

Good Water Ripples



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Spring into Action

By Wayne Rhoden and Lori Franz

When this chapter began in 2010, we had very few volunteer projects and members had to scramble to find enough hours to certify and re-certify. Now we have many activities and events to choose from! During our recent Spring Class Project Fair we had an overwhelming turnout from our Project Chairs. I saw many names on the signup sheets and want everyone to get our pledges involved.

In the pages that follow you will see many volunteering activities and monthly programs to join. Garey Park is in full swing and is offering additional opportunities we did not have last year. (Remember that to volunteer there you must take their training and pass their background check, which is in addition to ours.)

The Red Poppy Festival in April will offer three days of volunteer activities. The chapter picnic in May will be a great time to mix with all chapter members and we have invited the Balcones Chapter to join us! Please watch your email for Sign-up Genius options on all the activities.

Be sure to join fellow members at the upcoming chapter meetings. On April 25, Larry Fowler, retired botanist, will speak on "How Might One Become a Field Botanist and Organize a Field Survey." You'll hear about the seven steps needed, with one of the steps to acquire education. Yet, formal academic training is not necessary; desire is the most valuable resource. Fowler's talk will include



Master Naturalists ready for action at a recent workday event.

how to become a field botanist, conduct field surveys and share that data for others to benefit. And don't forget the benefit of using iNaturalist for your data.

On May 23, Ed Sones, retired chemist from a major oil and chemical company, speaks on "Wildlife Rehabilitation." He is President of the Board of Directors with Austin Area Wildlife Rehabilitation, Inc., and is permitted by Texas Parks and Wildlife and by US Fish and Wildlife, working with all native mammal and avian species except eagles. Last year he admitted 1,070 individual wildlife at his home including about 400 mammals and 650 birds. Come hear his story and be prepared to meet a few of his ambassadors for the species!

Many thanks to all of you who take the time to volunteer for our chapter. We know that you also have another life and we appreciate you sharing your time with us. See you out there! 🐾

Mark your Calendar:

- 4/11 Native Plant Society*
- 4/22 Austin Butterfly Forum*
- 4/25 Master Naturalists*
- 4/27 GWMN River Ranch Workday
- 5/4 GWMN Picnic
- 5/6 Garey Park Volunteer Orientation
- 5/13 Master Gardeners*
- 5/23 Master Naturalists*

*Indicates Chapter Meeting

My Wildlife Rehab Experience

By Emily Pridgeon

All my life I have loved animals. Not long after I moved to Austin in 2011, I began volunteering with a local wildlife rescue organization. Eventually, I was able to become a certified wildlife rehabilitator through Texas Parks & Wildlife, which helped me support the wildlife rescue by rehabbing and raising young squirrels and opossums. The large majority of these animals come to us with injuries or as orphans due to human or animal interactions.

It is truly fulfilling to care for a young animal, see them grow and watch their

instincts kick in. Seeing a squirrel go from a hairless, eyes-closed baby relying on you for so much, watching them open their eyes for the first time, learning to eat sunflower seeds and finally to that moment of release back into the wild. It feels as though you've played an important role in helping this creature become the wild animal they are meant to be, and are giving them a chance to have that wild and free life they deserve. Stepping into a wild animal's life in their moment of need is a humbling experience and one that I am forever grateful to have been involved in. 🐿️



Wildlife in the palm of your hand.

The Monarchs Are Coming: Got Milkweed?

By Kathy Salbrede, an Aspiring GWMN & NPSOT Member

Did I just see a Monarch butterfly in Georgetown? According to Journey North, I probably did! Sightings are reported as far north as Dallas. Experts are optimistic about this year's migration even though native Milkweed plants have not yet emerged to meet arriving butterflies. Milkweed is essential, being the exclusive host for Monarch eggs and caterpillars, and our area is strategic for Monarch migration according to USDA-NRCS (Natural Resource Conservation Service). My parent's, Jack and Roberta Bokros, motivated me to take

on this project because of their love of nature and passion for helping Monarch butterflies. That's why my mother and I were inspired last year to spend many lovely (and often sweaty) days outside in the fresh air collecting milkweed seeds in a nearby pasture, and then cleaning, packaging, and distributing them. Native Prairies Association of Texas also gave us great inspiration. We deeply appreciate everyone who planted those precious seeds (as do the Monarchs)!

My dad, now 89, came along as much as he could and my parents are in the process of restoring their property in Georgetown with native grasses and plants. And every year for the annual neighborhood 4th of July parade they decorate their golf cart with giant Monarch wings and Monarch paraphernalia.

Help further by reporting sightings of Monarchs and Milkweed to JourneyNorth.org, having your city commit to the National Wildlife Federation's Mayors' Monarch Pledge, and registering your pollinator garden with Texas Butterfly Ranch. Want to harvest Milkweed seeds this May? Contact lorifranz1@gmail.com. 🐛



Antelope Horns milkweed (*Asclepias asperula*)

Coming Soon:

April 19-21

King Ranch Birding Trip

Only a few spots remain so contact Jim Haley asap if interested: irasciblej@gmail.com or 512-818-1138.

Mid-May

If interested in collecting, cleaning, or packaging seeds for Antelope Horn milkweeds for the Monarchs in Mid-May, contact lorifranz1@gmail.com. Hoping for another good crop!



June 15

Mammal Tracking by Tania Homayoun will be a no-charge, half-day workshop on the use of Wildlife Cameras. We're taking names now so contact Mike Farley at spice9451@gmail.com to get on the early list. And stay tuned to further email from Mike and/or Sign-up Genius.

Counting Clams - Adventures with Freshwater Mussels

By Amy Flinn

Sometimes it seems that there is a project on iNaturalist for just about everything. If you don't believe me, ask Kathy McCormack.

Kathy let a number of the Berry Springs Park amphibian watch team (people not afraid to get their feet wet) know that the Lower Colorado River Authority (LCRA) would be lowering the water level in Lake LBJ and Lake Marble Falls at the end of December.

According to the LCRA “[the] lakes are being lowered as a community service to allow property owners and residents affected by recent flooding an opportunity to repair property, maintain infrastructure and remove debris.”* Kathy recognized that it would also be the perfect opportunity to perform a survey of freshwater mussels.

The Texas Mussel Watch** is one of the Texas Parks and Wildlife Nature Trackers projects and iNaturalist is the method for reporting. The purpose of the project is to improve “understanding of the distribution and status” of freshwater

mussels in Texas where 15 species (of the more than 50 species located in the state) are listed as threatened at the state level.



Our plan was to check for and identify mussels in as many locations as we could in parks along Lake Marble Falls and Lake LBJ. We noted the presence

of Asian Clams and looked for signs of Zebra Mussels. Ultimately we walked the shores of two public parks and one private location (with permission).

In addition to observing five (5) different species of native freshwater mussels (Giant Floater, Tampico



Pearlymussel, Fragile Papershell, Southern Maple-leaf and Threeridge), we found Asian clams at each location and NO SIGN of Zebra Mussels at any of the parks.



We might have been a small team, but Marsha May, formerly of Texas Parks and

Wildlife Department and now retired, graciously answered our texts, reviewed our photos, and assisted in identification of individual shells when we were “not quite sure.” 🐾

Additional notes regarding this article:

The full report can be found here: https://www.inaturalist.org/journal/k_mccormack/21654-freshwater-mussels-of-texas-report-12jan2019

I will admit that I had no knowledge of mussels other than regularly observing shells and valves when hiking along waterways.

I had no idea there were so many different species in Texas. I was not sure what help I might be (all the species looked the same when I studied the handbook), but once we started (and I began to learn the terminology) it became easier and easier to recognize a species.

It was ridiculously exciting to find the different shells. The mussels were fascinating, we got to play in the mud, and, even though the day was cold and blustery, we were joined by a number of bird species – a raft of American Coots, Great Egrets, Canada Geese, a Belted Kingfisher, a White Pelican, and many more. It was a great day.

*<https://www.lcra.org/about/newsroom/news-releases/Pages/LCRA-to-lower-lakes-LBJ-Marble-Falls-beginning-Sunday.aspx>

**https://tpwd.texas.gov/huntwild/wild/wildlife_diversity/texas_nature_trackers/mussel/ 🐾

*Just living is not enough... one must have sunshine,
freedom, and a little flower.*

Hans Christian Andersen

Field Notes: More than a Solitary Bee Nest

By James (Todd) McCann

Look at the photo on the right for a moment. Think to yourself what it could mean; it's just a post with a solitary bee nest. This post has recently been the nest site for carpenter bees, while the nearby man-made solitary bee houses have been ignored by all but ants. Do you think the insects know something we don't?

A gate and fence post are made of Ashe juniper. The three posts (pictured below) form a fence corner. The posts are about two and a half inches in diameter and are five feet tall and maybe a foot and a half, buried. There is more to learn about this post. The bees are only a recent transit event in its life.

Take a minute to think of the people who lived in the area and how they made a living. Originally Cedar Choppers and Cotton Farmers were the primary inhabitants of the region.

Before the posts were cut and the fence ran, there could have been a small farm nearby with mom, dad and one young boy and girl. Perhaps if this was in the first quarter of the 20th century, in addition to what cotton they raised, they

had a vegetable patch to grow some food and a little extra to sell and maybe a still to make moonshine.

The land began to wear out and became less productive over the years. About the time of the depression most of the small farms were abandoned. I can only imagine how the farm family felt at having to abandon their home and move on.

The cedar choppers continued living in the area, cutting cedar, making charcoal, selling moonshine, and living off the land. Let's look at the nest post again. Think of what else has gone on in the



Post with bee nest.

area since the post was cut. It is impossible to date when it was cut exactly but a good bet it was during the first half of the century or earlier. One clue as to how and when it was cut is at the top. Axe cuts are angular, and if more than one usually form a "V"; saw cuts are flat and perpendicular to the sides. The posts show signs of having been burned at some time in the past. Maybe a wild fire, but most likely a recent controlled burn to help restore the land to its past glory.

Beginning in the 1940s ranching took over the region; posts were cut and fences run to control cattle. You can still see posts forming a fence line running north and west. Who knows who put it up? Let your mind run free, maybe like me you can visualize a tall lanky Texas rancher and his family.

The location of a more recent house is unknown but there are a few signs of its existence. One sign is a rather large pen-like structure in the possible area of the farm house location. The posts are square-cut, smooth-cut by a saw in a more recent time, probably the 1950s or later. Axe-cutting cedar posts had almost



Three posts forming a fence corner.

totally ended by the 1960s. Deer, foxes, coyotes, and feral hogs travel through the pen. Abundant insect life can be found here as well.

Not too far on the southwest there is a tin-roofed, cedar-log structure. If you are quiet, you may sneak up on numerous lizards sunning themselves on the logs. The structure is made of of both axe-cut and saw-cut posts.

The builder was practicing recycling before it had a name. In this case it was not only smart land care but financial concern as well.

The axe-cut cedar posts are a testament to the cedar choppers that lived in the area in the first part of the 20th century. Four-inch and larger cedar posts cut with two or three axe swings says it all.

Returning to the bee post not too far downhill is a shallow creek that flows continually unless there is a major drought. It is well visited by the local animal and insect life, and there is a bat house nearby. There are even a few small fish in the deep pools. When the water is low you can see the tracks of the variety of animals that visit: skunks, foxes, coyotes, and raccoons to name a few. There are also numerous bird tracks. The area is abundant in butterflies, pollinators, and dragonflies.

If you go south downstream via the trail, you will find a small shallow pool, and if you listen carefully you may hear some frogs. This area is



Above: Tin roofed, cedar-log structure located in Balcones Canyonlands National Wildlife Refuge. Below left: Small shallow pool.

frequented by birds bathing in the calm waters. There are a few nice rocks to sit on in the shade where you can just exist in nature. Even on a hot summer day the shade is cool and frequently there is a breeze.

This is a perfect place to meditate and

think of the land and its past, present, and future. It can't get better than this!

Yes...this place actually exists: Doeskin Ranch, Balcones Canyonlands National Wildlife Refuge.

I challenge you as a Master Naturalist to look past the science, and your own area of interest, as well as the now and see more than the plants and animals. Visualize the past in the region and become part of it then, now, and in the future.

Photos: Public Domain, US Fish and Wildlife Service: Photos by: Todd McCann/USFWS Volunteer

Bib: The above is a composite of many books and articles on the region and a little story-tellers' imagination and wishes.

This is a condensed version of a longer article. I intentionally refrained from plant and animal identification to keep the focus away from science. One book to look at is: Ken Roberts: The Cedar Choppers: Life on the Edge of Nothing; Texas A&M University Press, 2018. 🐦



Raccoons - Masked Bandits

By Mary Ann Melton

Raccoons, *Procyon lotor*, are common visitors in urban areas. The name comes from the Algonquin Indian word, “arakun” which means, “he scratches with hands.”

They are in the Procyonid family along with ringtails and coatimundi. Raccoons are easily recognized by the black mask

over their eyes and their bushy striped tail. Native from Canada to South America, they were brought as pets to Europe and are continuing to spread as an invasive species there. Adapted so well to urban areas, they can become nuisances raiding dog food from porches and knocking over trash cans for their evening meal.



They have five fingers and five toes. The hind feet are plantigrade, meaning they walk on the sole of their hind feet as humans do. The hands are very small so they can get inside and work away at things. Even without opposable thumbs, raccoons' hands are dexterous and have specialized hairs called vibrissae. The vibrissae are extremely sensitive to touch allowing them to locate objects without touching them. They become more sensitive when wet, so the “washing” is really allowing them to take in more information. Their fingers aid them in feeling stream bottoms for food, climbing trees, and opening containers and garbage cans.

They are amazingly agile getting through tight spaces. Putting their back feet out, their spines go flat allowing them to pass in spaces only two inches tall. No wonder they frequently find their way into homes, garages, and attics.

Raccoons are omnivorous, taking

advantage of available food sources. They eat fruits, nuts, insects, aquatic invertebrates, fish, small rodents, frogs, bird eggs, carrion, and human garbage. They gorge on food during warmer months and then find dens for the colder winter months.

They don't hibernate, but they do enter a state of torpor where they lower their body temperature and metabolism to reduce energy use, so they will not need to venture



out in winter cold to search for food. Where winters are warmer, they are active all winter.

Raccoons are usually nocturnal, sleeping during the day in their tree dens. They have both excellent night vision and a keen sense of hearing. They are agile climbers and strong swimmers. They communicate with hisses, growls, and whistles.

With a great memory and high intelligence, raccoons are excellent learners and problem solvers. Research shows they can solve a problem, remember the solution and use it again years later. My favorite

raccoon story at my house involves a metal trash can with a lid on my front porch. The raccoons had discovered how to remove the lid and help themselves. After I put a chain on it, one evening a raccoon looked into my window and looked like it was snarling at me for preventing it from getting food there.

Breeding season ranges from late January to March depending upon the climate. In southern areas, breeding occurs all year. Males may mate with several females. The females choose only one mate and do not tolerate other males after mating. Female raccoons have a litter of one to seven kits. Litter size is larger in the northern colder regions. Kits

are born without teeth and the eyes are closed. Eyes open around two weeks and teeth appear a few days later. The young stay in the den around eight weeks, then they leave to hunt with their mom. The mother raccoon teaches the kits to climb, hunt, and swim during the first summer. The kits usually remain with the mother until her next litter. The father does

not help raise the kits.

Lifespan in the wild is short, only three to five years. Entire populations are usually replaced every seven years. There are a few records of raccoons living 12-16 years. 🐾

For more information about the Good Water Chapter contact us at:

<http://txmn.org/goodwater>
or
goodwatermn2@gmail.com

UPSTREAM / DOWNSTREAM

• April 6

11th Annual Plant Sale
Williamson County Master Gardener
Assn.
<https://txmg.org/williamson/special-events>

• April 6

Landscape Learning Day at Elisabet
Ney Museum
http://texasprairie.org/index.php/our_chapters/

• April 13

Eggstravaganza at Garey Park
<https://parks.georgetown.org/garey-park/special-events>

• April 15 - May 15

(your choice of day)
Great Texas Birding Classic
<https://tpwd.texas.gov/events/great-texas-birding-classic>

• April 19-21

King Ranch Birding Trip
irasciblej@gmail.com
Only a few spots remain; call if interested asap: 512-818-1138

• April 20

Earth Day
<https://www.earthday.org/>

• April 20

Family Nature Fest at Garey Park
<https://parks.georgetown.org/garey-park/special-events>

• April 26 - 28

20th Annual Red
Poppy Festival
<https://poppy.georgetown.org/>

• April 26 - 29

City Nature Challenge
<http://citynaturechallenge.org/>

• May 17 - 20

Bioblitz: The
Timberlake Biological Field Station
<https://www.tarleton.edu/programs/timberlakeranch>

Risk of Migration vs. Reward of Survival: An Insect's Choice in an Ever-Changing Landscape

By Mike Farley

Evolution takes on different strategies to survive. Stay in one place and hope that isolation does not limit resources of future populations, or be adaptable to the changing landscape. Or taking flight in search of new resource rich territories to increase



the chance of survival thereby broadening a species distribution.

The risks associated with migration include predation, prevailing winds, and a reduction of fecundity, which is the quality of reproducing young in great numbers.

Research from the last few decades has shown that Mexican-freetail bats, *Tadarida brasiliensis*, time their migrations and feeding strategies. They capture migrating insects, at high altitudes, many of which happen to be serious pest problems for many farming crops that humans need to survive.

Of those insects preferred by bats as high flying meals, Lepidoptera and Coleoptera each provide approximately 20% of a bats nightly consumption, with Hemiptera also high on the menu. The strategy of a mass migration swarm results in a greater chance of species survival.

Weather patterns and storms can easily shift and deposit populations in an area that may not be suitable for survival. It is not unusual to find a species out of its range after a large storm.

After an exhaustive migration, is there enough energy to sustain the population going forward? What birding naturalist has not heard of the "Fallout." Weakened from flight, both males and females will have a much lower fertility rate of success. Species that have evolved to migrate will have a shorter abdomen with a larger thorax to provide muscles for longer wings and space for energy stores. The fuel stored for flight is Triglycerides.

The fastest way for migrating species of insects to reduce the loss of fecund after migration is for the females to employ muscle histolysis, or the breakdown of bodily tissues in metamorphosis.

A common insect reproduction tactic often referred to as "oogenesis-flight syndrome," focuses early life wing morphology on migration and adult post-migration on reproduction. The correlation of the muscle histolysis rapidly improves the fecundity. As the flight muscles are reduced, ovaries become larger. In non-migrant species the ovaries are larger early, have shorter wings, and longer abdomens, subsequently reproducing much earlier in life.

As shifting migration patterns are becoming apparent, at least in part to changing climate, the future of many populations of both arthropods and mammals may be altered.

Though it is often hard to see the value of an insect, especially a major pest, they provide a necessary balance in the role of nature and our co-existence.

The Evolution and Genetics of Migration in Insects Derek A. Roff Daphne J. Fairbairn
Bioscience Vol 57 Issue 2 Feb. 1, 2007

Climate Change is Causing Bats to Migrate Earlier in the Year Kyree Leary *Futurism.com*
Earth and Energy Feb. 16, 2018

Dietary Variation of Brazilian Free-tailed Bats Ya-Fu Lee Gary F. McCracken *DEEB University of Tennessee Journal of Mammalogy* 🐛

Nature's Calling: Junior Master Naturalist/Master Naturalist



Junior Master Naturalist Braden Langston

I am in my last year of the Junior Master Naturalist Program and just celebrated my 12th birthday. I have two sisters, Samantha, eight, and Allie, five. My two-year-old brother Rylan, is my buddy. I also live with two cats, Nemo and Hope (who is blind), and two wiener dogs, Hans and Elsa.

I am home schooled and in the sixth grade. I like math and doing basic science experiments, playing video games, and the challenge of *Parkour. My family also likes to visit state and national parks.

I like hanging with my friends, most of whom are involved as I am with "Earth Native." It is a wilderness survival program and lately I learned about animal tracks, and edible and poisonous plants in nature. When we were at McKinney Falls I found a shark's tooth and a piece of petrified wood. Also, I like being alone outside and usually spend about 15 minutes several times per week observing nature in my "Sit Spot."

When our family was in Oklahoma, I got to see an emerging bug on a hiking trail. That was pretty cool. I think I would like to be a paleontologist because I like rocks, fossils and also sea creatures.

I am concerned about the bunnies and coyotes that once surrounded our home but are now gone due to all the development. I especially think it's important to preserve space for nature and I think we need to focus on littering.

**Editor's Note: Parkour involves seeing one's environment in a new way and imagining the potential for navigating it by movement around, across, through, over, and under its features. (Wikipedia)*

For more information on the Earth Native Program, go to <https://www.earthnativeschool.com/>

A "Sit Spot" can become like an anchor in your life -- a place to settle down, cultivate present-moment awareness and a quieter mind, and to observe the flow of reality occurring around you. 🐦



Master Naturalist Bonnie Sladek • Certified 2010

I grew up in the small town of Taylor, but I spent weeks at a time at my grandfather's farm. I love spending time alone outside, especially in spring, and fall and summer mornings. I love vegetable gardening, flowers, and wildlife. My hobbies are cooking and playing dominos. Since I lost my last dog, I haven't gotten another pet. They're so hard to lose. We have chickens and guineas, and some cats have recently taken up residence. If I could have been anything I wanted to be, I think I would like to have been a microbiologist.

But I honestly don't think I loved science as a kid. It has been a long time ago and I only remember dissecting a worm. I became interested in soil health when we had our nursery and I'm concerned that not enough attention is paid to this problem. I liked working with our ver-

compost, but no thanks to the dissecting!

The coolest wild animals I can think of are the sea otters we saw in Alaska. They floated in the rough ocean on their backs so calmly with babies on their stomachs.

The puffin was also amazing.

I'm very concerned about what our planet will look like in the future. We are creating so much trash and pollution that I feel we must stop this madness and take care of Mother Earth. I hope we can keep wild natural areas, and I believe that every living thing is part of the web of life.

Recycling is important, and green spaces are necessary so we can open the eyes of our children and adults to the heartbeat of nature. Education and outdoor experiences are most important. If we get the understanding and tune in to nature, we will want to take care of it.

Nothing is as comforting as experiencing the outdoors, whether it's bird-watching, learning native grasses and flowers, soil biology, or whatever involves the natural world around us. So many discoveries have been made by observing nature. 🐦

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