

## **Cross Timbers Master Naturalist (CTMN) Chapter - Fall 2024 Class Syllabus**

**Course Director:** Melinda Wolfinbarger

**Email:** [Melinda.ctmn@gmail.com](mailto:Melinda.ctmn@gmail.com)

**Meeting Times:** Tuesdays from 8/20/24 to 10/29/24 from 6-9pm.

Field trips occur throughout the course on the weekends.

The last event will be a field trip on 11/2/2024.

Field trip dates are listed below. Locations will be provided during class.

**Meeting Locations:** Fort Worth Botanic Garden, 3220 Botanic Garden Blvd, Fort Worth, TX 76107  
Fort Worth Nature Center, 9601 Fossil Ridge Rd, Fort Worth, TX 76135

Additional locations for field trips will be provided.

Locations for each date are listed below.

**Attendance Requirements:** On-time attendance is required for 10 of 11 classroom sessions and 4 of 5 field trips. All material is recommended learning.

### **Course Description:**

The Cross Timbers Texas Master Naturalist training course is a multi-instructor course that is managed by a team of volunteers. The course surveys the natural history of north Texas with emphasis on Aquatic, Woodland, Prairie and Urban systems. Regional experts share knowledge on herpetology, mammalogy, ornithology, arthropods, citizen science, historic Texas naturalists, ecology and geology.

**Provided Text:** Texas Master Naturalist. 2015. MM Haggerty and MP Meuth, eds. Texas A & M University Press.

### **CLASS AND FIELDTRIP SCHEDULE:**

**8/20/24 Welcome to CTMN - Location Fort Worth Botanic Garden, Deborah Beggs Moncrief Garden Center, Auditorium**

**Welcome Meal provided prior to class in the Auditorium lobby**

**Instructor:** Sam Kieschnick

Sam Kieschnick is an urban wildlife biologist with TPWD serving the east side of the DFW metroplex. He previously worked as a nature educator with the City of Mansfield at Oliver Nature Park, as a naturalist at the Fort Worth Nature Center and Refuge, as a science interpreter with the Fort Worth Museum of Science and History, as a botanist with BRIT, and as an instructor at Weatherford College. He has a

master's degree from Tarleton State University studying the genetics of pocket gophers. As an urban wildlife biologist, Sam's focus will be on three a's: awareness, appreciation, and action.

**Master Naturalist Textbook Units:** 3 Historical Naturalists of Texas, 24 Citizen Science

**Presentation Title:** Historic Master Naturalists and Citizen Science

- Historic Master Naturalists
- What is a Naturalist?
- The "Master" in Master Naturalists is "Dedicated volunteer"
- Famous naturalists (just a few!)
- Some organisms named after famous naturalists (learn about these folks!)
- Naturalists has a broad range of interests
- Biodiversity in Dallas/Fort Worth
- Personal discoveries are valid!
- Addressing ecological questions with your observations
- Citizen/Community Science
- Prerequisite for becoming a citizen/community scientist: interest!
- Examples of citizen/community science:
- iNaturalist – a tool, but also a community and database!
- So what?
- Relevancy of nature? How to retain hope
- What Master Naturalists do, and why nature matters...

**8/27/24 General Ecology - Location Fort Worth Botanic Garden Rose Room**

**Instructor:** Rachel Richter

Rachel Richter is an Urban Wildlife Biologist for TPWD in DFW. She has a bachelor's degree in Wildlife and Fisheries Science from Texas A&M and a master's degree in Wildlife Ecology from Texas State University. As an urban wildlife biologist, she focuses on making our communities more wildlife-friendly through educational outreach and providing technical guidance.

**Master Naturalist Textbook Units:** 5 Ecological Concepts, 6 Ecosystems Concepts and Management

**Presentation Title:** Ecological Concepts

- Definition of Ecology
- Levels of Biotic Organization
- Ecosystem Characteristics
- Trophic Relationships
- Energy Flow and Ecological Efficiencies
- Habitat and Niche
- Evolution
- Population Ecology
- Ecological Succession
- Ecosystem Management

**9/3/24 Volunteer Opportunities - Location Fort Worth Botanic Garden Rose Room**

**Presenter:** Multiple presenters will give a summary of volunteer opportunities within our chapter

**Master Naturalist Textbook Units:** 23 Volunteers as Teachers

**9/10/24 Archaeology and Geology - Location Fort Worth Botanic Garden Rose Room**

**Instructor:** James Everett

James Everett has participated in prehistoric and historic period archeological projects in many areas of Texas as well as in New Mexico and Arizona. He is a Past President of the Texas Archeological Society, a Past President of the North Texas Archeological Society, and an Archeological Steward for the Texas Historical Commission.

**Master Naturalist Textbook Units:** 2 Archaeology

**Additional Resources:**

North Texas Archeological Society: [www.ntxas.org](http://www.ntxas.org)

Texas Archeological Society: [www.txarch.org](http://www.txarch.org)

Texas Beyond History: [www.texasbeyondhistory.net](http://www.texasbeyondhistory.net)

**Presentation Title:** An Introduction to Archeology and the Native American Cultures of Tarrant and Parker Counties

- What is Archeology?
- What is Anthropology?
- Types of archeological sites
- Archeological techniques
- The historic Native American cultures of North Texas
- The prehistoric Native American cultures of North Texas
- Reporting suspected sites to archeologists

**Instructor:** Rusty Branch, P.G., R.G. Email: [rbranch@rustybranch.com](mailto:rbranch@rustybranch.com)

Rusty is a licensed professional Geoscientist in Texas where he is a consultant focusing on applied geophysics. He has worked on a wide variety of geological issues within Texas and other states. Rusty also discovered one of the largest concentrations of fossil dinosaurs in Texas. He is a past state chair and national board member of the Association of Environmental and Engineering Geologists, past chair of the ASCE Texas Geo-Institute, and has been an officer and volunteer in many other professional and community organizations. Rusty has delivered hundreds of professional presentations both locally and nationally and authored/co-authored peer-reviewed publications in the fields of geology, paleontology, and botany during his career. He is passionate about science and STEM education.

**Master Naturalist Textbook Units:** 7 Geology and Soils

**Additional Resources:** Roadside Geology of Texas:

<https://mountain-press.com/products/roadside-geology-texas> Texas Through Time:

<https://store.beg.utexas.edu/special-books/2742-us0006pb.html> Pocket Texas Geology:

<https://webapps.usgs.gov/txgeology/>

**Presentation Title:** Geology: The Foundation of the Lone Star State

- What is Geology?
- Why is Geology important?
- The Lone Star State through time.
- Texas Geology today.
- Lone Star State natural resources.

**9/17/24 Aquatic Systems – Location Fort Worth Botanic Garden Camellia Room**

**Instructor:** Tim and Krista Huebner

Tim and Krista Huebner are members of the 2017 CTMN class. Tim currently works as an Environmental Project Planner at TXDOT, where he performs NEPA clearances of transportation projects. He has a master's degree in Biology from Tarleton State University, where his thesis was a population genetics study of the Harris mud crab, *Rhithropanopeus harrisi*. At age 11, he found his love for aquatics after receiving guppies from vacation bible school. Tim has worked at the Fort Worth Zoo, Fort Worth Water Gardens, and as a stormwater inspector for the City of Arlington. He created a national aquarium program at Cabela's, managing 62 stores across 38 states, then worked for TPWD at the Perry R Bass Fish Hatchery before moving into his role at TXDOT. He is now working on a second master's degree in environmental science.

Krista currently works as the Displays Supervisor at Sea Life Aquarium in Grapevine. Her career began due to her love of Scuba diving, working at Cabela's, then the Texas Freshwater Fisheries Center. Upon marrying Tim, she worked as the Curator for the aquariums at Rainforest Cafe, before moving to Sea Life nine years ago. Her passion is driving conservation projects locally and globally for sea life. She has done conservation trips to Curacao, Brazil, and Bali, is heavily involved in sea turtle rehabilitation, and works with Texas Turtles on alligator snapping turtle research.

**Master Naturalist Textbook Units:** 18 Aquatic Systems Ecology and Management

**Presentation Title:** Cross Timbers Master Naturalist: Aquatics

- Properties of Water
- The Water Cycle
- Watersheds
- Lotic Systems
- Lentic Systems
- Wetlands Ecology
- GROUP EXERCISE
- Aquatics Fieldtrip Details

**9/24/24 Herps – Location Fort Worth Botanic Garden Rose Room**

**Instructor:** Michael Smith

Michael Smith is a retired Psychological Associate with a lifelong interest in nature. He has written two books on reptiles and amphibians and a third book on mindfulness in Texas nature (all Texas A&M University Press). He writes at <https://livesinnature.com> and is co-editor of the Post Oak & Prairie Journal (at <https://postoakprairie.org>).

**Master Naturalist Textbook Units:** 15 Herpetology

## Additional Resources:

Field guides:

Tipton, et al. 2012. Texas amphibians: A field guide. Austin: UT Press.

Hibbitts & Hibbitts, 2016. Texas turtles & Crocodylians: A field guide. Austin: UT Press.

Hibbitts & Hibbitts, 2015. Texas lizards: A field guide. Austin: UT Press.

Dixon & Werler, 2005. Texas snakes: A field guide. Austin: UT Press.

Venomous snake bite treatment:

Lavonas, et al. 2011. Unified treatment algorithm for the management of crotaline snakebite in the United States: results of an evidence-informed consensus workshop -

<https://bmccemergmed.biomedcentral.com/articles/10.1186/1471-227X-11-2>

Kanaan, et al. 2015. Wilderness Medical Society practice guidelines for the treatment of pitviper envenomations in the United States and Canada.

[https://www.wemjournal.org/article/S1080-6032\(15\)00220-3/fulltext](https://www.wemjournal.org/article/S1080-6032(15)00220-3/fulltext)

**Presentation Title:** Introduction to Reptiles and Amphibians of North Texas

What are they

- Phylogenetically – from the line of 4-footed creatures amphibians diverged early from the rest (which would become mammals, reptiles (and birds). Later, the tuatara, lizards and snakes diverged from the group that would include turtles, crocodylians ... and birds.
- Characteristics – herpetofauna, or “herps,” are all are vertebrates and ectotherms (“cold-blooded”)
- Amphibians - generally have external fertilization, two-stage development, semi-permeable skin
- Examples of local amphibians
- Reptiles - amniotes, generally have internal fertilization, scaly protective skin
- Examples of local reptiles

How do they live

- Reproduction - frog calls, amplexus, tadpoles; salamander spermatophores; reptile courtship, mating, egg-laying vs. live birth, temperature-dependent sex determination
- Thermoregulation - energy benefits of ectotherm, basking, shelter, hibernation/brumation
- Feeding - species with specialized diet; examples of strategies for hunting, subduing prey, consuming
- Defense - crypsis, escape, bluff, rattling tail, biting, venom
- Home range and the problem of translocating herps

How can I find them

- Field guides, natural history books, online resources
- Capture, collect, or “hands off” (reasons for each)
- Where to go looking – know their natural history (habitats, choice of shelter, activity preferences)
- What to bring with you – appropriate clothing, water, equipment such as binoculars, gloves, etc.

Safety

- Venomous snake bite
- Alligators, snapping turtles, etc.

What is their future?

- Threats (Gibbons, et al.) – habitat loss, pollution, climate change, unsustainable use, invasives, diseases
- Amphibian declines – first to make the news but many reptiles are similarly endangered.

**9/28/24            Fieldtrip 1 - Aquatics**  
**Saturday 9am-3pm approximate**  
**Location Fort Worth Nature Center, 9601 Fossil Ridge Rd, Fort Worth, TX 76135**

**10/1/24 Forest Systems – Location Fort Worth Botanic Garden Rose Room**

**Instructor:** Bill Collins

Bill is a retired Natural Resource Manager for the US Army Corps of Engineers with a lifelong interest in trees. He has bachelor’s degree in Forestry from Stephen F. Austin State University. Bill went through the Master Naturalist program in 2009 and has been an active member since that time. He served three years as President and is currently Secretary of the Cross Timbers Chapter of Texas Master Naturalist.

**Master Naturalist Textbook Units:** 17 Forest Ecology and Management

**Presentation Title:** Forest Systems

The goals and expectations of this session are to have students understand 1. What a forest is and how it functions. 2. What a tree is and how it functions 3. What are the eco-regions of Texas 4. What are the forest types in the Tarrant and Parker County area and 5. How to identify some of the major tree species in the Tarrant and Parker County area.

Topics

- Forestry ecology
- Forest defined
- Soils
- Cycles carbon
- nitrogen
- hydrologic
- Succession and man’s input
- Tree physiology
- What is a tree?
- Texas eco-regions Texas forests
- Eastern and Western cross timbers
- Riparian bottomland forest
- Fort Worth Prairie Savannah
- Urban Forest

**10/6/24            Fieldtrip 2 - Land Stewardship**  
**Sunday 9am to 3 pm approximate**  
**Locations: Tandy Hills Natural Area, 3325 View St, Fort Worth, TX 76103**  
**Sheri Capehart Nature Preserve, 5201 Bowman Springs Rd, Arlington, TX 76017**

**Presenter:** Suzanne Tuttle

Suzanne Tuttle is a plant ecologist who retired in 2016 as Manager of the Fort Worth Nature Center & Refuge after a 23-year career at the park. She holds a bachelor's degree in Biology from UT Arlington and an Associate of Applied Science degree in Horticulture from Tarrant County Junior College (now TCC). Suzanne has taught training classes for various North Texas chapters of the Texas Master Naturalist program since 1999, and helped found the Cross Timbers Chapter. She is a 31-year member of the Native Plant Society of Texas (NPSOT) and currently serves as an instructor for NPSOT's Native Landscape Certification Program (NLCP). She was also one of the developers of the NLCP Level 4 class. Suzanne is a 29-year member of the Native Prairies Association of Texas (NPAT) is currently serves as treasurer for NPAT's Fort Worth Chapter. She is also responsible for coordinating the Prairie Seekers training workshops for the chapter.

**Master Naturalist Textbook Units:** 21 Urban Ecosystems

**Additional resources:**

[Education & Research — Friends of Tandy Hills](#)

1946 Monograph written by Dr. E.J. Dyksterhuis characterizing the vegetation of the Fort Worth Prairie: [The Vegetation of the Fort Worth Prairie, by E.J. Dyksterhuis, 1946 — Friends of Tandy Hills](#)

1989 Environmental Assessment of Tandy Hills by former Nature Center Manager, Wayne Clark: [First Annual Report, Environmental Assessment of Tandy Hills Park, 1989 — Friends of Tandy Hills](#)

1993 Prospectus by Wayne Clark with recommendations for land management actions at Tandy Hills: [Prospectus, 1993 — Friends of Tandy Hills](#)

2008 Strategic Master Plan for Tandy Hills: [Microsoft Word - Final Master Plan July 08 PACS EDITS.doc \(fortworthtexas.gov\)](#)

**10/8/24 Mammals and Birds - Location Fort Worth Botanic Garden Rose Room**

**Instructor:** Nick Griffin

Nick joined the Marine Corps right out of high school. Afterward, he attained a bachelor's degree in Wildlife Sustainability and Ecosystem Science from Tarleton State University. He started with an internship at the Fort Worth Nature Center and Refuge and was then employed there full-time for a couple of years. He currently works for the Texas Parks and Wildlife in the Inland Fisheries Division.

**Master Naturalist Textbook Units:** 16 Mammalogy

**Additional Resources:**

Feldhamer, GA, Drickamer, LC, Vessey, SH, Merritt, JF, and C. Krajewski. 2015. Mammalogy: Adaptation, Diversity, Ecology. 4<sup>th</sup> ed. Johns Hopkins University Press.

Schmidly, DJ and Bradley, RD. 2016. The Mammals of Texas. 7<sup>th</sup> ed. University of Texas Press.

**Presentation Title:** Mammalogy

- What is a Mammal?

- Mammal taxonomy
- Mammal origins
- Dentition
- Adaptations
- Locomotion
- Reproduction
- \*BONUS\* Skull Identification

**Instructor:** Charley Amos

Charley Amos is a 2015 graduate of the Texas Master Naturalist Program. He has been birding for almost 30 years and has always spent time in nature. He is a two-time past president of the Fort Worth Audubon society and has led birding trips all over the state. Despite birding trips to Costa Rica, Ecuador, Europe, and Canada, his favorite destination is Big Bend National Park. Charley volunteers at several local parks leading nature walks for children and adults. As a Master Naturalist, he also regularly volunteers at local native plant gardens including the Fielder House Garden, Knapp Heritage Park pollinator garden, the greenhouse for the Molly Hollar Wildscape, and the gardens at River Legacy Science Center. He holds bachelor's and master's degrees from the University of Texas at Arlington.

**Master Naturalist Textbook Units:** 12 Ornithology

**Additional Resources:**

Ackerman, Jennifer. 2020. *The Bird Way*. Penguin Press.

Beadle and Rising. 1996. *Sparrows of the United States and Canada*. Academic Press. New York.

Dunn and Alderfer. 2017. *National Geographic Field Guide to the Birds of North America*, 7<sup>th</sup> ed. Disney Publishing Group.

Dunne, Pete. 2013. *Pete Dunne's Essential Field Guide Companion*. Houghton Mifflin Harcourt.

Dunne, Sibley and Sutton. 2012. *Hawks in Flight*. 2<sup>nd</sup> ed. Mariner Books.

Grant, PJ. 1997. *Gulls: a Guide to Identification*, 2<sup>nd</sup> ed. Princeton University Press.

Harrison, Peter. 1991. *Seabirds, an Identification Guide*. Houghton Mifflin Harcourt.

Kaufman, Kenn. 2011. *Kaufman Field Guide to Advanced Birding*. Mariner Books.

Kerlinger, Paul. 2008. *How Birds Migrate*, 2<sup>nd</sup> ed. Stackpole Books.

Lee, Cin-Ty. 2023. *Field Guide to North American Flycatchers: Empidonax and Pewees*. Princeton University Press.

Liguori, Jerry. 2011. *Hawks at a Distance: Identification of Migrant Raptors*. Princeton University Press.

O'Brien, Crossley and Karlson. 2006. *The Shorebird Guide*. Collins Reference.



Peterson, RT. 2020. *Peterson Field Guide to Birds of North America*. 5<sup>th</sup> ed. Mariner Books.

Sibley, David. 2014. *The Sibley Guide to Birds*. 2<sup>nd</sup> ed. Alfred A. Knopf.

Sibley, David. 2021. *The Sibley Guide to Bird Life and Behavior*. Alfred A. Knopf.

Stephenson, T and Whittle, S. 2013 *The Warbler Guide*. Princeton University Press.

Williamson, Sheri. 2002. A Peterson Field Guide to *Hummingbirds of North America*. Mariner Books.

**Presentation Title:** Birds

- The importance of birds
- What makes a bird a bird?
- Tips for identification of birds
- Tools for birding
- Bird migration

**10/15/24 Invertebrates and Dragonflies- Location Fort Worth Botanic Garden Camelia Room**

**Master Naturalist Textbook Units:** 13 Entomology

**Instructor:** Erika Swyryn

Erika Swyryn has a bachelor's degree in Biology from the University of Texas at Arlington and two master's degrees in Business. She is currently an active Texas Master Gardener and a Texas Master Naturalist. She earned the Master Volunteer Advanced Entomology Training (MVEAT) certification through Texas A&M Agrilife in 2022. She is a volunteer in animal rescue with Weatherford Whiskers in Parker County and fosters neonatal bottle baby kittens, older kittens and adult cats. She hosts a monthly study group on insects for Master Gardeners in Parker County. Erika frequently gives presentations to various local groups on insects, especially pollinators, and has recently started presenting on tarantulas and other spiders. She is a huge animal lover who especially enjoys learning and teaching about the less loveable, creepy, crawly, scary-looking animals in our environment. Additionally, she is a rescue-certified scuba diver and has learned about invertebrates in our oceans and waterways that most people never even know about. She is the proud custodian of two dogs, many, many cats, tropical fish, three aquatic frogs, chickens, turkeys, three species of tortoises, two scorpions, and over 120 tarantulas!

**Presentation Title:** Invertebrates - Don't hate them!

- What is an invertebrate?
- Categories of Inverts:
- Major Categories of Inverts including protozoa, porifera, coelenterata/cnidaria, platyhelminthes, nematoda, mollusca, annelida, arthropoda, echinodermata, chordata
- The importance of pollinators
- Chemicals kill EVERYTHING!

**Instructor:** Brent Franklin

Brent Franklin is a Cross Timbers Master Naturalist from the class of 2013. He grew up on a cattle ranch and served in the U.S. Army and the National Guard for nine years. He has an interest in landscape

photography and enjoys spending time outside. A lifelong interest in birds led him to join Master Naturalist organization after hearing about it on a guided bird walk. During training was introduced to just how diverse and fascinating Odonates are and his obsession was born. He has traveled all over the state seeking to locate, study, and photograph different species. Brent served as Past President of the Cross Timbers Master Naturalist chapter for three years and serves on the Board of Directors as Past President and is on the Education Committee.

**Presentation Title:** An Introduction to Dragonflies and Damselflies in the U.S. and Texas

- Diversity of dragonflies and damselflies in the US and Texas
- Differences in dragonflies and damselflies
- Life History
- Reproductive Strategies
- Habitat types
- Common Texas species

**10/19/24      Fieldtrip 3 - Forest Field Trip**  
**Saturday 9am-3pm approximate**  
**Location Fort Worth Nature Center**

**10/22/24 Prairie Ecology – Location Fort Worth Botanic Garden Rose Room**

**Presenter:** Michelle Villafranca

Michelle Villafranca is a Park Operations & Natural Resource Planner position in Park Operations where she reviews plans, makes policy recommendations, & advises on natural resource management planning. She serves on the City's Open Space Conservation Program planning committee & is currently co-managing a \$150,000 grant for Tandy Hills/Broadcast Hill that includes forestry mulching, invasive species management, interpretive signage, trail construction, & an intern program. Prior to this, she served 11 years as the Natural Resource Specialist for the Fort Worth Nature Center & Refuge. In that role, she was responsible for the Restoration Greenhouse & Seed Collection Program, which incorporated volunteers to produce native plant material for restoration, landscaping, & public programming. She coordinated the Native Neighborhoods program, which provided native plants to Fort Worth residents. Michelle also kick-started the Refuge's Fire Effects Monitoring Program by establishing biological surveys & photo points to determine baseline data to monitor habitat restoration activities; especially prescribed burning. Michelle started with the City of Fort Worth in 2004 as a Forester where she organized tree-planting events and coordinated volunteer projects. Before the City, she worked for various conservation & land management agencies in Texas & beyond.

**Textbook Units:** Unit 4 pp. 142-145; Unit 7 pp. 257-259

**Additional Resources:**

Chris Helzer's blog (<https://prairieecologist.com>)

Native Prairies Association of Texas <https://texasprairie.org>

**Presentation Title:** Prairie Ecosystem

- Introduction
- Factors that Define Prairies
- Prairie Adaptations
- Evolution of Prairies
- Our Prairie History
- North Central Texas Prairies
- Prairie Management
- Threats to Prairies
- Make a Difference
- Additional Information

**10/26/24**      **Fieldtrip 4 - Prairies**  
**Saturday 9am-3pm approximate**  
**Location: TO BE ANNOUNCED**

**10/29/2024 Urban Systems - Location Fort Worth Botanic Garden Rose Room**

**Presenter:** Rachel Richter

Rachel Richter is an Urban Wildlife Biologist for Texas Parks and Wildlife in DFW. She has a bachelor's degree in Wildlife and Fisheries Science from Texas A&M and a master's degree in Wildlife Ecology from Texas State University. As an urban wildlife biologist, she focuses on making our communities more wildlife-friendly through educational outreach and providing technical guidance.

**Master Naturalist Textbook Units:** 21 Urban Ecosystems

**Additional resources:**

Green Cities: Good Health, Urban Forestry/Urban Greening Research, University of Washington, US Forest Service, Urban and Community Forestry. Green Cities Good Health website:

<https://depts.washington.edu/hhwb/>

Crompton, John L., The Proximate Principle: The Impact of Parks, Open Space and Water Features on Residential Property Values and the Property Tax Base. 2<sup>nd</sup> Ed.

Israel, Jessie and Kathleen L. Wolf. Outside Our Doors: The Benefits of Cities Where People and Nature Thrive. The Nature Conservancy, Wash DC. Feb 2016.

Urban Nature for Human Health and Well-Being: A Research Summary for Communicating the Health Benefits of Urban Trees and Green Space. US Forest Service, FS-1096. Feb 2018

<https://rpts.tamu.edu/wp-content/uploads/2020/11/The-Proximate-Principle-Table-of-Contents.pdf>

[https://static1.squarespace.com/static/5602e09be4b053956b5c8d3a/t/60c26b0073cac55ee78d8b01/1623354133665/TNC\\_OutsideOurDoorsReport\\_Redesign\\_FINAL.pdf](https://static1.squarespace.com/static/5602e09be4b053956b5c8d3a/t/60c26b0073cac55ee78d8b01/1623354133665/TNC_OutsideOurDoorsReport_Redesign_FINAL.pdf)

[https://www.fs.usda.gov/sites/default/files/fs\\_media/fs\\_document/urbannatureforhumanhealthandwellbeing\\_508\\_01\\_30\\_18.pdf](https://www.fs.usda.gov/sites/default/files/fs_media/fs_document/urbannatureforhumanhealthandwellbeing_508_01_30_18.pdf)

**Presentation Title:** Urban Wildlife; Nature in the Backyard

- Urbanization in Texas
- Urban Ecosystems
- Synurbization
- DFW Urban Wildlife Project
- Human-Wildlife Interaction Management
- Creating Habitat
- The Proximate Principle
- Benefits of Nature for Humans

**11/2/24      Field Trip 5 - Urban Systems**  
**Saturday 9am-3pm approximate**  
**Locations: TO BE ANNOUNCED**