

September 2021

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Cross Timbers Master Naturalist Newsletter

President's Pen — Sharon Hamilton

By the end of the Texas summer, we—vegetation, wildlife, and humans—are usually parched. We show it. Trees give up on the lush growth of spring, dropping water-wasteful leaves well before autumn. Wildflowers, having spent all their energy producing seeds, turn brown and dry, surrendering to the actions of time that will recycle their bodies for next season's growth. If we can, we humans escape to pools, beaches, and cool showers to refresh our hot, thirsty bodies and souls. We hope for a Gulf hurricane, but not a bad one, to send precious rain to the Texas land we treasure.

Have you ever wondered what makes water special? Why is this molecule, lowly H₂O, so critical for life itself? Why do NASA spacecraft and telescopes, looking for signs of life, search first for the presence of water on a planet or moon? The nature of each molecule of water explains what makes it unique.

Like a cow magnet, each water molecule is “polar,” with an oxygen atom pulling mightily on the electrons it shares with two wimpy hydrogen atoms. Ever had trouble pulling two magnets apart, the force holding them together too strong for the brute force of your muscles? Now picture a chain or a pool of water molecules, each water molecule holding tightly and pulling on its neighbors.

The special properties caused by the powerful attractions between water molecules produce make life possible.

Because water makes up so much of our body weight, it is difficult for extreme environmental temperatures to have much effect on our bodies. Standing in a sunny, hot parking lot, you're uncomfortable. But do you want to touch the roof of your vehicle? No? The temperature of water is more stable than that of metals and most non-living materials. Equally important for life is this moderating effect on bodies of water; aquatic environments have more stable temperatures than land or air environments, supporting life in lakes and oceans.

Many organisms rely on the evaporation of water to stay cool. As water absorbs energy and breaks free of its neighbors, it takes away a tremendous amount of heat. As I told students, sweating doesn't cool you off; rather the evaporation of sweat cools your body. I could divert the discussion to why Houston is an unpleasant place to live, but you get the idea. Water is carried through plants in tiny tubes called xylem. Each water molecule pulls on its neighbors, like a line of children holding hands, moving through the halls of a school. As molecules at the surface of leaves evaporate, or transpire, other molecules are pulled up to take their places. When no water remains in the soil, plants can no longer replace the water lost at their surfaces. Native plants have adaptations to survive; exotic species in urban lawns wither and die without garden hoses or sprinkler systems.

The next time you have bored children to entertain, give them an eyedropper, a penny, and a container of water. Ask them how many drops of water they can put on the penny before the “bubble” of water falls apart. Make it a competition. Give them some waxed paper and let them race drops of water across it. Ask them to ponder why water striders can walk on the surface of water, why small rain droplets coalesce into large drops before running down a glass windshield, why water freezes on the top of a Minnesota lake but doesn't sink to the bottom, why it takes so much more time to boil water than to get cooking oil hot enough to fry bacon.

“In one drop of water are found all the secrets of the ocean.” --Khalil Gibran

Page 2 **Want a TMN Facemask?**

Note: while each mask costs only \$9.00 plus tax, FedEx Ground Delivery shipping for one mask is \$10.69! [No shipping charge for pickup at the Bryan, Texas warehouse.]

We recommend that someone purchase for a group of folks, to lower the cost of shipping for each mask.

If you are willing to manage the purchase of masks for chapter members, contact Sharon Hamilton at shamilton16@gmail.com.

It is possible that masks will be available at the State Annual Meeting, but we don't know yet.

<https://www.agrilifebookstore.org/Texas-Master-Naturalist-Facemask-p/tmn-3619.htm>



Second annual fall socially distant bioblitz in DFW!- Sam Kieschnick

Second annual fall socially distant bioblitz in DFW!

Last year, we had the first annual “fall socially distant bioblitz,” so obviously, it’s time we do our second! September 5 – 11, 2021, we will conduct another “fall socially distant bioblitz” in the Dallas/Fort Worth area on iNaturalist. Much like last year, it will be a bit of a competition among the 6 master naturalist chapters in the DFW region. Each chapter will count iNat observations in the counties that they serve (CTMN counties will be Tarrant and Parker counties). Which master naturalist chapter will have the most observations, most species, and most participation?!?

Last year’s bioblitz was tremendously successful! If you’d like to look at the results, here is the [umbrella project](#):

We had over 35k observations from 1242 participants of over 2500 species. These numbers are crazy good! I made a lengthy post about some specific results, so if you’ve got a few minutes to read it: [here](#). The Elm Fork chapter had both the most observations and the most species, but the CTMN’s were a close second in all categories!

Much like last year, we will have daily challenges (with super hard ‘sub challenges’)! Big time props to whomever can check off all of these!

As an added bonus, the City of Fort Worth is leading a “Parks for Pollinators” initiative, so observations made in City of Fort Worth Parks are especially valuable. We challenge you to go to your local Fort Worth Park and make some observations. Some of the ‘less visited’ parks may be particularly interesting.

Ideally, we want you to get iNat observations in a public place (like your local park), but observations anywhere will count during this week. Remember, for the CTMN’s, only observations in the two counties that we serve count towards the totals. If you jump over to Dallas and make observations, you’re helping our friends in the North Texas chapter!

It will be quite interesting to compare the results this year to last years – nature can fluctuate, and some years we have tremendous populations of one species, but barely any of another. So, events like these allow us to watch the ‘ebbs and flows’ of nature.

Per Sam Kieschnick, time spent making iNat observations and time spent curating (uploading your own observations or identifying other observations) will count as Volunteer Hours.

Hopefully you can spend some meaningful time outside engaging with nature! I look forward to seeing what you see!

If you have any questions or concerns, please let Sam know.

Sam Kieschnick, Urban Wildlife Biologist, DFW, Texas Parks and Wildlife. Sam.kieschnick@tpwd.texas.gov
Sambiology on iNaturalist

Definition of Bioblitz: A bioblitz is a period of time when you take photos of any living organism and upload it to iNaturalist.

iNaturalist is an online social network of people sharing biodiversity information to help each other learn about nature

It's also a crowdsourced species identification system and an organism occurrence recording tool. The easy way is to use the app "iNaturalist" on your phone. Uploading a photo helps science and research and it is just plain fun to learn about what you have photographed. Here is some general information about iNaturalist : [here](#).

Watch this [video](#) to learn how to use iNaturalist on your phone. (You can also access the iNaturalist website from your desktop.)

False Dragonhead, *Physostegia digitalis* Lamiaceae (Mint Family)

This lovely strong plant is one of the Obedient plant group. The leaves which are oval shaped distinguish it from other Obedient plants which have leaves that are long and pointed.



The pink flowers are large and the flower spikes are very large with many side blooming shoots that sometimes bloom at the leaf nodes, all along the stem. The flowers attract butterflies and hummingbirds and even little lizards perhaps looking for a meal.



It can reach 3-6 feet in height and presents a very impressive display during the hot days of summer, when other plants are taking a break.

This perennial grows best in part shade and likes plenty of water during hot spells since its natural habitat is moist areas or close to water.

Plant of the Month– False Dragonhead- Josephine Keeney



Flower with green anole

Large flower spike



1) What year did you become a Certified TMN? 2018

2) Where do you get your volunteer hours?

Primarily the Ft Worth Nature Center. At first I volunteered in Natural Guard clearing trails, clearing privet, etc. before switching to the Greenhouse. I've been going there for several years now. During the COVID interruption, we took the appropriate precautions but are active again and moving forward. I live only 8 miles away so it's convenient and is a great place to spend time volunteering or for leisure.

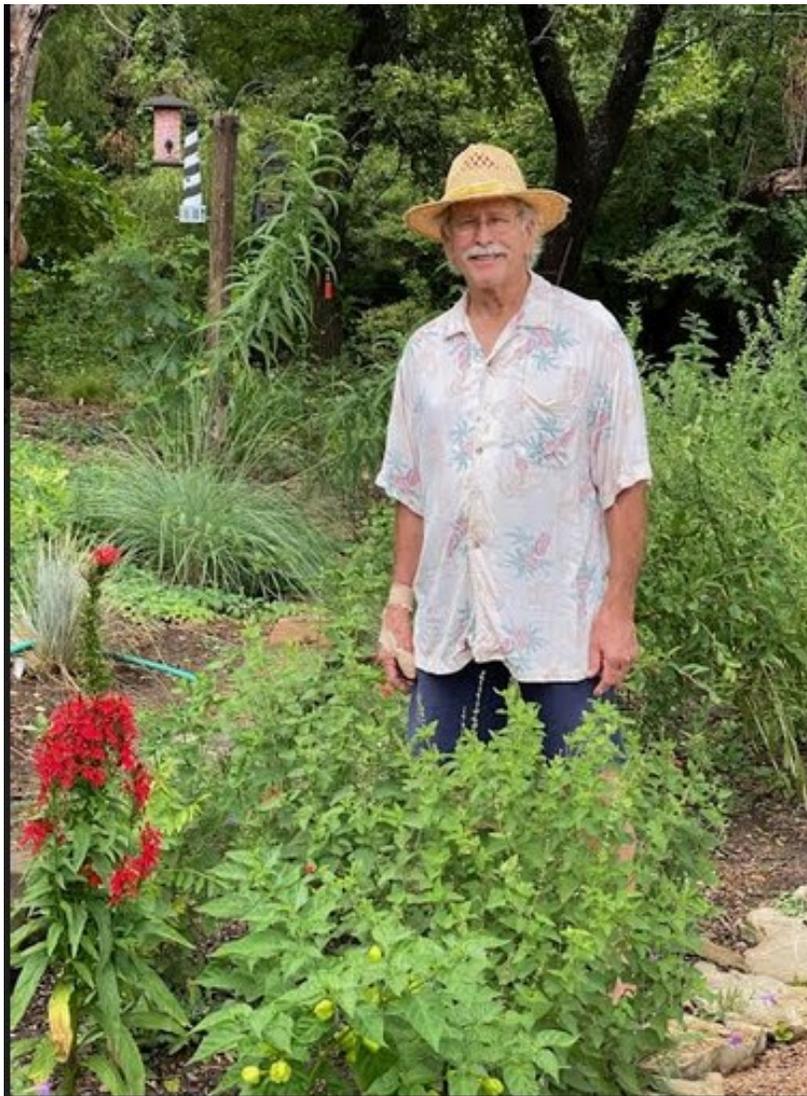
3) Where do you go to have fun? My wife and I take an annual trip to South Padre. We usually stay several days. We both love the water and getting away to a different ecosystem, and make a few side trips along the way.

4) You submitted several photos to the CTMN 2021 Photo Contest. Do you enjoy photography? Yes. I purchased a new telephoto lens, but most of the photos I've taken are with my cell phone. One of my photos was in the August issue of the newsletter "Big Sky - South Padre". I hope to get more shots for next year!

5) You mentioned living near FWNC. We have four-plus acres with a pond in the backyard, so we get quite a bit of "critter" activity. I'm slowly developing a couple large areas back to prairie. It's a learning experience, lots of work and a lot of fun.

6) Tell us about your family. We have 3 daughters and one son. My daughter in Aledo blessed us with 2 granddaughters - we try to spend time teaching them about nature and how to love it by spending time there. The youngest is pre-school and eldest is a teen. It's a great life after retirement!

7) What advice do you have for our 2021 Trainees? Get outside. Practice what you learned. Connect the dots with your training & different volunteer activities. And - You are never too old to learn something new!



What started as a photography outing to view the Lego exhibit became a mesmerizing experience watching honeybees.

A friend recently invited me to the Lego exhibit at the Fort Worth Botanical Gardens. Any excuse for a trip there is always welcome, even in early summer when it can warm up quickly. My friend is a photographer with an interest in nature while I am a naturalist with an interest in photography. I set out to photograph as many bees and flying creatures as I could find on the multitude of blooming flowers. I happily wandered through the gardens, enjoying nature in action all around me. As a naturalist I am out for a picture that will help me with identification, but I am also curious about behavior.

While scanning for winged creatures to photograph I noticed a crowd of honeybees swarming around a magnolia tree. I stepped closer and focused my attention on the behavior of individual bees on one *Magnolia grandiflora* flower. Magnolia blossoms contain pollen that is rich in amino acids and proteins, making it a good source of food for bee larvae.

Bees are usually on the move, collecting pollen from multiple intact flowers, so the gathering of bees on fallen stamens seemed like an interesting photography opportunity to me. When flower sepals and petals are identical in appearance, they are collectively called tepals. The lowest tepal of the Magnolia flower was filled with fresh stamens which resembled a stack of tiny matchsticks. A small swarm of bees were gathered on the pile collecting pollen.

Individual bees circled the cone shaped center of the blossom, enticed by the heavy fragrance. It contained stamens that were still attached to the center follicle receptacle. The honeybee would select a stamen, pluck it from the follicle and then drop it on the tepal below. The swarm then went into a pollen frisking frenzy. They collect pollen in their corbiculae, little basket like structures on their hairy hind legs. ([Video 2](#))

Occasionally a stamen from the remote edge of the pile would go over the edge of the tepal and fall to the ground in another pile on the sidewalk. I watched for a while and never saw any bees attempt to investigate the lost stamens on the ground. My guess is the fallen stamens had little or no remaining pollen.

I watched this exact behavior repeat several times before it occurred to us to capture the behavior on video. By the time we started recording, the remaining stamens were not as easily removed. The bee selected a stamen and started pulling, but it required so much force to remove that he tumbled over backwards onto the tepal below. He was holding on to the stamen like a 4H kid in a calf scramble, never letting go of his pollen prize. ([Video 1](#))

Like most research, my investigation into this behavior brought me some unexpected but interesting information. Magnolias are specifically adapted for beetle pollination with the thickened tepal tissue helping to withstand damage from the beetle jaws. They are a very ancient flowering plant, dating back to the Cretaceous period while dinosaurs still roamed the Earth. They have survived some major extinction events on our planet.

The magnolia blossom is a primitive bisexual flower with the straight (male) stamens inserted below the curly (female) carpel stigma. To reduce the possibility of self-pollination and improve cross pollination the flower has 2 separate temporal stages. The first day it opens is the female phase and the stigma is only receptive to pollination for a few hours and then the flower closes. The second day the flower re- opens and the male phase occurs, the stamens shed pollen and stamen dehiscence occurs. A recent study by Sulumaran reported beetles and bees are effective pollinators of *Magnolia grandiflora* L. in 2020.

New Behavior in Bees? - Hollie Carron

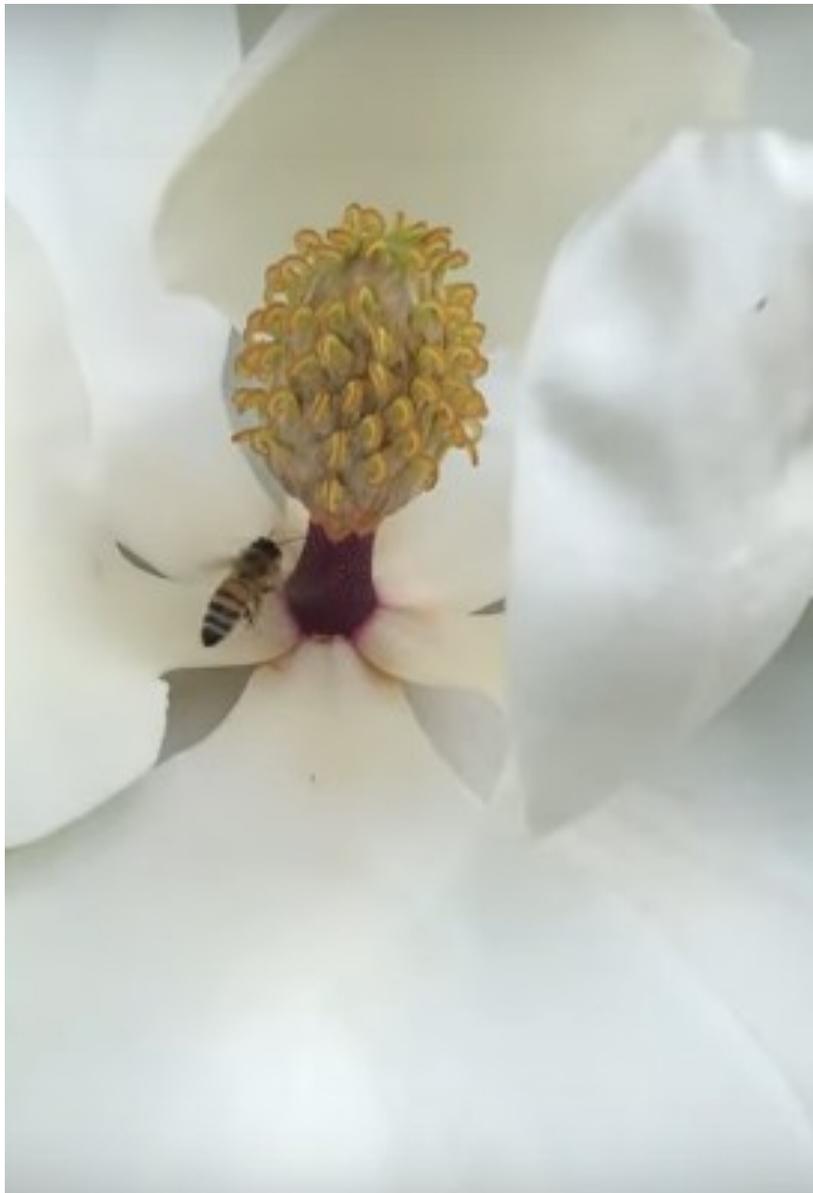
In my limited research I was only able to find a mention of the bee behavior in one [website](#) . The natural history of Magnolia reproductive behavior includes dehiscence of the anthers on the second day of the blossom opening and is complete within five to six hours. The process was already in progress when I arrived so I can't say how many of the stamens had fallen out versus being plucked out by the bees. I saw several mentions of bees wallowing in piles of stamens but no behavioral reports of bees hastening the process. To me this appears to be a problem-solving behavior.

For me, witnessing a problem-solving behavior in the natural world changes a pleasant day of nature bathing into an extraordinary day of wonder, imprinting my mind with curiosity and amazement. One of the best things about being a Texas Master Naturalist is the community you are immersed in when you start the journey. Being able to share these experiences with fellow naturalists heightens the pleasure and excitement of such moments. Perhaps it will even convert my photography friend to a fellow naturalist.

Magnolia article 1: <https://drive.google.com/file/d/1dRWxEIS9M7siLfO79ms-ncvhhn7Avob6/view>

Magnolia article 2: https://drive.google.com/file/d/1BhvPW_Axz7ximWN1vgwPhb56OgKbRjey/view

Magnolia article 3: https://drive.google.com/file/d/1cq8UK7XbWkSE4iFXg3T_O3PTy89MWSqD/view





Fallen Cottonwood Tree– Carol Marcotte

Hiking in Fort Worth Nature Center & Refuge on the Canyon Ridge Trail approximately 1/2 mile from Greer Island parking lot. We passed through a fallen Cottonwood Tree. Apparently, it fell over during the storm in our area on July 26, 2021. Diameter is over 6'.



Hackberry species occur throughout Texas; five species are trees and one species is shrub like. The two species most common across the state are *Celtis Laevigata*, also called sugarberry or sugar hackberry and *C. reticulata*, also known as netleaf hackberry or western hackberry.

The trees have strong tap roots and many shallow, spreading roots.

The forage value is fair for the wildlife and poor for livestock. Hackberry grows in rocky draws and arroyo and other low areas receiving adequate moisture.

Fruit:

A round, berry-like drupe, 0.25" to 0.5" in diameter, succulent, on a stalk longer than the leaf petioles, orange or red when ripe, but turning dark purple later in the fall, with a thin skin and yellowish flesh favored by many bird species.

Bark:

Gray and smooth at first, developing distinctive warty bumps and ridges over time; older bark is very rough with the warty ridges up to 0.75" thick.

Wood:

Rather soft, weak and decays rapidly when exposed to the elements. It is used chiefly for fuel, and occasionally for lumber. The wood has a characteristic yellowish white color.

Leaves:

Rough texture, like sandpaper. The leaf underside has large, netlike veins.

Interesting Facts:

- Common hackberry is native to much of the eastern U.S. and was named "bois inconnu"; -- the unknown tree by the earliest French explorers.
- Nearest State Champion to us is in Cass County (east Texas) on private coming in at 58' high, 175' circumference, 97' spread.
- Hackberry is a host for six different species of butterflies: Mourning Cloak, Question Mark, Hackberry Emperor, Comma, Snout, and Tawny Emperor butterflies.

Sugar Hackberry average characteristics

Height: 40.00 to 60.00 feet

Spread: 40.00 to 60.00 feet

Bloom Time: April to May

Bloom Description: Green

Sun: Full sun to part shade

Water: Medium to wet

Attracts: Birds, Butterflies

Fruit: Edible

Tolerate: Drought, Clay Soil, Wet Soil, Air Pollution

References:

<https://rangeplants.tamu.edu>

<http://texastreeid.tamu.edu>

<https://texasforestinfo.tamu.edu>

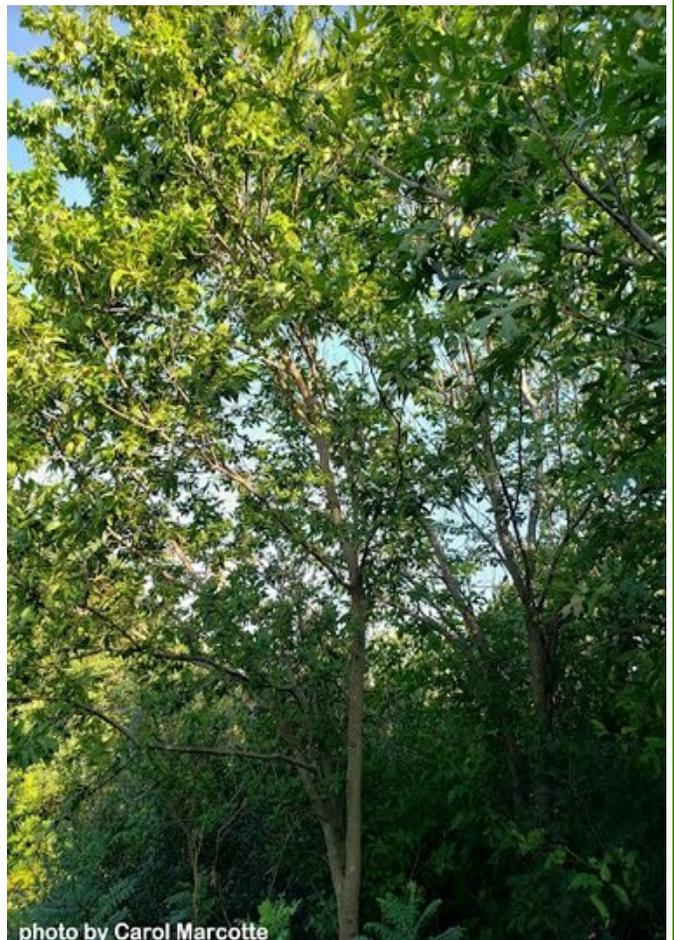


photo by Carol Marcotte



“If you have a garden and a library, you have everything you need.” –Cicero

After selecting books inside the library, many patrons walk a few feet to this garden, sit at a convenient bench, open a book, and read. Surrounded by lush blooms, they enjoy the other visitors—butterflies, moths, and bees who also find the garden irresistible. It’s a busy, yet peaceful place for visitors to pause for a break from the hectic outside world.

Founded in 1997, the garden features Maximillian sunflowers, native lantana, Mexican plums, velvet leaf skullcap, flame acanthus, skeleton leaf goldeneye, purple milkweed, Gregg’s mistflower, Turk’s cap, and rock rose. At about 20,000 square feet, the garden is watered about once a week during dry periods, using drip irrigation. A geocache is situated on the grounds.

Activities: Join Master Naturalist, Master Gardener, and NPSOT volunteers who maintain the native gardens at Fort Worth’s Southwest Regional Library. Perform general maintenance: caring for the pathway, weeding, pruning, adding and relocating plants, tree maintenance, mulching. The group also has educational classes.

Training: Learn as you work! Volunteers are happy to identify plants and animals and show you how to perform each task.

Dates and Times:
Second and fourth Thursdays each month.
Regular workdays 8:30 am to 12:30 pm
Summer hours 7:30 am to 10:30 am

Location: 4001 Library Lane
Fort Worth 76109
Six blocks north of SW Loop 820 on Hulen Street

How do I participate?
Contact co-leader Theresa Thomas at
theresakaythomas@me.com



Photos by Theresa Thomas

More photos of the Southwest Regional Library Native Garden



Pick up informational material during your visit.

Left Photo by Sharon Hamilton



Right and Below Left Photos by Theresa Thomas





Photos by Sharon Hamilton





Bird - The Beauty of Spring - Avon Burton page 15
Scenic - Bridge in FWNC - Carol Marcotte page 15
Wildlife - October Roost - Kim Conrow page 16
Plantlife - Frosted Nandia - Kikkie Cunningham page 17





2021 North Division Community Fair Needs Volunteers

Fort Worth Police Department is holding the North Division Community Fair

Saturday, October 23, 2021 from 10 am to 1 pm

8917 Tehama Ridge Parkway

Contact Sharon Hamilton for more information, shamilton16@gmail.com



For our VIRTUAL NATURE VENTURE, what makes our event a “virtual” one is that it allows you to walk, run, stroll, paddle, swim or sit – on your own time, wherever you choose — a neighborhood route, a nature trail, a park, or your backyard! You choose your place and your activity. Register by October 14, 2021 to receive these Texas Master Naturalist "branded" items, a phone wallet with removable neck strap, a cold drink koozie, and a sticker. Swag will be mailed starting on September 1, 2021.

Registration cost is \$35.

Register at: <https://raceroster.com/events/2021/50596/virtual-nature-venture>

Then if you wish, share your completion pictures, wearing your Virtual Nature Venture swag, for all to see!

Your registration for the event is a fun way to help raise funds for the Texas Master Naturalist Program and the important conservation and stewardship work our program does in Texas. While raising money for these efforts, you are also investing in your own physical and mental health.

Post your photos to iNaturalist or post photos to social media and tag with #texasnatureventure Join the VNV Facebook Group and post here <https://www.facebook.com/groups/624495215193019> or email your photos to virtual-nature2021@gmail.com and we will post them on the website

<https://txmn.org/crosstimbers/virtual-nature-venture-2021>

New Certified Texas Master Naturalists

Michelle Cyr - class 2020

Mary Burris - class 2019

Earned Certificate of Completion

Debbie Schutkowski- class 2019

Deborah Brown - class 2019

Earned Sideoats grama Service Pin

George Barton

Zachary Chapman

Brent Franklin

Banjo Moore

Betty Starnes

Fall Migration 2021: How You Can Help Migrating Birds– Carol Marcotte

Please turn out all non-essential lights from **11 pm – 6 am every night from August 15 to November 30**, especially during the peak migration period of September 5 – October 29.

Why Should I Log In My Volunteer Hours in VMS– Carol Marcotte

The VMS (Volunteer Management System) software is expected to help Texas Parks & Wildlife Department improve Master Naturalist federal grant reporting and it is expected that the software will assist Cross Timbers Chapter, and all chapters, with state reporting, recognition and management of member and activity lists.

- Texas Master Naturalist receives money from federal grants. Each hour is 'worth' \$22.00
- Self satisfaction of serving your community and being the change
- For Trainees: to become a certified Texas Master Naturalist - log 40 VH and 8 AT
- For Volunteers: to stay certified and earn yearly service pins
- To be recognized and awarded lifetime hour Milestone pins

September 2021

Sun	Mon	Tue	Wed	Thu	Fri	Sat
			I F	2 A, B	3	4 B, F
5 I	6 I	7 K, I	8 E, F, I	9 A, B, J, I	10 I	11 B, G, M, I
12	13 N	14	15 F, C	16 A, B	17	18 B, G, H
19	20 D, O	21	22 F	23 A, B, J	24	25 B
26	27	28	29 F	30 A, B		

- A– FWNC– Restorative Greenhouse from 9:30– 11:30 AM [HERE](#)
 B– FWNC– Natural Guard– Outdoor Conservation from 9 AM to 12 PM [HERE](#)
 C--Sierra Club Monthly Meeting via Zoom. Via Facebook or Meetup.
 D– CTMN Monthly Chapter Meeting via zoom
 E– CTMN Board Meeting, contact a board member if you would like the Zoom link.
 F– Molly Hollar Wildscape Volunteer Opportunity from 9 am –12 pm. [HERE](#)
 G– SW Sub Courthouse Garden 9-12 pm [HERE](#)
 H-Mineral Wells State Park, 9-11 am, [HERE](#)
 I– 2021 Fall Bioblits
 J-Southwest Regional Hulen Library Native Plant Demonstration Garden 8:30 to 12:30 am [HERE](#)
 K– Texas Master Naturalist Virtual Trainings #TMNTuesdays!
 L– Fielder House Butterfly Garden 9-12 am [HERE](#)
 M– OS Gray 9-12 am/pm [HERE](#)
 N– Knapp Heritage Park Garden 9-12 am [HERE](#)
 O– River Legacy Science Center Garden 9-12 am [HERE](#)