TEXAS MASTER NATURALIST-CRADLE OF TEXAS CHAPTER





March 2024

Chapter News

The March 13 General Meeting will be a hybrid: attend in person at the Texas AgriLIFE Extension Service, 21017 County Road 171, Angleton, TX, or virtually via e-mail invite. Visitors and guests are welcome.

<mark>5:30 – 6:00</mark> p.m.	Social Time and Refreshments (in person)	
<mark>6:00 – 6:15</mark> p.m.	Welcome, Awards and Outreach	
6:15 – 7:15 p.m.	Speaker: Jennifer Wilson, U.S. Fish and Wildlife Biologist Advanced Training: "Loggerhead Shrike Winter Home Range and Habitat Associations - Project Update" [Hours for Advanced Training (AT) TBD at close of meeting	
7:30 – 8:00 p.m.	General Membership Meeting [Hours for Volunteer Time (VT) TBD at close of meeting]	

President's Message

"You must be the change you wish to see in the world." —Mahatma Gandhi.

Is your February flying by much too quickly? It is for me. I've been watching several different birds around our property, knowing they might be heading somewhere else soon. The sandhill cranes were fun to watch, and this year, we've had flocks of black ibis for the first



time (I believe they were glossy ibis but couldn't get close enough for a really good look). And all sorts of raptors – the kestrels and harriers are easy for me to ID, not so much the other raptors. That's ok. I still love watching them, even if I can't name them. Soon we will see the spring migrators, with even more species to look for. It's a busy time!

A new season brings expected changes to our landscape - we've seen them before, it's nothing new. Are we ourselves changing, or are we staying static? As a Chapter, we get numerous requests to attend events, make presentations, and share our knowledge. In some cases, we must turn requests down because we are already booked for a certain date, or we don't think we can man the event. I would like to cover (*President's Message continued, Page 2*)

REMINDERS

Beach Sweep, Quintana Jetties – Monday, March 4, 8:00 a.m. – 10:00 a.m. (weather permitting); contact Jimmy or Luanne Salinas

CONTENTS Vol.24 No.3

Page 1 Upcoming General Meeting President's Message Page 2 President's Message (cont'd.) Page 3 DEEP; Outreach Opportunities Page 4 Volunteer Hours, Certifications, Milestones, & Impact Data Pages 5 **Entomology Corner** Pages 6 Annual AT Day – June 15 Our Speaker This Month Page 7 - 8 Bug of the Month - Cicadas February Beach Sweep Page 9 - 10 Volunteer Opportunities



https://facebook.com/TMN.COT Website https://txmn.org/tmncot/

Chapter News is published by Texas Master Naturalist Cradle of Texas Chapter. Contact us at:

Texas A&M AgriLIFE Brazoria County Office 21017 County Road 171 Angleton, TX 77515-8903 979-864-1558 (Angleton) 979-388-1558 (Brazosport) 281-756-1558 (Alvin) 979-388-1566 (Fax)

The Texas Master Naturalist program is coordinated by Texas A&M AgriLIFE Extension Service and Texas Parks and Wildlife Department.

TMN programs serve all people without regard to socio-economic level, race, color, sex, disability, religion, age, or national origin.

Masthead image by Charles Jesse Miller Jr., in Oyster Creek.

Texas Master Naturalist Program Cradle of Texas Chapter Chapter News – March 2024

Texas Master Naturalist–Cradle of Texas – Chapter News

(President's Message, continued from Page 1)

more of these events, if we can make it happen. Our outreach is vital to ensuring that we can protect our natural areas and their inhabitants. If our local residents, especially our youth, don't know about these treasures or don't care about them, then we are failing at our task. I have heard students say they never knew about the wildlife in the forest or what insects lived in a bayou, or that there are many parks and wild spaces in our area. What if they never learned about them? How sad would that be? We must inform if we want to change mindsets. If "things don't change," how are we to protect and preserve what natural spaces and precious wildlife still remain? Change starts with US. We have to be willing to step out of our comfort zone or maybe volunteer for something new. Many times, I have heard from members "I've done that event before, I'm not going to volunteer for it this year", or "I've served on a committee before, I did my time." If you are able, please consider taking on a new event or serve a few more hours somewhere. Let's see how many minds we can inform and change this year!!!

March is almost here and that means lots of events to volunteer for! From Saturday, March 9th to Sunday, March 17th, Ruby and her merry band of volunteers will be serving up fun at the Brazoria NWR Spring Break Open House. We will need 8-10 volunteers at the Brazoria NWR Open House. Come see what's going on! If you need something for the kids or grandkids to do over Spring Break, bring them on down to enjoy some time "in the wild." The more volunteers, the more activities we can host. Times will be 10 am – 1 pm and 1 pm to 4 pm. **Please email Ruby Lewis at** rubylewis77515@ymail.com if you can help out.

There are also DEEP sessions in March, April and May that need a few more volunteers. PLEASE take a look at your schedule and help out if you can. **Contact Ed Barrios at <u>ed77566@comcast.net</u> if you would like to sign up.**

There are two research projects we are participating in. One is a Bat Monitoring project led by Mickey Dufilho. Craig Hensley from TPWD will be our guest at the April meeting and will talk more about this project. **Contact Mickey at** <u>dufilhos@hotmail.com</u> if you can help out.

The second project is an Urban wildlife project, introduced at the January meeting by Dr. Ann Cheek from UH. If you can assist with this project, **please contact Oron Atkins at <u>oronatkins@comcast.net</u>**.

Our intern class has been meeting for a little over a month now, and things are going well. Several interns have attended our general meetings and participated in volunteer events. Please be sure to make them welcome when you see them.

Please plan to attend our next Chapter meeting on Wednesday, March 13th at 6 pm. I know our "technical difficulties" have been frustrating. Please know several members have been working hard in the background to work through issues during the meeting. The equipment changes/upgrades are still underway at the AgriLife building. We will continue to work through issues as best we can until the work is complete and we learn the new system. Your patience would be appreciated!! We had almost 60 members and guests at the February meeting. I hope you will join us in person on March 13th and BRING A FRIEND!!!

Reminder - if you need a ride or can give a ride, send a note to the Chapter members at <u>tmn-cot@googlegroups.com</u>. Thank you for all you do for our area, and see you soon, OUTSIDE!!!!

Kathy Pittman

Ours is not the task of fixing the entire world all at once, but of stretching out to mend the part of the world that is within our reach. -Clarissa Pinkola Estes



Brazoria National Wildlife Refuge Discovery Environmental Education Program (DEEP)





Pictured, L to R: (Front Row) Roxanne Walkowiak, Mary Schwartz, Herb Myers & Marty Cornell (Back Row) Kathy Pittman, Cris Tobola, Ed Barrios, Anna Loonam, Stanley Biggs, Ruby Lewis, Hannah Becket & Lee Gaston.

Photo provided by Marty Cornell

Outreach Opportunities

- **Brazoria Heritage Day** (at Brazoria Heritage Foundation Civic Center) Saturday, March 2, 9:00 a.m. 3:00 p.m.; 8 volunteers are needed.
- Brazoria National Wildlife Refuge Discovery Center Spring Break Open House Saturday, March 9 Sunday, March 17, 10:00 a.m. 4:00 p.m.; 8-10 volunteers are needed each day.
- Nature Day (at Sea Center Texas) Saturday, April 6, 10:00 a.m. 3:00 p.m.
- Migration Celebration at San Bernard National Wildlife Refuge April 27 & 28.

PUBLIC OUTREACH — Contact Ruby Lewis at rubylewis77515@ymail.com

 DEEP – March 26 & 28, April 2 & 4, May 14 & 16, 8:00 a.m. – 2:30 p.m.; volunteers are needed, contact Ed Barrios (ed77566@comcast.net) or Hannah Beckett.

Congratulations to Patty Brinkmeyer!!

For those interested, new classes will begin next month. Spring registration is open – go to https://www.npsot.org/our-work/class-schedule



NATIVE LANDSCAPE **CERTIFICATION PROGRAM**

PATTY BRINKMEYER is certified by the Native Plant Society of Texas for completion with competency of all required classes for Native Plant Landscapes.





VOLUNTEER HOURS, CERTIFICATIONS & MILESTONES - John Boettiger

Recertification: Hugo Martinez



Pictured, L to R: Christina Hartman, Kathy Pittman, Janet Townsend, Brenda Stitt, Kate Harris, Mike Hampy & John Boettiger. *Photo by Angela Griffin*

IMPACT DATA REPORT - Dave Brandes, Data Manager

Impact Data – January*

2023 FINAL TMN-COT Hours and Impact Report

Total

23

Month	YTD				
401	401	Initial Certifications:	8	Miles	stones
			00		
		Re-Certifications:	80		
538	538			250	7
				500	5
				1000	7
				2500	1
				4000	1
302	302			5000	2
	Month 401 <u>137</u> 538 35 <u>547</u> 582	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	401 401 Certifications: 137 137 Re-Certifications: 538 538	401 401 Certifications: 8 137 137 Re-Certifications: 80 538 538 538 53	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$

* data not considered final until mid-March

Entomology Corner by Barbara Whaley

Cicadapocalypse

Many of you have already heard about the upcoming "Cicadapocalypse", where in just a few months, two (2) broods will come out from underground, filling the air with their characteristic melody. I am referring to Brood XIX and Brood XIII. They are expected to surface this spring simultaneously. Brood XIX appears every 13 years and the other appears every 17 years (Brood XIII).

The 13-year group is known as the Great Southern Brood. It is the largest periodical cicada brood stretching across the southeastern United States - including central and southern Illinois, most of Missouri and scattered areas of Kentucky, Tennessee, Virginia, Maryland, North Carolina, South Carolina, Georgia, Alabama, Mississippi, Louisiana and Arkansas. The 17-year group, known as the Northern Illinois Brood, spans Northern Illinois, southern Wisconsin, eastern Iowa and northwest Indiana. These two (2) groups have not been seen together in the United States since Thomas Jefferson was president (1803) and will not be seen again until 2245.

This spring's bugs are part of a genus, or group, of cicadas in the eastern U.S. known as the <u>Magicada</u> or periodical cicadas. Three (3) species emerge on a 17-year cycle and four (4) species on a 13-year cycle. The pattern that periodical species follow is different from that of the "annual" cicadas, which do not have an annual life cycle, although you can see them every summer in much of the United States. The nymphs of annual cicadas spend 2- 5 years underground, slowly growing until they are ready to emerge. There seems to be a steady stream of cicadas every year because there are so many overlapping generations.

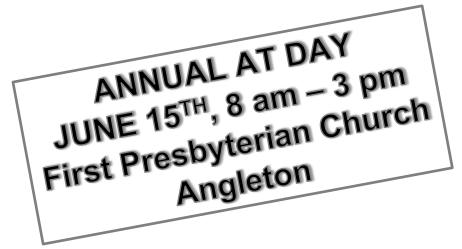
It's easy to tell the annual and periodical cicadas apart. Annuals tend to emerge later in the year than periodicals. The annual cicadas in the genus <u>Neotibicen</u> usually show up around August, whereas periodicals appear in the spring. There are numerous species of annual cicadas, and many are large and greenish. Periodical cicadas are smaller and mostly black, with bright red eyes and orange-tinged wings and legs.

This spring's periodical cicadas will make their appearance when the soil temperatures at eight (8) inches deep reaches 64 degrees F. It will likely happen in mid-May. The individual bugs' adult life cycles are just a few weeks, but their emergence will be staggered, so there will be about six weeks of cicadas. That month and half period will be filled with loud singing, mating and dying.

Although the double emergence of Broods XIX and XIII is rare, occurring every 221 years, the co-occurrence of different cicada broods, somewhere in the U.S. isn't quite as rare. It happened in 2015 and will happen again in 2037.

But don't get overly excited, it is not something we will experience in Texas. Texas does have one periodical cicada brood – Brood IV, also known as the Kansas Brood. It last emerged in 2015 and will emerge again in 2032 in a small portion of North Texas. However, Texas is home to 55 different species of annual cicadas. *(Entomology Corner continued, see Page 7)*

MICRO-BEASTS: SMALL BUT MIGHTY INSECTS





Lunch will be provided by the Chapter, & the event will be free to COT members. There will be a charge for non-members.

Annual AT day will include an optional mothing event. It will be held the evening of Thursday, June 13th, at Brazos Woods

OUR SPEAKER THIS MONTH ...

Jennifer Wilson has worked as a refuge Texas biologist at Mid-Coast since 1999. Her responsibilities include habitat management recommendations, habitat restoration, research and surveys or monitoring. She works with Susan Heath of Gulf Coast Bird Observatory on the Loggerhead Shrike project, which is focused on winter home range size and habitat use of resident and migratory Loggerhead Shrikes in Matagorda and Brazoria Counties.



Texas Master Naturalist-Cradle of Texas - Chapter News

Bug of the Month – Cicadas (*Magicicada* genus & *Neotibicen* genus) by Barbara Whaley

<u>Magicicada</u>

The term periodical cicada is commonly refers to any of the seven (7) species of the genus *Magicicada* of eastern North America, the 13-year and 17-year cicadas. They are called periodical because nearly all of the local population emerge in the same year. They belong to the taxonomic order Hemiptera (true bugs) and suborder Auchenorrhychna. They spend around 99.5% of their lives underground in an immature state called nymph. While underground, they feed on xylem fluids from the roots of deciduous forest trees in the eastern United States. In the spring of their 13th or 17th year, mature cicada emerge between late April and early June in tremendous numbers.

The adults are active for about four to six weeks. Males aggregate in chorus centers and call to attract mates. Mated females lay eggs in the stems of woody plants. Within two (2) months of their emergence, the life cycle is complete, and the adult cicadas die. Later in that same summer, the eggs hatch and new nymphs burrow underground to develop for the next 13 or 17 years.

The winged adult periodical cicada has red eyes and a black dorsal thorax. The wings are translucent with orange veins. The underside of the abdomen may be black, orange or striped with orange and black, depending on the species. Adults



are 2.4 to 3.3 cm (0.9 to 1.3 in) depending on species, generally about 75% the size of most annual cicada species found in the same region. Females are slightly larger than males.

<u>Neotibicen</u>

Cicadas of the genus *Neotibicen* are large-bodied insects of the family Cicadidae that appear in summer or early fall in eastern North America, also referred to as the dog-day cicada. These are the most often encountered cicadas in the eastern United States. These species can be seen every year, hence their nickname "annual cicadas". Despite their annual appearances, *Neotibicen* take multiple years to develop underground. Their annual appearance is due to overlapping generations.

These cicadas have loud, complex songs with distinct song phrases. Males produce loud calls in the afternoon or evening to attract females. The songs, distinctive to each species, are produced by special tymbal organs on the abdomen. These calls range from a loud buzz to a long rattling sound with a pulsating beat.

Many animals feed on cicadas, usually during their final days when they become easy prey on the ground. One of the most notable predators is the cicada killer, a large wasp that catches the dog-day cicada. After catching and stinging the insect to paralyze it, the cicada killer carries it back to its hole and drags it underground to a chamber where it lays its eggs in the paralyzed cicada. When eggs hatch, the wasp larvae feed on the paralyzed, but still living, cicada.

Neotibicen are 1–2 inches (25-51 mm) long, with characteristic green, brown and black markings on the top of the thorax, and tented, membranous wings extending past the abdomen. The fore wings are about twice the length of the hindwings.

Cicada killer with cicada





This Photo by Unknown Author is licensed under <u>CC BY-NC</u>

February Beach Sweep at Quintana Jetties





Thank you for cleaning up with Clean Swell!

Here's a summary of your recent cleanup:

2024-02-05			
1 hours 39 minutes			
5			
463.7 lbs			
Team Q			
2 Miles			





Photos courtesy of Jimmy Salinas

(Entomology Corner, continued from Page 5) **Cicada Facts:**

- Only male cicadas "sing". They do so to attract females.
- Cicada nymphs feed on the juices and sap of tree roots while adult cicadas suck fluids from the shrubs and trees. They are not considered to be plant pests.
- Scientists believe that cicadas spend most of their life underground to avoid predators. They emerge
 in a large group as a survival technique.
- Cicada nymphs leave a ½ inch hole when they emerge out of the ground, creating improved aeration and water filtration for lawns.
- Adult cicadas do not sting, or bite humans, and they do not carry diseases. They are not harmful to
 pets and it's okay for Fido to eat a few.
- The emerged nymphs climb onto tree trunks, low plants or other objects to molt. The adults break out of their old skin through a crack along the back and leave the exoskeleton behind.
- Cicada shells are good for your garden, contributing nitrogen and other nutrients.
- Cicadas are edible and taste best when they are still white. They are low in fat and high in protein and have a good balance of vitamins. They have a nutty taste, with several taste-testers saying they taste like canned asparagus. I will never know!

Volunteer Opportunities – Oron Atkins

- NestFest Tuesday, March 12, 9:00 a.m. 12:00 p.m.; contact Celeste Silling at csilling@gcbo.org.
- Exploration Green Workday every Wednesday, 9:00 a.m. 12:00 p.m.; contact Christie Taylor
- Trash Collection/Disposal Analysis Project self-directed
- **Beach Sweep** Monday, March 4, 8:00 a.m. 10:00 a.m., (weather permitting) at Quintana Jetties; contact Jimmy or Luanne Salinas
- Nurdles Beach Patrol self-directed; contact Jace Turnell
- Brazoria Comprehensive Spider Survey self-directed; contact Melanie Hollenshead
- Adopt a Loop for TMN self-directed; contact Debbie Nance
- Construction approx. 1 mile of granite fines edge guard to be removed at the Dow Woods south trail (TBA); contact Oron Atkins



Photo reprint from gcbo.org

Have something you want to share with fellow Master Naturalists? Submit your photos and news items for our newsletter to Kathy Purvis at <u>news@tmn-cot.org</u>. Submission deadline is 5:00 p.m. on the 20th of each month. Submissions may be edited for clarity and spacing.

January 2024 - Page 9

Texas Master Naturalist-Cradle of Texas - Chapter News

TEXAS POLLINATOR POWWOW srdnSeooptl6la6b8Mu1a8 rmuf4l a:Fc908 e77941y6g106ru cmmitP0

From Angela Griffin Re-print from Facebook page, texaspollinatorpowwow.org

Facebook post, February 16, 2024, 4:06 p.m.

Just about any one or any group can participate, not just the entos or pollination researchers.



(Image: NY Times, photo illustration by Matt Dorfman)

Dear Colleagues:

We are inviting you to join our collaborative network studying insect abundance, the North American Insect Abundance Network (NAIN)(<u>https://uccsplantecology.com/north-american-insect../</u>).

This year we will be starting our 6th year of sampling using Malaise traps at 136 locations spread across Canada and the US. We have found that insect abundance (biomass) is lower in North America than in Germany where biomass declined 75% over 35 years (Hallman et al. 2017. PLoS One, 12(10), e0185809). Biomass also shows significant changes over the past five years of our study, but these trends vary depending on the geographic region of the continent and taxonomic group. We need your help to expand the study and increase our sample size.

Our study is designed to detect insect declines of 1-5% (the long term averages from meta-analyses) with just 1 to 5 more years of sampling. Based on this projection, we are inviting more collaborators to help us determine if there is a continuing, large-scale decline of insects in North America. We also plan to address potential causes of differences in abundance by expanding the habitats sampled to sites such as farms and urban areas with more human impacts.

Our project is designed for almost anyone to participate. The minimum contribution involves setting up a Malaise trap and collecting three samples from it, typically in May & June. Each sampling period is 3 days (72 hrs). Collaborators can sort the samples (to at least Order) and weigh them themselves, or send the samples to me for processing. It does not get much easier.

The main caveat is that I do not have funds to purchase the Malaise trap you need (discounted for this project to about \$200 + \$36 shipping from BugDorm). If you want this discount on purchasing a trap please contact me asap.

This could be an excellent project for public outreach or school projects. It is an engaging and important question that students and the public can help to answer. Indeed we already have over 10 Nature Centers and NGOs participating.

You can read more about the results of the first three years of our study in the May 2023 issue of Ecology (OA paper at: <u>doi.org/10.1002/ecy.4036</u>). As in the past, all collaborators who send in data will be authors on the resulting papers. If you are interested in participating, please contact me for more information, and please forward this to anyone you think might be interested.

Thanks, and I look forward to hearing from you.

Peter Dunn pdunn@uwm.edu<mailto:pdunn@uwm.edu> Emeritus Professor of Biol. Sciences Univ. of Wisconsin-Milwaukee <u>Nicoletta Florio</u> <u>https://www.beeheroic.com/5g-and-the-bee-1</u>



Cradle of Texa	s Chapter Board				
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Vice President/Programs	Jimmy Salinas, Freeport				
Secretary	Kathy Purvis, Richwood				
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Communications Director	Larry Peterson, Manvel				
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Data Manager	Dave Brandes, Lake Jackson				
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	Jordan Kieffer, TPWD Sea Center Texas				
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 State Master Naturalist list Instructions <u>http://txmn.org/staying-connected/sign-up-for-tmn-listserv/</u> Subscribe <u>listserv@listserv.tamu.edu</u> All messages are held for moderation by the TMN State Coordinator. 					
Naturalist Cradle of Texas Chapter. Submis	efore the first day of the month by the Texas Master asions are welcome; submission deadline is the 20 th submissions by email to <i>Chapter News</i> Editor at lited for clarity and spacing.				