

The Lindheimer Quarterly 4th Quarter 2021



Photo courtesy of LMN member Don Bergquist

Happy New Year 2022!

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Wishing You 12 Months of success
52 Weeks of Laughter
365 Days of Fun
8760 Hours of Joy
525600 Minutes of Good Luck
31536000 Seconds of Happiness.



CONGRATULATIONS TO THE FREE-TAILED BATS!

The 2021 Class of Lindheimer Chapter graduated on December 12, 2021 at the Headwaters of the Comal.



Class Members

(not all members are pictured above)

Kade Anderson, Laura Austin, Brett Bringham, Shari Ferguson, Jimmy Fluegel, Judy Henfey, Lynn Jones, Cal Jordan, Jon Killam, Matt Klaser, Chad Lawson, Joni McGhee, Dawn Medeiros, Donna Pacheco, Ellen Petray, MV Poffenberger, John Porter, Dena Rathbun, Christy Reed, Pat Tothermel, Katie Silva, Laurie Zamarripa.

Class Coordinators: Rick Corbell, Jack Sullivan, Erin Harrison, Joe Finneran

Madrone Trail Pollinator Garden



How COOL is this? It's a butterfly garden shaped like a...butterfly!

LMN member Susan Bogle wrote: "This is a drone photo that gives an overhead view of the trail that defines the boundary of the garden. You can see that for once I've made a true "butterfly" garden. This is an idea that Craig Hensley planted in my head about 10 years ago. I finally have the opportunity to actually do it. The garden itself will be about 100' x 150', will be totally native plants and will incorporate all the plants that are already growing there. This garden will have no fees attached and will be completely open to the general public - locals & tourists. It will also make a great venue for educational programs."

Info on the Madrone Trail: Nice and rocky 7.6 mile trail that winds it's way through a peninsula on Canyon Lake. This is a popular mountain biking trail as there are lot of rocky challenges. Cool off in the lake after a hike or ride. Park fee may apply.

Location:

The trail head parking is located on Canyon Park Road approximately one mile off of FM 306 on the North side of the lake. Cyclist are encouraged to wear helmets, respect other trail users and respect the parks natural resources while riding the Madrone Trail.

Texas Black Bears

[Texas Black Bear Alliance - Home \(weebly.com\)](https://texasblackbear.weebly.com/)

<https://texasblackbear.weebly.com/>



Like humans, black bears vary in appearance. Their fur may range in color (known as phases) from black to brown (or cinnamon phase) to blonde. Their muzzle may be light brown or black as well. Typically in southern United States, the black bear maintains a black phase with a light brown muzzle. A white blaze may also be present on the chest of the bear. The black color phase is most prevalent in the eastern U.S., while the brown fur phase is most prevalent in the western U.S. Unique white and bluish fur phases occurs on the Pacific coast in the Northwest portions of North America.

Black bears typically have a body length of

three to six feet, measured from the tip of the nose to the base of the tail.

Adult males are the larger sex, ranging from 150 – 350 pounds, while females generally weigh 120 – 250 pounds. **Like humans, bears walk flat-footed on their feet, known as plantigrade.** Black bears are generally full grown at four years of age. Their eyes are small, and their ears are small, rounded, and erect.



Cinnamon phase black bear

Despite being classified as a carnivore, **black bears are generally best described as opportunistic feeders**, maintaining a typically omnivorous diet. Roughly 90% of a black bear's diet is vegetative material, with the remaining 10% composed of protein from insects and grubs. Black bears have even been known to raid the nut caches of squirrels. Black bears are not active hunters; however, they will eat carrion. The major requirements of bear habitat are sufficient cover, dispersal corridors, a great variety and amount of natural, non-anthropomorphic foods, water and sites for denning. **Black bears are crepuscular**, meaning they are generally active at dawn and dusk. Where human food or garbage is easily available, individual bears may become primarily active during the day



along roadsides and primarily active at night in campgrounds. Nuisance activities are usually associated with sources of human food or garbage and the very opportunistic feeding behaviors of black bears, who are occasionally seen in accessible fruit orchards, corn fields, and other places in close proximity to natural bear habitats.

Black bears are normally solitary except for family groups of females with cubs, breeding pairs in the summer, and congregations of bears at feeding sites where food is seasonally abundant. **Black bears are territorial, possess a high level of intelligence, and exhibit a**

high degree of curiosity, which explains their exploratory behavior. Black bears exhibit threat behavior that includes different ear positions, body postures, and vocalizations with their mouth. They will normally run and climb into the security of dense habitat when frightened or alarmed. Females reach sexual maturity as young as two years in areas of prime habitat with large amounts of natural food

resources available; but generally, black bears reach sexual maturity from three to five years old. **May and June are the peak breeding months for the black bear.** Female black bears are induced ovulators, which means that ovulation occurs only as a result of mating stimulation.

Female bears experience embryonic diapause, otherwise known as delayed implantation. Though an egg is fertilized during the summer mating season, the blastocyst does not implant in the uterine wall. **Only if the mother gains enough weight and is sufficiently healthy during the fall does the blastocyst implant and develop.** This mechanism is a wonderful adaptation to ensure that unhealthy sows do not use precious energy stores on cubs they cannot physically support. It also serves as a way to ensure that cubs born will have sufficient milk and environmental conditions to survive.

Cubs are born in the mother's winter den. **A litter is typically made up of twins, one male and one female;** but, depending on the health of the sow, litter sizes can range from one to five cubs. **Cubs weigh eight ounces when born, have no fur, and are entirely dependent on their mother for survival.** Females with cubs emerge from winter dens from late March to early May. Cubs stay with their mother through that first summer and fall and den with her through the second winter. Lactation of the female to feed the cubs normally suppresses estrus and prevents the female from getting into breeding condition once again. **Young cubs disperse at approximately 16 months of age** in spring or summer, before the female's next period of estrus. Thus, the adult female normally breeds every other year. Years with poor food availability can cause reproductive failure. The relatively low reproductive potential of black bears is an important consideration in the management of the species. Estimates of home ranges differ, but males are known to cover a significantly larger area than females, who are known to establish home ranges near that of their mother.

Black bears are not true hibernators, but instead go into a state of torpor, in which their metabolic rate is lowered and activity slows or ceases. In areas such as the Southern U.S. that experience relatively mild winters, bears may den for a period as few as two weeks, if at all. This is due to the availability of year-round natural food sources.



Bear front paw

According to [Texas Parks and Wildlife](#), at least **two subspecies of black bear currently occupy Texas:** the Mexican black bear (*Ursus americanus eremicus*) and the New Mexico black bear (*Ursus americanus amblyceps*). Both of these subspecies are found in West Texas desert scrub or woodland habitats within the Chisos and Guadalupe Mountain ranges. There is a small but growing population in the Big Bend and Guadalupe National Park regions thanks to natural recolonization from adjacent populations in Mexico and New Mexico. Both subspecies are state-listed as endangered in Texas.

In East Texas, there is no stable breeding population of black bear; however, since Texas Parks and Wildlife began investigating and documenting sightings in 1977, there does appear to be a non-residential, primarily transient population of black bears in the region. This is due in large part to the stable or growing populations of black bears in the surrounding states of Louisiana, Arkansas, and Oklahoma.

Report possible black bear sightings in Texas by calling the Texas Parks and Wildlife Department at (512) 389-4505. To report a dead or potentially poached black bear in Texas, call Operation Game Thief at (800) 792-4263.

Lindheimer Chapter Information Page



2021 CHAPTER LEADERSHIP

OFFICERS

PRESIDENT	Rich Nielson
VICE PRESIDENT	Michael Buley
SECRETARY	Rob Kyrouac
TREASURER	Stephen Jones

COMMITTEES

Standing Committees

Education - Joe Finneran, Rick Corbell, Erin Harrison, Jack Sullivan

Membership & Records – Cheryl Trock

Outreach – Debbie Kyrouac, Jane Schnell

Projects & Opportunities - Jeanie Springer

Subcommittees

Trunks – Deb Kyrouac, Jane Schnell

Program to Assist Landowners – Art Williams

Community Recognition (VP) – Michael Buley

Hospitality – N/A (COVID-19)

New Class – President, Lynn Jones

Photographer, Cal Jordan

Ad Hoc Committees

Big Give SA – MJ McFarland, Jane Schnell

COMMUNICATIONS

Director – MJ McFarland

Out & About – Sara Riggs

CHAPTER ADVISORS

Craig Hensley, Texas Parks & Wildlife, Wildlife Tracker

The Lindheimer Quarterly Newsletter

MJ McFarland – Editor

Newsletter published quarterly by the Lindheimer Chapter, Texas Master Naturalist™ to communicate, educate & inform chapter members & the Hill Country Community. Current and previous issues of The Quarterly are posted on the website www.txmn.org/lindheimer



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Facebook: <https://www.facebook.com/txmn.lindheimer/>

Snail Mail: Lindheimer Chapter

c/o Comal County AgriLife

325 Resource Dr.

New Braunfels, TX 78132



2021 MONTHLY CHAPTER MEETINGS

January 21

Rangelands Trends with Dr. Barron Rector

February 18

Cancelled due to the Great Freeze

March 18

“Central Texas Cave Life” with Colin Strickland

April 15

“Biology & Ecological Concepts” with John Hannon

May 20

“Toxic Plants” with Dr. Barron Rector

June 17

“Anatomy of a Butterfly Survey with Craig Hensley

July 15

“Rock Art” with Jim Sievers

August 19

“Wild Texas Cats” with Monica Morrison

September 16

“Great Monarch Migration” with Craig Hensley

October 21

“Snakes of Texas” with Brett Parker

November 18

Headwaters at the Comal

December 16

Graduation & Elections



2021 Board of Directors Meetings

Every 4th Monday at 5:00 PM

Meetings are via WEBEX

All members are invited to attend.

AgriLife Building

325 Resource Dr.

New Braunfels, Texas

- January 25 ● February 22 ● March 22 ● April 26
- May 24 ● June 28 ● July 26 ● August 23
- September 27 ● October 25 ● November 22
- December 27



Board Minutes available at:

<https://txmn.org/lindheimer/chapter-info/lmn-board-members/lmn-board-minutes-archive/>

Contributing to Community Science: iNaturalist.org



"Community Science" (formerly "Citizen" Science) is the participation of non-scientists in scientific research. As naturalists, many of us already participate in community 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 community science projects is iNaturalist, a world-wide, on-line database of observations provided by community scientists like Master Naturalists.

"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." How to get started? Go to

www.inaturalist.org and sign up!

Here are the numbers as of **12/18/2021**. Take a look at Comal County!!!

Location	Observations	Species	Observers
World	87,040,343	345,189	1,988,877
Texas	5,553,279	24,374	109,204
Comal County	74,634	4,185	3,604



Electronic Lindheimer

Website: www://txmn.org/lindheimer/

Social Media – Facebook: www://facebook.com/txmn.lindheimer

Amazon Smile: Painless donation!


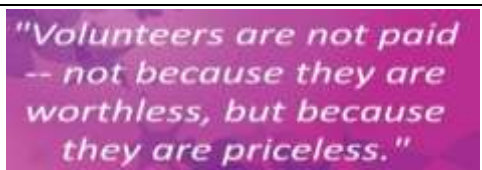
Shop Amazon Smile & designate "Lindheimer Chapter" – we'll get money!

www://smile.amazon.com/ – Designate Lindheimer Chapter

2021 Recertifications and Milestone Awards

2021 Recertification Pin – Sideoats Grama



Month	Recertifications – 2021 Sideoats Grama Pin	Milestones
Jan-21	Susan Bogle, Brian Trock, Marilyn McFarland, Darlene Varga, Edith Bergquist, Don Berquist, Lois Ricci, Sara Riggs	500 Hours: Pat Fletcher
Feb-21	Jane Miller, Jeanie Springer, Cheryl Trock 	250 Hours: Rob Kyrouac, Christy Martinez 2,500 Hours: James Jameson
Mar-21	Joe Finneran, Jim Jameson, Steve Jones, Deb Kyrouac, Cathy Oberkamp, Teresa Turko	250 Hours: Kathy Ofsdahl 4,000 Hours: Darlene Varga 
Apr-21	Mary Barr-Gilbert, Rich Bradley, John Davis, Craig Dillion, Jane Finneran, Erin Harrison, Sue Huntsman, Laird Ingham, Rob Kyrouac, Valerie Lefebvre, Rhonda Neel, Rich Nielson, Susan Sommer	500 Hours: Jane Finneran 5,000 Hours: Brian Trock
May-21	Ron Butts, Heidi Case, Pat Fletcher, Gail Groves, Carol Ingham, Lori Largen, Merrill Mabon, Dan Madden, Jensi Madden, Christy Martinez, Patricia Porterfield, Stephen Verschoyle, Mary Williams	250 HOURS: Merrill Mabon, Susan Sommer, Erin Harrison, Teresa Tyler 500 HOURS: Craig Dillion
June-21	Ellen Anderson, Don Blake, John Corkill, Jim Doyle, Harry Ferrell, Heidi Forgione, Henry Hahn	250 HOURS: Heidi Forgione 1,000 HOURS: Carol Ingham
July-21	Julie Crouch, Don Fletcher, Jack Sullivan	250 HOURS: Nancy Hammack
Aug-21	Pat Carnes, Sandra Carson, Ricky Corbell, Gretchen Ferrell, Aleta Meyer, Jack Olivier, Margaret Olivier, Miguelita Scanio, Debbie Subke, Toni Wayne, Art Williams	
Sept-21	Lynn Boyd, Haley Faver, Bob Gray, Janet Hahn, Beth Jameson, Evelyn Nielson, Mike Roberts, Teresa St. John	500 HOURS: Holly Emrie, Don Fletcher 4,000 HOURS: Sara Riggs
Oct-21	Elizabeth Bowerman, Michael Buley, Marietta Diehl, Nancy Gray, Sherri Green, Nancy Hammack, Kathy Lamon, Karen Matson, Marie Miller, Scott Ofsdahl, Linda Valdez	250 HOURS: Jack Oliver, Mary Barr-Gilbert 4,000 HOURS: Edith Bergquist
Nov-21	Salty Brady, Vanessa Brown, Joel Dunnington, Karen Kimble, Val Robertson, Dave Skasik, Melissa Skasik, Robert Trott	250 HOURS: Salty Brady
Dec-21	Phillip Brown, Don Epps, Teresa Tyler, Lisa Smith, Holly Emrie, Cynthia DeWitt, Brenda Stoeck, Eric Weissgarber, Holly McCoy, Steve Mato, Kristen Martinez, Betty Keese, Allison Sciaraffa, Irene Newhall, Kathy Ofsdahl, Donald Duncan	250 Hours: Gail Groves 2,500 Hours: Laird Ingham 4,000 Hours: Lois Ricci, Rich Bradley

To our Volunteers:

Thank you for all your hard work and volunteerism! You make a difference.

Texas Master Naturalist Program Recertification Pin for 2022

2022 Recertification Pin!



In 1987, the 70th Texas Legislature designated the lightning whelk, **Busycon perversum pulleyi** (Hollister, 1958), as the official state shell of Texas, joining several other flora and fauna that symbolize the rich diversity of Texas natural resources. It has a limited range from Breton Sound, Louisiana to the northern coast of Mexico, and is a common native in most waters along the Texas coast. The Texas Master Naturalist Program selected the Lightning Whelk for its 2022 Recertification Pin.

The lightning whelk's unique shape makes it easily recognized among most other shells. The **whorls of the lightning whelk shell coil in a counter-clockwise direction**, with its aperture (opening) on its left -- an unusual spiraling profile shared by few other shells. This 'left-handed' characteristic is reflected in the lightning whelk's scientific name *perversum*, from the Latin word *perversus*, means turned the wrong way. *Busycon*, from the Greek word *bousycon*, (meaning large fig) describes the general shape of the shell. The subspecies name, *pulleyi*, honors Dr. T. E. Pulley, a well-known Texas naturalist and teacher. Its common name is derived from patterns of "lightning-like" colored stripes that radiate along the sides of its shell.

Lightning whelks **spend most of their lives buried in the bay bottom**, generally in association with submerged grass beds. They typically occur within bays with higher salinities, in tidal canals, along the base of jetties, and offshore. Lightning whelks prefer comparatively firm bottoms with scattered clumps of oysters or clams. Although they generally stay buried, the long slender part of their shells can be observed piercing the bottom's substrate as they hunt for food.

Like other snails, lightning whelk develop a shell of calcium carbonate that provides support and protection from abusive surf, abrupt changes in pressure, and predators. As the whelk grows, a larger shell is produced. Lightning whelk **require 10 to 20 years to grow to a maximum size of about 8 inches in length** (largest size normally seen), although offshore specimens have been known to reach 16 inches. While the thick-walled shell provides protection from predators like stone crabs, it also functions as a moving substrate for dozens of smaller species like barnacles which have little effect on the snail.

Primarily a carnivore, lightning whelk prefers live or fresh dead food, but will eat almost any animal matter. Lightning whelks primarily eat **small clams and oysters** with a unique and ritualized sequence of prey detection and feeding. Finding a clam, a lightning whelk will grasp its prey within its muscular foot for inspection; then open the prey's shell by wedging the lip of its shell between the clam's valves. For more stubborn clams, the whelk will exert tremendous pressure, forcing its shell firmly against its prey's valves, until pieces of the clam's shell are chipped away. Pieces of the outer lip of the whelks shell may be damaged in this process. This chipping continues until an opening is large enough for the lightning whelk's proboscis, armed with a small, ribbon-like radula that has many rows of sharp teeth.

Lightning whelk reproduce annually, with mating occurring during cooler autumn months and egg-laying in early spring. Females enclose each fertilized egg into horny disc-shaped capsules while constructing a tough cord-like membranous **egg-case string**,



which connects **50 to 175 total egg capsules**. The waxy, cream-colored egg case strings are anchored in the substrate. **Each flattened egg capsule can be as large as a quarter and contain as many as 200 eggs**. The eggs hatch and the young mature through all larval stages within the capsules. Miniature whelks, with their shells, emerge through capsule ports during late spring.

Texas has laws prohibiting the collection of lightning whelks and other saltwater and freshwater mollusks. On September 1, 1999, it became an offense for anyone to retain lightning whelks caught in shrimp trawls. In 2005, the Texas Parks & Wildlife Commission closed the season for harvesting lightning whelks and other species such as hermit crabs, starfish, sea urchins and periwinkles along a small area of South Padre Island from November 1 through April 30 to prevent overharvest. This new regulation also established a daily bag limit of 15 univalve snails in aggregate and no more than two each in the daily bag of lightning whelk, horse conch, Florida fighting conch, pear whelk, banded tulip and Florida rocksnail anywhere in Texas. **Whenever live marine animals are harvested from Texas coastal waters, a current Texas fishing license, with a saltwater fishing stamp, is also required.**



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2021 Chapter Meetings

Meeting statistics provided by Membership Committee
Brian Trock & Cheryl Trock

2021 LMN CHAPTER MEETING ATTENDANCE					LOCATION	TOPIC
MONTH	MEMBERS	WEBEX	GUESTS	TOTAL		
DEC						
NOV	14	20	2	36	HAC/WEBEX	"Overview, Headwaters at the Comal" by Lauren Strack & Jack Dwoney (all guests were at HAC)
OCT	33	13	17	63	HAC/WEBEX	"Snakes" by Brett M. Parker, Hill Country Snake Removal (15 guests were at HAC and 2 guests were online)
SEP		26	1	28	WEBEX	"The Great Monarch Migration" by Craig Hensley, TX Nature Tracker
AUG		36	1	37	WEBEX	"Wild Texas Cats: Past and Present" by Monica Morrison, Founder,
JUL	39	23	5	67	TPML/WEBEX	"The First Texas Artists: Art and Archaeology in the Lower Pecos Canyonlands" by Jim Sievers (4 guests were at TPML and 1 guest
JUN		45	1	46	WEBEX	"Anatomy of a Butterfly Survey" by Craig Hensley TNTB, TPWD
MAY		51	2	53	WEBEX	"Toxic Plants" by Barron Rector, PhD
APR		50	0	50	WEBEX	"iNaturalist and City Nature Challenge Master Class" by Craig Hensley
MAR		56	1	57	WEBEX	"Central Texas Cave Life" by Colin Strickland, Biologist, City of Austin
FEB		0	0	0	WEBEX	cancelled due to inclement weather (Texas Snake ID and Safety) by Brett Parker
JAN		66	1	67	WEBEX	"Trends in Land Management: What Ranches to Ranchettes Means to the Hill Country" by Dr. Barron Rector
TOTAL	86	386	31	504		
AVERAGE ATTENDANCE: 46						

October 2021

Lindheimer Chapter Monthly Meeting

When: Thursday, October 21, 2021 at 6:00 pm
 Where: Brett M. Parker - Hill Country Snake Removal
www.facebook.com/hillcountrynaturalsociety
 Texas Snake Identification and Safety
 "Kill the frog, not the snake!"

Where: **You can attend in person**
 Headwaters at the Comal
 333 E. Klingsmeyer St., New Braunfels, TX
 OR
You can attend online via WEBEX
 Members: Login to our Members Area for the link
 Non-members: Email linlind@texasnaturalsociety.com

About the presentation:

- How to use Snakes
- Importance of snakes to our ecosystem
- What species of freshwater snakes and amphibians snakes live at their area of Comal and how to determine their unique differences in their habitats
- What to do and what NOT to do if they encounter them in their habitats and how to avoid
- Always water under and in low water under snakes to safely observe "Close encounters" if desired

Headliner Brett Parker is a Texas State University graduate with a BS in Biology and a PhD in Ecology. He has given numerous presentations on Texas Snakes as well as snake handling, amphibians, to schools, professional associations, youth programs and has been named a conservationist of snakes.

November, 2021

Lindheimer Chapter Texas Master Naturalist Program

Monthly Chapter Meeting

When: Thursday, November 18, 2021 at 6:00 pm
 Where: Headwaters at the Comal
 333 E. Klingsmeyer St., New Braunfels
 Jack Dwoney, Program Coordinator
 Online via WEBEX or in person at Headwaters
 333 E. Klingsmeyer, New Braunfels
 Members: Login to our Members Area for the link
 Non-members: Email linlind@texasnaturalsociety.com

Join Headwaters at the Comal staff for an evening of:

- History of the project and the Headwaters site
- Discussion of the reforestation work and cultural resource preservation underway
- Jack's insight for the future, including using programming, fundraising opportunities, and next phases of construction
- How you can get involved
- Q&A and open discussion of the project

Jack Dwoney
 Jack Dwoney

December 2021

ELECTIONS

Monthly Chapter Meeting

When: Sunday, December 12, 2021 at 1:00 pm
 Where: In person: Headwaters at the Comal
 Online: WEBEX

What: Chapter ELECTIONS (Members only)
 Chapter Monthly Meeting
 Adjunct Training

Where: Online via WEBEX or
 In person: Headwaters at the Comal
 333 E. Klingsmeyer, New Braunfels
 Members: Login to our Members Area for the link
www.texasnaturalsociety.com/members-area/
 If you need the password, email linlind@texasnaturalsociety.com

Nominations

President: Rick Nelson
 Vice President: Susay Sotomayor
 Secretary: Rob Kytoska
 Treasurer: Eustyn Nelson

Send your nominations to Rick @ rlind@texasnaturalsociety.com

December 12, 2021
Meeting Attendees
Headwaters at the Comal
Photo by Brian Trock



Photos from Our Members



Edith Bergquist – "Monarch"
Sherri Ferguson – "Finch"
Nancy Hammack – "Velvet Leaf"
Brian Trock – "American Lady"

