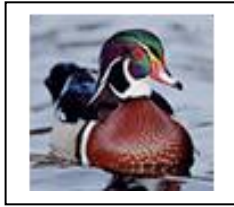


Wood Duck Whistler



East Texas Chapter Master Naturalists

March 2020 Volume 20, Issue 3



Some Facts on a Virus

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When I first learned about viruses, it was like no one really could decide whether they were alive or just an efficient reproducing package of genetic material. They *are* efficient, using the host's own cells to do the work of making more viruses.

The coronaviruses are a common group of viruses such as cause the common

cold and more deadly diseases like Severe Acute Respiratory Syndrome (SARS) found in 2003 in China, and one you probably haven't heard of, Middle East Respiratory Syndrome (MERS) found in 2012 in Saudi Arabia. A halo or "corona" surrounds the body of these viruses, giving them their typical name. They infect the nose,

sinuses, and upper throat and cause flu-like symptoms.

This type of virus is considered zoonotic. These viruses are capable of transmission between animals and people. Exposure to civets is involved in SARS and camels in MERS. Evidence suggests bats may be connected to all three (continued on page 7)

It's Spring!



I hope all of you are doing well in this strange time. We are likely feeling a little disjointed from things as we find it impossible to go about many of the regular activities we normally do, especially our own volunteer activities and meetings. Some things do stay the same though usually the grocery store doesn't run out of toilet paper.

One thing we have going for us right now is fresh air. Plenty of it out there to enjoy away from people. No sense not taking advantage of this colorful time of year. Flowers are blooming, birds singing and showing off, and there's bound to be other critters out and about.

If you can get out considering some turn

of events, there are still plenty of places to go. State parks appear to still be open though some things are likely to have changed. It's best if you check in with them if you go. Plenty of outdoor places and trails around to check out.

Otherwise enjoy some sun, learn more about the outdoors, ironically online, or watch your birdfeeders. Take care.



(All photos by R. Dale Wade)

Mission Tejas State Park by R. Dale Wade

Becky and I enjoy trailering to our wonderful Texas State Parks. Usually, we spend 3 to 4 days hiking the trails, watching the wildlife, meeting other campers, and breathing in the invigoration of nature. Since attaining my Master Naturalist certification, I realize how to give back to the parks. I check in with the park superintendent, introduce myself, and ask how I can help. Usually, the request is to clean up the hiking trails and report any maintenance issues that I may find. This is our second visit to Mission Tejas State Park.

The park is located between Alto (12 miles) and Crockett (21 miles) at Weches on State Highway 21, the Old San Antonio Road section of perhaps the most historic road in Texas. Known as El Camino Real, the Royal Road stretches 2,500 miles from Guerrero Mexico to Louisiana. In Texas it begins in Laredo and exits just outside of San Augustine before ending at Natchitoches, Louisiana. President G. W. Bush designated it the [El Camino Real de los Tejas National Historic Trail](#) in 2004.

After checking in with the park staff have a look in the “museum” that gives one an enticing overview of the history of the area. The fox shown below fell to



the fate of a motorist, so she became an addition to the room.

There are about a dozen RV sites, all blacktop and none level. Like I was told, they were designed and built in the 1950s, not to accommodate the trailers of today. All have 30/50 amp electricity and water. No sewer, but a dump station is available. Tent sites offer pads with water and electricity, but offer little “privacy” due to their closeness.

Still, during both of our visits the sites were full of family-oriented campers. Restrooms are 50s style as well (I think they were built even earlier by CCC.) with a toilet, a sink, and a shower stall in each. If you are down in the tenting area, enjoy those three dozen steps up to the toilets.

The historical section of the park is splendidly done. The 1828 family [home](#) of Joseph and Willie Masters Rice was moved in 1973 to the park from just down road. It is in such good condition that one can wander through the house imagining life in each room during that period. The craftsmanship alone is worth the visit. Just behind the house sits an original “doctor’s buggy” popular during the 1880s.

The Spanish attempted to counter the French by building a mission in 1690 on the grounds of a Caddo Indian village (not sure if that was Caddo Mounds, a mere two miles east). Mission San Francisco de los Tejas became the first Spanish mission in Texas. However, it did not last long. After a smallpox epidemic (continued on page 6)



The President's Message

In these uncertain times with COVID19 threatening our communities, many of our usual activities are curtailed. As of this writing, our classes and chapter meetings and activities are suspended until we get an all clear signal.

But at the same time, I hear birds serenading, grass growing, and azaleas blooming. Spring is here and we know that open air is the cleanest and safest place to be. Getting

outdoors is our best plan.

I want to tell you about some interesting Chapter Activity Day programs that Charlotte Sanders has lined up. The first of these is a Texas Nature Tracker/iNaturalist program by Tania Homayoun and Craig Hensley from Texas Parks and Wildlife scheduled for June 27, 2020. Next is a Plant Pollinator program with Boyd Sanders at Tyler State Park in

September. Then a Pitcher Plant program by our own Wanda Rauscher at East Texas Arboretum in Athens in the fall. Finally, we hope to schedule an Invasive Species program with Hans Landel, PhD, from UT Austin and the Lady Bird Johnson Wildlife Center.



by Paul Wick

If curtailment of activities have given you any free time, these are a few on-line sites that may be of interest:

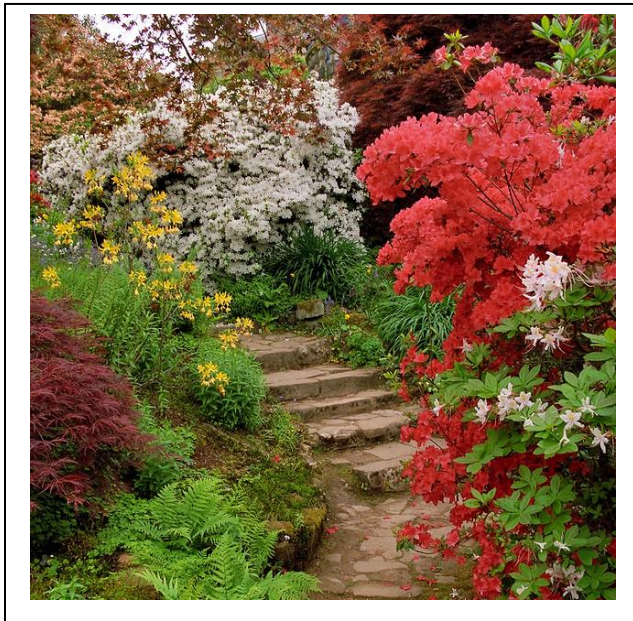
[iNaturalist tutorials](#)

[Merlin Bird ID](#)

[Texasinvasives.org](#)

[allaboutbirds.org/news/how-to-make-these-next-few-weeks-a-little-easier-courtesy-of-birds/](#)

Stay safe and stay well.



My Yearly Spring and Fall Dilemma by Mike Price



Paw paw tree flowers (pictures by Mike Price)

It happened again this year while I was looking excitedly at a newly found trillium next to several mayapples popping through the winter forest cover of pine needles and oak leaves beneath a paw paw tree showing new purplish flowers coming out on many of its limbs. I was at the back portion of my farm next to the creek that separates it from a remote part of the Sabine National Forest in Shelby County. My brain entered the thought “spring is my favorite time of year in Texas.” That is when the dilemma started again. It was just 6 months earlier when the same thought was in my

brain, except one word was different. “Fall” was there instead of “spring.”

Six months ago, I was enjoying a cool, crisp morning looking at the leaves turning their many fall colors of red, orange, yellow and tan while thinking fall is my favorite time of year. The summer heat was over, the change of seasons had begun, and the promise of winter was getting closer. I know Texas does not really have a real winter, but the temperature gets into the 30’s and 40’s and it is sure better than the summer 90’s. I was looking for fall fruits that would help to identify some of my unknown trees—

mulberry and hophornbeam were identified last fall. I was caught up in peacefulness of the fall moment when the thought of spring sprung up and reminded me just 6 months earlier, I thought spring was my favorite time of year. What a nice dilemma to have. I think I will wait another year to try to decide.

This is the time of year to see the trilliums, mayapples and paw paw’s coming to life. Be sure to get outdoors and determine if you are susceptible to the Spring/Fall Texas dilemma. If you are, you might be a Master Naturalist.

My Adventure with East Texas Cicadas by Wanda Rauscher

So fellow naturalists, I have been on a deep dive into cicadas: those late spring, summer, and fall background noise providers. Did you know there are more than 3,390 species in the world, 54 species in Texas, and a dozen species here in

East Texas? Did you know annual cicadas don’t really live for one year, but rather spend 2-5 years as nymphs underground before emerging for that final molt into noisy winged critters? They get called “annual” because most every year

some adults emerge. Did you know that female cicadas lay about 500 eggs, but 98% of the nymphs do not live to become winged adults?

(continued next page)

My Adventure with East Texas Cicadas by Wanda Rauscher

(continued from last page)

There are a lot of critters that eat cicadas including squirrels, opossums, raccoons, birds (including Eastern phoebe), moles, foxes, praying mantises, cicada-killer wasps, spiders, and even pet dogs. Did you know nymphs are expected to fall out of trees, burrow in the ground and begin feeding from roots? Thanks to Professor David C. Marshall, University of Connecticut Department of Ecology and Evolutionary Biology I have the songs for all 12 of our East Texas species and permission to use the recordings. And how did I figure out which species are in East Texas? I started with the 2013 paper, "Biogeography of the Cicadas (Hemiptera: Cicadidae) of North America, North of Mexico" by Sanborn and Phillips. Then I looked for which

species have been observed in the Big Thicket. Next, I searched iNaturalist for observation records.

I decided that I want cicadas as the theme for this year's Tyler Maker Fair (April 18, 2020). The question then becomes what to do for a hands-on craft activity. I thought about making singing cicada cards, which I did build in prototype. However, the expense is an issue with minimum cost about \$8 a piece. Then I wondered how male cicadas make such loud noises? Guess what? Yes, researchers have actually studied sound production in cicadas. The 1992 paper "A Model of the Mechanism of Sound Production in Cicadas" by H.C. Bennet-Clark and D. Young gives an answer: Helmholtz resonators. Ever blow into a Coke bottle? Ever put liquid back into an empty Coke bottle

and notice the change in pitch? You were experimenting with a Helmholtz resonator first described by Hermann Ludwig Ferdinand Helmholtz in 1862. And so, the hands-on for the Tyler Maker Fair will be small bottles that with masking tape and markers can become crude cicada models.

And adding a note of personal satisfaction I was finally able to identify the singing chorus of cicadas that occupied the river birch outside Office Max on South Broadway in Tyler that grabbed my attention on the evening of September 4. I recorded their loud singing with my cell phone and was able to compare it to the East Texas species. I believe they were *Megatibicen dealbatus* but I do admit that *Neotibicen pronotalis walkeri* can't be ruled out. Maybe in 2020 I will find some adults!



Neotibicen resh,
(photo by W. Rauscher)



Neotibicen superbus
(photo by W. Rauscher)

Mission Tejas State Park (cont.) by R. Dale Wade

the Caddoans distrusted the priests. Fearing for their lives, the Spanish burned down the mission and fled to Mexico in 1693. The Civilian Conservation Corps Company 888 erected a replica in 1934 that still stands today.

A pine savanna stretches throughout the camping area and along some trails. However, the northern section shows off some hardwood bottomlands around San Pedro Creek. From there, trails circle around to an upland forest with some steep hiking in store.

Some of the trails began for firefighting access, so the width accommodates vehicles. Gary Coker, park superintendent, explained that these are used to get to the other hiking trails throughout the park.

All hiking trails are generally well maintained with difficulty levels of 5

easy, 4 moderate, and 4 challenging. We have hiked 11 of the 13 plus 5 of 6 cross over trails. One can hike most of the trails in under 90 minutes. The Olen Matchett-Lightning-Cemetery Hill-Big Pine combination will take considerably longer. These seem to be used infrequently as they are narrow with several moderately short down & up breaks. Consider this loop challenging with a brief break along the way.

And, yes, there is a chimney on Chimney Loop, remnants of a hunter's cabin.



Like all Texas itself [Mission Tejas State Park](#) is unique given its history and diverse ecosystems. Take time to visit, sit in the bird blind, find a new crop of pine seedlings, or just

enjoy the ever-changing, never-changing beauty of natural Texas.

You can like and follow the park on [Facebook](#) for up to date photos, reviews, and information.



(photos by R. Dale Wade)

Some Facts on a Virus by Tamara Kratzer

(SARS, MERS, and the current viral disease). Bats don't seem to get sick, acting more as a reservoir of the virus if present. The animal connections are still less understood.

Coronavirus disease 2019 (COVID 19) is the latest viral disease discovered in this group. Symptoms known are fever, cough, and shortness of breath leading in severity to trouble breathing, persistent pain or pressure in the chest, confusion or inability to arouse, and bluish lips or face. An infected person may feel like they have the flu, be more tired, and newly-linked symptoms of loss of smell and taste. Some people may be asymptomatic, show few symptoms, and not get sick though still have it. It can take as little as a day up to two weeks to show symptoms while the whole time being able to flip some germs somebody else's direction.

The virus itself is called SARS-CoV-2 and originated from Wuhan, China before spreading around the world. This virus is similar to those found in bats and pangolins. I suppose considering I've heard that it possibly started from some people eating the threatened pangolin species in Asia, it could be sweet revenge for the little critter. It has been traced to a food market where animals were being sold. Whether disease-causing before or after transmission to people is not understood. We don't have to doubt what it does with people. Probably more sick of hearing about it.

Don't know if anyone could be alive who remembers the Spanish flu pandemic in 1918. Nothing like it since until now with a new pandemic. A lot has changed since then, including improved healthcare and system. We know more than ever before about how things work and leaders know better how to deal with this kind of crisis. Of course, it's also all new and only tried in those kind of movies like *Contagion* and *Outbreak*.

With all the stuff flying around about this disease, it's good to know it fits in with the usual natural system. After all we love nature but don't like everything—like mosquitoes, germs (bad ones anyway), and bugs in the house. They also can be dealt with. Right now that is maintaining distance and minding potential spread.

So while COVID 19 may bother us now big time and its newness is scary, we just have to wait this out with safety in mind. Wash hands frequently and keep social distance. If you get sick, call your doctor. Be well.

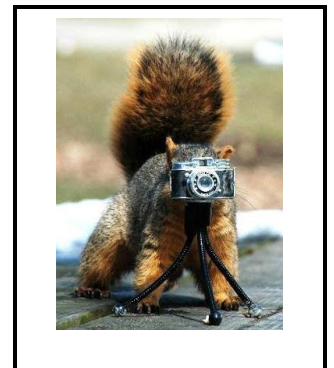
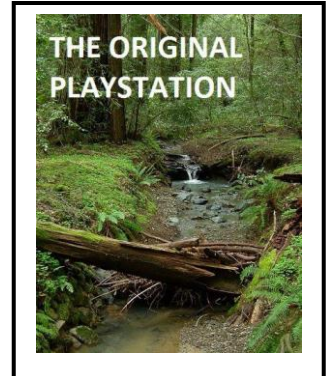
Sources:

Center for Disease Control (CDC) www.cdc.gov

World Health Organization (WHO) www.who.int

Science Daily

<https://www.sciencedaily.com/releases/2020/03/200317175442.htm>



2020 Officers & Committee Chairs

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Wanda Rauscher – Vice President
Bob Lumpkins – Secretary
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Mike Price – Volunteer Service Projects Director
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Lindsey Smith – Communications Dir
Kathy Riffe – Public Relations
Dale Wade – Website
Greg Marshall – Social Media
Tamara Kratzer - Newsletter Editor

Kevin Herriman - TPWD Advisor
Clint Perkins – Agrilife Extension Agent-Smith County Advisor

Monthly Programs

We meet the **Fourth Thursday** at 308 N Broadway in Tyler. Bring a friend, invite a guest.

at the Discovery Join us at **6:30 PM** Everyone is welcomed.

Science Place Annex for socializing before our meeting.

Bldg

Directions and Dues

East Texas Chapter
Master Naturalists
Meeting Facility:
**Discovery Science Place Annex Bldg
308 N Broadway Ave
Tyler, Texas 75702**

Directions:
On Broadway Ave on the left from the south or right from the north in downtown Tyler. Turn onto Locust and make a right into the parking lot.

Please send \$20.00 individual (\$35.00 couple)
Annual Chapter dues
to:
ETCMN Attn: Treasurer
Box 131184
Tyler, TX 75713-1184

Your news, stories, comments, photos, and ideas are needed. Tell us about where you volunteer and what you're doing,

Deadline is 15th of every month!

Please send items to Tamara Kratzer.



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