

THE TRACKER

Central Texas Master Naturalist Newsletter December 2019

Photo by Sol Vada Landscaping



Texas Freedom Flight Cruise

- Jessica Dieter

It was a crisp fall morning as we piled into John's truck to head out to Burnet to join fellow Master Naturalists on the Freedom Flight cruise. I had never been on the Colorado River before and was super excited to go on this adventure. Plus, we were going to see wild birds released and what is better than that!? We headed down to the dock to check in with this sweet little old man who handed us our ticket and bagged lunch. Our boat, called the Texas Eagle, was a double decker so we headed to the top deck to get the best views. As we waited to head out on the river, we fortified ourselves with warm homemade Glühwein, courtesy of Tina, and chatted about our holiday plans. It wasn't long before we heard the sounds of the birds as they loaded the cages on board and then, we were off! As we began moving smoothly down the

river, the seagulls became curious. One by one they began flying behind us until we had about eight following us. I was amazed to see all the dead Willow tree trunks poking up from the water in little groves.



Jenna Chappell had the winning ticket to release a rehabilitated Cooper's Hawk.

Cont.

Inside This Issue

The President's Pen	3
Mother Neff State Park	5
Miller Springs Nature Cntr	7
That's Not Here!	13
Out on a Limb	16
Fish Tales	17
Chapter News	19
TXMN State Conference	21
On The Horizon	26

Calendar at a Glance

- Dec 2nd— Training Committee
- Dec 10th—Holiday Party!**
- Dec 12th—Miller Springs NC
- Dec 14th—Bird Count Event
- Dec 18th—Cedar Gap Park
- Jan 1st—First Hike, MNSP**
- Jan 6th—CTMN Board Mtg
- Jan 14th—Chapter Meeting
- Jan 24th—USACE Pond Project

Texas Freedom Flight *cont.*



Tina Atkins, Jenna Chappell & Jessica Dieter were accompanied by John Atkins and Bill & Stephanie Abright.

I found out that when we had the big drought back in 2011, the river had dried up in places and Willow trees grew in the waterlogged soil. Once the rains came and the river started filling again, the trees died off leaving their bare stumps for birds to perch on. As we sat down to enjoy our lunch, a lady handed out numbers to everyone on board. They draw a number before releasing a bird and whomever has the matching number gets to release the bird.... So exciting! The first bird released was a Red Shouldered Hawk. As they brought him out, I notice his tail feathers had a cardboard shield encasing them. This was to protect his feathers because they are easily damaged and he needs them for flight. The shield was removed, the bird released, and he flew up and up and... landed in the top of the Captain's cabin, lol. He decided to hang

our there for about 15 minutes before taking off into the wild.

Next, they brought out educational birds: a Harris Hawk and a Caracara. These birds have been so injured they cannot be released into the wild because they would be easy prey. A new number was pulled and wonder of wonders, it was my bestie and fellow Master Naturalist Jenna! She was thrilled to be able to release a Cooper's Hawk and this time the bird flew up and landed in a tree by the shore.

We continued down the river and I was delighted to see the coastline change from trees to rock formation and then a beautiful waterfall! This is one of the things I love about Texas, you never know what you're going to see because our landscapes can change so quickly! The last bird to be released was a beautiful Barred Owl. This bird was my favorite, I love their big eyes and their little chicken legs all hidden under their feathers.... So cute!



Barred Owl awaits release



Screech Owl

Later, they took out another educational bird, a tiny little Screech Owl. Oh, my goodness, this little fellow was adorable. It was almost too much for my heart to bear! As we pulled into the dock, I notice a Blue Heron sunning itself on a rock. It was so still that it almost looked fake. We began loading up and heading downstairs to disembark and guess what?! They had one last surprise for us, a beautiful Bald Eagle awaited us on the dock, and we could take pictures with him. What a perfect ending to a lovely day. If you've never been on a Vanishing Texas cruise, I highly recommend it!

Photos by Jessica Dieter

President's Pen

- John Atkins



Howdy Folks! With Thanksgiving coming up soon, I thought I'd write my article a couple of weeks early this month. Mother Nature has really thrown us a curve ball this year by skipping fall and going straight to winter with a little ice storm last week. Now in typical Texas knee-jerk fashion we are back in the 70's, but I'm not complaining.

I had a great weekend to go along with the improved weather. Iowa State University beat University of Texas for my birthday and I celebrated with some nice steaks and lobster tails on the grill. On Sunday, Tina and I traveled to Lake Buchanan for a Freedom Flight Cruise with Vanishing Texas Cruises. On these cruises Last Chance Forever Bird of Prey Conservancy releases rehabilitated birds of prey back into the wild. We were joined by Jenna Chappell, Jessica Dieter, and Bill and Stephanie Abright. Driving there with Jessica, Jenna, and Tina in my truck reminded me of riding with a load of chickens, but eventually my hearing returned to normal. It was a beautiful day, and everyone had a great time releasing the raptors and visiting with the teaching birds. No further raptor releases are currently scheduled, but there are several birding and eagle cruises scheduled this winter. Check out Vanishing Texas River Cruise.

The Big Elm Creek Watershed Texas Riparian and Stream Ecosystem Training was a great event. The instructors were all outstanding and the Oscar Store put on a great feed. I was happy to see our Chapter well-represented by the Sorensons, Jean Solana, and Doug and Carol Rowald. The Rowald's may not currently be active, but they are a great example of how our training continues to pay dividends. We wrapped up the day with outdoor classes, and I'm not going to lie, the suck factor was pretty high with 39 degrees, wind and rain. Still, I didn't hear any complaints even though people were visibly shivering. Good stuff! This patch of bad weather also cancelled several other events such as the Miller Springs workday. Don't worry, I'm sure there will be more invasives waiting for us next month.



The big events during this period were the Annual State Meeting and Fall Fest at Mother Neff State Park. Fall Fest at Mother Neff was a big success. Gate count at the park was 400 people and we saw around 200 folks in our area and assisted with the guided tours. We sat up the insect and herp discovery boxes this time to change it up from our usual mammal display. We also had a lot of activities for the kids which allowed us to have some time to talk with the adults. Everyone had a good time, even Jenna, who was laid low by a falling acorn. Who knew dendrophobia was a real thing?

President's Pen cont.



I'm glad everyone made it to and from Rockwall safely, and I understand that Mary Ann tried very hard not to injure any butterflies on the return trip (Lynn wore a neck brace for the next week!). We also managed to get out just ahead of the tornados that ripped through Dallas and Rockwall. We had a good time at the conference and even managed to come away with the award for "Outstanding Chapter Newsletter". One of the highpoints was seeing Marilyn Whitworth receive her 2500-hour milestone. Great Job!

Tina and I found our classes very interesting, but our field trips were a little less inspiring. Our first field trip was to the Trinity River Audubon Center (TRAC). The drive there was pretty bad, and if it wasn't for the catlike reflexes of our driver, I would probably be writing this from a hospital bed. The TRAC sits on the largest illegal dumping site in Texas and site of the largest trash fires in Dallas history (6 months and 3+ months). The staff is very upfront about making it clear that it is not a preserve, but a restoration project. I encourage everyone to take 20 minutes and watch "Out of Deepwood" at <https://vimeo.com/102130995> to truly appreciate the scope and history of this place.



The next field trip was to the Bush Presidential Library and White Rock Lake. Both were good examples of the challenges they face in trying to maintain a little piece of nature amid the urban sprawl of Dallas. It was nice of SMU to shoot off the fireworks upon our arrival (they were either happy to see us or they scored a touchdown, not sure which). Tina did get a chance to help tag some monarchs on Sunday morning. She was very excited about this, so every time I hit a butterfly on the return trip down I35, I told her that I was sure that I had seen a tag on it.

Everyone please stay safe and healthy, and I'll see you at the Christmas party.

CENTRAL TEXAS MASTER
NATURALIST CHAPTER
10TH ANNUAL HOLIDAY DINNER

DECEMBER 10TH | 6:30PM
HOME OF ZOE RASCOE
1900 N. 13TH STREET, TEMPLE

Please RSVP by Monday, December 9th to Zoe at 254-913-1013
or trascoe@hotmail.com

Bring your favorite dish to share. Spouse or guest is invited to join you
for an evening of food, fun and fellowship.
Bring nature-y items you may have to donate
for the always-exciting CTMN Project fundraising raffle.



Mother Neff State Park

1680 TX Hwy-236, Moody

- **Bill Abright**

Bill can be reached at b_abright@yahoo.com

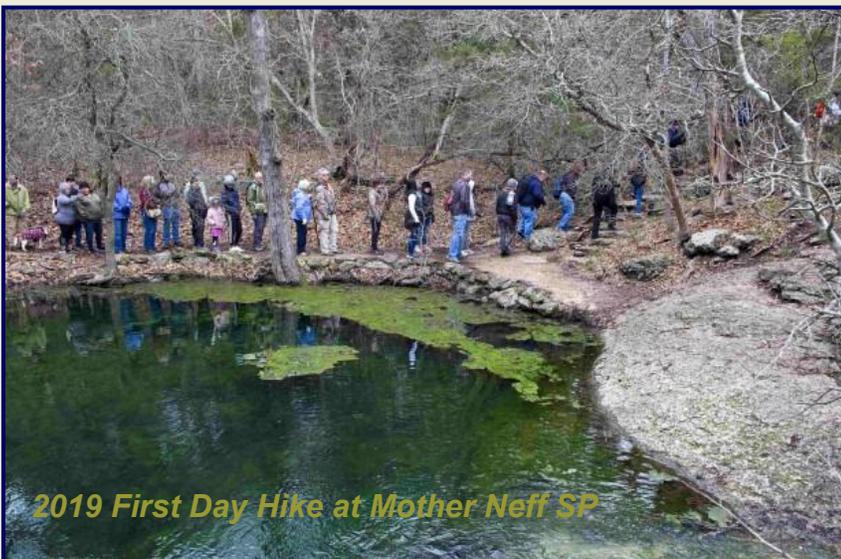
A group of Central Texas Master Naturalists met at Mother Neff State Park on Monday, October 14 to pick cockleburs and other invasive plants and then help young people from Williamson County plant native wildflower seeds. This gave us an opportunity to try out some new weeding and digging tools provided to the Mother Neff SP with a grant from that Williamson County group.

Five days later, another group of us met at the park and once again picked invasive weeds until a group of Baylor students arrived to spread wildflower seeds. Several of our members also took the Baylor students on a guided hike.



Photo by Daisy Klassy

Christmas at Mother Neff will be held at 9am-4pm on December 8th and volunteers from the chapter are needed to help with hikes and other tasks. Here's the schedule: 9am-4pm: Christmas Crafts and Refreshments at HQ; 9am-10:30am: 12 Birds of Christmas Walk; 12pm-1pm: Geocache Christmas Craft Hike; 2pm-4pm: Leon River Dutch Oven Cooking; 2pm-4pm: Santa at the Campground; **2pm-4pm: Master Naturalist Activities.**



2019 First Day Hike at Mother Neff SP

The Park will host First Day Hikes on January 1st and we want to help them win "Most Hikers" of all state parks—again! As you can tell, Mother Neff State Park remains a busy place and according to the head ranger there, and while overall state park attendance has been slightly down, **the attendance at Mother Neff was up 10% from last year!** Note pre-registration is required this year.

Photo by Terry Rascoe

Mother Neff State Park *Cont.*

2019 MNSP Fall Fest

On Saturday, October 26, Mother Neff State Park held its annual Fall Fest and a number of CTMN members set up five information tables covering different aspects of nature. Over 200 folks took that opportunity to learn about the wonders and



joys of nature and to learn more about CTMN. Thank you to Tina Atkins for the photos.



Upcoming Opportunities at MNSP:

There may be a work day scheduled in December to help clear brush from the bottom lands of the park close to the Leon River, but that depends on weather and the progress the Texas Forest Service has made in clearing away dead trees. That part of the park is the



most historic section and contains a number of structures built by the CCC. It has been closed for a number of years due to frequent severe flooding. Watch our website for updates.

Ongoing Maintenance Opportunities

- Bird blinds – Cleaning blinds, putting out bird feed
- Garden Maintenance – Bi-weekly. Trimming dead limbs, pruning, basic gardening for our native garden
- Trail maintenance – Walking the trails. Trimming back growth, notifying rangers of downed trees, cleaning signage.
- Making new signs for trails – ensure all signage is uniform for all trails
- Painting projects – Road signs, Kiosks, Gates and other pieces of equipment as needed.
- Debris removal at the river bottom area – picking up small limbs, possible mowing to help get the river bottom ready to open for day use again.
- Chinaberry Tree Removal – need a large group when project is setup
- Carpentry projects – as needed (bird blind brochure project, Bird blind repair – replacing the glass windows with slats like at the prairie pond)

Check the weekly calendar of events email for December opportunities.



In October we had a great workday with 11 wonderful volunteers. We had hoped for cooler weather, but not to be. The temperatures were, at least, a bit lower than the previous workday with the highs in the upper 80's. As luck would have it the next day was our first real cool front with temperatures in the 50's all day. Oh well, we sweat a lot and we also got a lot accomplished.



Bert Peeples, is wielding the amazing Puller Bear, Joan Stanley has a zillion prairie seeds gathered by Lynn Fleming, John Burns, along with John Atkins—not pictured, were chainsaw crew. Lee Bullock with City of Temple and Ward Critz follow.

The October workday started with a refresher from Lee Bullock. Lee is the new City of Temple Parks Superintendent. The Temple Parks and Recreation Department has been very supportive for our efforts at Miller Springs. We would definitely not be as productive without their support. Following the training we had a couple of folks picking up litter around the parking area, North trail, and the West Access trail. Two others spread native plant seeds in the Meadow – Prairie Loop area then joined the main focus for the day which was the Green Pond area. Some of our group worked on pulling small seedlings which were growing by the hundreds and possibly thousands. It was much easier to pull these

small seedlings now than it would have been if they were allowed to continue to grow. Others worked hard to expand the area where invasive plants have been removed using chainsaws and the Puller Bears.



Next CTMN Workday will be Thursday, Dec 12th at 9:00am.

Miller Springs Nature Center *cont.*

I was very disappointed to have to cancel the November workday. I worked hard to come up with options that we could do safely and not have to cross the Green Pond trail in case of light rain, and it occurred to me we would not be able to effectively work on removing anything more than small trees or seedlings. It simply would not be possible to treat any cuts we might make with herbicide if it were raining at all. It is always hard to make a call to cancel an event based on a forecast. My concern was it would not rain and I would have cancelled unnecessarily. It turned out to be a cold and very wet morning so I felt better about cancelling.



Joan Stanley, Tina Atkins & Melissa Jue follow the aftermath of the chainsaw crew.

I hope we will be able to work in December and make some good progress during the cooler winter weather. The goal will be to again work on the hillside next to the Green Pond trail and really make a major dent in the invasive Waxleaf Ligustrum that has virtually taken over the whole hillside.

While we are seeing a lot of regrowth of the invasive species we also see new native trees such as pecans and hackberries. I'm sure there are many other natives making a comeback as well.



John Burns (along with John Atkins): .Timberbeasts!

The Cities of Belton and Temple Parks and Recreation Departments received recognition from the Texas Recreation and Park Society for their collaborative work to make Miller Springs Nature Center available to the nature-loving public again. The award is the "2019 Central Region Conservation Award" for their Group Volunteer Day. A work event that our members are trained and happy to help with. I would like to congratulate both of these park departments and thank them for their leadership and support for the Miller Springs Nature Center.

Matt Bates, Parks Director for City of Temple and Mike Hamker, Asst Parks Director for City of Temple accept the TRAPS Conservation award.



GALVESTON ISLAND STATE PARK



- **Andreas Wooten**

I spent four days at Galveston Island State Park earlier in November of this year. I was pleasantly surprised by this park overall. Lots of easy access for wade fishing, kayaking, trails for hiking, biking and bird watching. It is a small park and not many roads, so getting in and out is easy and you really can't get lost. It is far enough away from the city to be really quiet but close enough to make a drive into town for supplies or a nice meal. Currently the beach side of the park (on the Gulf of Mexico) is closed and undergoing restoration and repairs, but for me, bay fishing and bird watching (I saw 15 or 20 kinds of birds every morning from the back porch of the cabin on the bay side) was the way to go. I would suggest going during the off season (NOV-FEB) because it is easy to get around the Island and park. Below is a short history of the park and a few photos courtesy of the TPWD web site.



Galveston Island State Park is in the city of Galveston and on the west end of Galveston Island. The state acquired the 2,013 acre site in 1969 from private owners. It opened in 1975. The park protects both natural and cultural resources, but also provides access for recreation on the beach, prairie and bay. Dynamic beach, bay and freshwater habitats mix and meet at Galveston Island State Park.

Galveston Island is 5,000 years old and has had an interesting human history for at least 1,300 years. Today the island is considered a relaxing paradise, but past and present islanders struggled with intense storms, constant wind and waves, and finding resources for life on this barrier island.

The first Galvestonians: Members of the nomadic Akokisa Tribe were the first people to winter on the island. They left behind bones, shell middens, trading items and ceramics. These native peoples and their descendants survived on Galveston Island's game, fish, wild plants and shellfish. Natives left few lasting artifacts on Galveston, so historians use European written accounts to learn about early life on the upper Texas coast. Spanish explorer Cabeza de Vaca and his crew shipwrecked somewhere near here in 1520, leaving behind detailed journals describing these native peoples.

GALVESTON ISLAND STATE PARK *cont.*

Galveston's natives were pressured by European and Anglos seeking new lands and riches in the American West. By the 1830s, the Akokisa had moved off the island because of sickness and famine. Adaptive tribes, such as the Karankawa, survived for another half century on the edges of early white society. Eventually, disease and pressure by Europeans forced the Karankawa and all Native American tribes off the island.

New European inhabitants: Europeans began regularly exploring and settling the upper Texas coast in the 1700s. These Spanish and French adventurers brought trade and new cultures, but it was disease which quickly overwhelmed and disrupted the lives of native inhabitants.

The Lafitte brothers fled the United States prosecution of pirates, and established a government on the island in 1817. Many believe these pirates, and later 20th century bootleggers and smugglers, used the park area to deliver stolen goods and slaves to the mainland.

Castles made of sand: Developers came to Galveston's west end to lay out the city of South Galveston in 1891. Construction plans included a grand hotel, post office, racetrack, city blocks, freshwater ponds, lots for sale, and streets. Although the planned city was not completed, you can still see the landscape changes today in the park's prairie and marsh.

Washing the island clean: Access to the Gulf of Mexico and a deep bay harbor accelerated trade and development of Galveston, but major storms slowed progress. The great storm of 1900 killed or washed away almost 10,000 people. The devastation prompted Galvestonians to build a seawall on the east side of the island, protecting the town and harbor.

Storms have the capacity to cause massive damage, but also offer chances for renewal. In 2008, Hurricane Ike damaged the State Park. The storm washed away and moved several yards of beach, sinking buildings and dramatically altering the landscape.

Galveston Island State Park is still recovering from Ike. Camping and day use facilities construction has begun on the beach side of the park in.

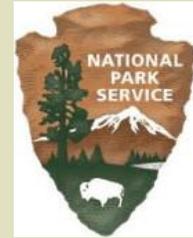
Habitats include surf, beach, dunes, coastal prairie, fresh-water ponds, wetlands, bayous and bay shoreline. The park has numerous trails for scenery and wildlife viewing. There is a public campground in the park and two lodges (one is handicap accessible).

https://tpwd.texas.gov/state-parks/galveston-island/park_history



Photos by Terry Rascoe

CRATER LAKE Oregon



- Zoe Rascoe

After a less-than 24-hour business trip took me to Bend, Oregon over 25 years ago, I have wanted to return to that beautiful place to explore the mountains and coastline. This past October my husband Terry and I did just that. In 10 days, we covered much of the state in a rented Toyota 4-Runner filled with camera and hiking gear. And snacks. We spent the first few days traveling down the rugged coastline photographing the unusual basalt rock formations call



seastacks standing as sentinels just off the beaches. We also slipped down to Redwood National Park in California when we realized we were so close. Then we headed east across Oregon to Crater Lake National Park which was established in 1902. I have to say, it was more spectacular than I had anticipated a lake in a hole would be.

Crater Lake was formed 7,700 years ago when a violent volcano eruption lasting only 2 days collapsed a peak called Mount Mazama that may have been 12,000 feet tall. Geologists have found ash that settled over 656,000 square miles. The caldera left behind began filling with rain and snow – no streams or rivers carrying silt or debris in – making the lake one of the most pristine on earth. The collapse of the mountain left a very deep hole which makes Crater Lake the 2nd deepest lake in North America at nearly 2,000 feet. From the rim road of the caldera to the bottom of the lake is 3,900 feet and the lake is about 6 miles across – that long distance is lost when there are mountains nearly 9,000 feet nearby. The Rim Road, with many scenic pullouts is 33 miles around!



There is only one trail that leads down to the shore: Cleetwood Cove Trail. The trail is a steep 1.1 mile hike down with an elevation drop of 700 feet. We hiked down. A little ways – not enough time for the 2½ hour round trip! Like most National Parks, there is no chain link fence to prevent you tumbling off the cliff edge. So scary signs are usually the only deterrent.

CRATER LAKE *CONT*

There is a great deal of research that occurs at this unusual natural formation. One study recorded [the sound of falling trees](#) and scientists noted that there is virtually no place left in America untouched by human-caused noise. Owls need quiet to find their prey – a small mouse moving under the snow. The Park Service monitors invasive plant species, one of the biggest threats to national parks. While invasives are a concern, there are areas in the park that are covered entirely with native plant species. The parks' high elevation and 512 inches of annual snow (wow) help keep the spread in check.

As we walked the rim, not far from the Crater Lake Lodge, I noticed something unusual underfoot. I had to touch it to know for sure – it was ice crystals that were as thin as fiberglass under the frozen mud that seemed to be holding up the ground surface. I had to google the phenomenon when we returned to civilization. They are called ice needles and are formed with the diurnal freeze/thaw cycles. The right conditions cause the ice fibers to grow and push the soil surface up, only to fall when the temperature rises in the afternoon.

If you manage to make a trip to the Pacific Northwest (put it on your list!) I recommend a swing thought Crater Lake National Park for breathtaking views by car or hiking the meadow

and forest trails at the top. But not in the winter if you want the full experience.

Statistics and science information found on the Crater Lake NP website.



Photos by Terry and Zoe Rascoe

That's Not Here!

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

-Susan Sontag

New Zealand Naturalist Wonderland

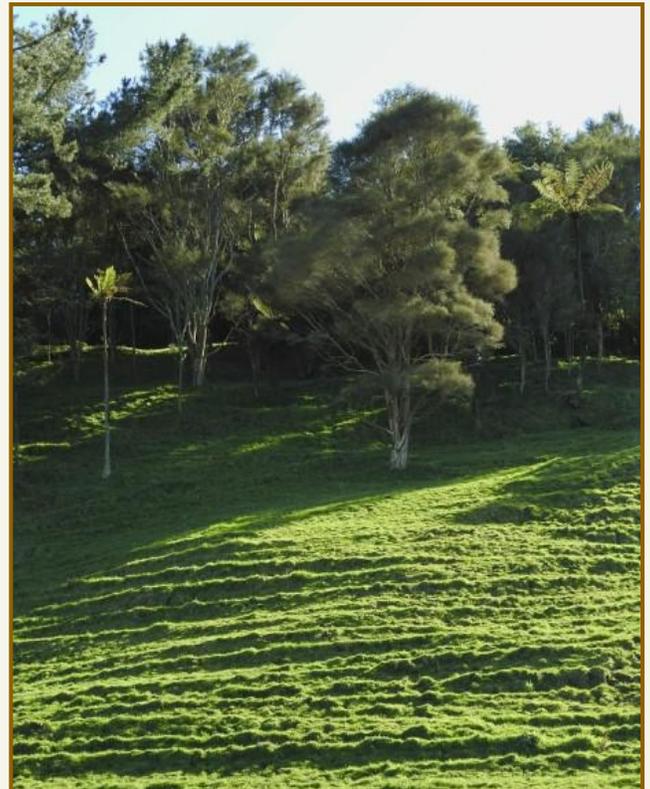
- Joan Stanley

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 earth beyond our home.

New Zealand consists of two main islands and around six hundred smaller ones making up a country of great contrasts and diversity, everything from volcanoes to glaciers. Due to New Zealand's remoteness, it was one of the last lands to be settled by humans. Also due to the islands' isolation, they developed a unique array of plant and animal life, so when you visit there, you expect spectacular scenery and if you're lucky, exotic animals.

Our first stop found us at Waitomo Caves. It was first discovered by the Maori, New Zealand's indigenous people, who entered it by the Waitomo River and found the underground river lit by an eerie phosphorescent glow. It turns out; the light is generated by the larval stage of the New Zealand glowworm, which becomes a two-winged flying insect in adulthood. The glowworms give off light to attract prey (other flying insects), above the cave's silent underground river. The larva need a special humid habitat so they don't dry out, and a sheltered surface to hang from and suspend their sticky, spider-like feeding lines, plus darkness to allow the light to attract food. The cave offers the perfect environment.

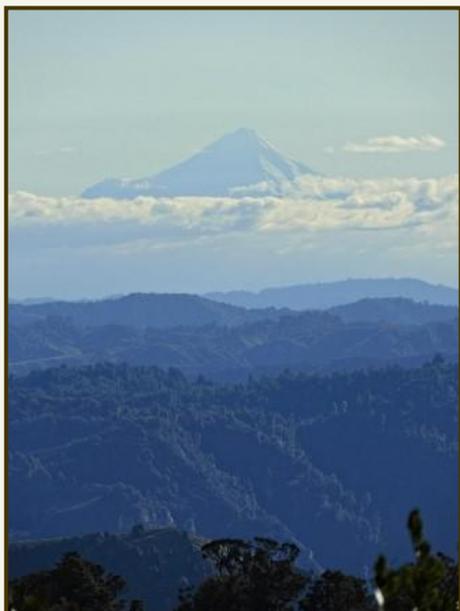
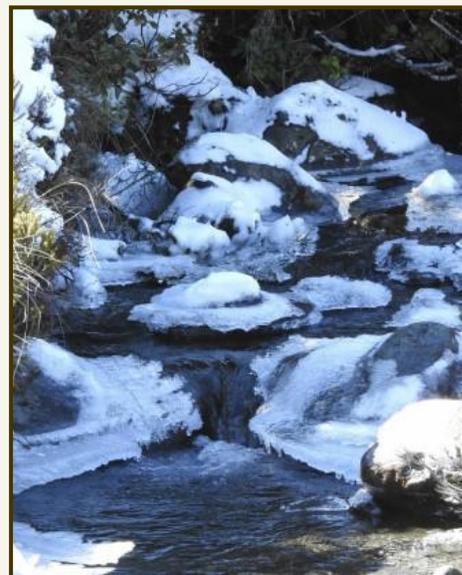
New Zealand is a land of contrasts. We passed from tranquil, green pastoral countryside that rivals Ireland's green into Tangararo National Park, the fourth National Park in the world and oldest in New Zealand. It has the distinction of being designated a World Heritage Site, and the further distinction of having three active volcanoes, Tangararo, Ngourhoe (Mt. Doom in the Lord of the Rings films) and Ruapehu. The latter has, of all things, skiing on an active volcano. The park has a stark beauty, and is not nearly so forbidding as Mt. Doom might suggest.



Adventures in New Zealand *cont.*

There are beautiful trails along ice encrusted streams and stunning waterfalls, while on the other side of the park, paths wind through native, almost tropically lush forests filled with silver fern, a native tree fern, and quirky moss covered trees supporting a whole garden of plants and ferns on their branches and trunks.

It took little effort to imagine elves slipping through the shadowy greenery, and had one stepped onto the trail before me, it would not have been out of place. Then, as the trail wended its way from beneath the arching trees, a floating volcano hovered in the hazy distance.



Being part of the Ring of Fire, New Zealand is a geological hot spot, with not just volcanoes, but many geysers, mud pools and hot springs, so when we left the park and its volcanoes, we headed to another kind of hot spot.

Wai-O-Taup, while New Zealand's biggest geothermal area, is just a small portion of the Taupo Volcanic Zone, and an intriguing example. Curls of steam and the smell of sulphur permeate the air. It's both fascinating and beautiful in an otherworldly sort of way. Mud pots burble and plop beneath their blanket of steam, while underground a system of streams, heated by magma left over from earlier eruptions, heat the water. Temperatures up to 572 degrees F have been recorded.

The water is so hot; it absorbs minerals out of the rock and transports them to the surface as steam where they are absorbed into the ground, to reappear in various colors and forms.

After crossing the steaming Wai-O-Tapu hot stream, you enter a whole other world. Smoking vents or fumaroles crust the ground and rocks with patches of yellow sulphur and other crystals. Mud pots boil and vent steam. The Devil's Inkpots are mud pools tinged black by graphite. Beyond, variously colored pools with picturesque names such as the Champagne Pool, Artist's Palette, Opal Pool and Devil's Bath draw you on.

A boardwalk takes you by the Artist's Palette with its colored waters and smoking vents rising through the pool on one side, and the Primrose Terrace, a sheet of graying frozen ripples of siliceous sinter and sulphur edged vents to the other. At its end you arrive at the orange edged, slightly fizzing Champagne pool. Beyond, the land drops, leading you by Bridal Veil Falls, a sinter falls tinged green by microbial mats, and down to splashing waterfalls, oddly hued streams, more pools with flats and boiling hot springs and fumaroles.



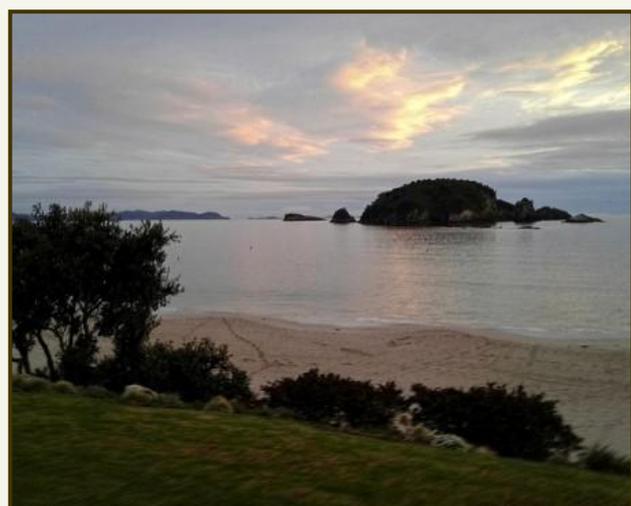
Adventures in New Zealand *cont.*

You'll find birdlife here. Pied Stilts search for insects out on the flats, while small fantails and other native birds frequent the brushy habitat surrounding the variously colored pools. Back up the trail is a crater named Bird's Nest Crater for obvious reasons. Starlings, swallows and Mynahs nest in the holes in the walls where the heat rising up the crater walls incubates the eggs for them. Who says animals aren't smart.

The Devils Bath, a shocking green pool that would peel your skin off, owes its color to sulphur and ferrous salts; surely something only the devil would care to bath in. It's the last pool you pass on the way back to the more placid world beyond.

Rotorua was our next stop. Situated in a sunken caldera, the town also has bubbling mud pots, steaming fumaroles and geysers. It lies alongside one of the many lakes the area is known for. While we enjoyed exploring some of the town, we spent much more time in the Government Gardens and Lakefront Reserve.

Rhododendron twenty feet tall and more, and in full bloom, towered amid the burbling mud pots and sulphurous steam. In the Government Gardens, flowers were bright splashes of color, and along the Lake Rotorua's edge, black swans, cormorants, and other water fowl flourished.



From the lakes of Rotorua and hills of the movie set Hobbiton, we headed north over the winding mountainous roads to the coast and Hahei.

At the risk of sounding like a tourist brochure, Hahei offers nice restaurants, art galleries and shops, but its real attraction lies in the spectacular coastline. Hidden sea caves, offshore islands, marine reserve, volcanic coastline and beautiful beaches are perfect for swimming, diving snorkeling, boat and kayak tours, walking, or just enjoying the scenic beauty. Our B&B overlooked a wide, faintly pink tinged, sandy beach with a beautiful view of some offshore islands.

A short drive away was the walkway winding past beach views and a cliff walk to Cathedral Cove. Its white beach is bordered by high cliffs with trees cascading down the sides, and fantastically twisted trees growing along the base. The famous limestone arch frames a view of the neighboring beach and rocky outcroppings.

Hahei was our last stop on the North Island before heading back to Auckland and a short hop to our next stop on the South Island.

Photos provided by Jean Stanley.



Out on a Limb

- Mary Ann Everett

Tree Description: A shrub or small tree up to 30' with smooth gray bark. This little tree is a member of the Ebony family (Ebenaceae) and has very hard wood.

Blooms: Are 1/3 inch long, greenish-white, somewhat bell-shaped with 4 lobes; male and female flowers on separate plants.

Fruit: Round and plump, black when ripe, sweet, edible pulp. Stains easily! In Mexico, fruit is used to dye animal hides. Birds and mammals, particularly javalinas, are fond of the fruit.

Location: Most common on the Edwards Plateau, but also grows on outcrops of limey sandstone on the Blackland Prairies, in South and West Texas and in Mexico. Not found along coastlines.

Leaves: Oval to oblong; 1-2 inches long; leathery, often fuzzy beneath; leaf edges slightly rolled under.

Bark: Gray, smooth, with thin layers peeling off revealing the lighter-colored inner bark.

Heat & Drought Tolerance: Extremely drought and disease resistant, making it a prized native plant in the landscape with its beautiful foliage and bark.

Interesting Facts: The heartwood is black like its relative Ebony, and the sapwood is a bright yellow. Only one in many specimens is a female, fruiting tree and are difficult to find! The national champion of this tree is in Uvalde County at 26 feet tall, and a trunk circumference of 67 inches with a canopy of 31 feet.

[Click here for name of tree](#)



FISH TALES



It's Not All About the Fish

- **Andreas Wooten**

Galveston Island State Park

I LOVE FISHING! I don't suppose that is surprising to anyone that knows me. I had several firsts on my recent trip. Lets start with the fish!

On the first day I tried a fly rod at first (7 weight with a 10 foot salt water leader and #0 tippet) I got some bites and caught two Croaker (first salt water catch on a fly rod!!). But the wind picked up for the next several days so I had to resort to standard rod and reel. I started with



a weighted ($\frac{1}{2}$ oz) plastic shrimp lure. My wife caught two Flounder and I got two more Croaker, just cast the lure out and a slow retrieve back letting it drag slowly on



the bottom. The bay side off the shore is pretty shallow. Tide is in during the morning and the fish don't seem to bite as well. I was more successful overall in the evening from 3 to 6PM.

The big deal was the second day. I got a few bites on the lure but nothing solid so I re-rigged my rods with a weight on the bottom and a drop hook a little higher up and used frozen shrimp (\$3.50 for a $\frac{1}{2}$ pound at the Academy in Galveston) and the bites came much better. I hooked what I thought was a catfish, until I brought the fish in. It turned out to be my first ever Sheepshead!! I was stoked, not only was it a first it was a keeper at 19 inches long. I got several more Croaker and catfish during the evening.



cont.

The third day was my swan song and another first, a really nice Red Fish! Although not legal sized, (it was 20 inches long) and not in season it was still a first. That evening I could do no wrong, no matter where I cast using live shrimp or lure I caught fish. I hauled in 8 Croaker, 7 or 8 Catfish, another Red Fish (smaller than the first) and another Sheepshead (almost as big as the first!). My wife got about the same in Croaker and Catfish but for some reason never got any Red Fish or Sheepshead??

Bottom line, if it looks like shrimp, smells like a shrimp, and swims like a shrimp its bait and the fish in the bay love 'em!!! All fish were released back into the bay and swam away.



On another note, frogs are cool. This little guy was “just sooooo stink'en cute” as my wife said, that I had to include him. He was like a little sticky Gummy Bear candy all over. Don't ask me what species he is, that is for you guys to figure out.



Photos by Andreas Wooten

MEMBER ACCOMPLISHMENTS



Wade Matthews (2015) recertifies.



Bruce Polikoff (2015) receives his 250 hour milestone pin.



Tom Salmi, (rt) recertifies, receives his 250 hour milestone pin and completes the Texas Waters Certification.



Richard McCarthy (2010), Bruce Polikoff (2015) and Mary Odom (2013) recertify.



Bert Peebles (2019) and Jenna Chappell (2019) receive their certification.



Jean Solana (2019) and Gail Hughling (2010) recertify for 2019.



Andreas Wooten (2015) & Zoe Rascoe (2004) recertify for 2019.

CHAPTER MEETINGS



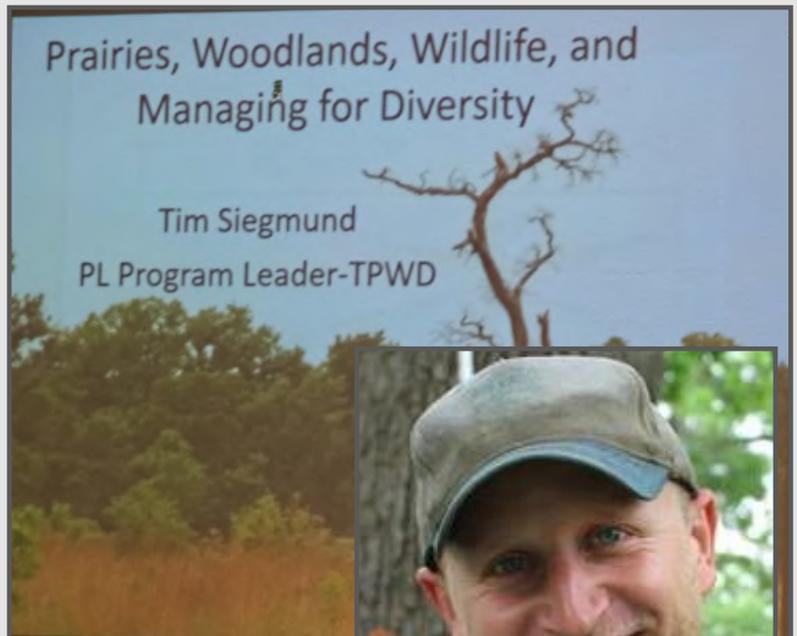
At our October Chapter Meeting, President John Atkins provided geologic information on an inventory of Fort Hood and Bell County karst features. The briefing was based on a karst investigation conducted on Fort Hood by Karst-Tec. Bell county is blessed to be situated upon three different karst formations and is second only to Bexar county in the number of karst features within our border. Bell County has 276 caves, 737 sinks and cavities, 425 rock shelters, 152 springs, and 3

undefined features. When Karst-Tec conducted their survey, they not only documented the karst features, but also documented archeological finds and biology within the features. In fact, 82 of the caves on Fort Hood contain several species that are endemic only to Fort Hood such as the Fort Hood Cave Millipede. The briefing was quite the eye-opening experience for many of the members who had no idea what literally lies beneath their feet.”



Rocket River, the longest continuous stream passage within Fort Hood

Tim Siegmund, Private Lands Program Leader for Texas Parks and Wildlife, is a wealth of knowledge on many topics of interest to Master Naturalists. It seems like we are in such a drought, but we learned that dendrochronology—tree growth ring dating—provides climate information as well. Did you know there was a drought in the 1600’s that lasted 30 years? Tim also outlined steps for managing for diversity on Blackland Prairie: 1) thinning the understory vegetation to increase sunlight allowing seeds to germinate; 2) re-establish native grasses/plants to provide cover for animals (rest, escape, bedding) including bunch grasses that leave some bare ground for grain-eating birds; 3) manage deer and hog (yikes). Tim noted that Burleson Prairie, a local favorite field trip, has re-established over 80 species of native plants. Tim is based in College Station but is ready to answer your questions about the Texas Private Lands Program.



TEXAS MASTER NATURALIST 2019 STATE CONFERENCE

- Bruce Polikoff

Finding Fossils at Ash Grove Quarry – A 2019 Annual Meeting Field Trip

This was the second year I attended the annual conference. The variety of classes and field trips were very broad. It was easy to fill my schedule with interesting classes. This year the classes I took concentrated on birds, interpretation and fossils. No matter your interests, you can fill your schedule and learn lots of new and updated information.

The last thing on my Annual Meeting agenda this year was the field trip to the Ash Grove Quarry in Midlothian. It was the perfect stop on the way home from Rockwall. Ash Grove Cement Company owns the quarry and mines limestone and shale for their on-site cement plant. The limestone is from the Austin Chalk Formation which is the primary ingredient of the cement they make. Ash Grove gives geologists and amateur paleontologists from all over the world access to the quarry to study the exposed Eagle Ford-Austin formation.



The Austin Chalk layer, and underlying Eagle Ford layer, are 85-89, and 89-100 million years old respectively. The bottom of the quarry is the caprock of the Eagle Ford-Austin formation. When the quarry dug a drainage ditch in the floor of the quarry, the rocks they piled up in a 200-yard berm gave access to the Eagle Ford fossils. These include shark teeth, fish bones and fins, mollusks, baculites, ammonites, and crustaceans. The overlaying Austin Chalk produced a fair variety of mollusks and gastropods. High up in the Austin Chalk layer were numerous pyrite nodules. They were easy to see against the white/gray limestone. They looked like dog poop laying on the ground (even with my glasses on).

TEXAS MASTER NATURALIST 2019 STATE CONFERENCE *cont.*

It took a moderate amount of work to find good representative fossils. I found mostly broken shark teeth, gastropods and mollusks. It's not a fossil vending machine, but good fossils can be found. You don't go home empty handed. The quarry had hardhats and vests to loan. No tools were required, but folks with small rock hammers had a much faster time digging around. Gluttony was encouraged since the rocks and fossils are going to be crushed anyways.



Our volunteer guide Francisco, an Aggie geologist working for Ash Grove, and Master Naturalist in training, was very informative. He even extended our time fossil hunting beyond the scheduled 2 hours. Francisco offered to host 4-hour visits for small groups of Master Naturalists interested in fossil hunting at the quarry. I'll let the chapter know when the dates are announced.



Marilyn Whitworth receives her 2500 Hours of Volunteer Service Milestone award!

Conference attendees (l to r): Mary Ann Everett, Bruce Polikoff, Gail Hughling, Tina Atkins, Mary Sharp, Lynn Fleming, Dale Hughling, Marilyn Whitworth, Richard McCarthy, John Atkins.

Mary Sharp and Tina Atkins try to keep John Atkins out of trouble...



2019 OUTSTANDING CHAPTER NEWSLETTER!

Editor's Note:

Our chapter submitted the June 2019 Newsletter in the media competition during the State TMN Conference in October. Hundreds of state conference attendees could vote through an app for their favorite entry. The Central Texas Chapter Tracker newsletter won! This is a great time to thank our members who contribute articles, provide calendar updates and make sure photos are taken at our events and uploaded for access. We believe the newsletter is a great resource for sharing our passion for nature with the public and helps similar-minded folks learn what we do in our communities.



Photo by Terry Rascoe

Inside This Issue

The President's Pen	3
Butterfly Count	5
Nature Illustration	6
Miller Springs NC	12
Bell County Workday	14
Chalk Ridge Falls	16
Mother Neff State Park	18
Out on a Limb	28
Graduation announcement	29
On The Horizon	30

Calendar at a Glance

June 11th— GRADUATION!
 June 8th—Butterfly Count
 June 13th—Miller Springs
 June 21st—Chalk Ridge
 July 1—CTMN Board Mtg
 July 18th— Union Grove WMA
 July 25th—Bell Co Museum
 July 27th— Moth Night MANSO

2019 BURLESON PRAIRIE WALK

- Jessica Dieter

When arriving at Burleson Prairie the first thing that hit us was the amazing smell of the wet grasses and wildflowers. The Dickcissel birds were cheerfully singing and flying across the prairie, perching on the tall Prairie Plantain and Rattlesnake Mastain plants to keep an eye on us. Much to the delight of my six year old son, Nicolas, Lynn Fleming and Mickey Burleson had been out the day before to mark various plants and flowers with pink flags so he ran out into the prairie to yell out the numbers written on



Mickey Burleson leads visitors through her reconstructed native prairie near Troy.

the flags so we could refer to our reference sheets. This was my first time on a native prairie in full bloom, so I was amazed by all the varieties of flowers. The brightness of the Prairie Clover and Cone Flowers were amazing. The butterflies and bees were very busy pollenating and flying around us as we walked. We came across a couple different caterpillars, but my favorite was the Black Swallowtail Butterfly caterpillar. When you

I would also like to thank PaperGraphics Printers in Temple for printing our 31 page online newsletter for our entry at no cost.

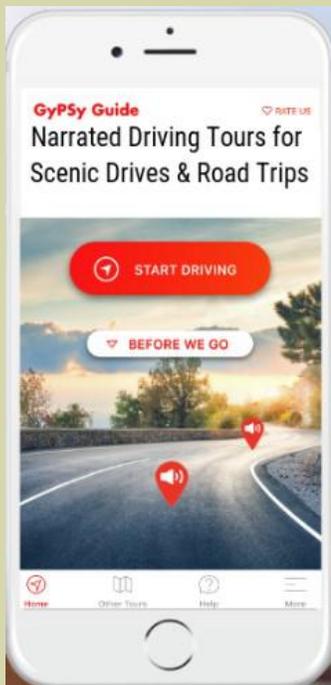
If you enjoy our newsletter, please let others who appreciate nature know how to access our newsletters on our website.



Good to know...

There's an app for that!

A Guided Trip to Rocky Mountain National Park



On our October trip to Colorado we took a guide with us. He didn't take up much room in the car and was always ready to go and never tired or complained. His name was Gypsy.

Before we left we downloaded a Gypsy Guide cellphone app for \$5.99. It operates on GPS and always knows where you are. It describes what you are seeing and suggests places to stop. This guide begins in Estes Park and covers 49 miles along Trail Ridge Road to Grand Lake. It also guides on the way back.

It was like he was in the car with us and no one had to be reading a guidebook and miss the scenery.

Gypsy Guides are available for many national parks and other places. A similar app is "Just Ahead". We were more than pleased with this guide and look forward to inviting another guide to ride along with us.

- KATHY CANTU



Bear Lake in Rocky Mountain National Park, Colorado

on the direction we were traveling. Like Kathy, I recommend this type of "tour guide" when visiting remote National Parks.

Photo by Kathy Cantu

More that's good to know...



Photo: Melissa Gaskill, TPWD

2019 Christmas Bird Count December 14th – January 5th

Organized by the National Audubon Society in 1899 (you read that right!), the annual Christmas Bird Count takes a snapshot of bird populations in locations across the Western Hemisphere, creating a database that Audubon shares with federal, state and private authorities. It influences allocation of conservation dollars, land management decisions and wildlife policy and, increasingly, documents change in bird populations. Counts have identified a decline in many common birds, including the northern bobwhite.

CTMN members will be one of over 120 Texas count events for 2019. You do not have to be a birder to help! Being a spotter or recorder of information is a great way to participate and learn some of our local birds while contributing to a very important data collection event. Contact Mary Ann Everett at everett.maryann4@gmail.com to sign up for our December 14th event. It's another chance to get those last volunteer hours before 2019 is gone!

2019 CTNM Officer Elections

There are 4 officer positions in our chapter: President, Vice President, Treasurer and Secretary each with a 2 year term. Two positions are elected each year on a staggered basis. At our final gathering of 2019 on December 10th, we will elect a Vice President and a Secretary. The nominations committee has provided the following slate of volunteers:

Vice President: Jean Solana

Secretary: Jessica Dieter

Nominations can also be made from the floor prior to the vote. We appreciate those willing to serve in leadership roles for our chapter.



On the Horizon

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

Photo by Terry Rascoe—Face Rock at Bandon, Oregon

December 2019 **Note: Many items can be found on our website calendar for more details**

Mon 2nd: First Monday Gardening at Salado Museum 8:00-9:00am

Mon 2nd: CTMN Training Committee, AgriLife Extension Office 11:30am-12:30pm

Sun 8th: Christmas at Mother Neff SP, CTMN Booth 2:00-4:00pm (open 9-4) Bill Abright

Tues 10th: CTMN Chapter Meeting/Holiday Party—Zoe Rascoe's 6:30pm

Thurs 12th: Miller Springs Nature Center Workday 9:00-11:00am jaburns@utexas.edu

Sat 14th: Christmas Bird Count. Contact Mary Ann Everett everett.maryann4@gmail.com

Wed 18th: Cedar Gap Park Workday 9:00am Boat Ramp, Harker Hts, jfahhtx@gmail.com

Thurs 26th: Bell County Museum Workday. 8:00-10:00am lynn.fleming99@gmail.com

January 2020

Wed 1st: First Hike at Mother Neff State Park (morning and afternoon hikes)

Mon 6th: CTMN Board Meeting. AgriLife Extension Office. 11:30am Members welcome

Thurs 9th: Miller Springs Nature Center Workday 9:00am. jaburns@utexas.edu

Tue 14th: CTMN Chapter Meeting "Good Bug,Bad Bug?" Belton Church of Christ. 6pm-8pm

Thurs 23rd: Bell County Museum Workday. 8:00-10:00am lynn.fleming99@gmail.com

Fri 24th:Pond Project USACE, Belton Dam Office. 9:30-11:00am aawooten101@gmail.com

Wed 29th: Cedar Gap Park Workday 9:00am, Boat Ramp, Harker Hts jfahhtx@gmail.com

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.”

Board of Directors

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Texas A&M AgriLife Extension

Derrick Wolter,
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Newsletter Staff

Editor: Zoe Rascoe

Contributing Writers: John Atkins, John Burns, Bill Abright, Joan Stanley, Kathy Cantu, Andreas Wooten, Mary Ann Everett, Bruce Polikoff, Jessica Dieter, Zoe Rascoe.

Contributed Images: John Atkins, Tina Atkins, John Burns, Jessica Dieter, Joan Stanley, Kathy Cantu, Daisy Klassy, Andreas Wooten, Terry Rascoe, Zoe Rascoe. Please note I receive photos of sweaty people in big hats—sincere apologies for those missed or misidentified!

Have you noticed the 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



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.