

Photo by Zoe Rascoe

CTMN CHAPTER VOLUNTEER SERVICE RECOGNITION

A State Park and a local City-run federal park now have a new way to acknowledge significant CMTN volunteer service contributions at their facilities.

At a CTMN board meeting early in 2023, Board Member Bill Novakoski suggested that leadership at sites where CTMN members have made considerable volunteer service contributions might consider

allowing signs to be placed in their facilities to acknowledge our support in a way their visitors would easily see. The board fully supported Bill's idea and asked him to build a team to develop a plan. John Fairlie, Joan Ingram and Danny Welch volunteered to help.

The committee selected Mother Neff State Park and Miller Springs Nature Center as sites to pilot this signage project. Joan designed a prototype and Danny identified an online

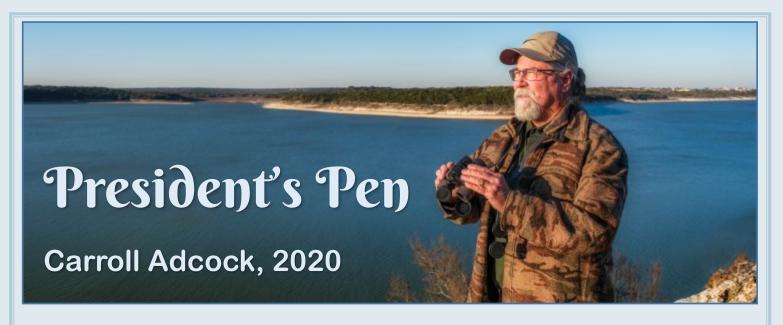


vendor that could produce the sign. Once the board approved the design, the team requested approval to use the TMN and Texas A&M AgriLife logos, as required. With a sample sign in hand, John Burns, MSNC liaison, and Jean Solana, MNSP liaison, along with Bill met with the park authorities.

Dale Hughling and Sharon Schmitz provided the number of volunteer hours our members had contributed to these parks. Since 2015, we have spent nearly 4300 hours at Mother Neff SP and 2600 hours at Miller Springs. The park authorities enthusiastically approved the sign concept and identified a location for their sign.

In November, MSNC and MNSP staff installed their signs in time for large public events where CTMN members were volunteering. The signs were placed in highly visible areas at both locations.

Following installation of the signs and positive feedback, the board deemed this pilot a success. Now the signs can be available for other parks or projects where our members are providing significant volunteer contributions. Next time you are at Miller Springs Nature Center and Mother Neff State Park, make sure to see our "Support provided by CTMN" signs – and feel free to enjoy the well-earned recognition.



I only recently developed an interest in birding and as a neophyte I struggled to find convenient and relatively comprehensive tools to assist me in my limited knowledge of birds outside the usual backyard songbirds and the game birds I was familiar with as a hunter. When I was introduced to eBird and Merlin I was dubious and initially not enamored. Now, after three to four years of moderate utilization of eBird,

and frequent usage of Merlin, that has changed.

The eBird tool/app was developed in 2002 by the Cornell Lab of Ornithology at Cornell University and the National Audubon Society. It gathers basic data on bird abundance and distribution. It was primarily inspired by the EPOQ database, created by Jacques Larvae in 1975. This tool is an online database of bird observations providing scientists, researchers, and amateur naturalists with real-time data about bird distribution and abundance, eBird is available worldwide with more than 100 million bird sightings contributed annually by eBirders around the world and an average participation growth rate of approximately 20% year over year. Birders enter when, where and how they went birding and then enter a checklist of the



birds seen and/or heard during the outing. Data quality is of critical importance, observers are presented with a list of likely birds in their area. These checklist filters are created by some of the most knowledgeable bird distribution experts in the world. eBird stores your data and assists you in maintaining a "life list" of birds observed. I periodically use eBird and have found it very user friendly, however much of my birding activity occurs secondary to other activities and accurately logging my observations and timeline are just not feasible.

Merlin on the other hand is an ID app that I use nearly daily, and I would recommend it to anyone with even a casual interest in birding. Merlin is powered by eBird, the world's largest database of bird sightings, sounds, and photos. Merlin offers four fun ways to identify birds. You may answer a few simple questions, upload a photo, record a singing bird, or explore birds in a region. You simply indicate the location in which you are birding, and then utilize the options to identify. Step by step ID will ask you the location,



the date, the size of the bird, the main colors of the bird, and the birds activity. This information generates a list of likely birds in the region to select from, and if you can positively ID the bird you will then be prompted to report it to eBird or to save with Merlin. Sound ID is a wonderful option, especially for the secretive little critters that don't like to show themselves! The new version of the Sound option that activates the moment you select it is wonderful, it begins "listening" the instant you select the option and is quite accurate at identifying if you are in range for it to pick up the bird's song or/calls. Photo ID is also a great option if you are fortunate enough to obtain a good quality photo of the bird in question and is without a doubt the most accurate.

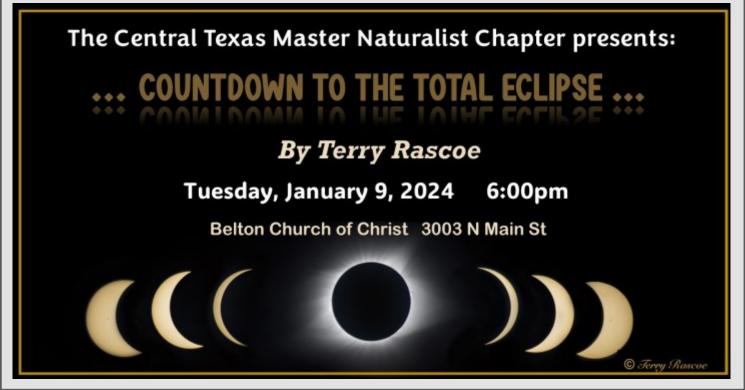
I thoroughly enjoy these apps and recommend them to friends and family all the time. There are many apps available if you would like to explore others. I realize I am "preaching to the choir" for many of you but wish to introduce these exciting tools to anyone who may not be familiar with them. Get outside and give them a try!

Happy trails!



Upcoming Events





Master Naturalists at Work

Moth Night 2023 at Mother Neff State Park

October 7th was **Moth Night** at Mother Neff State Park. Master Naturalists hosted community members for a moth-themed night of fun. At least 25 Chapter members volunteered for the event. Participants from the community had the opportunity to play games, get glow-in-the-dark face paint, see moth specimens, hunt for scorpions, gaze at the stars through telescopes, and check for moths attracted by black lights to a white hanging sheet. Some of the species we saw that night included Chrysellus Flower Moth, Garden Webworm Moth, Scarlet-winged Lichen

Moth, Broad-lined Angle, and Juniper Budworm Moth. Thanks to Jessica Dieter and Jenna Chappell for organizing our annual moth efforts at MNSP!









April Hignojos sets up the craft area

Master Naturalists at Work

- Julie Tanada, 2023

Salado Summer Farmers Market

The Tonkawa Chapter Native Plant Society Sale was held on a September Saturday at the Salado Barrow Brewery. The Tonkawa Chapter Native Plant Sale featured Texas native shrubs and grasses plus Milkweed starters in anticipation of the imminent arrival of Monarch Butterflies. The Central Texas Master_Naturalist Chapter booth set up in support of this sale was coordinated by Mary Ann Everett, Lynn Fleming and Jamey Douglass. Additional participating volunteers were Louann Hight, Carina Costa and Juliet Tanada.



This Plant Sale event was held in conjunction with the weekly Salado Summer Season Famers Market. Hot weather conditions kept the crowd showing moderate but constant. The children were especially attracted to the handmade wood necklaces and cutouts that were available complimentary choices to all visitors. Many visitors expressed a desire to donate to the Central Texas Master Chapter cause when presented awareness information regarding the Naturalist Mission and Goals. Definitely a fun way to spend Saturday with the Salado Barrows Brewery also opened for beverage services and hosted live musical stage entertainment on site.



Thursday, September 21st, the Central Texas Master Naturalist Chapter participated in the 2023 Bell County Conservation Expo hosted by the A&M AgriLife Extension in Bell County. The Expo was held in the USDA-ARS Conference Room at the Grassland, Soil & Water Research Laboratory, 808 E Blackland Road, Temple, Texas. The Central Texas Master Naturalist booth was headed by Lynn Fleming. Volunteers included Bill Novakoski, Art Siebert and Juliet Tanada. We talked to attendees about conservation-related projects our chapter has undertaken.

Master Naturalists at Work

- Julie Tanada, 2023

Bell County Annual Water Symposium

Understanding future water needs with a growing population. Water issues in the Texas Legislature.

Brazos River Authority reservoir limitations. These were some of the topics presented at the 22nd Bell County Clear Water Symposium, November 14, 2023. The CTMN Booth was set up and manned by Zoe Rascoe, Danny Welch, Carol Smith, David Vesely and Juliet Tanada. Conference attendees stopped by to learn about the Texas Master Naturalist Program and what our chapter does related to water and natural resource conservation issues. Danny Welch, Stream Team Leader, provided information further amplifying Clearwater's objectives and CTMN's



involvement in water monitoring. Two young Austin-based water engineering professionals, caught Danny's enthusiasm. They volunteered to participate with the Stream Team's monitoring of the Lampasas River the following Saturday!

It was noted that Texas is the only state actively undergoing five-year intensive reviews of Statewide Water Conservation Plans, Aquifer Storage and Recovery is aggressively being conducted within the state, and Future Home Architectural Design Features using Rainwater Catchment as a viable reality. The Symposium's bottom Line: In a rapidly growing state, water conservation is not enough. Well-planned aggressive initiatives need to focus on ground/surface water management, recycling wastewater resources, and water catchment in addition to water conservation.



The Stream Team monitors four different TCEQ sites in Bell County every month at 9:00 am on the following schedule. *See Sunday evening calendar email for contact information*. All are welcome!

First Saturday: Leon River @ Heritage Park Third Saturday: Lake Belton @ Temple Lake Park

Second Saturday: Nolan Creek @ Harris Center Fourth Saturday: Lampasas River @ FM 1123

Fall Fest at Mother Neff

- Julie Tanada, 2023

How do you recognize a nature enthusiast? If the person is immediately drawn to movement whether wings, feet, or fleshy slugs that is a nature enthusiast. Such enthusiasm brought CTMN volunteers to the Mother Neff State Park Fall Fest to share their zest for nature with the audience of curious children and parents drawn to learn about nature and the park.

This year our chapters had 3 stations. One in the main festival area located by the Civilian



Conservation (CCC) Cabin where (L to R in photo) Julie Tanada, David Vesely, Jamey Douglass, Mary Ann Everett, and Joe Dorn, shared with families about mammals, food webs, and Leon River flooding issues. Over 105 visitors including six dogs sought CTMN information. Juan Anaya, Carol Smith, and Tommy Reeder helped visitors use binoculars to find and identify local birds

at the bird blind. Additionally, they had a craft for kids – building a bird feeder! They also played the bird migration game. There was big excitement when a handsome coral snake crossed the trail, and we all had a big photo shoot! At the second exhibit April Hignojos, Santi Duncan, and Alan Webster served as Visitor Center Greeters for about 400 people where crafts and a 100th Birthday cake were

available! Art Siebert educated families on CCC history at Mother Neff. Finally, Danny Welch, Larry Turner, Jean Solana, and Rebecca Simanek (from HOTMN Chapter) were stationed near the campground. They told families about prairie ecology including native grasses, animals of the prairie and Texas butterflies. CTMN helped visitors broadcast 500 native wildflower seedballs around the Armadillo playscape. Zoe Rascoe served as event photographer.



Fall Fest at Mother Neff cont.

The Fall Festival commemorated Texas State Parks Centennial. Special Programs included speakers (Mike Pixler) representing the Civilian Conservation Corps Legacy Chapter - Cowtown 123, which is the last surviving CCC Chapter and Gil Eckrich, who narrated the Mother Neff Park History and described the "Winter Birds of Mother Neff Park."





Visitors could roam other booths including the Leon River Dutch Oven Gang Texas outdoor cooking exhibit and sampling (yummy), Tonkawa Chapter Native Plant Society, McGregor Garden Club Storybook Trail, Mother Neff State Park Association displays including games, crafts, and walking trails. A special Mother Neff scavenger hunt motivated all attendees to seek and learn more about Mother Neff.

The CCC is credited with being the major constructor of Mother Neff State Park. CCC accomplishments nationwide during the period 1933-1942, include planting three billion trees, teaching over 40K men to read and write, restoring 3980 historic structures, building 27,191 miles of fences,

constructing over 800 State Parks and millions of acres of lakes for future generations.

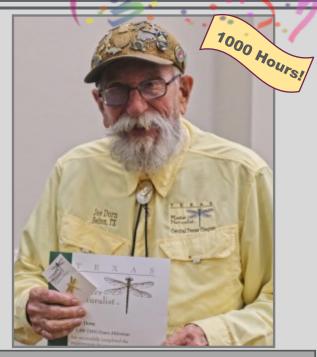
In all, not only was this a learning experience for the public but also for CTMN volunteers!

Right: Alan Webster, Danny Welch, Jean Solana (with cottontail puppet and seedballs), Larry Turner, and Rebecca Simanek.





Dale Hughling (2010) reached 3000 Volunteer Service
Hours!! He serves as our Technology Director and is on the
TMN VMS Team. Bless his heart. A packed room gave him
a standing ovation. Congratulations, Dale!!



Joe Dorn (2014) reached 1000 Volunteer Service Hours on a variety of projects including 2 CoCoRaHS stations. Congratulations, Joe!!

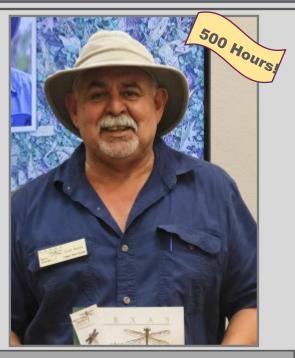


Bruce Polikoff (2015) reached 1000 Volunteer Service Hours! He serves as our Treasurer and enjoys citizen science projects.

Congratulations, Bruce!!



Jean Solana (2019) hit 1000 Volunteer Service
Hours!! Jean has been our Mother Neff Liaison for
years & does many citizen science projects.
Congratulations, Jean!!



Juan Anaya (2018) reached 500 Volunteer Service Hours! He's done outreach events, presentations and a variety of volunteer projects.

Congratulations, Juan!!



Tom Gerik (2021) reached 250 Volunteer Service Hours with workdays. Citizen science and a variety of other projects! Congratulations, Tom!!



David Vesely (2023) receives his Initial Certification



Julie Tanada and Alan Webster (both class of 2023) receive their Initial Certification



2023 Recertifications go to Juan Anaya (2018), Jean Solana (2019), Ward Critz (2018), and Joe Dorn (2014)



2023 Recertifications go to Ben Clement (2016), Tina Atkins (2016), John Atkins (2016) and Dale Hughling (2010) (Tina was having to smile for everyone?)



2023 Recertifications go to Guy Fowler (2021)., Cindy Fowler (2022), Lynn Williams (2014)



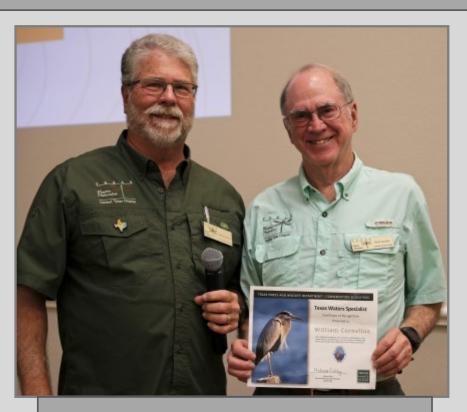
2023

DOUBLE

CERTIFICATION goes to Carol Smith, Mike Hermans, Joan Ingram, and Santi Duncan



2023 DOUBLE CERTIFICATION goes to Charles Capen, David Vesely, April Hignojos and Kelly Thornborrow



Bill Cornelius (2020) became a certified Texas Waters Specialist! Bill volunteers our Texas Stream Team.

CHAPTER MEETING

- Joan Ingram, 2023

"Jug-o'-rummm!" Pick me!

"Jug-o'-rummm!" Pick me, says the bullfrog.

During the November 2023 Chapter Meeting, an apparent cacophony of mystery sounds was revealed to be the symphony of expression and communication of unseen living beings all arounds us at night. Mary Ann Melton was informative, interactive, and downright fun in her presentation of "The Music of the Night."



Close your eyes now and imagine yourself outside at night, away from urban noise and interference. Perhaps a backyard or camping in the wilderness. Picture the stars (and the occasional planet) above you. Soak in the dropping temperature and changing humidity. Attune yourself to the smells of the outside, possibly a whiff of grass or the bouquet of a nearby flower. Now set your concentration on the sounds, the music of the night.

Mary Ann brought us there, with audio recordings of over 20 animals. There was screeching, buzzing, and chirping as we pictured ourselves outside at night listening to the music and trying to determine the composer. Sometimes we could not even determine the genre, is that a mammal or a bird? However, we were willing to guess and learn. Do you know how to differentiate between an insect and an amphibian night sound? (I did not). The insect sounds are continuous from rubbing structures together, whereas amphibian sounds are usually vocalizations that require them to pause and breathe.

The tiny Elf Owl laughed at us when we thought at first, he was a frog. There were river otters chirping at each other as we imagined them tumbling over each other in play and the tiny cricket frog with the "BIG NOISE" that made us jump in our seats. From coyotes whose complex family structure necessitates vocal communication to racoons who can identify their own offspring by their voices, the animals came alive in the room.

It is getting colder now; each day we think we might need another layer. But what is the temperature we wonder. Ask the crickets, we learned from Mary Ann. Just count the number of chirps in 15 seconds, add 40 and you will have the approximate temperature in Fahrenheit.

At the end, we were left with a deep heartwarming impression of the ensemble that is the tapestry of the animals. It propels us to hear more, learn more. Is that buzz really a toad?



Mother Neff State Park

1680 TX Hwy-236, Moody

Jean Solana (2019), MNSP Liaison, can be reached at jmsolana76@gmail.com

October 7th Moth Night was a blast – lots of families exploring the park at night. I got to do the Moth Sheet with the fluorescent light. I had fun loading the moths we saw on iNaturalist – my favorite was

a Chrysellus Flower Moth.

(Near R) Santi Duncan paints glow-in-the-dark paint on a member's daughter. (Far R) Tina Atkins shows a visitor our huge moth specimen.





November 1st Mother Neff Workday - we transplanted native grasses. Bill Novakoski, David Vesely,

Mary Ann Everett, (L to R), and Jean Solana (photographer) dug up Little Bluestem and Indiangrass to be transplanted in the Headquarters Garden and for a Prairie Restoration Project in the park. We have



educational
signs in the
Headquarters
garden to teach
visitors about
Texas native



grasses. An ID page was shared with all the native grass heads on it.

November 4th Fall Fest Again this year Central Texas Master Naturalists worked in several areas interacting with many of the 400 visitors who registered at the park that day.

Mother Neff State Park Cont.

November 11th Prairie Restoration
Boy Scout Troop 267G/287B from
Killeen came to complete their Prairie
Restoration. Led by 14-year-old Isabella
Larson, the group of 9 removed the 600
square feet of solarization clear plastic,
hoed out the dead KR Bluestem roots,
and dug 24 holes (not easy) for the



native grasses we planted. First we watered the holes then planted 6 each of Big Bluestem, Little Bluestem, Indiangrass, and Sideoats Grama. The Little Bluestem and Indiangrass were dug up by the Central Texas Master Naturalists from Mother Neff the week before from a different area. After that we spread native wildflower seeds — some harvested from Mother Neff in September and some ordered from Native American and Turner Seed. It was quite a workout but we still finished early. Can't wait to see what comes up in the spring!

December 2nd **Mother Neff Christmas and Dedication Ceremony.** Mother Neff State Park has been placed on the National Register of Historic Places. A dedication plaque will be recognized. We will celebrate the Christmas season with crafts, cookie decorating, scavenger hunts, a visit from Santa and Mrs. Claus and guided hikes. Volunteers are always needed for popular events like this.

Winter 2023 Volunteer Opportunities

Workdays: Most 4th Wednesdays from 9am-12pm. Tools will be provided. Activities may include trail clearing, transplanting native grass or clearing invasive plant species. Contact Jean Solana at jmsolana76@gmail.com. Need more volunteer hours? There will be a brush clean up project on December 3rd from 10-12 and from 1-3. Check in at Headquarters.



Jean Solana, Matt Ridely and Bill Abright at a November workday



We Carry On!

The October workday was a great day. I had asked John Atkins to lead the day again as I thought I was going to be out of town. It turned out I was not out of town, so I was able to come to the workday. I was very glad to be able to work, especially since the weather was cooler than we had through the summer. Wow, the cooler weather makes it so much nicer to work. We had 11 volunteers (L to R):



removal of invasive plants in the area we have been working in past months. It was a very productive day with John Atkins and Stan Simons both bringing their chainsaws. We also took the Puller Bears and pulled a lot of smaller Ligustrum plants. See Myles' work to the left. It was great to see as we worked in this area we are actually within sight of the original area we began working to remove the invasive plants 4 ½ years ago. This does not mean we are almost done with our job. There are still many areas that are very overgrown with Ligustrums and other invasive trees. All this really does is give those of us who have been working on this project a long time a little satisfaction of being able to see we have made, and are making, a difference at the nature center.

John Atkins, Bill Novakoski, David Vesely (behind), Marilyn Whitworth, Lysa Liam, Bae and Myles Liam, Ben Clement, Stan Simon with Bill Cornelius and myself not pictured. We all worked hard for a long 3 ½ hours. Marilyn focused on litter pick up and the rest of the group went down to the Green Pond Trail and West Access Trail to continue



Cont.

Miller Springs Nature Center cont.

We did experience a little frustration as we arrived at the area where we were going to work. There was a very large area that had been totally cleared with large machinery. It seems the Corps of Engineers are installing a new water weir to monitor water flows from the springs. The frustrating thing about this is we had worked several different days to remove invasive plants in this area. So obviously, our time was wasted since the Corps decided it needed to clear a large area for their work.

I was not able to work the November workday. I asked John Atkins to take the lead again. It turned out to be a rainy day and there were just two volunteers, John Atkins and Julie Tanada. John let me know Julie picked up trash while he got the puller bear out and pulled Chinaberry trees near the parking area and behind the storage



container. On a positive note, John noticed quite a few new Pecan trees coming up in this area where we have worked in the past to remove invasives. It is always nice to see that not only are we taking out invasive plants, but nature is trying to claim back the area.

Our next workday is December 14th. Hopefully we will have a lot of volunteers so we can make a push to finish (or at least be able to say we worked) the whole area we started over 3 years ago. Honestly, it is not possible to say we finished because new seedlings of the invasive plants will continue to come back. All we can do is keep working and know we are truly making a good impact for nature and for nature lovers who visit Miller Springs Nature Center!

Great Texas Wildlife Trails

- John Fairlie, 2021

GTWT Adopt-A-Loop Coordinator





A recurring chapter volunteer project is quarterly wildlife surveys for the Great Texas Wildlife Trails Adopt-A-Loop program. Our chapter adopted the Chisolm Trail Loop, which includes eight sites -- Chalk Ridge Falls and Dana Peak Park on Stillhouse Hollow Lake, Belton Lakeview Park, Miller Springs Nature Center, Mother Neff State Park, Lake Waco Wetlands, Cameron Park, and Cameron Park Zoo.

August was our tenth round of site visits and amazingly, we had quite a few hearty souls who braved





the blazing heat. The amount of wildlife was the least we've seen to date, likely due to the extraordinary weather conditions. Insects were quite difficult to spot.

Our next round was in November and conditions had improved following rains, although the Waco Wetlands were still dry. Volunteers between both rounds included Sue Bertoleit-Valdez, Cassie Castillo, Santi Duncan, Mary Ann Everett, John Fairlie, Linda Fairlie, April Hignojos, Joan Ingram, Randy King, Bill Novakoski, Matt Ridley, Kimberly Tompkins, David Vesely, Jim Wade, Cristy Wade, Danny Welsh, Charles Capen, Ben Clement, Lysa Liem (with Bae and Myles Liam), Jean Solana, Julie Tanada, and David Vesely.



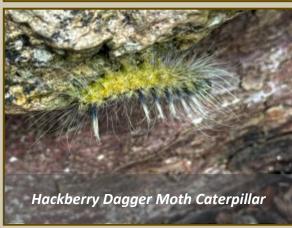
GTWT ADOPT-A-LOOP PROJECT cont.

Our next round of AAL Wildlife Surveys will be in late January. All of the site visits will be listed in our Chapter's weekly emails, as AAL Wildlife Survey @ (location). Join us whenever you wish! We walk as much or as little as we want at each visit, using either iNaturalist or eBird to record observations. If using iNaturalist, we simply take pictures of wildlife of all sizes and shapes (all fauna) and enter them into the AAL project. You are welcome to identify your observations, but it is not necessary. The TPWD has experts who evaluate all observations. If using eBird, we work together to get an accurate tally of what we see. This is an easy way to earn volunteer hours while hiking in beautiful areas. We look forward to seeing you on the next round!













Texas Master Naturalist 2023 State Meeting

McAllen, Texas



- JEAN SOLANA, 2019

In my 4th year as a Texas Master Naturalist, I finally got to attend an Annual State Meeting. I earned a lot of Advanced Training hours during COVID remotely, but I really wanted to attend in person. The Rio

Grande Valley is a favorite birding spot for me in the Fall/Winter, so I was excited to head south!

The 24th Annual Meeting was held at the McAllen Convention Center. It was beautifully decorated as a Day of the Dead theme, where they honored past McAllen civic leaders. There were lots of choices for Advanced Training — I chose to learn about Coral Systems in the Gulf of Mexico, Urban Rio Grande Valley Parrots, and Restored Thornscrub Habitat.

Field Trips included Moth Night at Bentsen-Rio Grande Valley State Park – anything with charismatic



Awards and Recognition Ceremony

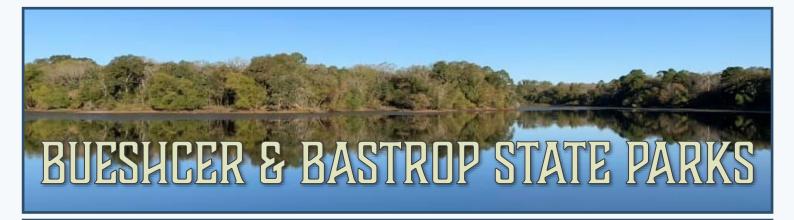
urban biologist Sam Kieschnick is a winner and an all day trip to El Sauz – an amazing conservation-minded ranch with thornscrub habitat and endangered ocelots. My favorite place was the National Butterfly Center in Mission Texas. I got see a Mexican Bluewing butterfly, 2 Indigo snakes, and the

The Annual Meeting by the Numbers

475+ attendees
131 speakers
132 concurrent sessions
25 field trips
42 of 49 chapters attended

Annular Eclipse!

Every night 100's of Texas Master Naturalists came together to eat, get updates and hear a speaker. My favorite was a gentleman named Larry Lof who shared the history of the Rio Grande Valley during the Steamboat Era from around 1830-1880. Mr. Lof helped restore the elegant Victorian mansion at Sabal Palms Sanctuary (another great birding spot). The State Meeting is not cheap, but you get your money's worth – I hope our members will all be able to go sometime.



- **ZOE RASCOE**, 2004

On our quest to visit all of Texas' State Parks, we headed to Smithville for a two-fer: Buescher and Bastrop

State Parks are 11 miles apart, but are connected by a two lane road that sits atop a state-owned easement between the two parks. This area is called the Lost Pines for the towering loblolly pines that are otherwise only found in east Texas. Scientists believe it is a remnant of an extensive pine-oak forest covering much of Central Texas during the Ice Age.

To get the facts out first, in September 2011 Bastrop had 34,000 acres burn in the most destructive wildfire in state



history, destroying 96% of Bastrop State Park decimating the loblolly pines and home of the endangered Houston toad. Our chapter, only a year old, sent members down to help plant loblolly seedlings which today



Photos by Terry Rascoe except where noted

are covering the park. That fire did not affect Buescher State Park. It had one of it's own in 2015. burning half of that park. It too, is recovering with loblolly pines and oaks and other hardwood trees reaching 20-30 feet high while American beautyberry vaupons flourish underneath. The pine seedlings were possible because of a large seed bank that the Texas Forest Service maintained since the record drought of the 1950's. Cont.

BUESHCER & BASTROP STATE PARKS CONT.

Like many state parks, these two have wonderful CCC structures. The Bastrop fire actually uncovered stone fire pits and multilevel sandstone water fountains that had been enveloped by underbrush over the decades. There are stone bridges, culverts, pavilions, and a refectory (google that) at Bastrop with native cedar, oak, walnut and pine from the park used for mantles, roof beams and handmade furniture.



Each park has a lake for boating and fishing, tent pads, cabins (some are new and built on ledges near the lake) and camper sites, winding trails and friendly staff. We parked our little Casita at Buescher and rode mountain bikes along the 9 miles of singletrack trails, then made the nice drive to Bastrop State Park to hike trails

there.

Master Naturalists might be interested in the <u>Bastrop an Buescher State Parks Interpretive Guide</u>. There is a

of Photo by Zoe



Fort Cavazos Projects

- Kelly Thornborrow, 2023

Monarchs. Here in Texas, monarch butterflies pass through between late September and early November for their migration as they head to Mexico to overwinter. This provides us with a great opportunity to contribute to citizen science initiatives counting monarch butterflies and noting their behavior.

Master Naturalists Jean Solana, Carol Smith, Danny Welch, Kim Tompkins, Santi Duncan, and Kelly Thornborrow assisted biologists from the Ft. Cavazos Adaptive and Integrated Management (AIM) program with some of these citizen science initiatives. Naturalists were assigned designated areas across the Ft. Cavazos Training Area for them to conduct Integrated Monarch Monitoring Program



(IMMP) Adult Monarch Activity Surveys biweekly to monitor adult monarch activity from September 21st to October 27th 2023. Originally, these surveys were supposed to run until the week of Thanksgiving, however due to military exercises the research period ended early. Surveys were conducted by walking along a rectangular box within set coordinates to see if any monarchs entered the immediate range of the reporter. If the monarchs entered the observers space, defined as inner (2.5m to left and right of observer) and outer box (2.5m - 5m to left

and right of observer), volunteers recorded what behaviors the monarchs were doing i.e. flying or nectaring.

Charlie and Chelsea stayed at a designated site for data

collection while the other biologists caught the monarchs. Chelsea Plimpton (above) is holding a monarch as she explains how to record monarch data.

Lindsy and Adriel were the biologists catching monarchs in the protected grasslands. This is a monarch Kelly caught while with them, found nectaring on a Liatris in the BLORA training area. It was temporarily stored to be brought back for data collection and tagging.



Cont.

Fort Cavazos Projects cont.

As someone who was able to participate in this research, I loved getting a chance to contribute to this project as a citizen scientist. Each of our sites were in a different area of the base and had different plants and features. Although there were days that I did not see any monarchs, it was still an interesting project to get out and walk through the protected grassland. I could however have done without the free-roaming cattle, but me running from them is an anecdote for another time.

On the final day of Monarch research I had an opportunity to learn from AIM biologists Charlie and Chelsea Plimpton, Lindsy Butler-Hardy, and Adriel Perez about monarch catching, data collection and tagging. While volunteers don't usually help with this portion of the research, they taught me how to catch the monarchs, record their data, and tag them before release. Each of the monarchs I collected were found nectaring on Liatris and it seemed that was a common trend of monarchs caught throughout the morning. In the data collection portion, we listed what the butterflies were doing when they were caught, how much they weighed, their sex, their wing size and condition, took a sample to test for OE using tape, and tagged them with a small sticker corresponding to their data entry before releasing the monarchs. In the short period I was with the biologists that morning, we

caught and tagged over a dozen monarchs. The biologists then went on to conduct research at two other points later that day. To date the AIM Ft. Cavazos monarch research team has tagged 610 monarchs in 2023 and over 11,000 total since their participation in the project began in 2015.

Contributing to this research and projects like it are a great way to help provide the larger scientific community and regulatory agencies crucial information about monarch populations and behavior. In 2024 the U.S. Fish and Wildlife service will be deliberating on the protected status of Monarch butterflies. Until then, this flagship species remains a potential candidate for being added to the Endangered Species Act.



Fort Cavazos Projects cont.

Pollinator Garden Cleanup Project. On November 15th Master Naturalists helped the AIM biologists, along with soldiers and other community members, to clean-up the Fort Cavazos Bird, Bee, Butterfly, and Bat Garden. Clean-up activities included re-mulching pathways, trimming plants as needed, and cleaning out the invasive grasses KR Bluestem and Johnson Grass. Kelly Thornborrow worked with AIM biologist Brad Burden as one of the teams addressing the invasive grass along the back portion of the garden.

KR Bluestem and Johnson Grass was abundant along the back portion and side of the garden. In order to kill the existing grass and prevent any additional spread in the area, large rolls of black poly sheeting were utilized to smother any grass from growing. Sheets were rolled out, cut around the native plants, and weighted down to secure the sheet in place. While this process may take a few months, the grass should be killed due to the heat and lack of sunlight under the black tarps.

Do you have KR Bluestem or Johnson Grass in your yard? Check out these management strategies:

KR Bluestem: King Ranch (KR) Bluestem is a grass native to China introduced to Texas in the 1910's. Originally used to help address erosion issues, this grass spreads quickly and may crowd out other native species. Strategies to manage this grass include:

Eradication (i.e. the tarps used at Ft. Cavazos)

Diversity Management (encouraging native plants in the area)

Passive Management (doing nothing)

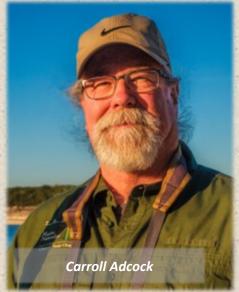
Mowing, Plowing, Disking, Fire, or Grazing affected areas

Reseeding with native grasses

Herbicide Treatments (Glyphosate aka Round-up©)

Johnson Grass: is a grass native to Türkiye introduced to South Carolina and spread throughout the United States in the 1800's. While this grass may also address erosion issues, it is generally considered a weed and may be a risk to livestock due to levels of free cyanide within the plant. Management strategies are similar to those for KR Bluestem. Additionally, if you have livestock, additional strategies such as deferring pasture areas during danger periods after fertilization and drought periods (Clayton et. al., 2017; Department of Rangeland, Wildlife, and Fisheries Management, 2023).

Contributing Authors to this Newsletter



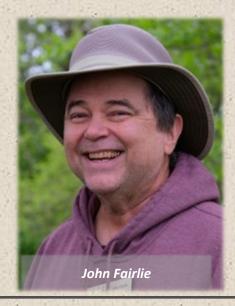


















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If you have photos or a story to share, just send me your idea. Newsletter contributions count for Volunteer Service hours. Just sayin'.

Zoe Rascoe <u>zoe.rascoe@gmail.com</u>



Central Texas Master Naturalist Chapter Meeting

Chapter meetings are held on the 2nd Tuesday of each month at 6 p.m. at the Belton Church of Christ at 3003 N. Main. Location exceptions are December (holiday party!) and occasional outdoor demonstrations. Meetings include a nature-related program and the public is welcome to attend. Find topic information and locations on our <u>website</u> and <u>Facebook</u> page.

The Board of Directors meets the 1st Monday of each month (unless it's a holiday) from 11:30am-12:30pm at the AgriLife Extension Building in Belton. Meeting notices will be sent to chapter members with location information and all members are welcome.