn Seman, Rolling Plains Chapter, Horned Lizard Conservation Society, Whiteside Museum of Natural History*

Advanced Training Session

Each year, TMN volunteers attend the Texas State Science and Engineering Fair (TXSEF) to interview and select a junior and senior winner of the TMN Conservation Special Award. This year's junior winner, Nathan Montelongo, developed a process of using shellfish as a low-cost, animal-based solution to reduce microplastic pollution in freshwater systems. Our senior award winner, Aideen Chaloupka assessed the impact sunflowers had on native grass germination and soil fertility following fire exposure. Please come support these young researchers with your input, questions, and encouragement as they share their awarding winner projects!

~~**2:00 PM - 3:00 PM**~~ **CANCELLED**

~~From Free Trees to Environmental Stewardship – Texas Room North – 114~~

- ~~*Dr. Jessie Farris, City of Burleson*~~

~~**Advanced Training Session**~~

~~Participants will explore how urban forestry programs can move beyond simple tree giveaways to create long-term environmental stewardship and community engagement. This presentation shares findings from a doctoral research study examining the City of Dallas' Branch Out Dallas free-tree program, including factors influencing tree survival, public knowledge, and homeowner stewardship practices. Attendees will learn how these research findings were directly applied to the City of Burleson's "Trees for Tomorrow" initiative and 2026 Arbor Day programming to create hands-on, experiential environmental education opportunities for K–12 students and the broader community.~~

~~The session will highlight real-world examples of urban forestry education, youth engagement, tree planting outcomes, and community-based stewardship strategies. Participants will leave with practical ideas for improving volunteer engagement,~~

~~environmental education programming, and long-term success of tree planting initiatives within their own communities.~~

2:00 PM - 3:00 PM

Wild Women for Good: Stories of Conservation in Texas - Texas Room North - 114

- *Jennifer Bristol, Wild Woman For Good*
- *Thea Platz, Master Naturalist*

Advanced Training Session

Join the founding women of the Texas Master Naturalist program for a special panel discussion exploring the history, growth, and lasting impact of this unique volunteer conservation network. The conversation will be moderated by Jennifer Bristol, author of Wild Women for Good: Stories of Conservation in Texas, which features the inspiring story behind the creation of the Texas Master Naturalist program and the remarkable women who helped make it possible. Learn firsthand about the program's origins, its commitment to conservation and sustainability, and its continued influence across Texas. The panel will conclude with an audience Q&A, providing plenty of opportunity to hear personal stories and ask questions of the pioneering women who helped shape the program.

2:00 PM - 4:10 PM

Wonder with WILD: Using Project WILD for Engaging Outreach Activities - McLennan Hall - 208

- *Anna Raumaker, Texas Parks and Wildlife Department*
- *Leslie Albrecht, Oso Bay Wetlands Preserve & Learning Center Corpus Christi*

Advanced Training Session

Do you need fresh activity ideas for outreach events, community presentations, or youth education programs? Discover how Project WILD can help Texas Master Naturalists create engaging, hands-on learning experiences that inspire curiosity and conservation action.

Participants will explore adaptable, easy-to-use activities that work in a variety of settings, from festival booths and guided hikes to classroom programs and community workshops. This session will demonstrate how Project WILD activities can be scaled for different audiences, age groups, and timeframes while supporting meaningful environmental education. Attendees will leave with practical strategies, ready-to-use activity ideas, and increased confidence in using Project WILD to strengthen outreach, volunteer education, and community engagement efforts.

~~**2:00 PM - 4:10 PM**~~ **CANCELLED**

~~Beginning Bird Watching~~ - ~~Texas Room North - 113~~

- ~~*D D Currie, Brush Y Canyons Chapter*~~

~~**Advanced Training Session**~~

~~Participants will learn basic bird anatomy - i.e., what makes a bird a bird; how to find and identify birds based on field marks, call/song, behavior and flight patterns, time of~~

~~day, time of year, range and abundance, and habitat; how to use binoculars, and the economic impacts of birding. Additionally, participants will learn how data gathered through bird watching contributes to various Citizen Science programs.~~
~~The session will include two table top exercises. For a more comprehensive learning experience, classroom participants are encouraged to register for the complementary field session at Lacey Point on Lake Waco.~~

2:00 PM - 4:10 PM UPDATED

Hunting Dragons in Texas - Texas Room North - 113

- *Brent Franklin, Cross Timbers*

Advanced Training Session

Hear about some of my many trips around the state on my continuing quest to photograph every dragonfly and damselfly species previously seen in Texas. Through photos and stories learn about the diversity and beauty of my favorite organism. Learn about the biology, different habitats preferred by certain families versus others, lifecycle timing and more.

2:00 PM - 4:10 PM

"Wings Over the Ash" How Birds Lived Beyond the K-Pg Extinction: Insights into Resilience and Adaptation - Texas Room North - 115

- *Scott Kiester, LLELA/ Elm Fork Chapter*

Advanced Training Session

Modern birds, (Neornithes) are the heirs of the therapod dinosaurs and comprise all the birds in the biosphere today. It wasn't always like that; once they shared the world with other lineages of birds and the avian dinosaurs that had preceded them. One spring day all their evolutionary histories took a sharp turn when a meteorite the size of a small city brought an end to the Cretaceous Period and the Mesozoic Era, life's "middle age".

Explore the world of maniraptorans, enantiorthines (the opposite birds) and other avian linages that flew in the Mesozoic skies or lived on the Mesozoic's warm tropical seas. None of those earlier lineages survived the cataclysm at the end of the Cretaceous.

Modern birds barely did. Phylogenetic analyses indicate that perhaps as few as eight to ten species from three avian linages survived. This talk is about that earlier world. Why modern birds survived the meteorite impact and how they diversified to fill ecological roles all over the planet in a recovering biosphere that had very nearly been destroyed.

2:00 PM - 4:10 PM UPDATED

Turning Trainees into Teammates: Building Engagement, Community, and Retention in Master Naturalist Training - Ranger Room – 110

- *Lisa Travis, Blackland Prairie Chapter*
- *Nancy Casillas, Blackland Prairie Chapter*

Advanced Training Session

Successful training programs do more than deliver information — they build connection, confidence, and long-term engagement within the chapter community.

Over the past several years, the Blackland Prairie Chapter has developed several approaches that have significantly strengthened trainee engagement and chapter connection. In this interactive workshop, we will share practical strategies that have worked well in our chapter, including:

--Pod-based cohort groups that create smaller communities within the larger class and encourage collaboration, accountability, and friendships
--Capstone projects and end-of-course TED-style presentations that allow trainees to synthesize and share what they have learned
--Admissions and onboarding practices that engage trainees in volunteer activities before classes even begin
--Structured communication systems, including weekly "countdown" emails beginning six weeks before training and continuing throughout the course
--Class websites and centralized resources that streamline organization and communication
--Small-group rotations featuring Q&A, quizzes, games, and hands-on activities that increase participation and engagement
--Graduation celebrations and recognition practices that reinforce accomplishment and chapter connection

A substantial portion of this two-hour session will focus on participant discussion and exchange of ideas. Because large and small chapters often face different challenges and opportunities, attendees will participate in breakout discussions organized by chapter size. Participants will share successful practices, discuss common challenges, and exchange practical ideas that may be adaptable to other chapters.

This session is designed to be practical, collaborative, and highly interactive. Participants will leave with concrete strategies and renewed inspiration for strengthening training, engagement, and retention within their own chapters.

Session Format: Interactive workshop including presentation, facilitated discussion, breakout groups, and exchange of chapter best practices.

Intended Audience: Training Directors, Membership Directors, chapter leadership, mentors, and anyone involved in trainee engagement, retention, or volunteer development.

3:10 PM - 4:10 PM

Nature Leaders: Making Future Naturalists One Fifth-Grade Class at a Time - Texas Room South - 117

- *Samantha Knight, North Texas Chapter*

Advanced Training Session

The Twelve Hills Nature Center volunteers teach fifth graders all about their local ecoregion- Blackland Prairie. In the process they learn how to lead interpretive hikes, how to appreciate everything the land has to offer, and how to be conservationists. The

program has had a lasting impression on students over the years, with many going into environmental science programs in college, and one former student submitting Twelve Hills as a project to National Geographic and finishing in the top tier! Our program is TEKS compliant, and supported by the school and the PTA.

In this session, I'll take you through the creation of the program, the tools that we use to execute the program, and how we structure the course. Attendees will get a template for the teacher's curriculum and a copy of the workbook used by our students.

3:10 PM - 4:10 PM

Thoughtful Program Design: Creating Nature Programs More People Can Enjoy - Texas Room North - 113

- *Jessica Burke, Texas Parks and Wildlife Department*
- *Laney Kohout, Texas Parks and Wildlife Department*

Advanced Training Session

Small changes in program design can make a big difference in who feels comfortable participating in nature-based activities. This session will explore tried-and-true strategies for planning interpretive programs and volunteer opportunities that better support people with disabilities and varied access needs. Attendees will learn practical approaches for improving participation, communication, and comfort through intentional planning, adaptive resources, and flexible program design. Real-world examples from parks and public programs will highlight ideas that are realistic to implement and will improve the experience for everyone attending.

3:10 PM - 4:10 PM

Wildlife Videography - Texas Room South - 118

- *Lee Smith, Texas Parks and Wildlife Department*

Advanced Training Session

This session will cover production techniques unique for wildlife video production. We will examine the difference between still photography and video photography. Different types of lenses, cameras and drones to provide compelling footage will be discussed, along with a special emphasis various microphones to capture high quality audio on location. Special camera techniques for acquiring the necessary coverage of wildlife will be demonstrated. We will consider various aspects using blinds and camouflage. Throughout we will also consider the practice of ethical production regarding wildlife photography and the challenges photographers encounter in the field.

3:10 PM - 5:20 PM

Night Sky Narratives: Learn to Present the Case for Dark Skies - Texas Room South - 116

- *Cindy Luongo Cassidy, DarkSky Texas*

Advanced Training Session

Participants will strengthen their presentation skills while exploring a timely, science-based topic: the benefits of dark sky practices. In this interactive workshop, attendees will work with a prepared talk on how responsible lighting supports human health, protects wildlife, preserves the night sky, and saves energy. Each participant will present

short segments, experiment with different delivery approaches, and receive practical feedback on structure, clarity, and presence. Rather than passively listening, speakers will learn by doing—gaining confidence, refining their message, and leaving with concrete techniques they can apply to future presentations or use in educating the public at outreach events.

3:10 PM - 5:20 PM

Navigating Discourse: Addressing Controversial Topics – Ranger Room - 109

- *Michael Mitchell*

Advanced Training Session

Back by popular demand. Last seen two years ago.

This presentation equips Texas Master Naturalists with practical tools to engage constructively in today's increasingly polarized environment. Grounded in the TMN mission of education, outreach, and stewardship, the session explores how highly charged topics—often tied to conservation, land use, and public trust—can be approached in ways that foster learning rather than division. Drawing on concepts such as interdependence, diverse perspectives, personality dynamics, and the distinction between technical and adaptive challenges, participants will gain a framework for understanding why conflict arises and how it can be productively managed. The approach emphasizes moving groups into a "productive zone of equilibrium," where discomfort becomes a catalyst for insight rather than disengagement.

The session culminates in a practical, field-ready toolkit of actionable strategies for leading difficult conversations, including staying calm and respectful, actively listening, finding common ground, using evidence, avoiding logical fallacies, and knowing when to disengage. Participants will also learn to model critical thinking over persuasion, frame discussions positively, and align dialogue around shared goals. By integrating these techniques, presenters and volunteers can transform contentious moments into meaningful educational opportunities, reinforcing trust and credibility with diverse audiences. Ultimately, the session positions discomfort not as a barrier, but as a doorway to deeper understanding, stronger relationships, and more effective conservation communication.

3:10 PM - 5:20 PM

Planting for Wildlife--101 Native Plants for Wildlife Gardens - Texas Room North - 114

- *Carol Clark, Monarch Watch, Native Plant Society of Texas*

Advanced Training Session

This program goes beyond the usual "top 20" lists to present 101 native Texas plants for wildlife gardens. We'll talk about birds, bees, butterflies and other wildlife, and the specific benefits each plant provides. Access to a spreadsheet with all the plants will be provided to participants.

4:20 PM - 5:20 PM UPDATED

TMN Training Director Round Table - Ranger Room - 110

- *Hannah Ferguson, Texas Master Naturalist Program*

Advanced Training Session

An opportunity for Texas Master Naturalist Chapter training directors to meet in-person and participate in guided conversations on how each chapter structures and implements their initial volunteer training for new members.

4:20 PM - 5:20 PM

OWLETS – Observing Wildlife Leads to Education, Training, and Stewardship - McLennan Hall - 208

- *Erin Stenzel, Lost Pines Chapter*

Advanced Training Session

Discussion of Athena the Great Horned Owl at the Ladybird Johnson Wildflower Center and how changes in policy have taken her from a chance encounter to driving stewardship and driving interest in careers in STEM. In 2010, Athena and her mate arrived at the Wildflower Center. Likely, less than 50 people knew she was on site, and most of those 50 were employees. In 2026, the "Athena Cam" had over 500K views in the less than 3 months it was active and led to conversations about stewardship, conservation, and how people can act to help and protect the animals around them.

In this session we'll discuss how giving the public an "experience" with Athena, led to international visitors, a Cornell live cam, and an opportunity to educate the public. These changes allowed us not only learn about a seldom studied species, but also to spark curiosity in school aged kids (and adults). During the session I will:

- Tell stories of Athena, her mate, and the chicks over the years
- Work through some of the hands-on activities and interpretive techniques we used to move visitors from disinterest, to curiosity, and finally to taking action
- Discuss how we have been able to use these same methods to drive curiosity in other areas of the natural world

4:20 PM - 5:20 PM

From Forgotten Cemeteries to Future Stewards: Conservation, Community, and the Next Generation - Texas Room South - 117

- *Julie Fineman, Constellation of Living Memorials*
- *Corrin Breeding, Jackson-Breeding Consultant Group*
- *Matthew Orwatt, Texas A&M AgriLife Extension Program, Dallas County*
- *Cindy Hua, SMU Hunt Institute for Engineering and Humanities*

Advanced Training Session

Historic cemeteries are among Texas' most overlooked conservation assets. Through the Constellation of Living Memorials (CLM), communities across Texas are discovering how these sacred places can serve as wildlife habitat, outdoor classrooms, living history sites, and centers for community engagement.

This 60-minute presentation highlights three powerful examples of conservation in action. Landscape architect Corrin Breeding will share details of the partnership between CLM and the Dallas Park and Recreation Department to steward Dallas Historic Freedman's Cemetery, demonstrating how native landscape restoration can honor cultural history while improving ecological function. Jane Duke, representing the Elm Fork Chapter of Texas Master Naturalists, will discuss opportunities, challenges, and lessons learned from onboarding the McCombs Cemetery in Denton County into the CLM network, including 'lessons learned so far' and 'the process of onboarding'. Dr. Cindy Hua of the SMU Hunt Institute for Engineering and Humanities will explore CLM's emerging youth engagement model, illustrating how historic cemeteries can become places where young people connect with conservation, native plants, local history, and community leadership. Finally, Matthew Orwat, Texas A&M AgriLife Extension Agent – Dallas County, will share how to navigate the AgriLife Extension system for your county to participate in the CLM program.

4:20 PM - 5:20 PM

Spring Creek Forest: A Case Study in Balancing Conflicting Ecological Priorities - Texas Room North - 113

- *David Parrish, North Texas Chapter*

Advanced Training Session

The Spring Creek Forest Preserve includes an uncut, riparian, hardwood forest plus a native limestone prairie along Spring Creek in Garland, Texas. The Preserve features towering trees and an array of wildflowers. Since its discovery in the early 1980's scientists, conservationists, and naturalists all agreed that this area was a biological treasure. Beginning in 1988, Dallas County began adding parcels of the Forest to its County Open Space Preserve system. The City of Garland codified protections for the Forest in its development code and produced a master development plan (1992). In February 2024, the Forest was honored by admission to the national Old Growth Forest Network.

In June 2025, a city contractor clear-cut two corridors within the Forest to allow inspection of the aging sewer in the creek bottom. The clearing was done without prior coordination among the other City departments or the County.

This presentation examines the ongoing efforts to address the issues of an aging sewer system while providing stewardship of this rare urban old-growth forest. The presenter will examine the initial damage to the forest, the public response, and the city's subsequent commitment to restoration, improved coordination, and a phased assessment and repair process. The presentation highlights the central challenge: how to inspect and rehabilitate aging sewer infrastructure without causing further harm to the ecological integrity of the preserve. It also considers broader lessons about transparency, planning, and collaboration when public works intersect with environmentally sensitive land.

4:20 PM - 5:20 PM

(Re)Defining Prairie: One Size Does Not Fit All - McLennan Hall - 209

- *Amy Monroy, Day 3 Designs*

Advanced Training Session

This presentation will review the history and practices of prairie restoration with a particular focus on North Texas Backland Prairies. The purpose is to encourage those working in restoration to let the site dictate the design of restoration and to be willing to let go of stereotypes, preferences, or preconceived ideas about what a prairie restoration should look like in order to create specific goals and strategies utilizing a wide range of disciplines to make a prairie a fully-functioning wildlife habitat rather than primarily an attractive planted area. Participants will be challenged to strategize about sites they've worked on or plan to.

4:20 PM - 5:20 PM

Plants at Risk: How Rising CO_2 is Reshaping the Future of Texas Ecosystems - Texas Room North - 115

- *Jane Duke, Elm Fork Chapter*

Advanced Training Session

Rising atmospheric carbon dioxide is reshaping plant and soil communities across Texas and beyond. This session explores how C3 and C4 plants respond differently to elevated CO_2, increasing temperatures, drought stress, and changing soil conditions. Through examples from North Texas prairies, forests, and disturbed landscapes, participants will examine why some native species remain resilient while certain woody and invasive plants rapidly expand. The session connects plant physiology, soil ecology, and climate adaptation through practical observation and ecosystem-based thinking. Attendees will gain a deeper understanding of which plants may be most at risk, which may thrive, and how biodiversity supports resilience in a changing climate.

4:20 PM - 5:20 PM

Insect Macro Photography - Documenting the Insects you Observe - Texas Room South - 118

- *Mary Ann Melton, Good Water Chapter*

Advanced Training Session

Insects create many challenges in capturing their diversity and the details in the very tiny ones. This presentation will demonstrate many different ways to document insects and get the details and clarity to get to species identification on iNaturalist. Mary Ann will talk about getting good detailed cell phone photos, using cameras like the Nikon P950 and the Canon Powershot SX50, as well as DSLR cameras with macro lenses. Demonstrations for getting the right lighting is also problematic for photographs doing mothing at night will help everyone get better insect photos.

5:30 PM - 6:30 PM

Trivia Contest (Quiz Bowl) – McLennan Hall - 209

Featured

How are you with wildlife & naturalist trivia? Join us for a fun-filled, low-stakes, but high-energy battle! Participants will compete for prizes and bragging rights by answering science questions, wildlife facts, and Master Naturalist trivia. Test your knowledge or come to learn! Bring the beverage of your choice or just bring yourself and a sense of humor, and represent your chapter in a contest of knowledge or battle of wits.

Teams are encouraged this year. Assemble your team of 4 beforehand, or participate individually.

6:30 PM - 8:30 PM

Dinner and Annual Awards Reception - Brazos Ballroom

Meal

Enjoy a final dinner with us. We'll celebrate the milestone awards of our attending master naturalists, recognize award winners and special recognitions, and celebrate the program's annual successes.

8:00 PM - 11:00 PM

Blacklighting/Mothing at Waco Convention Center

- *Sam Kieschnick, Texas Parks and Wildlife Department*

Field Session

Blacklighting/mothing at Convention center in Waco! Right outside the doors!

Sunday October 25th, 2026

~~**7:00 AM - 12:00 PM**~~ **CANCELLED**

~~Beginning Birding Field Trip~~

- ~~*D D Currie, Brush Y Canyons Chapter*~~
- ~~*Dell Little, Brush Y Canyons Chapter*~~

~~**Field Session**~~

~~Participants will take part in a guided birding field trip to practice locating and identifying birds in their natural habitats. The field session will focus on applying bird identification skills in the field and will also introduce participants to eBird, the Cornell Lab of Ornithology's citizen science platform, including how to record and submit bird sightings.~~

Attendance at the Beginning Birding classroom session is encouraged but not required. Participants who do not attend the classroom session will benefit from having a basic familiarity with bird identification concepts and the use of field guides, binoculars, or birding apps.

7:00 AM - 9:00 AM

Making the Case for Bird Identification: Part 3

- *Emily Grant, Texas A&M AgriLife Extension Service*
- *Liz Tidwell, Texas A&M AgriLife Extension Service*

Field Session

Join us for an engaging and interactive bird identification experience! After learning about the six clues of bird identification in the classroom, let's put your detective skills to the test in the field. Now that you are an expert detective in bird identification put your skills to the test. A professional bird guide will lead this session to help you translate what you have learned in the classroom to real life scenarios.

7:00 AM - 8:00 AM

Sunday Morning Coffee & Refreshments - Brazos Ballroom

Meal

Before the conference concludes, join fellow attendees for coffee, conversation, and a light morning refreshment. A selection of grab-and-go items such as fruit, kolaches, and other morning snacks will be available as attendees gather for the final day of the Annual Meeting.

8:00 AM - 10:00 AM

Contest and Awards Presentation - Brazos Ballroom

General Session

This morning, we celebrate the winners of our Contests & Awards to round off our 2026 Annual Meeting. We'll also be announcing our 2027 Recertification Pin!

10:00 AM - 12:00 PM

Water is Life - A Tour of the City of Waco DAF Treatment Plant

- *David Miller, City of Waco*

Field Session

Water is Life. Waco is a true one of a kind place. When someone asks how I would describe it, I always say "it's a small town feel that has everything in it". Waco is no different when it comes to drinking water. Waco has a type of treatment that is still to this day a true one of a kind process. The Dissolved Air Flotation plant located in Waco serves as a pre-treatment plant for the other two conventional plants. As it currently sits, we are the ONLY DAF plant located in Texas that is used for drinking water. The presentation includes everything from a little history on how we got to where we are now, along with the intricate details of what we as a drinking water system operators go through on a day to day basis. Participants will hopefully take away more knowledge of just how that water that is coming out of their faucets got there. During the presentation, participants will be in a classroom setting for most of the time, there will be a couple chances for people, who are willing, to see the DAF plant in action by taking a brief walk outside to see what they just learned put into action. Not only does the presentation include the DAF plant, it also has our larger conventional plant, Mt. Carmel. The participant will leave knowing not only where their water comes from, but what it really takes to not only make it safe, but to make it palatable.

11:00 AM - 3:00 PM

A Walk in the Park - Plants of Mother Neff State Park

- *Rebecca Roe, Good Water Chapter*
- *Carol Smith, Central Texas Chapter*

Field Session

Mother Neff State Park became the inspiration for the Texas State Park system when, in the 1920s, Isabella Neff, mother of Governor Pat Neff, donated 6 acres of land along the Leon River to the people of Texas. It has now grown to 400 acres.

The park is located at the convergence of three ecological zones—Lampasas Cut Plain, Washita Prairie, and Blackland Prairie — forming four distinct habitats from the Leon River bottomland to the upper prairie. This diverse geography supports rich biodiversity, with numerous species of plants, insects, birds, and other animals.

Learn some of the history and geology that make this park special. Then go for a walk to observe the plants (and maybe some other wildlife) that call these diverse habitats their home.