

The Tracker

Central Texas Master Naturalist Newsletter August 2019

Photo by Chris Ray



2019 MOTH NIGHT

Inside This Issue

The President's Pen	4
Graduation Photos	6
Mother Neff State Park	9
Miller Springs NC	11
Park Projects	13
That's Not Here!	17
Out on a Limb	20
Butterfly Count Results	23
State Conference Info	29
On The Horizon	30

Calendar at a Glance

Aug 1—State Conf Registration
Aug 5th—Training Committee
Aug 8th—Miller Springs
Aug 13th—Chapter Meeting
Aug 16th—Chalk Ridge Falls
Aug 29th—Nolan Creek Trail
Sept 3rd—Board Meeting
Sept 10th—Chapter Meeting

- Jessica Dieter

Moth Night 2019 was fantastic, y'all! This is the first Moth Night event that Jenna and I have been in charge, and we were pleasantly surprised by how well everything went. We decided to do a neon/



blacklight theme this year and our guests loved it! We had three young ladies running our

blacklight face paint station and they were kept busy all night with requests. The kids had a fun time at the craft stations making bookmarks and moth puppets. We had volunteers from our CTMN as well as the Heart of Texas Master Naturalists, Mother Neff interns and Texas A&M! We were



amazed at how many

people showed up before the event even started. The guests were greeted by a beautiful Zipper Spider who had made her web in a bush next to the walkway. On the opposite side nestled in the Turk's Cap there were huge grasshoppers! We had so much fun showing off our insect friends to the guests.

2019 Moth Night *cont*

Charles and Christa did a fantastic job running our welcome table, giving directions and information to guests. There were two moth ID stations and we saw moths in addition to some fun bugs that were crawling around.



Charles Sorensen and Christa Venette hand out brochures and activity maps.



Shirley Watts and Joan Stanley host a Moth ID station.

Down the road we had Dickie talking about the constellations, their mythology and pointing out stars with his laser pointer. It was amazing to stand there listening to him talk about the stars, as he is a wealth of information and we are so happy he joined us this year. Next to Dickie was John and John, leading the mammal hunt/night hikes with their night vision, spotting bats and other fun things.



Andi Bowsher, Joan Stanley, Shirley Watts, Mary Ann Everett and Bert Peebles stringing lights to attract moths to report.



Dark skies at the park provided great visibility for star gazing. The Milky Way, not visible in lighted areas, was spectacular. Satellites, a "shooting star", planets and summer constellations could be seen.



Jessica Dieter goes all in with a spider.

2019 Moth Night *cont*

Blacklight hunting for scorpions was so fun! It was my first time doing this and I was amazed at the beautiful color they display under blacklight, so very cool! There was such a feeling of anticipation and a buzz of excitement running through everyone. Nothing is more fun than being outside in the dark surrounded by the sounds and sights of nature! The summer is so hot that I personally avoid the heat as much as I can (because I am made of sugar and WILL melt). It was nice to spend time outside in the coolness enjoying nature. Jenna and I are so thankful for all the volunteers, your help made this year the best Moth Night ever!



A striped bark scorpion, our most common, has snagged a meal.

Jerry Lewis, right, shares a collection of realistic mammal furs for a touch & feel experience. Far right, Wade Matthews and Shirley Watts get their assignments from Jenna Chappell



National Moth Week celebrates the beauty, life cycles, and habitats of moths. “Moth-ers” of all ages and abilities are encouraged to learn about, observe, and document moths in their backyards, parks, and neighborhoods. National Moth Week is held, worldwide, during the last full week of July. It offers everyone, everywhere a unique opportunity to become a Citizen Scientist and contribute scientific data about moths. Master Naturalists take seriously the opportunity to provide information we collect on various topics to scientists so they can better understand the world we live in.

www.NationalMothWeek.org



Bug Buddies!

Editor’s Note: A BIG thank you to Jenna Chappell and Jessica Dieter for organizing our expanded 2019 Moth event. We also are happy to partner again with Mother Neff State Park for a perfect critter location and very helpful staff. Photos by Zoe Rascoe and Jenna Chappell.

CTMN members (and spouses!) who volunteered: Andi Bowsher, Bill Bowsher, Bert Peeples, Kathy Peeples, Elizabeth Moses, Bruce Moses, Charles Sorensen, Christa Vanette, Daisy Classy, Dale Hughling, Dickie Starks, Joy Starks, Jean Solana, Jenna Chappell, Zack Chappell, Jerry Lewis, Jessica Dieter, John Dieter, Joan Stanley, John Atkins, John Ziegler, Nadia Ziegler, Juan Anaya, Tracie Anaya, Lynn Fleming, Mary Ann Everett, Mary Sharp, Mollie Huber, Paula Finley, Shirley Watts, Wade Matthews, Zoe Rascoe. Face painting by Hannah Baratang, Noelle Dieter and Mia Garcia. Apologies if we have missed naming any helpers.

President's Pen

- John Atkins



And there it was, I knew that I had been cursed as soon as he said it, just as sure as if an old gypsy had just spit on the ground and gave me the evil eye. The vile curse uttered by one of our own Chapter members was, "Are you immune to



Ben Clement attacks a ligustrum with our PullerBear stump remover.

poison ivy?" I knew that my 50+ years of roaming the woods poison ivy-free were

numbered from that moment forward. Sure enough, a couple of days later some small blisters developed on the back of my arm. The "Curse of Miller Springs" had claimed yet another victim. It was my fault though, I had foolishly decided not to wear a long sleeve shirt because of the heat and humidity. Unfortunately, we found ourselves in a large patch of Ligustrum that seemed to be growing in some unholy symbiotic relationship with an even larger patch of poison ivy. Poison ivy or not, it didn't slow down the team as they ripped that grove out of the ground with our new PullerBears. For Ben though, it seemed to become personal as he challenged a 3-inch diameter tree in a duel to the death. We were all sure Ben was going to have an aneurism as he strained to rip it free from the ground, but he was eventually

triumphant!

Harker Heights Parks and Rec Fest was a big success. If it wouldn't have been for John and Nadia Ziegler showing up to help, Tina and I would have been swamped by the turnout. It was a hot night, but we had a great spot in a grove of trees next to the pond for our table. We passed out goodie bags full of coloring books, stickers, and rubber lures to the kids, courtesy of Andreas and Angler Ed. Tina and Nadia worked the backyard bass station, while John Z. and I threaded worms on hooks. We were covered in so much worm dirt that we looked like chimney sweeps by 8:30 pm. We saw at least 82 people that night, almost every kid caught a bluegill, and only one child snagged his ear with a fishhook. Not bad, but I won't do it again unless we have at least six people to assist.



John Atkins sorts his rods.

Hard to believe that the last time we published this we were getting ready for graduation. So much has happened since then: installing interpretive signs at Mother Neff SP, cutting brush from the spillway at Live Oak Ridge, Andreas getting a new pump installed at the pond,

President's Pen cont.



cleaning up Chalk Ridge Falls, and the illegal dumping clean-up at Union Grove WMA. By the way, it was noted that most of the beer cans and bottles we recover seem to be Bud, Tecate, and Busch. For some reason there doesn't seem to be a lot of Heineken, Guinness, or even a good IPA. Go figure. I'd also like to remind everyone that the parking lots around the lakes are high crime areas. Criminals have no problem bashing in your window to get to high value items that may have been left inside while you swim, hike or boat.

If we had an award for hardest working members, this summer it would have to go to Richard McCarthy and Marilyn Whitworth. Those two were out there at almost every nasty job we did, no matter how hot, humid, and dirty it got. Quite an inspiration!

I'll wrap up this month's article with Moth Night. I understand we had around 160 visitors that night at Mother Neff SP. Jenna and Jessica did an amazing job putting Moth Night together this year! I was running the night hike station, and I can't remember the last time I had so much mothering! Those two ladies made sure every block was checked (I think John Z. and I lost our gold star and smiley face stickers when we texted them to see if they had anything for snakebites). At my station, once again it was the Team Ziegler to the rescue. They brought up drag on every hike, ensuring none of our guests wandered off into the woods. Some of our young hikers were pretty rowdy, but once we got them on the trail and conducted a couple of minutes of SLLS's (stop, look, listen, and smell) they tended to quite right down. I think that was because they thought I might leave them in a shallow unmarked grave in the woods if they didn't stay quiet and leave their flashlights off. Unfortunately, looking for mammals was a bust, largely because there was no way to control people from going down the trails on their own with flashlights blazing and yelling like they were on a Halloween hayride. Oh well, it is a state park, and that is their prerogative. Anyway, we were still able to give everyone who went with us a chance to quietly walk the trail in complete darkness and the opportunity to use a night vision scope. It was all made worthwhile every time I heard someone gasp when they looked at the stars for the first time through the night vision.



Lynn Fleming and Mollie Huber have some fun with duct tape and twinkle lights setting up for Moth Night.

See you at the next meeting!

Congratulations Graduates!



Andi Bowsher (and
for Sven Bowsher)



Bert Peeples



Wade & Jenna:
beetle buddies



Dickie Starks



Ed Bounds



Liz Bounds

Congratulations Graduates!

John Ziegler



Paula Finley



Jenna Chappell



Jessica Dieter



Congratulations Graduates!

Jean Solana



Elizabeth Moses



Gil Eckrich on "Naturally!"

Gail Wilson



CONGRATULATIONS!

**2019
Super
Volunteer**
JESSICA DIETER





Mother Neff State Park

1680 TX Hwy-236, Moody

- **Bill Abright**

Bill can be reached at b_abright@yahoo.com

Plant Identification Signs Installed

Since our chapter's inception, we have been pleased to assist the staff at Mother Neff State Park with all sorts of projects. That's what Texas Master Naturalists are made for—more



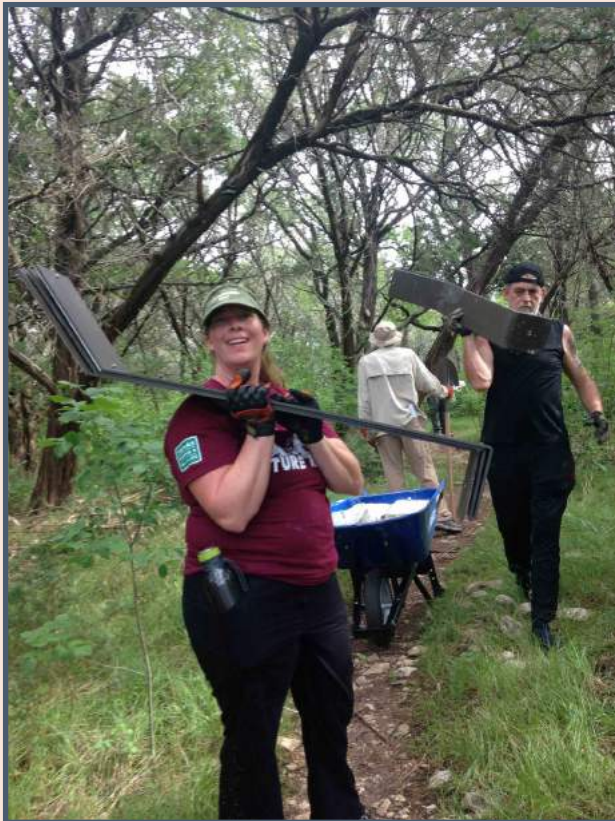
(above) John Atkins and Bill Abright toting concrete blocks to hold the metal signs.

boots on the ground for nature! In June, MNSP Ranger James asked for our help in installing plant identification signs along the Tower Trail. The signs are modern looking and sturdy, but also blend with nature's colors. We had a crew of volunteers arrive on June 22nd to do some heavy lifting. James had flagged the plants to be marked, we just had to haul concrete blocks and rocks and big metal signs along the trail! Now visitors won't have to wonder what some plant might be—there may be a sign right there to tell them all about it. Thanks to Tina and John Atkins, Paula Finley, and Troy for showing up to the bootcamp-style workout.



(right) Paula Finley moves down the trail to the next sign location.

Mother Neff State Park *Cont.*



(left) Paula Finely and Troy are toting stacks of new signs.



(above) It's a finely crafted house of natural materials. What do you think lives here?

(below left) Tina Atkins, armed with a pick ax and shovel longer than she is tall, is happy with the sign.



(below) Bill Abright is swinging a pick ax to dig a hole like Thor wields his hammer. Bet Bill was "thor" the next day, too! <=)



Invasive Species Control

- John Burns



We have had two regularly scheduled workdays - June 13th and July 11th. We had 5 volunteers on June 13 and we focused on removing Chinese privet as well as a few other invasive plants on the main trail leaving the parking area. We were small in numbers but we made a noticeable difference. Then on July 11th, we had 11 volunteers and decided to work the area behind the storage containers. It was a very good effort and many invasive plants were removed. We also had a couple of new folks who are excited about being part of our group and taking classes next Spring to become Master Naturalists. They are a husband and wife team. Stephen and Sharon Schmitz. The group again accomplished a lot and took out an enormous number of invasive plants.



John Atkins gives a go on the PullerBear.



These guys are HOT! John Burns, Bert Peeples, Ben Clement, Bill Abright and John Atkins worked hard out in the hot summer sun.



Marilyn Whitworth takes a break in the heat.

Next Workday will be Thursday, August 8th at 8:00am. Weather permitting of course!

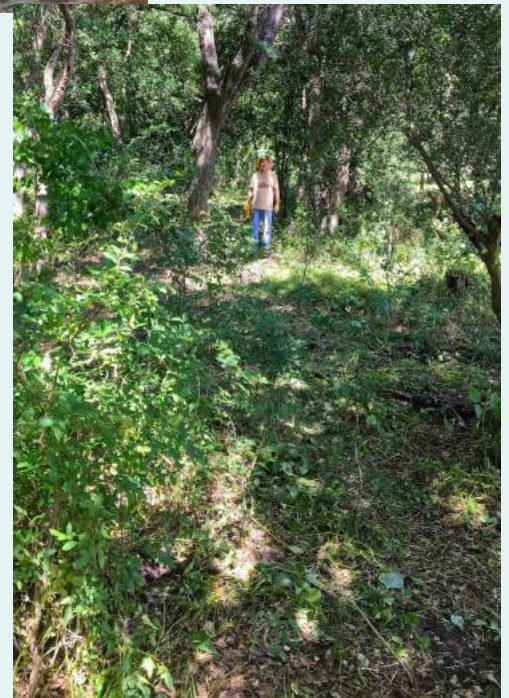
Miller Springs Nature Center *cont.*

On Saturday June 2nd the class of 2019 installed 2 new benches which Jeanna Chappell's husband Zack made for the group. I have to admit I didn't keep track of everyone who helped that day. The class had their families in tow. Eddie and Gail brought a Kawasaki Mule which helped us get the benches, concrete, and equipment as close as possible to the installation sites. Then the work began carrying everything to the bottom of and **up** the Green Pond trail for the final installation locations. It was a hot day and a lot of hard work but in the end it was a successful day. Great job class of 2019!



(left) Jenna Chappell, Jessica Dieter, Gail Wilson, Eddie Wilson and Zack Chappell installed (it has some underground parts!) a bench as one of the CTMN 2019 Class projects.

(below) John Burns puts the path cleared in perspective— this space was completely blocked with invasive plants before the team dove in.



Sue and Ward Critz (left) are in a forest of invasive plants. I bet Ward is calling for backup!

Army Corps of Engineers

Union Grove WMA



Live Oak Ridge Park



With the help of CTMN member Andreas Wooten, our chapter has officially partnered with Army Corps of Engineers to assist with projects by providing more “boots on the ground”. Recently, more boots and gloves and loppers and chainsaws. We have standing workdays and go where needed most. You can see they are WORKdays. Thanks to John and Tina Atkins, Richard McCarthy, Marilyn Whitworth, Ben Clements, Gail and Ed Wilson, Melissa Jue and Clive. Possibly other people, too. Apologies if you are missed from the list.

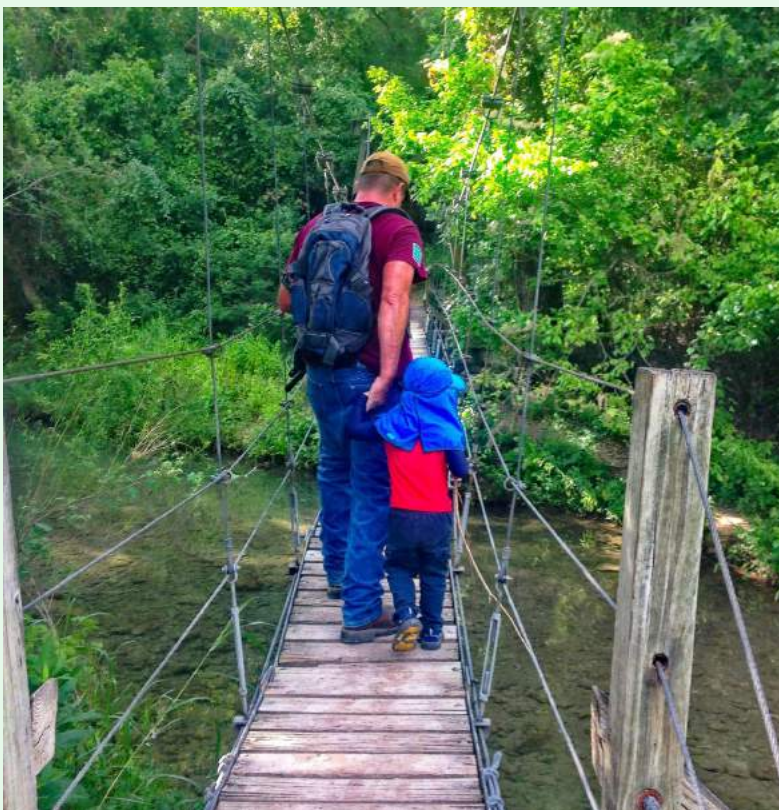
Photos mostly by Tina Atkins

Army Corps of Engineers

CHALK RIDGE FALLS



(above left) Richard McCarthy gets clean-up tips from Clive. (above) Tina Atkins and Melissa Jue. (left) John Atkins is a good guide choice for a narrow bridge.



Photos by Tina and John Atkins

Bandelier National Monument



New Mexico

- Marilyn Whitworth

Editor's Note: Bandelier National Monument protects over 33,000 acres of rugged but beautiful canyon and mesa country as well as evidence of a human presence here going back over 11,000 years. Petroglyphs, dwellings carved into the soft rock cliffs, and standing masonry walls pay tribute to the early days of a culture that still survives in the surrounding communities.

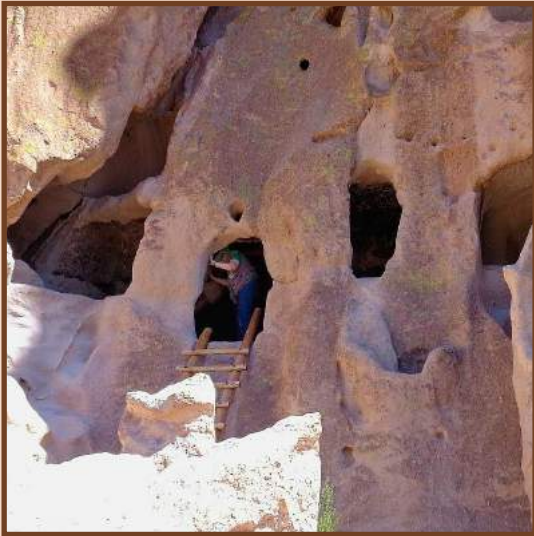
My brother and I visited Bandelier National Monument in New Mexico in May 2018. It is managed by the National Park Service to preserve an important link in the history of the Pueblo people. You can buy a booklet at the Park headquarters which gives you a self-guided tour of the Frijoles Canyon within the Bandelier National Monument. There are 21 numbered stops along the trail that begins at the back of the Park headquarters. There are three trails in the Frijoles Canyon area which are over 6000 feet elevation, so any activity takes more energy.



The people who settled in this area were known as Ancestral Pueblo people. At one time they were identified as the Anasazi which is an outdated Navajo term roughly translated as "ancient enemies" thus it is no longer used. I suppose the term is no longer used for the people who settled in the Four Corners area of the United States. Frijoles Canyon is part of the Pajarito Plateau formed by two violent eruptions of the Jemez Volcano which make up the canyon and mesa country of Bandelier National Monument. Frijoles Creek is a permanent stream that runs through the area. The first dwellings were known as pit houses and were built partially underground. Around 600-1175 Common Era (CE) the pit houses were replaced by above ground structures. The pink rock is volcanic ash compacted into soft, crumbly rock called Tuff. Tuff is easily eroded by wind and rain and thus over time the eroded rock looks like "Swiss cheese". The Ancestral Pueblo used tools to enlarge some of the small natural openings in the cliff face. The soft rock made great building material. Stone dwellings were built in front of these enlarged openings.

Bandelier *cont*

Ponderosa pines were the ceiling beams for their homes. Yucca fibers were used for sandals, baskets and ropes. Small fields were planted with corn, beans and squash. The Ancestral Pueblo people made grid gardens for controlling water flow. Grid gardens are made by forming small depressions surrounded by a low line of stones. Seeds are planted within the cavities.



Marilyn climbed to room entrance

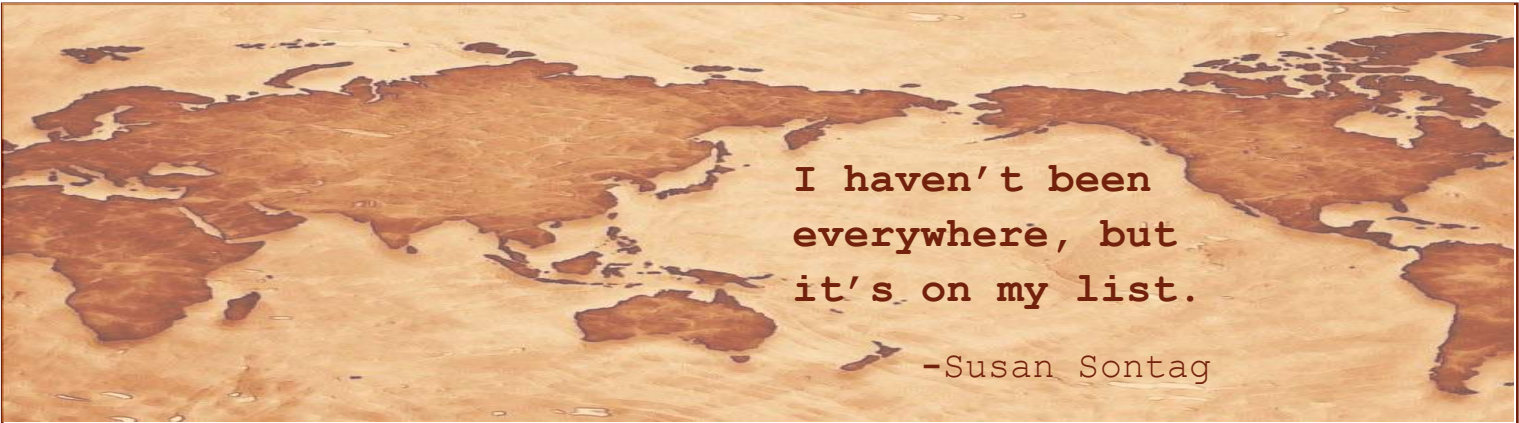
The Ancestral Pueblo people who lived in what is now Bandelier National Monument had cultural links with the people of Mesa Verde and Chaco Canyon. The village of Tyuonyi in Bandelier National Monument had homes one to two stories high and contained about 400 rooms and 100 people. A central plaza contained three kivas. Access to the village was through a single ground-level opening. Stone walls surrounded the plaza area of Tyuonyi. They were smooth, plastered with mud. The ends of rough-hewn logs were used to support the ceilings between the first and second stories. Ladders leaned against structures provided access to roof-top doorways. Small canopies protruded randomly providing shelter.

The ground floor rooms of the village were used for food storage. Some rooms were used to shelter turkeys. Turkey feathers were used for a variety of items such as blankets, socks, and other warm clothing. Cave rooms classified as caveats were dug out of the cliff wall. Most caveats had stone rooms built in front of them. The lower walls were usually plastered and painted while the ceilings were smoke-blackened which hardened the volcanic tuff and made it less crumbly.

It was a wonderful visit and I highly recommend a trip to the Bandelier National Monument to anyone interested in archaeological/cultural sites.



First two photos provided by Marilyn Whitworth. Photo above: National Park Service



I haven't been
everywhere, but
it's on my list.

-Susan Sontag

Antarctica: Bottom of the World

- Zoe Rascoe

*Editor's Note: As people who care deeply about nature — the land on which we live, the plants and animals that help feed, clothe and entertain us, the air we breathe and water we drink, the planets and stars above — we often want to explore this planet beyond our home. A new topic will be appearing regularly in this newsletter that shares our member's experiences in nature in places we'll call "That's Not Here!" The first location is clearly **not** here.*

Ants are small, but in my case the "ant" made a HUGE difference. The Arctic and the "Ant"arctic are much different than you may realize. The northernmost polar region is not a land mass although there is an ice pack that comes and goes with the seasons and the southern polar region is 5.5 million square miles of rock covered in miles of ice. That's about the size of the US and Mexico combined. I'm just saying it's BIG.

This year my husband, Terry and I both turned 60 (yow!) and have our 40th anniversary. We love nature adventures and have been to the Galapagos Islands and to Iceland so Antarctica seemed to be a natural location for this celebratory year. Our launch point was Ushuaia, Argentina aboard a small Norwegian icebreaker. It was an expedition—we helped with research, attended many lectures led by nine expedition leaders from around the world whose professional backgrounds included marine mammalogy, ornithology, archaeology, microbiology, polar history and photography. We were immersed in learning! I had brought along a back pocket-sized notepad and new pencil.



Even though we've climbed Kilimanjaro (another amazing adventure), Antarctica will probably be the most memorable trip of our lives. The first lecture noted the estimated number of humans who have lived on this earth (it was a giant number!) compared to the tiny number of humans who have stepped on the continent of Antarctica. It quickly brought this incredible experience into perspective. The story of our amazing adventure is too long for this space. The Antarctic Ocean, the islands and continent, its jet black jagged mountains, white snow and turquoise glaciers, the clear but dark, dark blue water and abundant wildlife will be told in photos here.

Antarctica was serene, incredibly quiet, ruggedly beautiful and unlike any other place on earth. It's the highest (8200' avg), coldest (-58° avg), driest (6.5"/yr) and windiest (up to 180mph) continent in the world. It took my breath away again each day. I have pictures in my mind I will always remember.

Gorgeous photos by Terry Rascoe, rest are mine. =)

Antarctica: Bottom of the World *cont.*

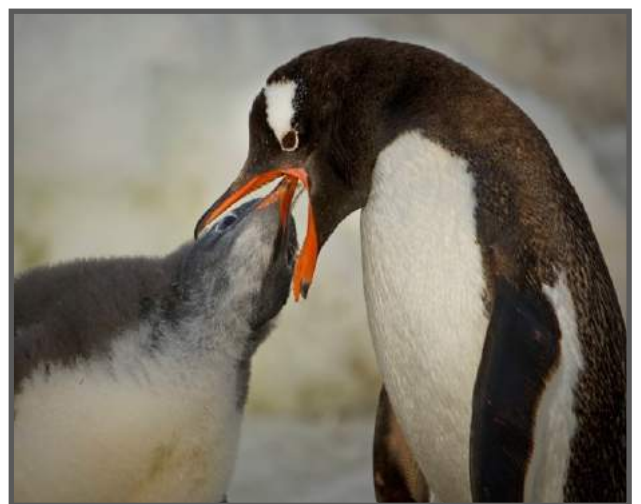


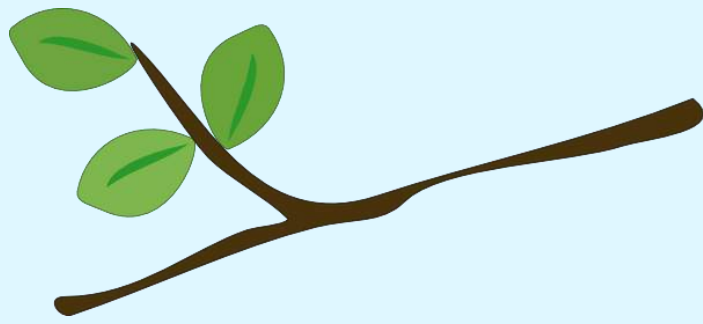
Note size of our ship compared to the coastline. Favorite trek was to a high overlook near Brown Research Station. Glaciers and icebergs are really turquoise. Nightly camera battery charging critical!

Antarctica: Bottom of the World *cont.*



We traveled from the ship in rubber PolarKircle boats making the massive landscape seem even bigger. We saw fur seals (shown), leopard seals (skipping photo of one catching a penguin mid-air), Crabeater seals—no crabs to eat; they got their name from *Kreb*, German for crustacean, and the ones available are krill. There were Gentoo and Chinstrap penguins (EVERYwhere!) although the little Adelie penguins had already moved toward winter swimming areas. Birds—there are so many birds (45 species). Like a lot of birds, penguin parents go find food then come home and vomit in their chicks mouths. Glad humans invented a fork. 60 mammal species call the ocean home. There are no terrestrial mammals. There's not much in the way of plant life compared to other places on earth, but there is lichen – 350 species, and 100 species of moss and hundreds of colorful algae.





Out on a Limb

- Mary Ann Everett

Tree Description: A multi-trunked understory tree 8-12' tall.

Blooms: Showy clusters vary from white to pale pink, conspicuous and very fragrant. Blooms March—May and may bloom again after a heavy summer or fall rain.

Fruit: Flattened pods.

Location: Available in nurseries, but naturally found only in the mountains west of Uvalde in rocky limestone canyons and arroyos. Common in Mexico. Needs well-drained sand, loam or limestone.

Leaves: Small, delicate light green and deeply cleft. Pairs of two oval leaflets.

Bark: Silvery gray.

Heat & Drought Tolerance: Yes!

Interesting Fact: Flower nectar attracts butterflies and bees. The genus was named after Swiss herbalists, John and Caspar Bauhin (1560-1624). It is a member of the Fabaceae (Pea) family.

[Click here for name of tree](#)



My Sub-Urban Backyard



*Swallowtail Butterfly on
Pride of Barbados—Wade
Matthews*



*Queen butterflies on
Gregg's Mist Flowers—
Juan Anaya*



*Batface Cuphea (Cuphea
Llavea)— Juan Anaya*

(yikes!)



MEMBER ACCOMPLISHMENTS



Marilyn Whitworth (2010) recertifies for this year.



Jean Solana (2019) receives her dragonfly pin for initial certification—months ahead of schedule!



Daisy Classy (2018) recertifies for this year.



Lynn Fleming (2004) recertifies for this year.



(left) Lou Ann Hight, Bill Abright, John Burns, and Sue Valdez recertify for 2019. Now if we can just get those Golden Cheeked Warbler pins shipped to us!

NATIONAL BUTTERFLY COUNT

- Mary Ann Everett

This was our 15th year to do the North American Butterfly Association count, centered at Stillhouse Hollow. Our count occurred on Saturday, June 8, and a group of interested CTMN members and family met at 8:30 a.m. to get their instructions, and were told to go forth and conquer! We had 5 parties, made up of one to 4 persons in each party, traveling in Bell County. Areas covered were Salado along Main Street, the library, Salado creek, and finally Pace Park, which for us proved to be the best area to pick up species. Other groups covered their yards, surrounding area and a park west of Lake Belton on 439. Another group covered Yettie Polk Park, Harris Community Center, then the Bell County Museum, UMHB, and the AgriLife Building. One last group traveled to Union Grove and River Bend Park spending 3 hours there. After returning home, one member who lives on Tollbridge Rd within the 15 mile circle for our count, continued to count and picked up additional species.

This year we counted 35 species with 328 individual butterflies. So how does this compare with past years? Let me recount the years since I have been the compiler:

2013: 40 Adult species, 462 individuals 2016: 30 Adult species, 167 individuals

2014: 34 Adult species, 300 individuals 2017: 5 Adult species, 40 individuals

2015: 32 Adult species, 294 individuals 2018: 13 Adult species, 44 individuals

Hmmm, so what are we seeing when we a-butterflying we go?

In 2017, the day of our count saw impending rain, and that impeded our ability to do a lot of walking. Also in 2017 and 2018, there were not as many flowering butterfly plants (nectar plants), due to loss of habitat from construction and drought.

Again this year, in Salado, our observation was loss of habitat, with few nectar plants, especially along Main Street, which is where we used to rely on several different species. The library did have some, but along the creek at Pace Park ended our excursion with the best sighting of species.

When you are out, do you notice how there are not many yards even with nectar plants, so some years it can be quite dismal. If you do not have any butterfly plants in your yards, I challenge you to get a little area in sunlight and put some of those native plants in your yards. You will not be sorry, and the butterflies will love you for it!

Happy gardening for the butterflies! *Cont...*



*Hackberry Emperor and Question Mark Butterflies.
Can you see the small punctuation symbol?*

NATIONAL BUTTERFLY COUNT



Tawny Emperor Butterfly—Photo by Mary Ann Everett

Mexican Yellow Butterfly—Photo by Kathy Cantu



Bordered Patch Butterfly—Photo by Kathy Cantu



Reakirt's Blue Butterfly—Photo by Kathy Cantu

Parks & Rec Fest

A FUN DAY IN THE PARK



THUR, JULY 11
6P - 10:30P

VENDORS - MUSIC - INFLATABLES
FISHING - GAMES
OUTDOOR MOVIE AT SUNSET



John and Tina Atkins and John and Nadia Ziegler took Angler Ed gear and techniques to Harker Heights for fishing fun. Some of the kiddos thought the worms were, well, icky. That's an advantage of the plastic backyard bass casting activity—no icky. 82 kids and adults stopped by for goodies and fish fun.

Catch A Falling Star

- Zoe Rascoe

Editor's Note: This is a reprint of a story from 2016. Weather and moon phases can affect the ability to see the meteors, but that's been true, well, for a very long time.

Do you remember your first falling star and the wonder and excitement of such an ethereal event? I suspect there was that same sense of wonder and excitement with every falling star you have seen since. And although these chance encounters seem magical, there is a great deal of science behind their birth and demise.

These “falling” or “shooting stars” are not stars at all but tiny bits of debris, mostly the size of sand or small pebbles, burning up as they enter Earth’s atmosphere. The debris is caused when a stream of charged particles zooming out from the Sun burns material off a passing comet. The small pieces of debris are called *meteoroids* and if they enter our atmosphere, are then dubbed *meteors*. As the piece of space dust hits our atmosphere at 132,000 miles per hour, the air temperature around it rockets to 4500° F, then cools just as quickly. This momentary burst of superheated air produces light and the long, thin trail of a meteor which will be a few feet across and 20 miles or more long. If a remnant of a meteor survives to impact the Earth, it is called a *meteorite*.



You can catch a falling star - or meteor - most any night at a rate of about 6 per hour. But at certain times of the year the Earth crosses trails of dirt and dust left by passing comets and during these periods we will have a *meteor shower* with up to 60 streaks or more each hour.

And one of the strongest and most dependable meteor showers is just on the horizon. The night of August 11th and early hours of August 12th will present a chance to see (clouds and moonlight, notwithstanding) the annual *Perseid Meteor Shower*. The source of the Perseid shower is the Swift-Tuttle comet which orbits the Sun in a 130 year cycle. It is the largest object known to make repeated passes near the Earth. It is also one of the oldest recorded periodic comets with sightings spanning 2000 years.

Persied Meteor Shower *Cont.*

The Swift-Tuttle summer displays have also enchanted sky-watchers for many centuries. “More than 100 meteors flew thither in the morning” was recorded by a scribe in A.D. 36.

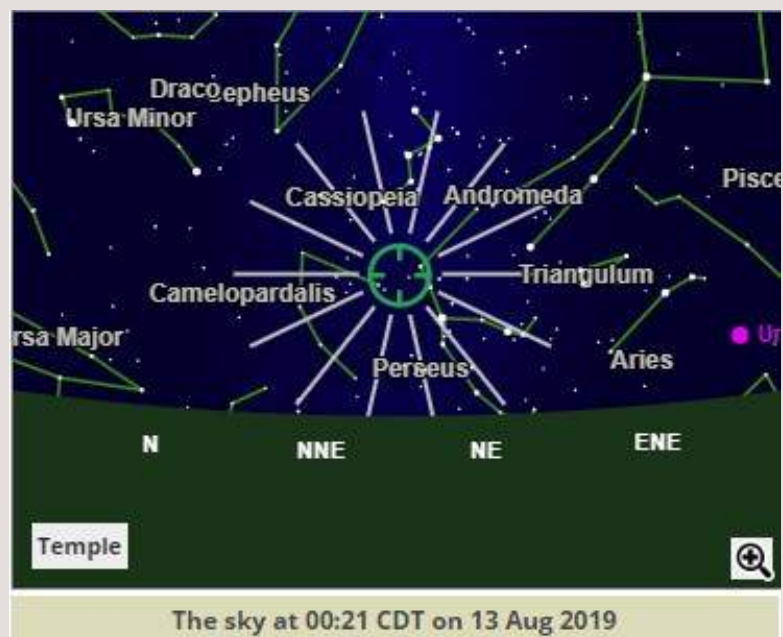
If you would like to see meteors flying thither too, here’s what you need to do. First, prepare yourself for a late night viewing. The best time for viewing all meteors is a few hours after midnight, once the earth has rotated to where it is facing forward in its orbit around the Sun. This is where a meteor hits the atmosphere with more speed causing a brighter flash than if it comes from behind and has to catch up with the Earth.

The only equipment needed is a backyard lounge chair or blanket, bug repellent (here in Texas), and a cool drink. Your location will also determine how many meteors you are able to spot: you’ll need a clear view of the northeastern sky and as much darkness as you can round up. If you can’t get outside the city lights, turn off all your outside lights and ask your neighbors to do the same. Once outside, point the foot of your lounge chair toward the northeast, lay back and enjoy the show. The Perseid meteor shower is named such because the meteors appear to radiate out of the Perseus constellation located below the “W” of constellation Cassiopeia.

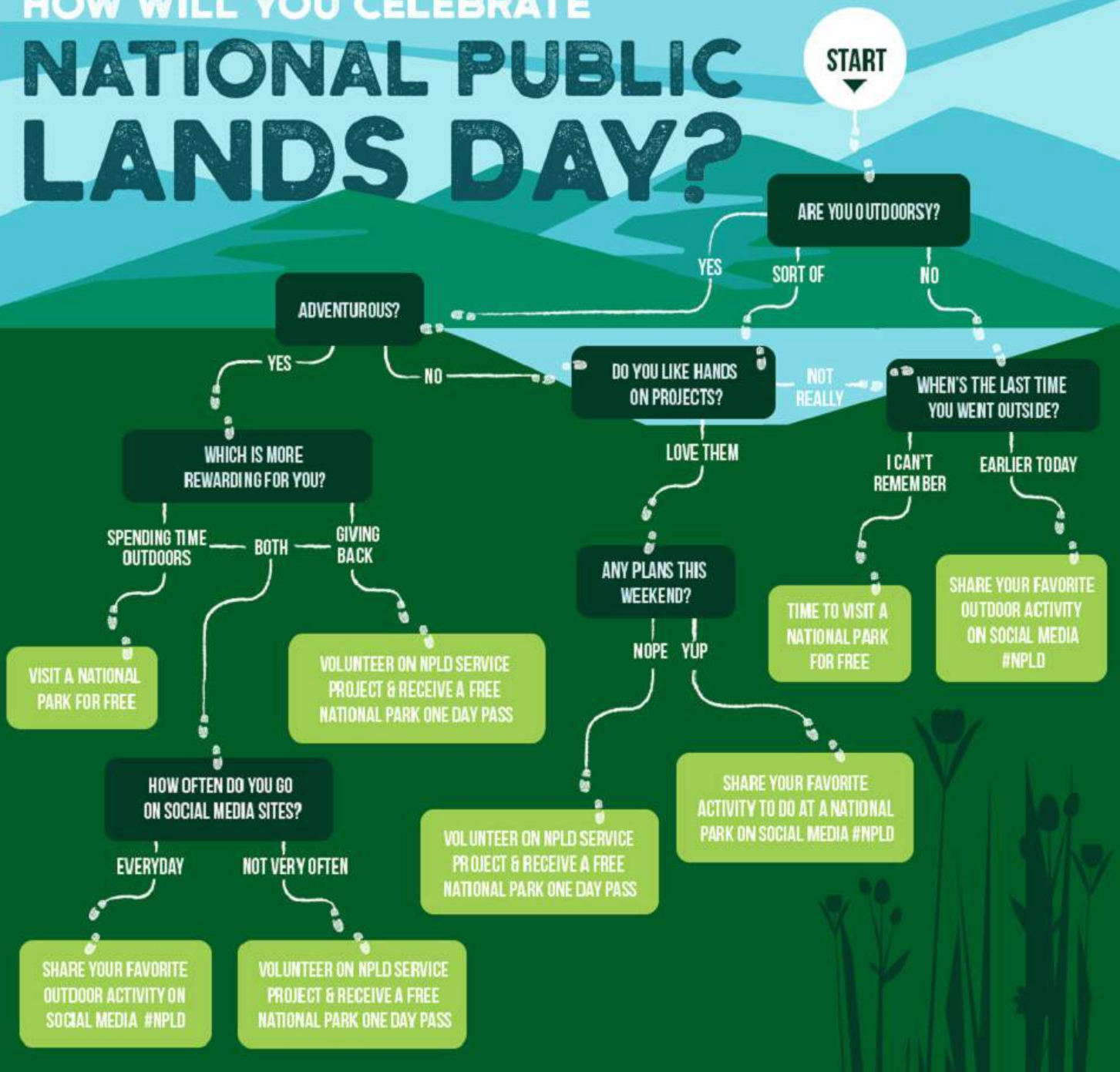
Don’t want to get up at / stay up to 1:00am? Or maybe you have to operate machinery at work that morning? Try the same routine around 10:00pm on August 12th. There will be fewer meteors, but they may be quite bright. Either way, you will likely decide that you and your family should spend more evenings enjoying the wonders of the night sky.

Carpe Noctem... Seize the Night!

Here are some [instructions for Central Texas](#) in 2019 when the moonlight will interfere with good visibility.



HOW WILL YOU CELEBRATE NATIONAL PUBLIC LANDS DAY?



Celebrating National Public Lands Day

Saturday, September 28th 12—2 pm

CTMN Chapter Family Picnic

Overlook Pavilion at Belton Lakeview Park

Good to know...

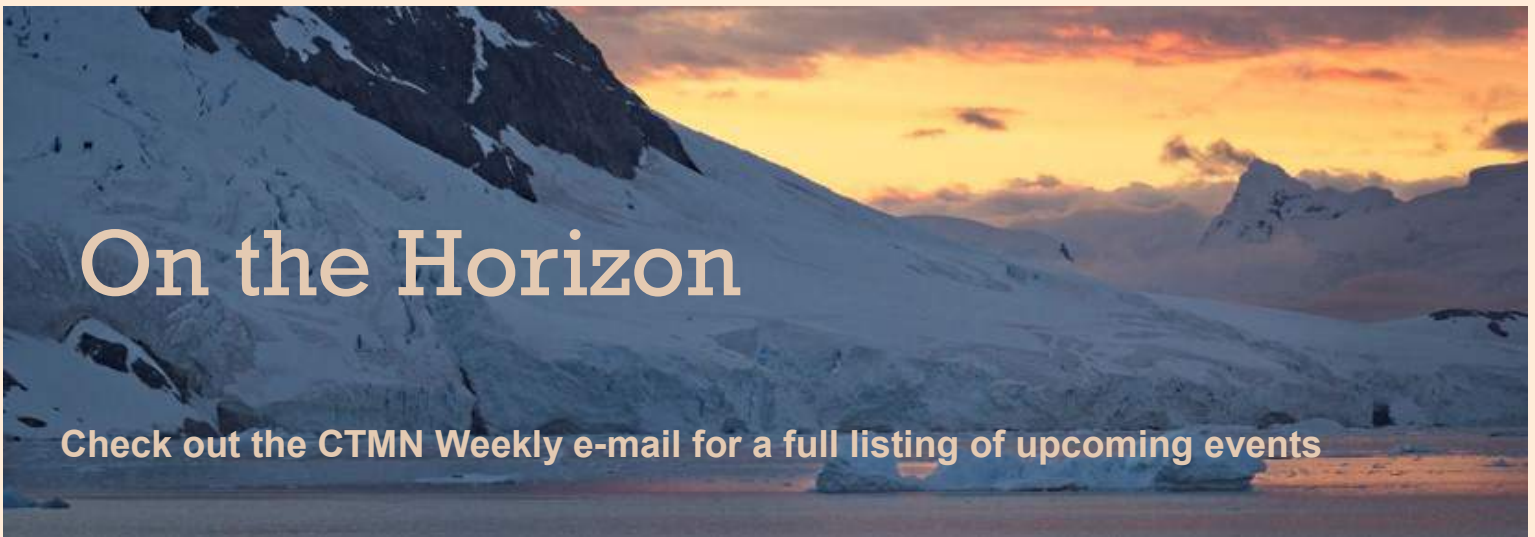
Registration opens August 1st. 166 concurrent technical sessions and 28 off-site field trips. Space is limited and with thousands of Master Naturalists, seats fill fast. You're going to want to go!

Texas Master Naturalist



20th Annual Meeting

<https://txmn.org/2019-annual-meeting/>



On the Horizon

Check out the CTMN Weekly e-mail for a full listing of upcoming events

Photo by Terry Rascoe—Antarctica

August 2019

Note: These items can be found on our website calendar for more details

Mon 5th: First Monday Gardening at Salado Museum. 8-10:00am

Mon 5th: CTMN Training Committee Meeting. AgriLife Extension Office. 11:30am-12:30pm

Thurs 8th: Miller Springs Workday. 8:00am

Tues 13th: CTMN Chapter Meeting. Belton Church of Christ. 6-8pm. “Macro Invertebrates”

Fri 16th: Chalk Ridge Falls Work Day. 8:00-11:00am.

Thurs 22nd: Bell County Museum Workday. 8:00-10:00am.

Thurs 29th: Nolan Creek Trail Cleanup. 8:00-9:00am. Bring gloves and trash bags.

Fri 30th: Pond Project. USACE, Belton Dam Office. 8:30am-11:00am.

September 2019

Tues 3rd: CTMN Board of Director's Meeting. AgriLife Extension Office. 11:30am-12:30pm.

Tue 10th: CTMN Chapter Meeting. Belton Church of Christ. 6pm-8pm.

Thurs 12th: Miller Springs Workday. 8:00am.

Fri 20th: Union Grove WMA Workday. 8:00-10:00am. Meet in parking lot.

Thurs 26th: Bell County Museum Workday. 8:00-10:00am.

Fri 27: Pond Project. USACE, Belton Dam Office. 8:30-11:00am.

Newsletter Mission Statement

“Our mission is to inform and educate Master Naturalist members and the general public about our local environment and resources, and what we, as caretakers, can do to protect them.”

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Contributed Images: John Atkins, Tina Atkins, John Burns, Jenna Chappell, Jessica Dieter, Terry Rascoe, Zoe Rascoe. Please note a lot of pictures are of sweaty people in big hats—sincere apologies for those missed or misidentified!

We now have options for recurring feature articles on member visits to National Parks and Texas State Parks, “Fish Tales” (of any kind!), backyard nature, travel to places unlike Texas and more. If you have a story to share, just send me your idea.

Zoe Rascoe trascoe@hot.rr.com



Fiddlehead Fern—this part is edible!

The Central Texas Master Naturalist Chapter

Chapter meetings are held the 2nd Tuesday of each month at 6 p.m. at the Belton Church of Christ at 3003 N. Main. Location exceptions are in December (Holiday party!) and June (trainee graduation!) Meetings include a nature-related program and the public is welcome to attend. Find topic information on our website and Facebook page.

The Board of Directors meets the 1st Monday of each month from 11:30am-12:30pm in the Board Room at the AgriLife Extension Center at 1605 North Main in Belton. All members are welcome at attend.