



Tuesday October 13, 2020

Virtual Field Sessions Day

8:00 AM-4:00 PM CT - **Virtual Field Sessions TBA**

Please save the date - Join us throughout the day for a few virtual field sessions being curated by local Houston regional chapters, where our Annual Meeting would have been held. These field sessions will tour project sites, nature centers and state parks and share a bit about their local ecology -hopefully whetting the appetite to travel to these destinations once travel restrictions are lifted.

Wednesday, October 14, 2020

8:30 AM-9:00 AM CT - **Virtual Howdy! Welcome to the Texas Master Naturalist 2020 Annual Meeting!**

Michelle Haggerty, State Coordinator, Texas Master Naturalist Program and Mary Pearl Meuth, Assistant State Coordinator, Texas Master Naturalist Program

Welcome to the Texas Master Naturalist 2020 VIRTUAL Annual Meeting! Join us as we open our first ever virtual meeting, share a bit about the schedule and make some exciting announcements.

9:00 AM-10:00 AM CT - - **Houston at the Ecological Crossroads**

Keynote Speaker - *Jaime González, Houston Healthy Cities Program Director, The Nature Conservancy Texas Chapter – Houston Office*

The Houston-Galveston Region sports world-class biodiversity, placing #1 in the nation during the 2019 and 2020 City Nature Challenge. Its prairies, woodlands, bayous, wetlands, saltmarshes, and bays are home to everything from bald eagles to bottlenose dolphins. And, yet, these natural wonders are imperiled by rapid growth and other forces. Join biologist and environmental educator Jaime González of The Nature

Conservancy for a guided tour of the past, present, and future of biodiversity and conservation of the Greater Houston region and how work happening both inside the heart of the City of Houston and on its periphery are all linked.

10:00 AM-12:00 PM CT - - **iNaturalist 101**

Craig Hensley, Texas Nature Trackers Biologist, Texas Parks & Wildlife Department
iNaturalist is a powerful data collection tool enjoyed globally by hundreds of thousands of people. Texas Parks and Wildlife Department's Texas Nature Trackers (TNT) program works with community scientists to help document the state's rich diversity of flora and fauna with an emphasis on specific species through managed projects. During this first of three presentations, you will be introduced to the TNT program and the basics of iNaturalist, from establishing an account to taking usable photos with the app. You'll even be given the opportunity to go outside to practice using the app before the end of the session.

10:00 AM-12:00 PM CT - - **Changing the Narrative- Can Master Naturalists find solutions to look like the communities we serve?**

Christopher Keen, Outreach Director, Alamo Area Master Naturalist

Since 1997, Texas Master Naturalist has grown from its humble roots into a dynamic movement championed by people who share a common cause to serve and protect our natural environment. Throughout its history, TMN has welcomed into its membership people from all walks of life who already share the values and spirit of its mission. But what about those who we haven't yet reached? What about those who have not yet discovered their love of nature, not because they lack the interest, but because they lack the access. Are we adapting our outreach to reach out to them? Are we framing our mission in a way that speaks to underrepresented communities? Are chapters equipped with the training and skills to have these conversations? Does TMN have the resources and information it needs to effectively empower its leadership to meet this challenge? Diversity and inclusion are not just objectives; it is an essential part of the way we engage the community we serve. This conversation will give you the resources and information you need to start a dialogue with your chapter about diversity and inclusion so you can empower your chapter and yourself to open up the limitless possibilities of the outdoors to underrepresented people in our community. If you believe that actively sponsoring inclusion and reaching out to diverse communities is essential to TMN's long-term sustainability, and you want to learn how you can start this conversation in your own chapter, then this presentation is for you!

10:00 AM-12:00 PM CT - - **Behind the Scenes: Plant Conservation, Texas Master Naturalists and Mercer Botanic Gardens**

Ms. Anita Tiller Botanist, Mercer Botanic Gardens

Mercer Botanic Gardens (Mercer), a Harris County (HC) park embraces the challenges of achieving plant conservation within one of the fastest growing metropolitan regions in the US. TMN service projects assist Mercer's herbarium collections; botanical reference library; living collections database for global accessibility via Botanic Gardens

Conservation International; and in situ conservation of four rare endemic species at the HC Precinct 4 Prairie Dawn Preserve. Volunteer service supports ex situ conservation projects for Mercer's rare plant seed bank; nursery and Endangered Species and Native Plant Garden. Learn how the herbarium, library and programs benefit TMN volunteer projects and training.

10:00 AM-12:00 PM CT - **Intro to Interpretation, WHO CARES?**

Annie Hepp, Regional Interpretive Specialist, TPWD - State Parks - Region 5 and Ben Horstmann, Regional Interpretive Specialist, TPWD - State Parks - Region 2

Someone lit the spark of passion for the outdoors in you and now it's your responsibility to pass on that passion. This session will give a brief overview of what interpretation is, some tools to help you and how we all can use it to move people to stewardship in our wild places.

10:00 AM-12:00 PM CT - **Wild Texas Cities**

Rachel Richter, Urban Wildlife Biologist, Texas Parks and Wildlife Department

Texas communities are filled with amazing wildlife and breathtaking natural areas. Over 85% of Texans live in a city, which means that urban greenspaces are an important resource for both people and wildlife. The unique plants and animals found in urban areas are worthy of our understanding and celebration. This presentation will focus on the fascinating ecosystems found in Texas cities, how they work, and why they're so critically important.

10:00 AM-11:00 AM CT - **Frog Calls in a Harris County Gulf Coast Prairie**

Dr. Lisa Morano and Kevin Muraira, University of Houston – Downtown and Kelly Norrid, Texas Parks & Wildlife Department

Do you know the frog noises of species common to the local Houston prairies and grasslands? Come learn the calls of some of the common frog species. In addition to reviewing frog calls this presentation will summarize frog call data from Deer Park Prairie, a 51-acre pristine prairie region within the collection of Harris County Gulf Coast Prairies and Marshes. What can we learn about species present and call time from frog recordings? This analysis of frog calls by species and by hour is a student project in collaboration with Texas Parks and Wildlife, Houston Urban Wildlife Office.

11:00 AM-12:00 PM CT - **The Greatest Grackle: Tips and Tricks for Youth Birding**

Dr. Maureen Frank, Assistant Professor & Extension Wildlife Specialist, Texas A&M AgriLife Extension Service

Summer is a great time to do youth education, but it's not exactly a time of peak bird diversity. Fortunately, one of the best things about birding is that you almost never get "skunked," even if your best bird of the day is a grackle! In this presentation, I'll cover some tips for teaching birding to youth of all ages, including some fun activities and resources I've developed.

12:00 PM-1:00 PM CT - **Daily Lunch & Stretch Break**

Each day of the Texas Master Naturalist Virtual Annual Meeting we've scheduled a full hour for a lunch and stretch break. Today's break suggestion - while making lunch today, turn the music up and have a short dance party session in your kitchen/office. Dance like no one's watching! Stretching as needed before hand too. Twirl, twist, jump, clap, shake, and wave your hands - dance, dance, dance!

1:00 PM-4:00 PM CT - **Conservation of the Night (Sex and other things that happen after dark)**

Cindy Luongo Cassidy, Member, Hays Co Texas Master Naturalist and Emma Schmidt Girl Scout Ambassador, Girl Scout Troop 145

Workshop to position you to understand light pollution and be able to do outreach and education with young people. Will also take you through the details of helping home, business, parks, and communities gain recognition from the International Dark-Sky Association.

- Conservation of the night (background of basic information for Master Naturalists to be able to do Light Pollution Education as Outreach)
- Curriculum (including activities) to teach light pollution to middle & elementary aged students
- Extend the lighting assessment activity for middle schoolers to be appropriate for adult outreach. This will include how to help residences, businesses, parks, and communities gain recognition for appropriate lighting from the International Dark-Sky Association.

1:00 PM-2:00 PM CT - **Are Chapter Newsletters Relevant in the Age of Social Media?**

Dixie Camp Betty Cross, and Tom Jones, Newsletter Editor and Webmaster, Hays County Master Naturalist Chapter

Newsletters serve as a communication tool, allowing the Hays County Master Naturalist (HCMN) Chapter to learn about its diverse Membership, their work within the Community and as a platform to share their knowledge or experiences. We also communicate via Social media platforms such as Facebook, Twitter, and Google Groups. Social media allows Members to post their experiences and photos as soon as they occur. Are monthly Newsletters still relevant in the age of social media? Our presentation explores how a monthly newsletter, published online, can effectively compete with social media, attracting many readers both inside and outside the Chapter. It is also a recruiting tool. Evolving the Newsletter from a pdf document to an online webpage was a key milestone in expanding the diversity of content, improving quality and increasing readership. Using an online Newsletter simplified team collaboration, supported multiple video streams and is a perfect for viewing high quality nature photographs. As a result, a larger percentage of our Membership started submitting articles, photos and other content for the Newsletter. Publishing on a monthly basis allows time to create well developed articles and content that is different from the short, quick hit messages associated with other social platforms. The challenge of an online newsletter is training a team in using web design programs such as

WordPress or Squarespace. Most Chapters have a webmaster that can help with this transition and training. Creating a reporter's role in each new Training Class is recognized as a best practice. They provide content of interest to the Training Class members and inform the entire Chapter of their progress and activities. The HCMN made the transition to an online Newsletter in 2018 and has since expanded in both content and quality. Today, its layout design is more like an online magazine, which has expanded its viewership both within and outside of the Chapter. You can view the June and July Newsletters by clicking the links below.

July 2020 Newsletter: <https://haysmn.org/july-2020-newsletter>

June 2020 Newsletter: <https://haysmn.org/june-2020-newsletter>

1:00 PM-2:00 PM CT - Habitat Highlights: A Glimpse into The Arboretum's Conservation

Patti Bonnin, Senior Naturalist, and Anica Haymes, Volunteer Manager, The Houston Arboretum & Nature Center

The Houston Arboretum & Nature Center is a private, non-profit 155-acre nature center nestled in the heart of one of the largest cities in the US. This urban sanctuary plays a vital role in protecting native plants and animals and provides education about the natural environment to people of all ages. The Arboretum is comprised of five major habitats: woodland, savanna, prairie, wetland, and riparian. Join the Arboretum's Naturalist team as we take you on a tour of our habitats to explore what makes each one unique. Along the way, we will introduce you to some of the flora and fauna native to each area and highlight ways our Conservation team has kept our ecosystems healthy and thriving. Volunteer Manager Anica Haymes will also discuss opportunities for volunteers like Texas Master Naturalists to play an important part in restoring, protecting, and improving our natural environment for future generations to enjoy.

1:00 PM-3:00 PM CT - The Houston toad needs you!

Elizabeth Bates, Conservation Initiatives Specialist, and Dr. Paul Crump, Herpetologist, Texas Parks and Wildlife Department

The Houston Toad was one of the first amphibians placed on the Endangered Species List. Despite over 40 years of research and conservation, this native Texan has disappeared from vast swaths of its historical range. While we have lots of knowledge about what the Houston toad needs to survive, it can be difficult to turn this knowledge into action and implement conservation to benefit the toad. To assist landowners in helping us recover the Houston Toad, the Texas Parks and Wildlife Department worked with the U.S. Fish and Wildlife Service to create a Safe Harbor Agreement program. This program works by enrolling landowners in the Houston toad's range that want to voluntarily improve habitat conditions for the species. Houston toads occur in deep sandy woodlands and savannahs in Austin, Bastrop, Burleson, Colorado, Lavaca, Lee, Leon, Milam, and Robertson counties. We need the help of Texas Master Naturalists, particularly those from the Brazos Valley, El Camino Real, Gideon Lindecum, and Lost Pines chapters, to recruit landowners into this program. At this session we'll provide an overview of the Safe Harbor Agreement program, describe the ecology and habitat needs

of the Houston toad, and talk about habitat management practices that are needed to help recover this species, as well as the financial incentive programs that are available to assist landowners achieve the desired management. Our goal is to provide the session participants with information, so they feel confident in talking about the Houston toad and the Safe Harbor Agreement and helping TPWD recruit more landowners into the program. Please help us get this native Texan off the endangered species list.

Adopt-A-Loop - Great Texas Wildlife Trails

1:00 PM-2:00 PM CT -

Joshua Lee, Marketing Specialist - Texas Parks & Wildlife Department and Shelly Plante, Nature Tourism Manager, Texas Parks & Wildlife Department

At the 2019 annual meeting, Shelly Plante presented on the Great Texas Wildlife Trails (GTWT) program and introduced the idea of teaming up with Texas Master Naturalist Chapters to "Adopt-A-Trail." In this session we are officially rolling out the partnership program and will be providing training on how to register and participate. TMN members will be able to earn volunteer hours by conducting site reviews and recording wildlife observations at their selected GTWT loops and sites. Join us to learn more about this exciting new opportunity.

1:00 PM-2:00 PM CT - Interpreting Interrelationships Between Natural and Cultural History

Walter Bailey, Regional Interpretive Specialist, Texas Parks & Wildlife Department

All of our parks have both natural and cultural resources. Yet these two fields are often interpreted separately, as if they evolve independently of each other. This session will examine means by which you can interpret the ways in which nature and human culture influence each other as they develop through time. Included will be discussion, tools and practical examples to help you get started interpreting nature and culture together.

2:00 PM-4:00 PM CT - Monarch Waystations for Texas

Carol Clark, Conservation Specialist, Monarch Watch

Covers the amazing story of the Monarch Butterfly lifecycle and migration, clarifies some common misconceptions about Monarchs, explains historic and current threats to Monarch populations, and why Texas is a pivotal location for Monarchs' future success. The program also covers real steps North Texas residents can take to help bolster the Monarch population, and what to plant to feed Monarchs.

2:00 PM-3:00 PM CT - Cities Connecting Children to Nature and Green School Parks

Melody Alcazar, Program Coordinator - Cities Connecting Children to Nature, City of Austin PARD and Ms Sarah Coles, State Coordinator, Texas Children in Nature

Cities Connecting Children to Nature is an initiative of the National League of Cities and Children & Nature Network to increase more equitable and abundant access to nature within cities. Austin, San Antonio and Houston were selected to be CCCN cities. TCiN assists the effort in Texas. CCCN offers support for city officials and their partners to

develop a strategic plan and action to make nature access an integral part of city priorities, planning and policy making across a range of areas, including community health and wellness, education, out-of-school time programming, job creation, transportation, climate resilience, and land use. CCCN cities implement policy, develop new partnerships, amplify nature-based programming, and create more equitable nature access in parks and other urban infrastructure. Cities benefit from CCCN support in evidence-based practices, access to national experts, and structured peer learning opportunities. Creative strategies from CCCN include shared-use green schoolyards, early childhood nature play spaces, NatureSmart Libraries and green career pathways. Also available is a partner initiative, the 10-Minute Walk to a Park Campaign, and the CCCN Resource Hub providing resources and tools, including a Municipal Action Guide and Metrics Toolkit. To qualify for CCCN, each city expressed strong mayoral commitment and dedicated capacity for connecting children to the proven benefits of nature. CCCN city teams enlist cross-sector agencies and partners to prioritize increasing equitable access for low-income residents and people of color. CCCN is supported through a partnership between the National League of Cities Institute for Youth, Education, and Families and the Children & Nature Network. The JPB Foundation provides generous support for this initiative. The CCCN project began in 2016. Seven cities were chosen to be the pilot, including Austin. In 2018, CCCN welcomed eleven new cities to the initiative, including San Antonio and Houston. Texas is honored to be the only state with three cities participating in this initiative. Both CCCN: Austin and CCCN: Houston have adopted Green School Parks as a strategy in their work. These green-spaces open up nature for communities that have been traditionally park deserts. Join this session to learn about CCCN, Green School Parks, and how you can become involved.

2:00 PM-4:00 PM CT - Armchair Botanist: Citizen Scientists Transcribing Collections

Diego Barroso, TORCH Project Manager, Jason Best, Director of Biodiversity Informatics, and Tiana Rehman, Herbarium Collections Manager, Botanical Research Institute of Texas

While more than 3 million botanical specimens exist in Texas herbaria, only a small fraction of these are digitally accessible for observation or inclusion in scientific studies. Producing images of these specimens is the first step in liberating these data; the second step is engaging our citizen science community to help us extract the label information from these images. Join us as we transcribe the labels from historical Texas herbarium specimens and do some virtual botanizing! Skills learned will enable participants to continue transcribing specimens throughout the year, from the comfort (and cool temperatures) of their homes, as well as familiarize them with their nearest herbarium.

2:00 PM-4:00 PM CT - Get Over It! Using Social Media to Educate and Engage
Whitney Bishop, Social Media Coordinator and Craig Hensley, Texas Nature Trackers Biologist, Texas Parks & Wildlife Department

Social media has powerful roles to play in delivering our message of conservation. The challenge is how to go beyond our nervousness, fear and the panic that can go with being in front of the camera. This presentation will inspire you to sweep those things aside and venture into the world of social media to help you deliver your conservation and education messages to on-line audiences. You'll see examples of what the presenter has done to engage audiences, learn how to overcome surprises and other unexpected "things" and create meaningful, engaging and fun products that connect your audience to the natural world in a meaningful way. Be sure to bring your iPad or cell phone so you can practice and share your own video created during this session with the group. We will begin indoors but will have an outdoor component, so dress appropriately.

3:00 PM-4:00 PM CT - Moths: the importance in the ecosystem

Sam Kieschnick, Urban Wildlife Biologist, Texas Parks & Wildlife

Insects are a crucial part of the diet of most birds at some time in their lives. In this program, learn about one of the most important groups of insects for birds (hint – moths). Although not quite as famed as their day-flying cousins, moths are tremendously diverse and have some magnificent patterns. In the DFW area, we have documented over 800 species of moths. Learn ways you can manage your habitat to encourage moth diversity and find out some ways that you can document and identify the various species that you might see.

3:00 PM-4:00 PM CT - Meaningful Contacts on the Go

Tara Humphreys, Field Interpretation Coordinator, Texas State Parks - TPWD

As stated by the NPS, “The visitor is sovereign.” The statement should be true of all informal interpretation, roving included. The visitor dictates the length, depth, quality, and content of the contact. Once their needs are satisfied, they will be on their way, and this contact will add to an overall positive experience at your park. In this session, you will learn more about roving interpretation, including why it's an increasingly important communication method for us and our visitors. We will discuss techniques for effective roving interpretation and how everyone at a site can create meaningful contacts on the go. By the end of this session, you will have a plan for roving interpretation at your site.

5:00 PM-6:00 PM CT - Doc and Martha - Texas Master Naturalists

Brigid Berger and Bill Burge, Mid-Coast Texas Master Naturalists

This is a documentary film about a couple's dedication to nature and education, and the decade they spent living on a remote barrier island along the Central Texas Coast. Viewers will learn from Doc and Martha McAlister as they revisit Matagorda Island and reminisce about their life there and Doc's role as educator for the USFWS. Ever the teacher, Doc delivers a series of “teaching moments” which forge not only an understanding of the barrier island, but as a true Master Naturalist does, helps us form an emotional connection with nature. Doc & Martha helped train and were role models for nearly decades of TMNs with the Mid-Coast Chapter.

October 15, 2020

8:00 AM-12:00 PM CT - Texas Stream Team Riparian Evaluation Citizen Scientist Training

Sandra Arismendez, Water Quality Monitoring Coordinator, and Mrs. Aspen Navarro, Program Coordinator, Texas Stream Team - The Meadows Center for Water and the Environment

Texas Stream Team at The Meadows Center for Water and the Environment is dedicated to understanding and protecting the 191,000 miles of Texas waterways. We bring together community members, students, educators, academic researchers, environmental professionals, and both public and private sector partners to conduct scientific research and to promote environmental stewardship. Join the ranks as a Texas Stream Team Riparian Evaluation citizen scientist by participating in the 4-hour, 3-phase training. Biomonitoring assesses the health of your lake, river, stream or estuary based on the riparian habitat. Data is coupled with water quality data and used to track ecosystem and habitat health over time in the rivers and streams that flow to the Texas Coast. A riparian area is the part of the landscape that borders a creek or river. When a riparian area is healthy and functioning properly it filters and slows run-off and floodwaters, and allows for sediment trapping, water storage and groundwater infiltration. The water quality benefits of a healthy riparian area are well documented. It is important to collect data on riparian areas because the indicators of riparian function can lead to the identification of activities that may be hindering the natural riparian recovery process. Anyone with a desire to monitor water quality or learn more about the natural resources in Texas can be involved. Volunteers monitor a wide variety of habitats from rivers, creeks, ponds, and lakes to bays, bayous, and estuaries. Volunteers range from high school age to senior citizens, from individuals to organized groups like Master Naturalists. Participation in the program includes these suggested commitments: - two-year commitment to monitor at least one location - monitor their site(s) 1-2 times a year at approximately the same time of year. Upon completion of the training, you will receive certification recognized by the Texas Commission on Environmental Quality and the United States Environmental Protection Agency and can then begin monitoring your favorite water body and be plugged into local Texas Stream Team efforts in your area. If no efforts exist in your area, Texas Stream Team can guide you on how to become a hub for monitoring activities. This valuable water quality data that you collect contributes to the statewide program's overall goal of understanding and protecting our precious waterways. Learn more at www.TexasStreamTeam.org.

9:00 AM-10:00 AM CT - Bats: Scary Disease Carriers or Invaluable Neighbors?

Keynote Speaker - *Merlin Tuttle, Founder & Executive Director, Merlin Tuttle's Bat Conservation*

Bats have been repeatedly reported as dangerous sources of scary diseases, from MERS and Ebola to SARS and COVID-19. Dr. Merlin Tuttle has studied and photographed

hundreds of species worldwide for more than 60 years. He will share his unsurpassed experience to separate fact from fiction, relying on stunning photography to document bats as exceptionally fascinating, safe and valuable neighbors.

10:00 AM-12:00 PM CT - Just Enough Latin to Go Plant Shopping

Carol Clark, Conservation Specialist, Monarch Watch

The scientific names of plants might seem like a giant pain to learn, but they carry more useful information than you might think. Learning just a few common roots for form, size, color, origins, shape and habitat can help you decipher those names and choose the right plant for the right place, save you time and money, and lead to a whole new avenue of enjoyment in your gardening life. Many of the roots you'll learn also apply to insects and other animals, so no matter what kind of Master Naturalist you are, this could be useful. We'll keep it fun and simple, so don't let your fear of Latin keep you away.

10:00 AM-12:00 PM CT - Pollinators and Native Plants -Who are the Real Managers of Wildlife Habitats?

Ricky Linx, Wildlife Biologist, USDA Natural Resources Conservation Service

Landowners and land managers often believe that by reducing stocking rates of livestock or controlling numbers of deer on their property they are managing the habitat. Participants will learn of the true importance of the many species of pollinators in keeping healthy forbs, flowering shrubs and trees. Without pollinators our food supply would be significantly reduced and habitat for wildlife and livestock would crash. Come and learn about the importance of pollinators, the real managers of wildlife habitat.

10:00 AM-11:00 AM CT - Grants 101 for Texas Master Naturalists

Ms. Sarah Oldmixon

As Texas Master Naturalists, our primary contribution to the projects and programs we support is typically our expertise and labor. But what do you do when you discover that your efforts could be amplified through funding for additional supplies or a new technology? Public, corporate, and philanthropic grants have the potential to help sustain and grow the impact of our work. During this one-hour session, Master Naturalist and philanthropic professional Sarah Oldmixon will: - Provide a short introduction to the world of grant funding;- Review key questions you'll want to consider before deciding to pursue grant funding;- Offer a brief primer on grantwriting basics; and- Share some practical tips to help ensure that your request for funding is compelling and competitive.

10:00 AM-11:00 AM CT - What if we all just... stopped? An overview of COVID-19 impacts on wildlife

Dr. Maureen Frank, Assistant Professor & Extension Wildlife Specialist, Texas A&M AgriLife Extension Service

As the world slowed down due to COVID-19 shutdowns, many people reported seeing wildlife "return" to places that are normally full of humans. While some species probably have benefited from decreased human activity, others have actually been

harmed by a lack of management. And because those on lockdown include wildlife researchers, measuring the impacts with data instead of anecdotes can be tricky! In this session, we'll look at the good, the bad, and the ugly of wildlife impacts due to shutdowns and the virus itself.

10:00 AM-12:00 PM CT - Symbiotic Relationships in Texas and How to Teach it
Mr. Dave Powell, Blackland Prairie Chapter of TXMN

We'll explore different types of symbiotic relationships seen in Texas with a PowerPoint and picture cards before learning how to teach these relationships to most ages through a fun game.

11:00 AM-12:00 PM CT - Anatomy of a community sustainable landscape project

Mr. Mike McGee, Heartwood Chapter TMN

The evolution of a sustainable community volunteer landscape project from initial concept through implementation and initial growing season is presented. The landscaping encompassed about 300' of boulevard in a subdivision in the Piney Woods region and was completed at zero cost to the home owners association. The concept and design evolution and use of social media to engage volunteers is presented.

11:00 AM-12:00 PM CT - Operation Game Thief- Collaboration to stop poaching

Mike Mitchell, Retired Texas Game Warden, and Daniel Shaw, Executive Director, Operation Game Thief

If Texas Game Wardens work to protect our state's resources, and Texas Master Naturalists work to serve beneficial management of our state's resources, then it's time to focus more on this collaborative relationship. Operation Game Thief is a nonprofit created in 1981 to help facilitate conservation-related crimestoppers tips. But it's actually much more, and forms the third leg in an important triad. This presentation, by a Texas Game Warden, gives a detailed description of Operation Game Thief, how it works, and how the three organizations could better collaborative to improve our quality of life. The new executive director of Operation Game Thief will also join in, helping explain the history, funding, flow, and success of the Operation Game Thief program. This is a first-time program focused upon collaboration to help work towards conservation achievement.

12:00 PM-1:00 PM CT - Daily Lunch & Stretch Break

Each day of the Texas Master Naturalist Virtual Annual Meeting we've scheduled a full hour for a lunch and stretch break. Today's break suggestion - take your lunch to a different room of your home, office or even outside. Or eat a silent lunch today. Focus on the new surroundings of your different lunching location, reflect internally on what resetting your location can do. If your able to get outdoors, focus on the noises around you while lunching silently.

1:00 PM-3:00 PM CT - iNaturalist 201

Craig Hensley, Texas Nature Trackers Biologist, Texas Parks & Wildlife Department

This is the second of three iNaturalist sessions. During this one-hour presentation, we will take a deep dive into the iNaturalist website, exploring the possibilities everything from uploading photos from your camera, editing observations, searching for taxa, performing identifications for others, and lastly, creating places for developing your own personal projects. The third session will dive into projects, filtering options, data pulls and other details of iNaturalist. You can join this session even if you didn't attend the first session, particularly if you are already familiar with the basics of the app.

1:00 PM-2:00 PM CT - After Sunset: Ecologically Sensitive Lighting for Landscape Conservation

Keynote Speaker - *Dr. Travis Longcore, Associate Adjunct Professor, UCLA Institute of the Environment and Sustainability*

Conservation and appreciation of natural landscapes is impoverished if it does not consider the nighttime environment. Over the past fifteen years, our understanding of this environment and the adverse effects of human-generated light at night has expanded. These effects extend from disruption of processes on the cellular level to the fragmentation of landscapes through unwise and wasteful use of light. Dr. Longcore will introduce and illustrate these effects to deepen appreciation of nighttime environments and empower advocates and educators with tools to promote a safe, healthy nighttime environment for all species.

2:00 PM-3:00 PM CT - TMNs Take on the Drone World!

Dr. Megan Clayton, Associate Professor & Extension Range Specialist, Texas A&M AgriLife Extension Service

Have you seen all the publicity drones have received lately? Drones (or unmanned aerial systems; UAS) have become popular for both recreational and commercial use, but how could they most effectively be used to manage native land? In addition to potential uses, we will discuss what to look for when considering a drone purchase and the Federal Aviation Administration (FAA) rules governing air space, even over private land.

2:00 PM-3:00 PM CT - The Amazing World of Bats

Mr. Fran Hutchins, Director, Bracken Cave Preserve, Bat Conservation International

Bats are the second largest order of mammals, and are widely dispersed across six continents yet most of us know very little about them. So let's get to know them better.

2:00 PM-4:00 PM CT - The Nectar Bar: Garden Variety Insect Activity and Interactions

Laura Kimberly, North Texas Master Naturalist

Where native flowers bloom, insects gather. It's like their neighborhood bar—a place for food and drink, beauty and courtship. It's also a wild place of deceit and shadows. Some insects are there for the nectar, some for the pollen, some for the leaves, and some are there for meat. Many are there to meet up. Some insects show their true colors, some

imitate, and others hide their beauty and intentions. Learn about insect identification, habits, mimicry, and interactions with this fun, pictorial walk through wildflower habitats. This presentation is a demonstration of one way to engage non-gardeners as well as gardeners about the beauty and value of a variety of insects.

2:00 PM-3:00 PM CT - Collecting Scientific Botanical Specimens

Ashley Bordelon, Herbarium Assistant, and Tiana Rehman, Herbarium Collections Manager, Botanical Research Institute of Texas

Preserved plants specimens provide us with important information about plant diversity and distribution, and represent an observable, relatively permanent, and verifiable form of evidence of a plant's existence in time and space. If these specimens are properly preserved and maintained, they can last for several hundred years. Join us in exploring the best practices for collecting scientific specimens, specifically for deposit in herbaria. We will discuss methods for collection of vascular plants specifically and will briefly discuss the process of using archival materials to preserve specimens beyond the collecting event.

2:00 PM-3:00 PM CT - Texas Seagrass

Holly Grand, Outreach and Education Coordinator, Texas Parks and Wildlife Department

Seagrasses are among the most productive ecosystems in the world. In this session, we'll take a dive into Texas bays and estuaries to discover more about what exactly seagrass is (it's not actually grass at all!) and the importance of this habitat.

3:00 PM-4:00 PM CT - Tiles of Terrain Map: Categorizing Terrain as an Exercise for Teachers and Students

Mr. Randy Bissell, Professional, South Texas Chapter - TMN

How do we assist primary and secondary teachers to equip students towards an improved understanding of the fundamental nature of our landscape and in what manner ecosystems work within the natural elements? This question was inspired by the challenge to develop an exercise for science teachers attending a Project WILD Science and Civics workshop conducted at Nueces Delta Preserve in Corpus Christi in June 2020. Using the concept of "tiles" from the Color Me A Watershed exercise found in the Project WILD textbook, a similar exercise was developed for the landscape in the lower Nueces River Valley, which is now a part of the Nueces Delta Preserve in the Coastal Bend Bays and Estuaries Program. A 1 km x 1 km grid was overlaid on a topographic map, aerial photo, and geologic map to guide the designation of a simplified eight categories of "Terrain" for participants to recognize. Additionally, greater granularity might be achieved when floral and faunal details are further overlain. Characterization of the landscape as "Tiles of Terrain" allowed participants to more deeply understand how our landscape underpins the distribution of environmental niches, land use, and natural habitats in an area. Preceding the exercise of coloring in the Tiles of Terrain, the class explored a 7.5' USGS topographic map to identify the changes in elevation and to familiarize them with the utility of a contour map in a

fundamental understanding of the landscape. With the concepts of elevation and slope fully appreciated, the participants proceeded to color their own map and asked questions of the instructors. This resulted in lively discussions of flooding events, environmental concerns, and land use. Future work at Nueces Delta Preserve will include refining the map by field checking and verifying the assigned tiles, looking at the flora and fauna distinctive for each category, and photo journaling to support future presentations. Ultimately, the exercise will be incorporated into a half-day field trip to visit the “Tiles” or up-scaled for a collegiate level experience which would involve geologically sampling and detailed field descriptions.

3:00 PM-4:00 PM CT - Screech owls A-Z; how to get your own owl.

Edward Ellerbe, Screech owls A-Z, Blackland Prairie Chapter

Discussion will focus on physiology and natural history of Eastern Screech Owls. How to build a nest box and attract resident owls will be featured.

3:00 PM-4:00 PM CT - The Secret Life of Seeds

Laurie Lomas Gonzales, Refuge Biologist, Trinity River National Wildlife Refuge

Learn the secrets of what causes and prevents seeds from germinating. We will cover the time period between when the seed falls off of the plant to when it germinates. There is a lot going on behind that seed coat!

3:00 PM-4:00 PM CT - The Confusing World of "Pondweeds"

Brittany Chesser, Aquatic Vegetation Management Program Specialist, Texas A&M AgriLife Extension Service

Having trouble identifying submerged aquatic plants? Is your ID app not correctly identifying for these species? During this talk, we will identify commonly confused submerged aquatic plants found in freshwater systems. This will provide participants with quick ID techniques to use in the field for submerged aquatic plants, along with benefits/challenges that these plants possess.

3:00 PM-4:00 PM CT - Biology, behaviors, and pest management of the Brown Recluse Spider

David Parsons, Bluestem Chapter TMN

The Brown Recluse spider belongs to one of the two native genera of spiders of North America that has a medically significant venom. Because of this venom, there are many misconceptions and tall tales that surround the Brown Recluse. This lecture will, hopefully, clarify the mystery and misconceptions that surround the Brown Recluse spider.

October 16, 2020

9:00 AM-10:30 AM CT - **Nature's Best Hope - Restoring Nature's Relationships**

Keynote Speaker - *Doug Tallamy, Professor & Author, University of Delaware, Department of Entomology and Wildlife Ecology*

Recent headlines about global insect declines, the impending extinction of one million species worldwide, and three billion fewer birds in North America are a bleak reality check about how ineffective our current landscape designs have been at sustaining the plants and animals that sustain us. Such losses are not an option if we wish to continue our current standard of living on Planet Earth. The good news is that none of this is inevitable. Tallamy will discuss simple steps that each of us can- and must- take to reverse declining biodiversity and will explain why we, ourselves, are nature's best hope.

10:00 AM-12:00 PM CT - **A Bird's-Eye View of Gardening**

Ms. Kelsey Low, Adult Programs Manager, Houston Arboretum & Nature Center

We have lost nearly 3 billion birds in the last fifty years here in North America – what can we do to stop this decline? Recent research has showed us one simple and profound solution: gardening from a bird's-eye view! In this talk we'll discuss how gardening helps birds and insects, what birds look for in your yard, and the three simple rules for creating a landscape that is both beautiful and functional. We'll also discuss the importance of bird-friendly "gardening" on a commercial scale using coffee as an example.

10:00 AM-12:00 PM CT - **Fifty Shades of Green; Neat Natives for your Landscape**

Ricky Linex, Wildlife Biologist, USDA Natural Resources Conservation Service

This presentation will show 50 species of native plants that are beautiful and sometimes unusual and can be used in your native landscaping. Some of these can be purchased but many are un-common and will have to be collected in the wild. A one-page listing of the 50 plants including common and scientific names will be provided to attendees. This list also includes whether the plants provide values for pollinators. The list will be useful as you begin your search for these neat natives.

10:00 AM-12:00 PM CT - **Junior Master Naturalist Roundtable: A Panel Discussion**

Carolyn Langlinais, Chapter President, and Gail McConnell, Jr. MN Co-Chair, and Adrienne Paquette, Director of Public Outreach, Jr. MN Co-Chair, Heartwood Chapter

This presentation will host a panel of current Junior Master Naturalist Program providers. Prior to the virtual meeting, Heartwood will create a survey that will be sent to chapters statewide in order to determine the current status of Junior Master Naturalist programs throughout the state. The survey will include questions regarding the following:

1. Which chapters have Jr. MN programs

2. What ages the programs are designed for
 3. Frequency of Jr. MN meetings
 4. Program costs to the chapter
 5. Program costs to the participants
 6. What materials have been created (handouts, displays, etc)
 7. What materials are purchased (reusable and single use)
 8. What are the rewards for completion of the program (certificate, sticker, pin?)
- The virtual meeting would cover the survey results, with the panel discussion covering best practices, followed by a question and answer period.

10:00 AM-12:00 PM CT - *Vulture: The Private Life of an Unloved Bird*

Katie Fallon, Author and Iris Poteet, Texas Master Naturalist

Like garbage collectors, vultures are under-appreciated except when they don't show up to do their job. Katie Fallon is the author of *Vulture: The Private Life of an Unloved Bird*. In this presentation, Katie will share her personal experiences and introduce us to the natural history of our most common vulture species, the turkey vulture.

10:00 AM-12:00 PM CT - *iNaturalist 301: Advanced Applications & Exploring Data in iNaturalist*

Dr. Tania Homyoun, Texas Nature Trackers Biologist, Texas Parks & Wildlife

The iNaturalist platform is so much more than just a place to share your nature observations and contribute to others' community science projects. Moving beyond the iNaturalist basics, this session will explore topics such as creating Projects and using them to collect and organize observations; using filters and URL searches to explore observations; and how to download iNaturalist data and use it to fuel your own investigations and projects. This session is for advanced iNaturalist users and assumes that participants are comfortable using iNaturalist to make observations and identifications and are familiar with the website. Participants are encouraged to bring their own laptop or tablet to the session. New iNaturalist users should attend iNaturalist 101 and 201 sessions first.

10:00 AM-11:00 AM CT - *Good Oak: Aldo Leopold and the Creation of a Contemporary Land Ethic*

Kayla West, North Central Texas College

A land ethic suggests that we make decisions about how we interact with the natural world. This presentation will discuss the complexities of Aldo Leopold's work and contemporary conversations surrounding the land ethic. We will consider modern interpretations and ask questions about modernizing and creating contemporary land ethics.

11:00 AM-12:00 PM CT - *East Texas Field Botanizing: How to Use Publicly Available Data to Aid in Plant Identification and C*

Andy Newman, Restoration Ecologist, RES

There is a tremendous amount of publicly available geospatial and climatic data that can be utilized prior to visiting a new area to aid in classification of area geology, climate, soil types, hydrologic regimes, elevation contours, etc. Plants are adapted to certain niches, therefore, by doing some initial analysis of an area an investigator can increase their ability to predict what species may/should occur based on a series of abiotic factors. This talk will aim at teaching participants how to obtain these data, develop site visit maps, and how to increase efficiencies during time in the field. This talk will also delve into basic botany field craft and lastly focus on combining geospatial data with observed plants to map out vegetation communities located on a site. Plant identification tricks will be sprinkled in throughout the talk.

12:00 PM-1:00 PM CT - Daily Lunch & Stretch Break

Each day of the Texas Master Naturalist Virtual Annual Meeting we've scheduled a full hour for a lunch and stretch break. Today's break suggestion - go on a short walk - take your lunch on the go! Walk around the block, the office or even just the backyard if you can. Spend 10-15 minutes moving your legs. If you're feeling frisky, jog just a quick moment!

1:00 PM-3:00 PM CT - Working with Kids and School Groups

Cassie Cox, Regional Interpretive Specialist, and Katie Raney, Regional Interpretive Specialist, Texas Parks and Wildlife Department

Do you like kids but are nervous to volunteer to help with a school group? Do you ever feel like kids aren't paying attention when you're talking? In this session, we'll go over the basics of how children learn and develop, and teach you how to read a youthful audience. We'll also talk about group management and interpretive techniques that work well with kids. This session is ideal for people who understand the basics of interpretation and want to be more comfortable working with children. You'll leave this session with a handful of back pocket activities for kids and feeling more comfortable working with elementary-aged groups.

1:00 PM-3:00 PM CT - The Secret Life of Squirrels

Ms. Kelsey Low, Adult Programs Manager, Houston Arboretum & Nature Center

Squirrels are so common that we take them for granted, but they really live fascinating lives. For example, did you know that Eastern Gray Squirrels are one of the few animal species known to lie to deceive others, tree Squirrels have built-in sunglasses, and flying squirrels are vicious predators? These ubiquitous and adaptable creatures are a great way to introduce wildlife topics to an urban audience, and in this class you'll learn engaging facts about squirrel anatomy, ecology, and behavior to share with the public. We will focus our three Houston species: Eastern Gray, Fox, and Southern Flying.

1:00 PM-3:00 PM CT - Planting Natives from Seed

Dr. Megan Clayton, Associate Professor & Extension Range Specialist, Texas A&M AgriLife Extension Service and Anthony Falk, Assistant Director - South Texas Habitat

Restoration, Texas Native Seed, Caesar Kleberg Wildlife Research Institute, Texas A&M University - Kingsville

We know diverse plant communities are important to wildlife habitat, soil health, water management, pollinators, and the aesthetic beauty of our culturally rich lands in Texas. Adding native plants to an urban landscape often involves purchasing or growing individual plants, but what if we wanted to design a truly natural landscape, restore a small site invaded by invasive plant species, or even restore an entire field to a diverse plant community from seed? Today there are more native or adapted seeds available for purchase than we have ever seen in our lifetime. Knowing what to plant can be overwhelming and there are several resources to help you design the perfect seed mix tailored to your place! Details on how to read seed tags, store seed, planting site preparation, planting methods, and post-planting management will all be covered in this workshop.

1:00 PM-2:00 PM CT - The Natural History of Mexican Free-tailed Bats

Mr. Fran Hutchins, Director, Bracken Cave Preserve, Bat Conservation International
Let's talk about where they are roosting, what they are eating, do they have predators? Get to know the most common bat in Texas.

1:00 PM-4:00 PM CT - Plant Identification by Family Association and use of Written and Online Botanical Keys

Ricky Linex, Wildlife Biologist, USDA Natural Resources Conservation Service
Participants will gain an understanding of how Texas plants have been collected and identified through the past 200 years. Plants will first be identified by use of Family Associations and then followed by written and online botanical keys. Participants will learn how to quickly key out plants arriving at the proper identification. Session will be indoors, copies of the keys needed will be provided for all. Handouts of Family Associations and list of useful plant ID books will be provided. Never again will you fear the challenge of keying out a plant.

1:00 PM-2:00 PM CT - TPWD's TEAM Tool: Crowdsourcing Citizen Science and Ecosystem Analysis

Wendy Anderson, GIS Analyst, Texas Parks & Wildlife Department
Texas Parks and Wildlife's Landscape Ecology Program has developed a Google maps based application, Texas Ecosystem Analytical Mapper, (TEAM) to deliver the Ecological Mapping Systems of Texas (EMS) data to Texas citizens. The TEAM application is an interactive mapping tool accessible on a mobile phone (via TEAM Go) or a computer browser that assists users in understanding Texas habitats and integrates vegetation data with land management and resource planning of all types. TEAM allows Texans to contribute to the mapping effort via a citizen-science data entry module. Crowdsourcing information regarding errors in the map will allow TPWD experts to identify areas of change and systemic errors in the vegetation data. The information gathered from users will assist with land management and conservation efforts. It also provides an avenue for community involvement in habitat understanding. Wildlife

biologists, land managers, naturalists, planners, and conservationists are also able to use TEAM to view and print the EMS data in relationship to other natural feature layers such as soils, geology, hydrology and ecoregion.

2:00 PM-4:00 PM CT - Mitigating & Monitoring Bird-Building Collisions

Dr. Tania Homayoun, Texas Nature Trackers Biologist, Texas Parks & Wildlife

Collision with buildings and glass represents the number-two human-related cause of death to native birds in the United States. This workshop will introduce the biological and design factors associated with bird-building collisions and why they matter to bird conservation; techniques for mitigating collisions; and strategies for monitoring collisions in built landscapes.

2:00 PM-4:00 PM CT - Corvids: The Amazing Crow family

Mr Scott Kiester, project manager LLELA, Elm Fork Chapter TMN

Come to an overview of the Corvid family. Distributed worldwide the Corvids are Among the most intelligent and social of bird groups.

3:00 PM-4:00 PM CT - Junior Master Naturalists Go Virtual

Lisa Ward, PhD, and Mrs Mary Ann Melton, Youth Development Director, Good Water Master Naturalists

Junior Master Naturalist (JMN) aims to encourage exploration of, knowledge of, and care for our natural spaces. We can facilitate those aims from anywhere by virtually connecting with youth to guide them in physically connecting with the natural spaces around them. Following cancellations due to covid-19 in spring of 2020, we chose a virtual format for our 2020-2021 Junior Master Naturalist program that emphasizes getting outside and sharing what you find. Through guided activities tailored to the local area, opportunities to share observations with our JMN community, and resources curated by our Master Naturalists, youth engage in in-depth, hands-on learning without setting foot in a physical classroom. The session will be led by Mary Ann Melton, the Good Water Chapter Youth Development Director with 8 years JMN experience, and Dr Lisa Ward, our 2020-2021 JMN program lead who has taught online for 16 years. We will explain details of the Goodwater Chapter online JMN program conceived with a keep it simple and get kids into nature philosophy.

3:00 PM-4:00 PM CT - Growing a Culture for Native Plants: Learn from Process and Partnerships in St. Louis MO

Ms. Jean Ponzi, Green Resources Manager, Missouri Botanical Garden

St. Louis biodiversity advocates are thrilled that native plant champion Doug Tallamy cites our efforts in his best-selling books and national talks. The range of partnerships and programs in our region, in a movement now two decades strong, offers examples Texas Master Naturalists can use to better leverage your resources and boost appreciation of native plants here. Missouri Botanical Garden's "Green Jean" Ponzi shares the practical, encouraging HOW of diverse forces growing native landscaping in St. Louis, specifically, and across Missouri, with transplants over our borders into

Kansas and Illinois. This talk will emphasize process in partnerships with non-profits, businesses and local agencies, and spotlight resourceful contributions from Missouri Master Naturalists, Wild Ones, community college horticulture students, stormwater managers, locally owned garden centers, artists, an urban youth jobs program, pollinators of all kinds, and people of all ages and persuasions. St. Louis still loves boxwoods and petunias, and we can still buy species that are known invaders. There are plenty of holes in our region's Web of Life. But barriers can become niches, supporting fiscally beneficial, eco-logical relations for human, plants, critters and the planet we all share. Adapt our strategies to move native plants from the margins to your mainstream!

3:00 PM-4:00 PM CT - Current News and Research on Horned Lizard Conservation

Leslie Nossaman, President, Horned Lizard Conservation Society and Mrs. Lynn Seman, Lynn Seman, Rolling Plains Chapter

Many Texans remember growing up with horned lizards in our backyards. These little reptiles have become a "Texas icon" and are loved by many with a special connection to our childhood days. But what is happening with our Texas state reptile? Join Horned Lizard Conservation Society President and other active members as they share the current research and news about this beloved Texas critter. As Texas Master Naturalists, we volunteer at many nature centers, wildlife areas, state parks, and outdoor areas. As part of this volunteering, we are often asked questions such as, "where have all the horny toads gone?" This presentation will equip you with current answers to those questions as well as current news about the range and species of horned lizards. We will discuss ongoing research along with ways to help conserve and keep the horned lizard around for many generations to come. Horned Lizard Conservation Society (HLCS), established in 1990, is the only organization in the world totally dedicated to the study and conservation of the horned lizard.

4:00 PM-5:00 PM CT - Quiz Bowl VII

Richard Heilbrun, Conservation Outreach Program Leader, Texas Parks & Wildlife

How are you with wildlife trivia? Join us for a fun-filled, low-stakes, but high energy battle! Participants and chapters will compete for the title of 2020 winner, and don't you think we need a win this year? Compete as an individual or as a chapter on science questions, wildlife facts, and Master Naturalist trivia. Test your knowledge or come to learn!

October 17, 2020

8:00 AM-12:00 PM CT - **Wildlife Photography Skills for Naturalists**

Dr. Carol Henrichs, Founder, Carol Fox Henrichs Photography

Learn to harness your camera to become a better naturalist. We will cover topics designed to help you develop the technical literacy to dramatically improve your nature photography. In this session, we'll practice blending photography techniques and naturalist skills to help you communicate your vision of the natural world through your photos. Wildlife and nature photography takes a long time to master. In order to consistently take photographs that capture people's attention, you need to know your equipment inside out, have an intimate understanding of your subjects and have started to develop your own vision and style. However, there are some things that you can start doing right now that will have an instant positive impact on your images. In this session we will cover: •Equipment for wildlife photography plus recommendations for your budget •Getting out of auto & mastering your camera settings •How to take razor-sharp photos •Post-processing for impactful but natural-looking results • Sizing photos for print, personal blogs, social media and web sites Suitable for beginners to intermediate photographers using DSLR, mirrorless or point and shoot cameras. **MAKE SURE TO HAVE YOUR CAMERA AND MANUAL HANDY** as you may need to refer to it.

8:00 AM-9:00 AM CT - **Texas Master Naturalist Town Hall**

Michelle Haggerty, State Coordinator and Mary Pearl Meuth, Assistant State Coordinator, Texas Master Naturalist Program

Join us for a Virtual Town Hall! In this session, the TMN State Office and leadership will address the major accomplishments of the program and those challenges the lie ahead. They will also respond to pre-solicited questions from Texas Master Naturalists.

9:00 AM-10:00 AM CT - **State Parks are here for you!**

Annie Hepp, Regional Interpretive Specialist, TPWD - State Parks - Region 5 and Ben Horstmann, Regional Interpretive Specialist, TPWD - State Parks - Region 2

This session will explore how Texas State Parks can help enrich your training and volunteer experiences. Join State Park staff for a brief description of the types of training opportunities at Texas State Parks. Training topics include interpretation, outdoor recreation, resource protection and management, and just about anything else! We will discuss current sites near you offering training as well as identify sites that you may want to contact. We will also discuss the types of chapter volunteer project opportunities at your local state park.

9:00 AM-10:00 AM CT - **Membership Retention-Galveston Bay Area Style!**

Mr. Robin Kendrick-Yates, Texas Master Naturalist, Galveston Bay Area Chapter Texas Master Naturalists

When I joined our chapter of Texas Master Naturalists, I noted that we had approximately 220 active members. Over time, in spite of adding 20 + new members

with each spring class, our membership remained the same. We know that life happens, and people relocate, return to work, become ill and so on. A number of us have asked the question, “Would any of our inactive members be interested in joining us if we made accommodations for them?” Our Texas A&M Agrilife sponsor, Julie Massey, our chapter board, and several members have focused our priorities toward inclusiveness, involving more members in active leadership roles and developing a membership retention effort. Concerned members have spoken about a program to reach formerly active members, called the emeritus program. Our previous attempts at starting a program of ‘inreach,’ bringing inactive members together for food, fun, and fellowship, was well received, and enjoyed by all. 2020 brought a ‘critical mass’ of motivated members who came together, pooling our resources, and began to develop our emeritus program. During April, a small group of us called and emailed over 200 previously active members. They were asked about their well-being, and of their interest in becoming involved with this chapter activity. We had 56 respond positively and have assigned each one to an active chapter member as their contact person. Our initial goal was to meet in person twice this year, beginning in May. Due to the COVID-19 pandemic, we revised our plan. Our chapter began utilizing Zoom, an online meeting platform, for chapter-wide meetings and advanced training, with tremendous results. We chose to have our first emeritus meeting via Zoom on May, 12, 2020, with 18 formerly active members and 21 active members participating! We had members from our first class of 2000 all the way through the years including our most recent class of 2020! It was heartwarming to see and hear folks reconnecting with friends they may not have seen for a number of years. A highlight of that first meeting was listening to each of the emeritus participants telling of their previous master naturalist activities. These meetings and the time spent contacting participants has enabled many of our chapter to accrue volunteer service while heeding the current stay at home guidelines. Our goal is to learn the needs of our emeritus members, and in time, have meetings that will include volunteer service, advanced training, and food. **This may**

9:00 AM-11:00 AM CT -

Laws & Ethics

Richard Heilbrun, Conservation Outreach Program Leader, Texas Parks & Wildlife and Mike Mitchell, Retired Texas Game Warden

Open to previous attendees and newcomers, in 2020 we’ll explore all new ethical dilemmas and legal situations that a Master Naturalist might encounter. This interactive exercise will discuss ethical and legal dilemmas that every Master Naturalist should know and understand. Some situations may be straight forward, and some may ask you to dig into your life experiences and training to apply your conservation ethic to real world situations. The speakers are a professional wildlife biologist and a retired Texas Game Warden. Brought to you in a friendly, entertaining, common sense dialogue the speakers will challenge each other and the audience to answer conservation’s most challenging quandaries. This activity will supplement the newly published Laws, Rules & Ethics module in the TMN curriculum. Now in their fourth year teaching this topic at

the annual meeting, Richard Heilbrun and Mike Mitchell put a new spin on this interesting discussion.

9:00 AM-10:00 AM CT -

Discovering Early Texas Critters of the Permian Period

Chris Flis, Director and Chief Paleontologist, Whiteside Museum of Natural History and Mrs. Lynn Seman, Lynn Seman, Rolling Plains Chapter

For the last two years, I have volunteered at a special "gem" in Texas -The Whiteside Museum of Natural History in Seymour, TX. This amazing museum houses fossil remains of some of the most interesting critters that ever lived in Texas. Located in Baylor County, this region is one of the best places in the world to find fossils of the Dimetrodon, an early non-mammalian synapsid. The museum also has an amazing collection of other species during the Permian period, such as the Eryops, Diplocaulus, and Edaphosaurus. Join director and paleontologist, Chris Flis, as he takes you on a journey to the past history of Texas and learn about these Texas critters that lived about 290 million years ago. Participants will see how these fossils are collected, transported, and prepped, so that this important part of Texas past and evolutionary history can be preserved forever.

9:00 AM-10:00 AM CT - **Lichens 101: Everything you need to make lichens part of your naturalist life**

Manuela Dal Forno, Research Botanist, Botanical Research Institute of Texas

Lichens are complex symbiotic systems formed by a main fungal partner (the mycobiont), a green algal and/or a cyanobacterial partner (the photobiont), along with a diverse community of microorganisms formed primarily of bacteria and fungi (the microbiome). Lichens are everywhere you go, from deserts to forests, from cities to beaches, and are key components in all terrestrial ecosystems in the planet. This presentation will include general lichen knowledge as well as it will discuss important characters for lichen identification for you to start (or keep going) on your own. Join me in the amazing world of lichens!

10:00 AM-12:00 PM CT - **Day Trips: Creating Books for the TJMN program**

Tim Holt, TMN Trans Pecos

Tim Holt has **create the first** in a series of books that are designed to help out TJMN hold "day trips" with their parents or guardians around the El Paso area. Come see how the books are created and how you can do the same for your chapter!

10:00 AM-12:00 PM CT - **Beyond Master Naturalist Training: Service through Community Science**

Craig Hensley, Texas Nature Trackers Biologist, Texas Parks & Wildlife Department

This session is offered for any Master Naturalist, but focused specifically for those MNs who are just getting started following your initial training. Community Science opportunities abound, from local projects to those at a regional, state and national level. During this session, you will learn what Community (Citizen) Science entails, the

important roles it plays and contributions that Community Science makes to the greater scientific world. You'll also learn about the myriad of opportunities that exist as you begin your Master Naturalist adventure. Be sure to bring stories of your Community Science experiences to share with the group.

10:00 AM-12:00 PM CT - Why fungi matter: their critical role

Teri MacArthur, Water Resources Committee Chair, Heartwood Chapter Texas Master Naturalist

We wouldn't exist if not for fungi. Sound startling? Not if you consider that forests and green vegetation would not be here if not for fungi. And our existence relies on the world's flora. Attend the discussion into what the mysterious world of fungi does all day that makes it so vital. You may find some surprises as we delve into soil health, plant interactions, invasive species, and more.

10:00 AM-11:00 AM CT - The Personal Botany Field Trip--A Learning Adventure for Trainees Sheltering in Place

Karen Gardner and John Gardner, Training Directors, Texas Master Naturalists - Gideon Lindecum Chapter

March 2020 – Our chapter training class goes online; field trips are cancelled; we can't interact with our students; so how can we jazz up the Botany class coming up in 3 weeks? We asked each student to be part of our learning adventure by doing a Personal Botany Field Trip: "Go outside wherever you are and pick (not literally, we mean choose) 3 plants to study – just 3, you can do it!". With an outline we provided, notepad, pencil, ruler and smartphone in hand, they valiantly went forth in their "backyards" and made their observations. When we compiled their results to share with the whole class during the Botany webinar, we were amazed and delighted by what each student had learned and experienced. We plan to incorporate this type of assignment in future trainings because it provided a unique, challenging learning experience. Come experience your own mini "Personal Botany Field Trip," learn the perils and pitfalls we encountered on our first time around, and see examples of some amazing student field studies. Learn how you might incorporate this type of activity into your chapter's educational programs.

11:00 AM-12:00 PM CT - Get Wild About our Cities: the City Nature Challenge in Texas

Dr. Tania Homayoun, Texas Nature Trackers Biologist, Texas Parks & Wildlife

While Texas's diverse landscape is host to 11 major ecoregions and over 1,300 Species of Greatest Conservation need, more than 85% of our population lives in a major metropolitan area - landscapes where rapid urbanization and habitat fragmentation threaten the sustainability of natural areas and resources. This presentation will focus on the City Nature Challenge, a global, city-scale BioBlitz event hosted on iNaturalist that frames an urban biodiversity survey as a friendly competition between cities. This event provides an excellent opportunity for engaging residents and visitors in and around Texas metropolitan areas to showcase and explore their biodiversity while

contributing to nature stewardship through citizen science. We will review Texas results from the past 3 years, opportunities for local participation and engagement, and the value of the data generated to biodiversity conservation and resource management. The session is open to everyone, but those who are interested in actively assisting/leading efforts for the 2021 event are especially encouraged to attend.

11:00 AM-12:00 PM CT - American Crossroads: Digitizing the Flora of Texas and Oklahoma with Boots-on-the-Ground Knowledge

Tiana Rehman, Herbarium Collections Manager, Botanical Research Institute of Texas

The two-state region of Texas and Oklahoma constitutes a major crossroads of North American ecological and plant diversity, yet it is not well represented in digitized herbarium databases. Access to these digitized plant records is crucial for monitoring and projecting changes in species ranges and vegetation response to ongoing climate change, as well as other anthropogenic impacts on the region's biota, and can provide data for species of conservation concern, invasives, and environmental health indicators. The Texas Oklahoma Regional Consortium of Herbaria (TORCH) is a collaborative effort among >40 herbaria in these two states to fully digitize (database, image, georeference) vascular plant specimens collected in Texas and Oklahoma (NSF Award No. 1902078). The project proposes to make ca. 1.9 million specimen records available, with 1.4 million of these from Texas. Project progress, resources and ways to get involved (including remote or virtual volunteering) will be discussed.

12:00 PM-1:00 PM CT - Daily Lunch & Stretch Break

Each day of the Texas Master Naturalist Virtual Annual Meeting we've scheduled a full hour for a lunch and stretch break. Today's break suggestion - STRETCH! We're wrapping up the Annual Meeting, almost there. Make a lunch while S-T-R-E-T-C-H-I-N-G . . . Reach for the bread, hold the jelly out high, **move the peanut butter back and forth, and back and forth. Stretch it out while making your** PB&J or your lunch on this final day!

1:00 PM-3:00 PM CT - In Search of a Perfect Red - The Story of How the Insect Cochineal and Prickly Pear Cactus Forged a

Ricky Linex, Wildlife Biologist, USDA Natural Resources Conservation Service

Many Texans know this little trick to amaze the kids - find a prickly pear cactus pad with fluffy white stuff on it, mash the white stuff between your fingers and watch them become dyed a bright crimson. But there's way more to that phenomenon of nature - the cochineal insect - than you probably knew. Five hundred years ago, the Spanish conquistadors arriving in what is now Mexico discovered the Aztecs selling a red dyestuff in open markets. When the dye was shipped back to Spain it created a sensation as the brightest red color that was known, and this dye ruled the color trade in textiles for 350 years. But it took several hundred years for Europeans to figure out where the dye came from - a scale insect called cochineal. This presentation will explore the fascinating history of this insect and its dependence on the common prickly pear.

1:00 PM-3:00 PM CT - Try Out Nature Journaling

Mrs. Irmis Willcockson

This workshop is designed for those without prior experience in nature journaling. After a brief introduction, participants will complete three different journal entries. If participants feel comfortable, we will share our journal entries with each other and reflect on our experience.

1:00 PM-3:00 PM CT - Monitoring Avian Productivity and Survivorship (MAPS) stations across Texas

Nicole Alonso-Leach, Wildlife Biologist, Texas Parks and Wildlife Department

Protecting and monitoring endangered birds is of concern to land managers, state, and federal agencies. However, birds that aren't on the endangered species list are at risk of population decline as well. Neotropical migratory birds, birds that migrate from temperate to tropical latitudes, are particularly sensitive to population decline.

Monitoring Avian Productivity and Survivorship (MAPS) stations are a way to monitor migratory bird population sizes and trends. Utilizing a standardized constant-effort protocol, birds are caught and banded during the summer nesting season.

Capture/recapture and ratios of adult to juvenile birds gives insight to population health. Currently, there are about 45 established MAPS stations in Texas, and new MAPS stations can be established by anyone with a banding permit. Volunteers that don't have a banding permit are welcome to assist with established MAPS stations. This training will prepare you with the basic information needed to operate a MAPS station including data collection, banding methods, band sizes, and some bird identification.

1:00 PM-3:00 PM CT - Restoring Native Prairie Habitat on Public Land

Mr. Dave Powell, Blackland Prairie Chapter of TXMN

In this talk, I will go through a PowerPoint with pictures of progress in Wylie and Erwin Park in McKinney to look at what is growing at both sites. We will also spend some time discussing how restoration is being done and the challenges to be dealt with.

1:00 PM-2:00 PM CT - Leading a Nature Hike: Tips & Ideas

Patti Bonnin, Senior Naturalist and Anica Haymes, Volunteer Manager, The Houston Arboretum & Nature Center

Are you interested in sharing your knowledge of native plants and animals with members of the public? Nature hikes are an enjoyable way to bring people together to learn about the wildlife and plants growing around them. Whether the hikes are at a nature center, park, or just around your own community, being prepared is the key to a providing a successful outing. In this presentation, we will discuss how to prepare for and lead a nature walk. It will include tips on working with people of all ages (including children), what to take on a hike, safety concerns, and connecting to your audience to ensure you provide the best educational experience possible.

1:00 PM-3:00 PM CT - Native Bees For Your Landscape

Carol Clark, Conservation Specialist, Monarch Watch

Less well known than European Honeybees, Texas' native bees are nevertheless vital components of a healthy environment, and can provide a new dimension of enjoyment in your home landscape. This program will cover basic information on the current challenges all bee species are facing, why they are important to all of us, facts about gentle solitary native bees and their lifestyles, and photo examples of the many beautiful forms and colors of native bees. It will include tips on what to plant and provide to attract them to your home landscape, and basic identification hints. We'll discuss simple homemade native bee nest **sites and how to manage acreage for native bees.** Finally, we'll cover **bee learning resources and how** to participate in nationwide citizen science tracking efforts.

2:00 PM-3:00 PM CT - Building Dirt Paths: Lessons from the Spring Creek Nature Trail

Suzanne Simpson, Land Stewardship Director and John Stacy, Trail Crew Leader, Bayou Land Conservancy

The Spring Creek Nature Trail is a 14-mile natural surface trail that runs along Spring Creek in North Houston. The trail offers an oasis from crowded city life as it follows the gentle meanders of Spring Creek. Wetlands, forests, and floodplains feature heavily along the path's extent. But the trail holds a secret: it was designed, built, and maintained largely by Bayou Land Conservancy Trail Crew volunteers, many of whom are Texas Master Naturalists. Join Bayou Land Conservancy Land Stewardship Director Suzanne Simpson and Trail Crew Leader John Stacy (Heartwood TMN) as they tell the story of the Spring Creek Nature Trail: from its conception and planning, it's construction, and the successes and pitfalls along the way. They will discuss the importance of the trail to the community during the Covid-19 pandemic. Additionally, Suzanne and John will share key maintenance techniques that you can implement to

3:00 PM-5:00 PM CT - - Annual Awards Ceremony

Michelle Haggerty, State Coordinator and Mary Pearl Meuth, Assistant State Coordinator, Texas Master Naturalist Program

This year's Annual Awards Ceremony may feel a little different, but there are still BIG accomplishments and milestones to celebrate! Let's get loud and cheer on those volunteers who have gone above and beyond the call this year with our Milestone Achievements presentation. Then we'll announce the winners of the Annual Meeting contests (Photo, Art & Media and the Video Contest), the Advisor of the Year, and our annual Project Fair. Wrapping up the event we'll celebrate those key moments of the year 2020!