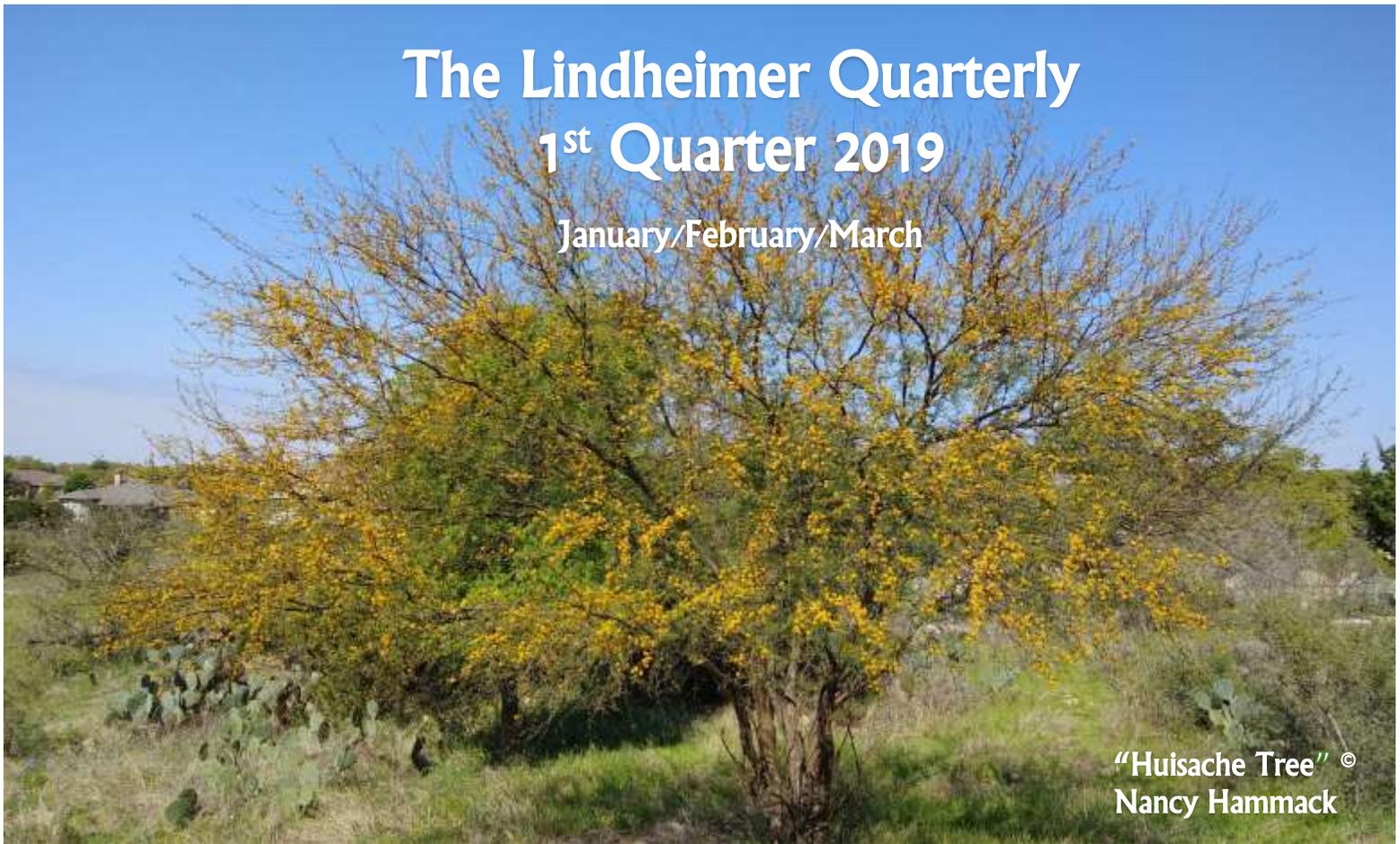


The Lindheimer Quarterly

1st Quarter 2019

January/February/March



“Huisache Tree” ©
Nancy Hammack



Lindheimer Chapter Texas Master Naturalist President’s Message

April Membership Meeting: “State of the Chapter”

You are all encouraged to attend the April Meeting which will be a “State of the Chapter” update. You will find out what your Board is doing to support you and our mission.

Our Mission

“To develop corps of well-trained “Master Volunteers” to provide education, outreach and service dedicated toward the beneficial management of natural areas and resources within their communities for the State of

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We will discuss the changes to the Chapter Operating Handbook (COH), the budget, dues, and the vision we would like to pursue for the future of the Chapter.

--Rich

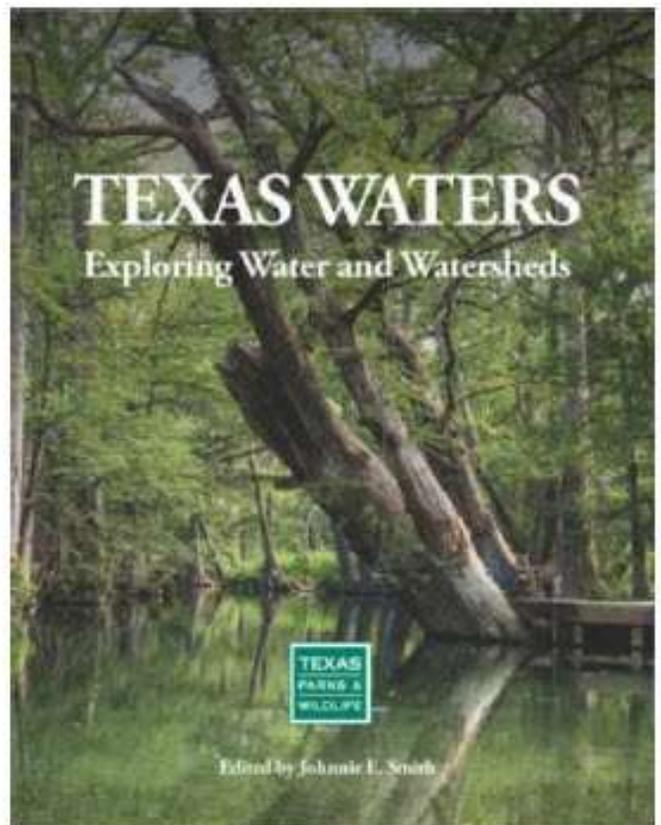


Texas Waters Specialist Certification Classes

- The purpose of the Texas Waters Specialist Certification is to "develop a corps of well-informed volunteer specialists who provide education, outreach & service dedicated to the beneficial management of aquatic resources & aquatic habitats within their communities for the state of Texas."



- There are 3 classes totaling 9 hours of Advanced Training using the **Texas Waters Curriculum** which will certify you as a Texas Waters Specialist.
- **Prerequisite** for this class is **Certified Texas Master Naturalist™** or **Master Naturalist-in-Training**. **Need to attend all three classes in order to certify.**



Texas Waters Specialist Certification Classes Presented by Lindheimer Chapter

WHEN: Monday, May 13, 2019 1:00 - 4:00pm
Thursday, May 23, 2019 2:00 - 5:00pm
Thursday, May 30, 2019 1:00 - 4:00pm

WHERE: Tye Preston Memorial Library
16311 S Access Rd, Canyon Lake, TX 78133

WHO: Marilyn McFarland

SIGN-UP: Send an email to LindheimerMNContact@gmail.com stating you'd like to take the class or want more information. Deadline to sign up is May 1, 2019. Class size is 15.

One spot left in the class!

MONTHLY MEETINGS

January 17, 2019 Meeting

“Spying on Bats: Using New Technology to Understand Behavior and Reduce Impacts Caused by Wind Energy”
Danielle Cordani, Texas State University Wildlife Biology and B.A.T.S.

By Carmen Horn, Editor

More than 90 attendees gathered at Tye Preston Memorial Library for the January 17th, 2019 LMN Meeting. “Spying on Bats” was the subject of the presentation by Danielle Cordani, Research Assistant at Texas State University. Ms. Cordani was assisted by Jacob Rogers, also with TSU.

Common misconceptions about bats include that they may be flying rodents, vampires, blind or rabid. Bats are mammals in the Order Chiroptera, which is the second largest Order of mammals currently in existence. Bats evolved 52 million years ago and are the only existing flying mammals.

The various types of bats (genera) are numerous as are their means of sustenance, appearance and habitats. They can be herbivorous, carnivorous, insectivorous, sanguivorous, frugivorous or piscivorous. Their habitats are equally diverse, including under bridges, in house attics and other structures, trees, caves/rocks. Bats generally give birth to 1 to 2 pups per year and can live from 20 - 35 years. Generally, bats do not thrive in cold weather and some species are migratory.

While being a vigorous group, bats fall prey to “White Nose”, a fungal condition which spreads quickly in a colony. They have also suffered from habitat loss and the effects of climate change. The production of wind energy through turbines is also a threat to the bat population. With Texas being the United States’ largest producer of wind energy, Ms. Cordani is conducting research into the exact causes of bats being drawn to these turbines and their subsequent mortality. She and her colleagues are currently collecting data in Starr County.

Ms. Cordani encouraged everyone to be an advocate for bats by volunteering or donating to an organization such as Bat Conservation International, Bat Friendly - University of Mexico The Tequila Project or Bracken Cave Preserve. Approximately ten bat specimens were available to examine their differences and similarities.

Following a brief business meeting, **The Community Naturalist Award for 2018 was presented to Headwaters at the Comal, accepted by Ms. Nancy Pappas and Ms. Lauren Strack.**

Master Naturalist Certification, Recertification and Volunteer Hours were also awarded. Many thanks to our hosts & hostesses for an abundant buffet. Also, thanks to those who stayed after the meeting to rearrange tables and chairs and clean the meeting room.

L > R: Lauren Strack, Nancy Pappas, Rich Nielson



February 21, 2019 Meeting

“Upland Birds of the Texas Hill Country”
Craig Hensley, Natural Resources Specialist III TPWD
Wildlife Biologist, Comal & Kendall Counties

By Carmen Horn, Editor

The speaker for the February LMN Meeting was TPWD’s Craig Hensley, LMN Chapter Advisor and Wildlife Biologist for Kendall and Comal Counties. Craig delivered a program on Upland Game Birds of the Texas Hill Country - complete with a fascinating collection of photos captured by both amateurs and professionals with TPW. He also discussed the musical calls of the birds and demonstrated the cacophony that can be created by groups of the birds in excited ‘conversation’ all at once!

These birds are known as “Gallinaceous” and referred to as “Galliformes” which means “chicken-like”. There are 22 species of these generally ground-dwelling birds in North America and they forage for insects and seeds/vegetation. They typically have rounded wings with most males having ornamentation around the head. An interesting fact about the entire species that they are “precocial” - the young are capable of flight within 10 days after birth.

The Galliformes found in Texas are the Chachalaca, Wild Turkey, Ring-Necked Pheasant, Attwater’s Prairie Chicken, Scaled Quail, Gambel’s Quail, Montezuma Quail and Northern Bobwhite.

These birds were seriously threatened with extinction in the early part of the 20th century. However, due to efforts by conservation agencies such as TPW as well as laws preventing over-hunting and efforts toward habitat management, the Wild Turkey population has largely stabilized. However, while improving, the quail population remains threatened, with large scale recovery efforts currently underway to preserve the Northern Bobwhite.



“Galliformes (“chicken-like”) found in Texas are the Chachalaca, Wild Turkey, Ring-Necked Pheasant, Attwater’s Prairie Chicken, Scaled Quail, Gambel’s Quail, Montezuma Quail and Northern Bobwhite.”



(L) Photo of female & male turkeys by Nancy Hammack. (R) Photo of Gambel’s Quail by Joyce & Jim Doyle.



March 21, 2019 Meeting
“Bird Song: Nature’s Sweet Tweets”
Patsy & Tom Inglet, Ornithologists

By Carmen Horn, Editor

Patsy and Bob Inglet Demonstrate “Birdsong - Nature’s Sweet Tweets

“Birdsong - Nature’s Sweet Tweets” was an apt title for the delightful program of birdsong presented by Patsy and Tom Inglet at the Lindheimer Master Naturalist March Meeting. Since their respective retirements (Patsy was an educator and Tom an engineer) the Inglets have worked as “professional volunteers” as Master Naturalists with a passion for birding.



“Birding is good for you physically, mentally and spiritually. You get outside. You use your brain. And it’s about something bigger than you!”
Patsy Inglet

The Inglets have banded birds in the field, monitored birds in the nest and taught many kids and adults the basics of birding. They also teach teachers how to incorporate birds into their lesson plans in the Flying Wild Program. They are members of the Alamo Chapter of Texas Master Naturalists, Docents, Board Members and Outdoor Classroom Instructors with Cibolo Nature Center and with Lake Mitchell Audubon Center. Patsy Inglet says, “Birding is good for you physically, mentally and spiritually. You get outside. You use your brain. And it’s about something bigger than you!”

Well prepared with recorded bird calls of many kinds, but mostly concentrated on those birds native to our area, Patsy said that using the learning techniques she gave us in her lecture, we could be able to identify birds simply by hearing their song! She refers to the practice as “birding by ear”.

Patsy also urged everyone to help with the conservation effort, by planting native plants, feeding and watering the birds, giving them shelter from predators and by making generous donations to conservation agencies such as the American Bird Conservancy. She also recommended purchasing “shade-grown” coffees.

Comal County Conservation Alliance Celebrates First Birthday
by Elizabeth Bowerman

The Comal County Conservation Alliance will be one-year-old in May and is rolling out its public education campaign, **Conserve Comal!** The primary goal of the campaign is to increase awareness of the importance of the natural resources in our area and encourage people to get involved in the effort to protect them. The blue exclamation point represents the urgency of protecting the Texas Hill Country now.

CCCA’s **Conserve Comal!** campaign will partner with local groups such as LMN to present educational activities for the public. Please watch for opportunities to participate in these events and get LMN Volunteer Hour credit while you help spread the word about preserving land, water and the native flora and fauna. Check out the CCCA website at: www.comalconservation.org or contact Elizabeth Bowerman at cdrliz@satx.rr.com.

The Song Dog

by Marilyn J. McFarland

The name coyote comes from the Aztec word “coyotl” meaning “barking dog.” In traditional Native American storytelling, the coyote appears as a cultural icon endowed with supernatural abilities and revered as *God’s Dog*, *Medicine Dog*, *Song Dog* and *Old Man Coyote*, impersonating the Creator to bring fire and other gifts to humans.

Countless tales portray the coyote in a variety of ways: shapeshifting trickster, buffoon, thief, lecher and wise counselor. “The coyote is our classic totem animal in America,” says naturalist and historian Dan Flores, author of *Coyote America*. “It’s the animal that produced the oldest body of literature in North America in the form of Indian coyote deity stories from 10,000 years ago.”

Coyotes are a native species! They evolved solely in North America more than 5 million years ago and have originally inhabited the central plains and arid lands, from Canada to central Mexico. **Lewis and Clark were the first to document a sighting of coyotes in 1804.** Per the Smithsonian, “Coyotes were not known in the eastern

woodlands of Lewis’ native Virginia at the time of the expedition. By contrast, coyotes can be seen regularly today in the Atlantic states, and they now range from Florida to Alaska, and from Maine to Costa Rica. Coyotes are even known to eke out a living in large cities such as Los Angeles and Boston! This successful expansion has led to their victimization by humans, though without any great success in controlling this survivor’s numbers.”

The coyote’s steady continental expansion and growing numbers, along with America’s westward march, put them into conflict with Western cattle and sheep ranchers.

From 1947 to 1956, U.S. Department of Agriculture agents killed 6.5 million

COYOTES. By some estimates, state and federal agents, hunters and ranchers killed more than 20 million coyotes in less than a century. According to Flores, intensive poisoning caused a near regional collapse of coyote populations in the Texas Hill Country in the 1950s and ’60s. **Today, about 500,000 coyotes are killed each year in the United States.** Most states, including Texas, classify coyotes as non-game animals, with no protection or regulatory oversight. While most are killed to protect livestock, coyotes are also targeted because of their growing presence in cities and suburbs. “Coyotes are one of the most hunted species in the U.S. in the past 100 years,” says Kelly Conrad Simon, an urban wildlife biologist for the Texas Parks and Wildlife Department. “There may be a limit to coyote resilience, but we haven’t reached it.” They are listed as “least concern” for extinction; indeed, there is the opposite problem of overabundance. As humans have decimated wolves – the coyote’s natural predator – coyote populations have skyrocketed and are now widely distributed in Canada, US (all 50 states), Mexico and Central America (sighted in Panama in 2013). Coyotes are in most urban and suburban areas in the US.

The **largest concentration of coyotes is reportedly in Yellowstone Park.** When wolves were extirpated in the park and left an apex predator void, coyote populations expanded. Over the last 20 years, since wolves have been reintroduced and wolfpacks have increased, coyote populations in some areas have decreased by 50%. Wolves kill coyotes on sight. It appears that the only way to contain a coyote population is by wolfpack!

Basic Coyote Facts

The coyote, *Canis latrans*, is a member of the Family Canis, consisting of dogs, foxes, wolves, jackals and coyotes. There are **nineteen (19) subspecies of COYOTE** according to ITIS (Integrated Taxonomic Information System). And yes, there is a “Texas” coyote – subspecies *Canis latrans texensis*.

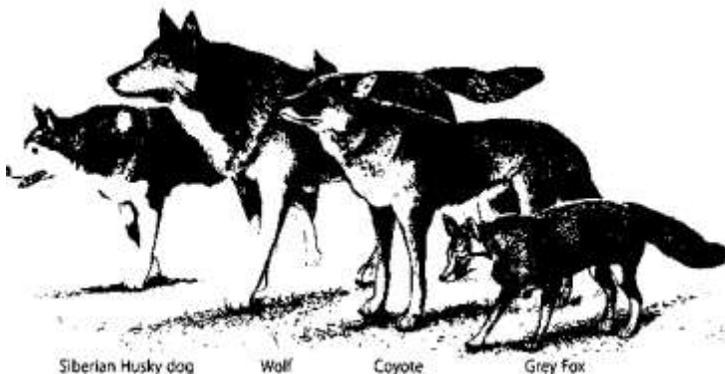
The average male coyote stands about 21 – 24 inches tall, is 30 – 38 inches long (excluding tail) and weighs about 20 to 50 pounds. Females are smaller and shorter. **Size is**

geographic, being smaller in the warmer southern regions.

The largest coyote on record was a male killed 82 years ago (1937) in Wyoming which measured 1.5 m (4 ft 11 in) from nose to



Coyotes are a native North American species, evolving more than 5 million years ago.



tail, and weighed 34 kg (75 lb). Coats can be gray, white tan or brown – mountain coyotes are typically darker than desert coyotes.

Coyotes are **highly varied in diet** and habitat. They are not picky eaters, but generalist omnivores that will eat fresh meat, carrion, reptiles, amphibians, bugs and vegetation, and yes, on occasion, pets. They **make do with whatever habitat is around them**, requiring formal shelter such as a den only to birth and raise their pups for the first few weeks. They have adapted well to humans, and are thriving in urban environments. Near farms coyotes commonly take livestock, especially sheep. They also can cause damage to fields of ripe watermelon, honeydew, and other market fruits. Near cities coyotes **have been known to kill and eat pets vulnerable to predation**. There are several reported cases of attacks on humans, including at least one fatality. However, such events are extremely rare and typically occur where coyotes have lost their fear of humans, such as near suburban areas, where humans either purposefully or inadvertently provide food for them. Coyotes generally fear and avoid humans, but they habituate well to human presence.



Coyotes have sharp pointed ears which never drop, a sharp pointed nose, and long bushy tails. They carry their tails down, as opposed to horizontal (fox) or up (dogs and wolves). Their eyes are **yellow** with round black pupils. The coyote is a strong swimmer, has keen eyesight, smell, and hearing, and can **run at speeds up to 40 mph**. But their most important characteristic is their intelligence. **Intelligence puts coyotes in a class by themselves**. They have learned to take advantage of man and engage in creative hunting. They have a reputation for swiftness and cunning. There are stories of coyotes creating diversions, luring prey into killing distance, or picnickers away from their lunches. There is a reason why Native Americans called coyote a trickster, and imbued the coyote with almost supernatural abilities: **they learn very fast**.

Coyote Habits and Behavior

Coyotes have flexible social lifestyles – they can be **solitary**, or live in **packs** with an alpha couple and generally young offspring. Through their lifespan, they will live both lifestyles. They team up to bring down large prey such as deer or elk. They are primarily nocturnal hunters, although to feed their pups they will hunt during the day. The closer coyotes live in proximity to humans, the more they will feed on non-wild food sources – domestic farm animals, small pets, occasionally garbage. Litters, and packs, are smaller where diets are wild. They mark their territory with both urine and scat. **Coyotes are territorial** and both members of a breeding pair defend the territory against other coyotes. Territories are marked with urine and feces, and they will vocalize to inform other coyotes of their territories. Most territories are about 4 – 15 square miles, depending upon the abundance of food.

Sexual maturity occurs at 20 – 24 months. **Coyotes mate for life and are monogamous.**

February/March is breeding season with gestation 63 – 65 days. The mother coyote seeks out a den – usually a den abandoned by another animal, although they will dig their own if need be. Litter size is 3 – 12 pups, depending upon food supply and density of coyote population. Males help with raising the litter, bringing food for the female and pups, and protecting them from predators. The mother coyote will move her pups from den to den if she suspects any danger. Pups open their eyes at about 12 days, and by 6 – 9 months are old enough to hunt for themselves. Only **about 20% - 30% of pups survive the first year**. Their numbers are decimated by predators and disease, being prone to typical canine illnesses (mange, distemper & parasites). Life expectancy in the wild is up to ten years.



Coyotes can mate with dogs, creating offspring called **"coydogs."** Coydogs are fertile, but have a small population because they tend to mate and have pups during the winter, making it harder for the pups to survive. Male coydogs do not help the females take care of the pups, which also contributes to poor survival rates.

The coyote **competes with several other carnivores**, especially in the northeast, where coyotes were previously absent. Lynx and bobcats compete for the same foods (hares and rabbits), and the success of each of these predators depends on the setting. The coyote also competes with the red fox - which it will kill upon encountering. For this reason, areas with high coyote densities often harbor few red foxes. Occasionally, larger animals such as wolves or cougars prey on coyotes. Where wolves have been reintroduced, coyote populations decline, as wolves will kill coyotes on sight.

Vocalizations

It is the complexity of the coyote's vocalizations that earn it the name of the Song Dog. Marc Beckoff, PhD, in Psychology Today (December 2017) states: "Based on extensive and detailed research that involved recording and playing back howls and yips and observing the behavior of captive and free-ranging coyotes, wildlife researcher Philip Lehner 40 years ago placed coyote sounds into three general categories:



- **Greeting:** Sounds include low-frequency whining, wow-oo-wowing (often called a greeting song), and group yip-howling (when reuniting and greeting).
- **Agonistic:** These are vocalizations used during aggressive interactions and when coyotes display submission. They include woofing, growling, huffing (high-intensity threat), barking, bark-howling, yelping (submission and startle), and high-frequency whining (usually given by a subordinate coyote).
- **Contact:** Sounds include lone howling (one of the most common vocalizations), group howling (when reuniting or in response to lone or group howls or yip howls), and group yip-howling (which may announce territory occupancy and may help regulate density of population).

Howling sounds can travel about 1,000 yards and can be used by coyotes to identify who's calling, their gender and perhaps their mood. Transient coyotes don't usually vocalize as much as resident animals in order to avoid interactions. Lone howls can also announce the location of an individual separated from their group. Not all is known about their conversations; so much more to learn. Even one or two coyotes can sound like a large pack because they vary their calls. Basically, coyotes have a rich, complex, expressive language that communicates a range of emotions and information.

To hear various vocalizations, go to [youtube.com](https://www.youtube.com) and search for "coyote sounds". A number of videos will show up. Two of the best are "Coyote Pack Howl" by KB Bear (1:04 minutes) and "Back and Forth Social Coyote Communication" by Janet Wessler (2:01 minutes).

Tracks



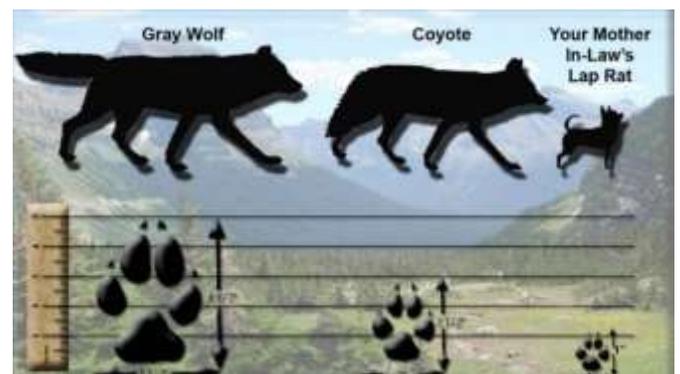
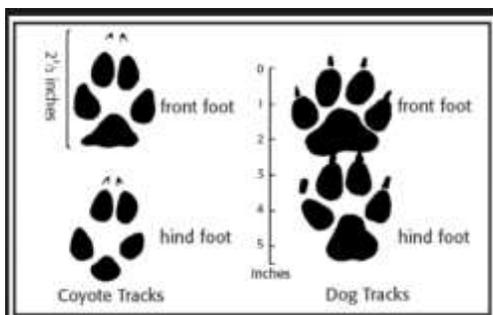
Dogs Paw



Wolf Paw



Coyote Paw



The Urban Coyote: Adaptation and Survival

There's a new guy in town – literally. The “urban coyote” is not a myth, it is a fact. Stop thinking of the coyote as an animal out in the wild, because it is changing and adapting to humankind, and doing it smack dab in the middle of millions of us. The coyote is an extremely successful urban dweller. From the Urban Coyote Initiative comes the following “Ten Fascinating Facts About Urban Coyotes.” See the full article at

<https://urbancoyoteinitiative.com/10-fascinating-facts-about-urban-coyotes/>

1. Urban coyotes can create territories out of a patchwork of green spaces in a city.
2. Urban coyote dens are surprisingly hard to find.
3. Urban coyotes may live in a family pack or on their own at various times. Coyotes are the apex predator in a city.
4. Urban coyotes mate for life and are monogamous.
5. Urban coyotes do not routinely feast on pets and garbage; they typically stick to their natural diet if available. However, because they are opportunistic omnivores, watch your pets. A study by Urban Coyote Research Program analyzed over 1,400 scats and found that the most common food items were small rodents (43%), fruit (23%), deer (22%), and rabbit (18%). Only about 2% of the scats had human garbage and just 1.3% showed evidence of cats. Although coyotes will take feral cats and small dogs upon occasion, they do not rely on these for the bulk of their diet.
6. Urban coyotes **switch** from diurnal/crepuscular activity to nocturnal activity when living near humans.
7. Urban coyotes reduce the population of feral and free-roaming cats in natural spaces, helping protect songbirds in parks.
8. Urban coyotes help reduce the populations of other nuisance animals such as rodents, deer and Canada geese.
9. The easiest way for a city dweller to avoid contact with urban coyotes is to avoid feeding them. Feeding habituates coyotes and they lose their fear of humans. This leads to aggressive behavior and attacks on humans and pets.
10. Trapping/relocation and killing urban coyotes does not reduce the overall population.



Coyote on a New York City roof. NatGeo.com



Coyote rides a light rail train in Portland, Oregon, 2002. Dennis Maxwell/AP.

The intelligence, cunning, and persistence of the coyote, developed over millions of years, will serve it well in a future fraught with peril and uncertainty.

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Texas Parks and Wildlife Department <https://tpwd.texas.gov>
Native American Stories of Coyote <https://www.indigenouspeople.net/coyote.htm>
Urban Coyote Initiative <https://urbancoyoteinitiative.com/>



Recertifications & Volunteer Hour Milestones Thank You for Volunteering!

2019 Recertification Pin - Golden Cheeked Warbler



December 2018

Recertifications – Ocelot Pin

Nancy Hammack, Wendy Matthews, Ron Stoeck, Lynne McLemore, Sandy McLemore, Cynthia DeWitt, Marie Miller

Volunteer Hour Milestones

250 Hours

Harry Ferrell, Joe Finneran

1,000 Hours

Mary Mathey

Graduation, Mud Daubers

Brian Crews, Sharon Barclay-Rakosky

Certification, Mud Daubers

Patrick Hagan, Michael Dillingham, Robin Hagan

January 2019

Recertifications – Golden Cheeked Warbler Pin

Ellen Anderson, Susan Bogle, Brian Trock, Darlene Varga, Art Williams

Volunteer Hour Milestones

250 Hours

Jane Finneran

1,000 Hours

Jane Miller

No photo yet because we're waiting on the Golden Cheeked Warbler Pins to arrive. When they do, we'll take photos of all the recertifications & post them!

Still waiting on the pins to arrive!

February 2019

Recertifications – Golden Cheeked Warbler Pin

Don Bergquist, Edith Bergquist, Coco Brennan, Joel Dunnington, Jane Finneran, Joe Finneran, Laird Ingham, Lois Ricci, Sara Riggs

Volunteer Hour Milestones

250 Hours

Marilyn Garrison

10,000 Hours

Coco Brennan

An Account of the Activities of the Lindheimer Chapter Master Naturalists-in-Training Class

Rock Stars Field Trip to Canyon Lake Gorge March 9, 2019
By Erin Harrison, Rock Stars Class Reporter/Photographer

The Lindheimer Master Naturalist student class of the Rock Stars had an amazing field trip to the Canyon Lake Gorge on the weekend of March 9th. After a crazy winter blast with temps in the 20's, we were definitely warmed up with highs in the 90's down in the gorge.

Twenty-six of our classmates ventured down into the deep crevices that the 2002 Canyon Lake flood created. And what amazing discoveries were down there. We saw foot prints of a carnivorous dinosaur with a leg clearance of 7 feet under his belly. TONS of fossils of tiny shells all the way up to large shells. A lizard danced across our path a few times and stood still long enough to have his portrait taken. The waterfalls and turquoise pools with carp fish in them are extremely beautiful. Halfway through is a very nice shaded rest area complete with a restroom for those in need. A fault line runs through this gorge that's very visible with it's long cracks and cross faults. We spent three hours hiking in the gorge along it's mile and a half long trek.

I hope everyone visits and takes a tour there with the Canyon Lake Gorge Preservation Society. The scenery is simply beautiful and the educational talk with the docents, is very worth all three hours of it.



Rock Stars Participate in the Insect Expo, February 25 – 27, 2019

By Erin Harrison, Rock Stars Class Reporter/Photographer

The last weekend of February was jam packed with 2000 4th graders at the McKenna Children's Museum in New Braunfels! Many of the Lindheimer Master Naturalists and Rock Star students spent two days volunteering at the fun filled event! I spent my two days at the Insect Petting Zoo station with my hands full of millipedes. The girls definitely showed up the boys in bravery this day by holding the millipedes in their hands. They all realized that these harmless bugs were nothing to be afraid of. Lots of screams were heard when they met "Coco the Tarantula" though!



My second day, I spend doing something more artistic by having all the kids make their own antennae headbands. On my break, I went out to visit each of the stations. There were so many fascinating things to see and learn! Our volunteers were teaching about eating bugs, doing maggot art, holding cockroach races, and even maggot Nascar races!

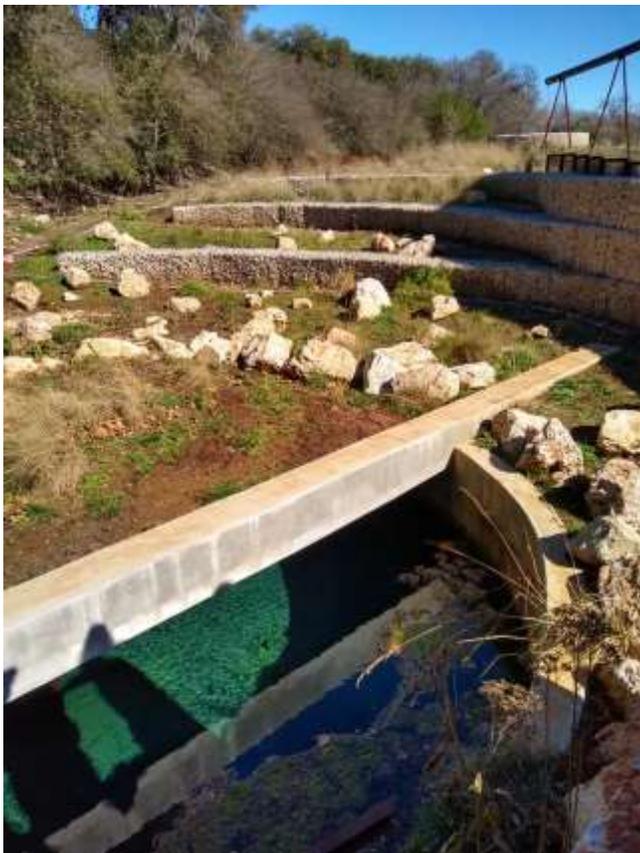
There were also mysteries to solve with the ant detective game, food webs, and building your own bee! Others were doing a delicious honey tasting from various types of flowers, and being bees themselves at the pollination station! There were so many more tables and stations to visit, and these kept the kids busy for hours. We were informed by some teachers that this is their favorite field trip for their students. It's not only fun for them, but it was really fun for us to be part of. This was my second year to volunteer at it and I'll keep on volunteering at this event. It's really inspiring to see the light in kids eyes when they're this excited about learning. These kiddos are our future!



Rock Stars Road Trip: AE Woods Fish Hatchery February 22, 2019
By Erin Harrison, Rock Stars Class Reporter/Photographer



Headwaters of the Comal: Rock Stars Field Trip January 19, 2019
By Erin Harrison, Rock Stars Class Reporter/Photographer



Contributing to Citizen Science: Naturalist.org

“Citizen Science” is the participation of non-scientists in scientific research. As naturalists, many of us already participate in citizen science projects that contribute to the body of scientific knowledge about plants, animals & insects: butterfly surveys, bird counts, plant identification. AND we take pictures – LOTS of pictures! Each picture is an observation and represents an opportunity to increase the scientific knowledge of what, where & when. One of the largest citizen science projects is iNaturalist, a world-wide, on-line database of observations provided by citizen scientists like Master Naturalists.



From www.inaturalist.org: “From hikers to hunters, birders to beach-combers, the world is filled with naturalists, and many of us record what we find. What if all those observations could be shared online? You might discover someone who finds beautiful wildflowers at your favorite birding spot or learn about the birds you see on the way to work. If enough people recorded their observations, it would be like a living record of life on Earth that scientists and land managers could use to monitor changes in biodiversity, and that *anyone* could use to learn more about nature.”

Here are the numbers as of 3/28/2019. Take a look at Comal County!!!

Location	Observations	Species	Identifiers	Observers
World	17,219,449	206,580	67,965	463,101
Texas	1,607,8654	17,533	12,011	32,644
Comal County	7,850	1,748	1,115	916

How to get started? Go to www.inaturalist.org and sign up. You can pick a cool user name such as “sea-kangaroo” or use your name “SamSmith”. Then go to “Getting Started” & follow the directions. If you have an iPhone or an Android & download the mobile app, it’s really easy to submit your observations. The information you need to submit is: 1) Photo or sound; 2) date; 3) location; 4) your species identification (you can get help from the Naturalist community on identification). It’s that simple!

Within Naturalist are specialty projects which usually have a much narrower focus – such as “Herps of Texas” or “Texas Monarchs and Milkweeds.” You can join as many projects as you like and add your data to the appropriate projects.

Here’s what a sample observation looks like:

Photos/Sounds	Species/Taxon	Date	Place	Date Added	Verified ID
	Western Diamondback Rattlesnake <i>Crotalus atrox</i>	September 11, 2005	Val Verde County, TX, USA (Google, OSM)	October 16, 2016 10:07 AM CDT	3 IDs Research Grade Edit View »

The data quality assessment in the far-right column documents the observation’s accuracy. “Research Grade” observations can be used by scientists (and citizen scientists!) for research.

- Upload sounds like bird songs, frog chirps, whale vocalizations and wolf howls
- Accepted are observations of dead animals and roadkill.
- You can search anywhere in the world for any species. Want to know how many & where a Western Diamondback has been sighted? Query the database!
- If you want to be a citizen scientist, Naturalist is the place to start!

1. Donate to Lindheimer Chapter painlessly through Amazon Smile!



How to Donate to Our Chapter Using Amazon Smile

- **What is AmazonSmile?** AmazonSmile is a simple and automatic way for you to support your favorite charitable organization every time you shop, **at no cost to you**. When you shop at smile.amazon.com, you'll find the exact same low prices, vast selection and convenient shopping experience as Amazon.com, with the added bonus that Amazon will donate a portion of the purchase price to your favorite charitable organization. You can choose from over one million organizations to support.
- **How do I shop at AmazonSmile?** To shop at AmazonSmile simply go to smile.amazon.com from the web browser on your computer or mobile device. You may also want to add a bookmark to smile.amazon.com to make it even easier to return and start your shopping at AmazonSmile.
- **Can I use my existing Amazon.com account on AmazonSmile?** Yes, you use the same account on Amazon.com and AmazonSmile. Your shopping cart, Wish List, wedding or baby registry, and other account settings are also the same.
- **How do I select a charitable organization to support when shopping on AmazonSmile?** On your first visit to AmazonSmile smile.amazon.com, you need to select a charitable organization to receive donations from eligible purchases before you begin shopping. To support us, select "Texas Master Naturalist Lindheimer Chapter."
- **How much of my purchase does Amazon donate?** The AmazonSmile Foundation will donate **0.5% of the purchase price** from your eligible AmazonSmile purchases. The purchase price is the amount paid for the item minus any rebates and excluding shipping & handling, gift-wrapping fees, taxes, or service charges.

2. Check out Lindheimer Chapter on the Web!

www.txmn.org/lindheimer/

3. Check out Lindheimer Chapter on Facebook!



There is a lot of chapter information posted on Facebook – meetings, activities, educational links and also the activities of other groups which may interest you.

We highlight chapter activities and articles, and photos taken by our members.

If you go to our website, you'll see the link for Facebook on the righthand side of the page.

Just click on it and it will take you to our site on Facebook. It's easy! Come see us! **"Like"** us! And **"Follow"** us!

The Lindheimer Quarterly

Published quarterly by the Lindheimer Chapter,
Texas Master Naturalist™

to inform, communicate and educate chapter members and the Hill Country Community. If you have an article or photo you think is of interest to naturalists, please contact LindheimerMNContact@gmail.com

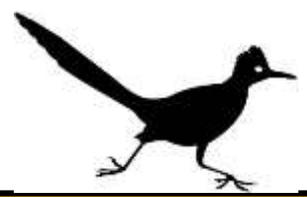
The Quarterly is sent to all members by email, and also is posted on our website <https://txmn.org/lindheimer> under the Newsletter tab. Previous issues are available.

Staff

Carmen Horn, Editor
Marilyn McFarland, Design/Layout
Erin Harrison, Rock Stars Reporter & Photographer



2019 Chapter Information



2019 CHAPTER LEADERSHIP

OFFICERS

PRESIDENT Rich Nielson
VICE PRESIDENT Jim Doyle
SECRETARY Martha Bersch
TREASURER Robin Hagan

PAST PRESIDENT/TMN REP Rich Bradley
Email: LindheimerMNContact@gmail.com

STANDING COMMITTEES

Communication - Marilyn McFarland
Education – Mike Hammack & Joe Finneran
Membership & Records – Cheryl Trock
Outreach – Deb Kyrouac & Jane Schnell
Projects & Opportunities - Jeanie Springer

SUBCOMMITTEES

Communication Subcommittees

Out & About – Sara Riggs
Historian/Archivist - Recruiting
Newsletter – Carmen Horn, Editor
Publicity/FB/Webmaster – Marilyn McFarland

Outreach Subcommittees

Trunks – Deb Kyrouac & Jane Schnell
Program to Assist Landowners – Art Williams

VP Subcommittees

Community Recognition – Jim Doyle
Hospitality – Evelyn Nielson

Rock Stars Class

President – Aleta Meyer
Reporter/Photographer – Erin Harrison

CHAPTER ADVISORS

Craig Hensley
Texas Parks & Wildlife
Guadalupe River State Park

Troy Luepke
Texas A&M AgriLife
Extension Service



LMN Board Meetings
4th Monday 5:00-6:00
AgriLife Building

Chapter Meetings – 3rd Thursday

5:45 Social, 6:15 Speaker

Tye Preston Memorial Library

January 17, 2019

“Spying on Bats” Danielle Cordani

February 21, 2019

“Northern Bobwhite/Rio Grande Turkey”

– Craig Hensley

March 21, 2019

“Bird Song: Nature’s Sweet Tweets” - Patsy Inglet

April 18, 2019

Business Meeting & Photo Show

May 16, 2019

“Fireflies” – Ben Pfeiffer

June 20, 2019

“Environmental Impact of Karst” – Amy Clarke

July 18, 2019

TBA

August 15, 2019

TBA

September 19, 2019

TBA

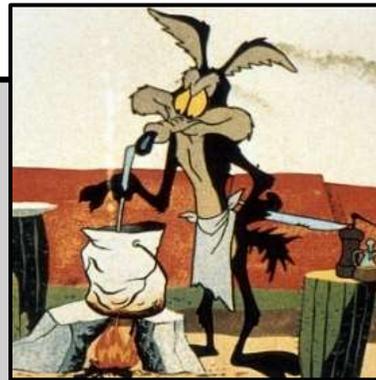
October 17, 2019 Rock Stars Graduation

November 21, 2019

TBA

December 12, 2019 (2nd Thursday)

Elections & Social Event



LMN HOSPITALITY

Many thanks to
Evelyn Nielson,
Hospitality
Subcommittee & the
LMN members
who bring such
delicious snacks!

January

Jane Schnell, Carol Dillingham, Marilyn McFarland,
Isobel Campos, Ellen Anderson, Sandra Carson

February

Sara Riggs, Sandra Carson, Glenna Dunnington, Joel
Dunnington, Nancy Fitzpatrick, Jane Schnell, Tom
Mathey, Mary Mathey, Cheryl Trock, Brian Trock

March

Joyce Doyle, Salty Brady, Jane Finneran, Nancy
Fitzpatrick, Joel Dunnington, Glenna Dunnington, Martha
Bersch, Debbie Subke