Coastal Prairie Chapter **Courier**

August 2024 — Volume 12 Issue 8

"Adversity is always the partner of progress."

John C. Maxwell

Inside This Issue

TEXAS 20th ANNIVERSARY Master Naturalist™
Coastal Prairie Chapter Est. 2004

The Texas Master Naturalist Program's mission is to develop a corps of well-informed volunteers to provide education, outreach, and service dedicated to the beneficial management of natural resources and natural areas within their communities for the State of Texas.

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ON THE COVER

TMNCPC volunteers Elaine Whitley, Phil Ward, Randolph Watson, Tom Zaal, and Jerry Trenta get right to the tasks at hand post-Beryl at the Seabourne Arboretum, righting young trees blown over by the storm. Photos credit: Rodney Walther and Tom Zaal

EDITOR TEAM

The August issue was crafted by Co-Editor, **Shannon Westveer.**

Have a great story for the September issue? Submit (early) by **August 20** to:

Raji Mahesh
Raji@CoastalPrairie.org
Shannon Westveer
Shannon@CoastalPrairie.org

President's Message

by Susan Walther, TMNCPC President

On Monday July 8, Hurricane Beryl swept through our region, bringing with it a stark reminder of nature's power. We faced strong gusty winds, heavy rainfall, and widespread extended power outages. Essentially all our chapter members were impacted by minor or major home damage, but thankfully I believe that everyone and their families came through the event safely. For most of us, recovery was defined by when our power was restored, a random draw of luck that had some of us back on within several hours while others endured many sweltering days.

I am proud (but not at all surprised) of the way our chapter volunteers responded to this event. Almost immediately, Slack became a place to share information and to offer support and assistance to one another. We used Slack to publicize organized events at which many of us helped distribute ice, water, and food or worked at cooling shelters for those without power.

And of course, as Texas Master Naturalists we jumped right in to help with the clean-up at our local natural areas. At our signature project Seabourne Creek Nature Park, our amazing volunteers were out in force just days after the storm, righting trees and clearing fallen branches and other debris from paths and garden areas. After several more workdays the park is looking much better; there is still more to be done. Similar stories of the good work of our volunteers apply to nearly all the city parks in our areas.

Brazos Bend State Park was hit especially hard, with the loss of many of its beautiful large trees and many roads and trails impassable due to debris. Volunteers are now allowed to come help the park staff with clean-up, and I know that many of our chapter members will heed the call. With our help, this jewel of the Texas State Park system will soon be safe again and open for visitors – perhaps in just a few more weeks.

This disaster brought out the best of the resilience and community spirit of those who live in the Houston area, a spirit exemplified by the members of Texas Master Naturalist Coastal Prairie Chapter.

Thank you all. *See you outside!*

August Chapter Program: Thursday, August 1, 7 PM
Monarchs, Migration, and Milkweed,
Presented by Christine Anastas

By Jan Peterson, TMNCPC Programs Director

Christine Anastas is a Master Gardener, a Texas Master Naturalist, and an active member of the Native Plant Society of Texas. She has been conducting community science projects for monarch organizations since 2013 and currently participates in six different projects. Christine gives Monarch seminars for the National Wildlife Federation and other organizations on the importance of native milkweeds and OE disease.

Christine Anastas; Photo credit: VictoriaAdvocate.com

"Monarchs, Migration, and Milkweed" is a must-attend presentation for anyone interested in understanding the intricacies of monarch butterflies and their conservation. Whether you are a student, educator, researcher, or simply a nature enthusiast, you will find valuable information and insights about the Monarch's lifecycle, migration patterns and how and why they overwinter in Mexico. You'll learn about the role that native milkweed plays in their conservation and how you can contribute to monarch conservation efforts.

As with all Coastal Prairie Chapter programs, August's program is **FREE and open to the public**. It will be held at the Rosenberg Civic Center, 3825 TX-36, Rosenberg, TX 77471. Thanks to the TMNCPC information technology team, it will also be streamed **LIVE** remotely via Zoom.

The 1-hour program begins at 7:00 PM, but we welcome everyone to arrive early at **6:00 PM** for social time and refreshments with our Board and fellow chapter members.

https://www.fws.gov/story/2024-07/join-monarch-blitz-july-26-august-4

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

[TMNCPC members in attendance should record their Advanced Training (AT) hours under "AT: Chapter Meeting-Coastal Prairie" and the VSP hours for the following business meeting under "Chapter Business: Chapter Meeting."]

Membership Minute

By Jan and Kevin Kolk, TMNCPC Membership Co-Directors

Congratulations! to our numerous certification and milestone achievers. *Way to go!*

Initial Certification

Napoleon Bonilla – Fall 2023

2024 Recertification

(78 members recertified)

Hal Carlson – Spring 2024
John Cooper – 2019
Lorena Jaramillo – Spring 2024
Pam Jones – Spring 2020
Kevin Kolk – Spring 2020
Andrea Morgenstern – 2018
Bayard Nicklow – Fall 2022
Mike Randall – Fall 2023
John Rouane – Spring 2020
Dorothy Tran – Spring 2022
Pauline Zinn – 2017

250 Hour Milestone

James Yi – Spring 2023

500 Hour Milestone

Shree Nath – Fall 2022

1000 Hour Milestone

Randolph Watson – Fall 2022
Fran Wilcox – Fall 2022

4000 Hour Milestone

Susan Walther – 2012

Fall 2024 Training Enrollment Opened ...*Closed*

Opening just the day before Hurricane Beryl, the next class of TMNs-in-training is now FULL.

THANK YOU to the Board and the Training Team: Shannon Westveer (Training Class Director), Lisa Sanders, Chevvy Tang, Dennis West, and Patricia Cabrera.

Graphic design of flyer by Caroline Kane, Class of Fall 2020

Volunteer Service — August Highlights

By Jan Poscovsky, TMNCPC Volunteer Director

Before departing to serve, check our website calendar for last minute changes, cancelations, or other information.

https://txmn.org/coastal/events/month/2024-08/

Signature Project **Seabourne Creek Nature Park (SCNP), Rosenberg**: 7:30 AM – 10:00 AM Wednesdays and 1st and 3rd Saturdays which fall on 8/3, 8/7, 8/14, 8/17, 8/21 and 8/28

Public Outreach **Nature Walk at Seabourne Creek Nature Park (SCNP), Rosenberg**: 8:00 — 9:00 AM 3rd Sunday which falls on 8/18

Public Outreach **Insect Hike at Seabourne Creek Nature Park (SCNP), Rosenberg**: 9:00 – 11:00 AM 4th Thursday which falls on 8/22

Public Outreach **Houston Museum of Natural Science at Sugar Land**: 10:30 AM – 3:00 PM 2nd and 4th Saturdays which fall on 8/10 and 8/24; **Garden Workday** 9:00 — 11:00 AM 3rd Thursday which falls on 8/15 (look for the SignUp Genius)

Willow Fork Pollinator Garden Workday, Katy: 8:30 AM – 12:00 PM Saturdays which fall on 8/3, 8/10, 8/17, 8/24 and 8/31

JOIN US!

The public is always invited to participate in our fun and educational monthly hikes and walks. We invite you to get out and meet TMNCPC members as we commune with nature. Check out our calendar to find the dates and times for our Bird Hikes, Plant Walks, Nature Walks and Insect Hikes.

Coastal Prairie Conservancy Indiangrass Preserve, Katy: 9:00 AM – 1:00 PM, Tuesdays, Fridays, and 2nd Saturdays of each month which fall on 8/2, 8/6, 8/9, 8/10, 8/13, 8/16, 8/20, 8/23, 8/27 and 8/30

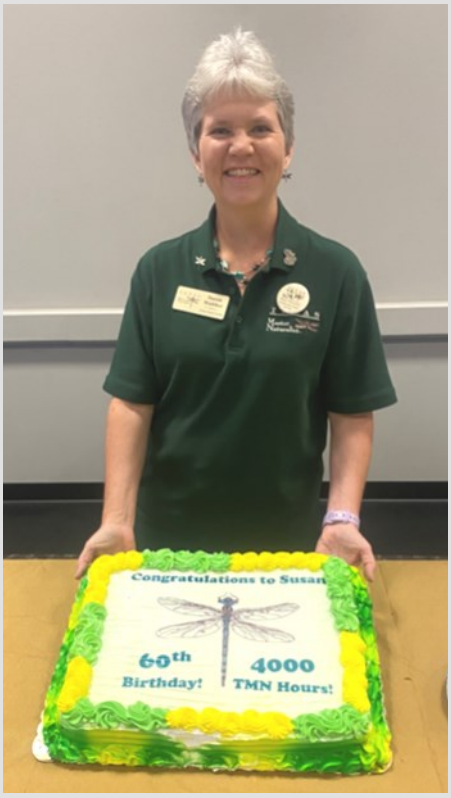
Chapter Board Meeting, via Zoom: 7:00 PM — 8:00 PM 3rd Wednesday which falls on 8/21

John Paul Landing Weekly Bird Hike, Houston: 7:30 AM – 11:00 AM Thursdays which fall on 8/1, 8/8, 8/15, 8/22 and 8/29

Bolivar Flats Beach Ramble, Port Bolivar: 10:00 AM – 12:00 PM 1st Saturday which falls on 8/3

Harris County Precinct 4 Bird Survey at Archbishop Joseph A: Fiorenza Park, Houston: 7:30 AM – 12:00 PM 4th Monday which falls on 8/26

Kolter Elementary Pollinator Garden Workday, Houston: 9:00 AM – 12:00 PM 2nd Saturday which falls on 8/10 (coordinated by TMN Gulf Coast Chapter)



Husband and member Rodney Walther captures "The Prez" reaching both a 60th year *and* 4,000th service hour at the July Program. *Congrats, Susan!*

Arthropod Archives: Mosquitoes

By Sari Garfinkle, Class of Fall 2023

Hurricane Beryl disrupted the power grid, damaged property, felled trees, and created mosquito heaven: hot and wet . The 55-plus mosquito species recorded in the Houston metro area now enjoy optimal conditions for reproduction and development. How do we know this? Just open a door and walk outside … if you dare.

Photos, clockwise from top: black saltmarsh mosquito whose population exploded after Beryl; female *Ps. cyanescens* after blood meal; male *Ps. cyanescens*; larval wriggler. All photos S. Garfinkle

Current research (North Carolina State University, 2023) suggests mosquitoes arose 217 million years ago in what is now South America. Though it may feel as if they were created to torture us, mosquitoes' first blood hosts were probably reptiles and amphibians. Mammals did not yet exist.

Scales cover mosquitoes' bodies and wing veins. Large compound eyes give them excellent vision, even in very low light. Both sexes use a piercing, sucking proboscis to feed, but hers is thinner and needle-like. Ultrasensitive organs enable mosquitoes to search for and locate suitable plants, hosts, mates, and sites to lay eggs.

Antennae are highly specialized (*Mosquitotopia: The Place of Pests in a Healthy World*). The Johnston's organ, located on the pedicel (second segment) of each antenna, senses vibration and sound. Females have specialized receptors on their thin antennae to measure temperature and humidity. Also on their antennae are hundreds of sensilla, tiny hairs that detect CO_2 and read the biochemistry of prospective hosts. Males use their plumose antennae to locate females in the mostly male mating swarms that form at dusk; usually soft and relaxed, their antennal fibrillae (hairs) will stiffen and stand erect. In conjunction with the Johnston's organ, the fibrillae allow males to hear the frequency of the female's slower wingbeat.

Both males and females consume plant-based sugars and nutrients, usually in the form of nectar and fruit juices. There is some evidence that mosquitoes act as pollinators. Only females take blood meals.

Mosquitoes are holometabolous, meaning that they undergo complete metamorphosis. Larvae and pupae are aquatic.

Depending upon species, mosquitoes lay rapid-hatch eggs in permanent or semi-permanent bodies of water or delayed-hatch eggs in areas that will flood at some later date. Rapid-hatch eggs must stay wet to develop. Delayed-hatch eggs, however, can dry out and remain viable for long periods of time in anticipation of flooding events (rain, irrigation, storms). Sound familiar? Post-Beryl mosquito hordes fall mainly into this delayed category.

Males emerge from their pupae a day or two prior to females and use that time to feed and reach sexual maturity. Females emerge fully mature. Most mate only once and store sperm to fertilize future eggs as they are produced. While mating, males also transfer substances to the female that trigger a post-coital shift from looking for a mate to seeking a blood host. Blood meals provide the nutrients necessary for the female's eggs to develop.

Continued next page

Arthropod Archives: Mosquitoes (Cont'd)

By Sari Garfinkle, Class of Fall 2023

Continued from previous page

The eggs hatch into filter-feeding larvae known as "wrigglers." These consume bacteria, algae, and decomposing organic material. A few are predatory; all are potential prey for fishes and aquatic invertebrates.

Larvae have a segmented abdomen with a breathing siphon on the end, lack legs, and hang upside down in the water. They progress through four instars (stages) before pupating. Comma-shaped pupae breathe through a pair of trumpet-shaped siphons which extrude above the water line. The pupal stage is mobile but doesn't feed.

TOP: Inland floodwater mosquito; ABOVE: left, mosquito pupa, arrows pointing to "trumpets" or breathing siphons; right, dark rice field mosquito; BELOW: Elephant mosquito gets its name from the long bent proboscis.
All photos S. Garfinkle

The adults—lots and lots of adults—emerge upright from the water after just a few days. Though we consider them pests and disease vectors, they're a major food source for insectivorous birds, bats, and insects.

Currently on the wing in our area:

Asian tiger mosquito, *Aedes albopictus*, associates closely with humans. It glues its eggs, one by one, to the inner walls of any container that will hold water. When rainwater submerges them, larvae hatch out. Depending on the temperature, adults may emerge in as little as seven days. Females feed on humans, mammals, and birds. Though mainly crepuscular (dawn and dusk) feeders, they also feed during the day.

Aedes vexans, the inland floodwater mosquito, is a cosmopolitan species that prefers humans and cattle as its blood hosts. It lays its eggs at the edges of temporary pools or on floodplains, where they hatch after being inundated.

The black salt marsh mosquito, *Aedes taeniorhynchus*, prefers brackish, marshy areas along the coast and emerges in huge numbers after flooding. Adults are aggressive biters with a taste for mammals and birds. Females are unusual in that they can produce their initial clutch of eggs without a blood meal.

Psorophora are New World species known as persistent biters that will repeatedly bite the same host. Most common is *Ps. columbiae*, dark rice field mosquito, which deposits its eggs on soil prone to flooding, like rice fields. *Ps. ciliata*, gallinipper, is huge. Its first-instar larvae are filter-feeders; the remaining instars are predatory, feeding on aquatic invertebrates (including other mosquito larvae) and the occasional tadpole. Females of both species feed on mammals, but humans aren't their primary hosts.

To every rule there is an exception. In the world of mosquitoes, that's *Toxorhynchites rutilus*, the elephant mosquito. The largest species in the United States, *T. rutilus* females are vegans, deriving sustenance from flower nectar, plant sap, and rotting fruit. Females fly over suitable habitats, often tree holes filled with water, and drop rapid-hatch eggs one by one onto the water's surface. Their larvae are predaceous. All the proteins, fats, and nutrients necessary to produce eggs are provided by the aquatic organisms that their larvae consume, including *Aedes* larvae.

Stepping Out and Leading a WOW

By Jan Poscovsky, TMNCPC Volunteer Director

Members of the Spring 2024 class stepped outside their comfort zones, volunteering to serve as a leads for separate Workshop on Wheels (WOW) presentations.

Starla Lawhon (photo below) already works as an education specialist (her background is in wildlife biology) at the Nature Discovery Center in Bellaire. When she saw the opportunity to volunteer at the City of Rosenberg's Fourth of July event, she was very apprehensive. How could she possibly serve as the lead when she hadn't yet completed her Texas Master Naturalist certification? She reached out to me, and I encouraged her to give it a try.

Serving as lead involves only a few responsibilities. Since she worked full time, I agreed to check out the WOW for her; we arranged a time to meet to go through the suitcase and review the responsibilities. That afternoon, she left confident and informed. She recalled:

> *The day of the event went very smoothly. Susan (Brodmerkel), Hal (Carlson) and Constance (Rossiter), all in my class, were extremely supportive and had lots of enthusiasm! Being with such a positive group made leading much easier.*
>
> *Our presentation — Skins and Skulls WOW — allowed people to touch the skins of animals they had never felt before. In three hours, we reached over 250 people!*
>
> *There were many people interested in the work we did, and several people signed the interest form for the upcoming class. The Fourth of July event was long and tiring, but it helped boost my confidence and made me proud to be a TMNCPC. I learned that we don't know how brightly we can shine if we never take the risk to do so."*

Instructions for Leading a WOW

- ⇒ Reserve and check out the WOW, pick up from and return to the extension office (Mon-Fri)
- ⇒ Coordinate with other volunteers who have also signed up
- ⇒ Report key demographic data for our co-sponsors (VMS)

Fireworks by S. Lawhorn

Beth Ruzicka (in photo left, presenting with Carmen Perez) had worked part-time as a substitute teacher. Though she assisted with several WOW presentations, she did not feel comfortable signing up as lead. With one WOW, she assisted at the St. John's United Methodist Church summer camp with the Butterfly WOW. The organizers enjoyed the "butterfly ladies" so much, they requested a repeat performance with the Skins and Skulls WOW. Neither Beth nor Carmen felt they could lead. But then Beth had a eureka moment; as a substitute teacher, she was already used to walking into a classroom and not knowing an assignment until she arrived at the assigned school.

Being a TMN-in-training, Beth already knew what was in the Skins and Skulls WOW. Once she convinced herself she could do it, the challenge was accepted; she secured the WOW, got reacquainted with its contents, and was ready for action the next morning.

She and Carmen made a terrific team and truly WOW'd all 50 children and their teachers who were in attendance.

THANK YOU for being at your best for our community, Starla and Beth!

Oh, What A Hot July Can Bring!

By Shannon Westveer, Fall New Class Training Director

Seabourne Waste Warriors (Trash Bashers?) was created to regularly seek out and collect refuse at Seabourne Creek.

SCNP workday regulars Susan Brodmerkel and Constance Rossiter (above) and Fran Wilcox and Marna Ibeauchi (right) always look like they are having so much fun serving. *They ARE!*

Photos credit: Howard Kanelakos, Lynn Trenta, Susan Walther

Monthly Chapter Programs are where members can get together once a month … in the air-conditioned *indoors* for a change. This gathering was even more important on July 11 when many members were still without power.

Spring 2024 class members (above) Howard Kanelakos, Ana Lorena Jaramillo, Pam Jackson, and Hal Carlson initially certify — and get their goodies! **Della Barbato** (foreground, left) presented on prairies conservation, and Girl Scout Allison **Sobrinho** (above, left) presented her project to a welcoming membership.

Beryl Barrels Through Seabourne Creek

By Shannon Westveer, Fall New Class Training Director

LEFT: Wetland dock floating a bit high and inaccessible after inches of rainfall from Beryl

BELOW: Seabourne Arboretum leaning trees

LEFT: TMN-in-training, Ellen Bynum, collects seeds in the Native Plants Garden for propagation.

BELOW: Kevin Peters gives newly planted trees some extra tender loving care before and after Hurricane Beryl. He knows trees are long-lived creatures that need a longer establishment time with dutiful stewards helping them along as they mature in their new homes.

BELOW: Trail-clearing is a priority in the weeks after Hurricane Beryl; Seabourne Team Shree Nath, Elaine Whitely, Phil Ward, and Rodney Walther braved the mosquitoes and humidity as they worked as did so many others in those weeks following.

THANK YOU everyone for your service to our parks and partners which were particularly hard hit by the storm.

Photos credit: Randolph Watson

Easy Restoration Begins with Frogfruit

By Jim Butcher, a/k/a/ The Grand Poobah, Class of 2008

Hello, fellow nature lovers.
Let's turn a green desert into a playground for all sorts of *Lepidoptera*. Frogfruit, *Phyla nodiflora*, is an excellent low lying ground cover which hosts pearl and phaon crescents' full life cycles (caterpillar to adult) and provides nectar rewards for dozens of other butterflies and pollinators that include bees, wasps, and flies.

By my front porch lies a 100 square foot patch of ground between the concrete porch and sidewalk featuring Bermudagrass and other non-natives, begging for restoration. The goal was to populate this area with a low-lying groundcover to attract wildlife: frogfruit.

Step one: research. It didn't take long to discover there are few resources on how to convert Asian jasmine ground covers or other species into native ones. 9 Natives from Coastal Prairie Conservancy recommended solarizing as a site prep, to get rid of the existing plant community.

Step two: remove the offending plants. I used a string-trimmer to first remove the "green" down to bare earth, then sheet-mulched (with cardboard) and solarized (with clear plastic) for 5 months.

Step three: restore. Several purchased 4-inch pots of frogfruit were installed throughout the bare area, planted at the time of the last freeze late January.

Step four: enjoy! After just one month, many flowers appeared; in one day I counted 12 to 15 butterflies coming in for the tiny flowers' nectar reward.

As a bonus, I followed Doug Tallamy's advice earlier this year and skipped mowing a big chunk of my yard. With my mower blade now out of the way, a large swath of frogfruit magically appeared! Perhaps if I had done this first, I might have saved myself the cost of the 30 pots at $2 each.

Feel free to come and "rescue" some from my yard. There is plenty to share, and you won't regret restoring green deserts into functional habitats … right there where you live. Reach out to me anytime.

And let the adventure begin!

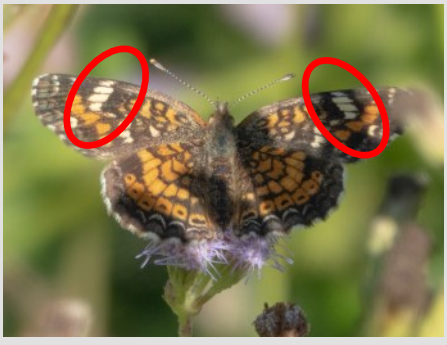
Pearl crescent (*Phyciodes tharos)* and **phaon crescent** (*Phyciodes phaon*) butterflies have a wingspan 1"to 1.5 inches and can be seen spring, summer, and fall in our service counties. Frogfruit (*Phyla spp.*) is the larval host plant for both.

With dark orange and black markings, they look very similar. However, there is a distinctive field mark that can help in distinguishing between the species.

Notice the cream-colored median band on phaon crescent's forewing (circled in red) which is absent on pearl crescent, whose forewings are a more uniform orange. (Photos: H. Low)

~ Hoiman Low, TMNCPC State Rep , Class of Spring 2021

Pearl crescent



Phaon crescent

Elected Officers

President	Susan Walther
Vice President	Joyce Tipton
Secretary	Kerry Padilla
Treasurer	Carrie Dolezal

Board of Directors

Past-President	Terri Hurley
Membership	Jan and Kevin Kolk
Programs	Jan Peterson
Communications	Tom Zaal
Volunteers	Jan Poscovsky
Adv. Training	Lisa Sanders
New Class Fall	Shannon Westveer
New Class Rep.	Becky Jones
Info. Tech.	Bert Stipelcovich
State Rep	Hoiman Low
Seabourne Creek	Jerry Trenta and Randolph Watson

TPWD / AgriLife Chapter Advisors

Prgm. Coordinator	Brandy Rader
Fort Bend Ag Agent	TBD

Shared by Jan Poscovsky

THANK YOU, Mentors!

Mentoring a new member isn't just a kind offering. It's in our *bylaws!*

Many of our members mentor a trainee each training class — that's two training classes and *two members* each year. We are at our best when we help others to "sip from the firehose" of information that comes at them in just a few short weeks of training. You remember, right?

If you are initially certified and have not already done so, complete the Mentor a TMN-in-training form (Members Only website) for the next class … Spring 2025.

Help another to certify. It's rewarding service work.

TEXAS MASTER NATURALIST™
COASTAL PRAIRIE CHAPTER

1402 Band Road
Fort Bend AgriLife Extension Office
Rosenberg, TX 77471-8678

Phone: (832) 225-6936

Visit Us **On-line**: *www.CoastalPrairie.org*
Email: *Info@CoastalPrairie.org*