Coastal Prairie Chapter Courier

October 2024 — Volume 12 Issue 10



Inside This Issue

Erik Wolf, Chapter Program Glorious, Glorious Goldenrods and Goldentops Arthropod Archives: Pollinators and Pollen Seabourne Creek Summer Issue: Special Edition



TABLE OF CONTENTS

- President's Message .. 2
- TMNCPC Member Erik Wolf:
- October Chapter Program .. <u>3</u>
 - Membership Minute .. 4
- Volunteer Service October .. 5
- Glorious, Glorious Goldenrods and Goldentops .. <u>6</u>
 - Fall Training Underway .. 8
- Archway Grasses Crossword .. 9
- Arthropod Archives: Pollinators and Pollen .. 10
 - Hodge Podge Decoupage .. 12
 - Seabourne Summer Issue .. 13
 - Contact Us .. <u>14</u>

ON THE COVER

TMNCPC member Pelin Ünal led a late September nature walk and journaling session with the Islamic Institute at our chapter's signature project park, Seabourne Creek Nature Park. Photo credit: Pelin Ünal

EDITOR TEAM

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



Have a great story for the November issue? Submit by **October 25** to:

Pam Jackson Pam@CoastalPrairie.org Raji@CoastalPrairie.org Shannon Westveer Shannon@CoastalPrairie.org 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.

President's Message

by Susan Walther, TMNCPC President



I've spent the last week on a very special vacation with my twin sister, celebrating our 60th birthday year by spending time the way we did



growing up – *outdoors*.

All my life, it has been difficult to answer the question, "What's it like being a twin?" I think I've finally figured out the answer: my childhood memories are *plural*. They are *we* instead of *I*, *our* instead of *my*.

Our early childhood was spent in the foothills of the Smoky Mountains. Our family's typical weekend trip was a short drive into the national park to picnic, hike, and play alongside the creeks finding salamanders, minnows, and bugs. We were too young to care about terms like aquatic macroinvertebrates; we simply appreciated the variety of life found in the moving water and the thrill of finding what was underneath the next rock.

At age 10 we moved to Palestine, Texas and – after adjusting to the shock of flat land and big skies – continued to spend our time outdoors. We climbed trees, fished for bluegill and bass, collected petrified wood and sharks' teeth along the creek, and interacted with the incredible diversity of wildlife around us. We loved the undeveloped lot across from our house that was home to horned lizards, killdeer, bobwhite quail, and roadrunners.

After childhood we earned different college degrees and grew our families in different parts of the country. But whenever we are together, simple sights and actions spark the same decades-old memories in us both. A typical snippet of conversation is something like "See that bird - remember when ...?" Or, "That time at the lake house! Mom was so mad!" Then, laughter.

My sister and I have spent the last week exploring the natural beauty of San Juan Island in northwest Washington state.

In a rental home on the undeveloped side of the

Continued <u>next page</u>

October Chapter Program: Thursday, October 3, 7 PM *Exploring the Essential Link Between Hunting and Conservation,* by Erik Wolf, TMNCPC *By Jan Peterson, TMNCPC Programs Director*



Imagine if hunting were banned

tomorrow—what would it mean for wildlife, wetlands, and public wildlife areas? You might be surprised by the profound impact this could have.

Consider this: the federal duck stamp, required for waterfowl hunters, has raised over \$1.1 billion, funding the preservation of more than six million acres of vital waterfowl habitat. Additionally, hunters contribute to the Wildlife Restoration Act, which generates \$12 billion for state conservation efforts.



Erik Wolf, Texas Master Naturalist Coastal Prairie Chapter (Photos credit: Deb McMullen)

These funds are crucial for protecting ecosystems and wildlife. So what role do hunters play in conservation? Discover the answer and learn how their contributions are making a difference.

Erik Wolf is a graduate of the 2017 Heartwood Chapter Texas Master Naturalist class and is currently an active member of the Coastal Prairie Chapter. Erik is an avid outdoorsman who spends his free time hiking, birding, foraging, fishing and hunting. He loves to learn as much as he loves to teach and thinks everyone should do more of both. President's Message Continued from <u>previous page</u> Our programs are always **FREE and open to the public**, held at the Rosenberg Civic Center, 3825 TX-36, Rosenberg, TX 77471. Thanks to the TMNCPC information technology team, they are also be streamed **LIVE** remotely via Zoom. The **1-hour program begins at 7:00 PM**.

The <u>Texas Master Naturalist</u> program is sponsored by <u>Texas Parks and</u> <u>Wildlife Department</u> and <u>Texas A&M</u>

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."]

island we've remembered our childhood time together outdoors and have made many wonderful new memories of

exploring tidepools, whale-watching, kayaking, crabbing, and observing the local new-to-us flora and fauna.

I hope that everyone reading this is reminded of how important time spent outdoors and *time spent outdoors with other people* is to our mental wellbeing. Try to get outside and really observe as if you are a child again; let yourself get caught up in the wonder of it all. And whenever you can share your experiences with your family, friends and fellow Texas Master Naturalists, you strengthen the connection you have with *them* as well as your connection with the natural world.

See you outdoors!

Membership Minute By Jan and Kevin Kolk, TMNCPC Membership Co-Directors

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



Slack Tip — Did You Miss



(Photo by Sari Garfinkle)

<u>MEMBERS ONLY</u>. Thank you to Sari Garfinkle who took great pains to educate many of us on correctly identifying Odonata (dragonflies and damselflies) in the field for September's <u>Odolympics</u>.

Be sure to JOIN this educational channel to be notified of important survey information as we engage in future events. Learning is *FUN*!

#proj-citizen-science

Volunteer Service — October Highlights By Jan Poscovsky, TMNCPC Volunteer Director

Prior to attending an event, please check our website calendar for last-minute changes, cancelations, or other information.

https://txmn.org/coastal/events/month/2024-10/

Signature Project Seabourne

Creek Nature Park (SCNP), **Rosenberg**: 8:00 – 10:30 AM Wednesdays and 1st and 3rd Saturdays which fall on 10/2, 10/5, 10/9, 10/16, 10/19, 10/23, and 10/30

Public Outreach Monthly Bird Hike at SCNP, Rosenberg:

8:00 – 10:30 AM 1st Wednesday which falls on 10/2

Public Outreach Monthly Plant Walk at SCNP, Rosenberg: 9:00 – 11:00 AM which falls on 10/12

Public Outreach Monthly Nature Walk at SCNP, Rosenberg: 8:00 – 9:00 AM 3rd Sunday which falls on 10/20

Public Outreach Monthly Insect Hike at SCNP, Rosenberg: 9:00 – 11:00 AM 5th Thursday which falls on 10/31 (normally 4th Thursday)

Public Outreach Houston

Museum of Natural Science in Sugar Land: 10:30 AM – 3:00 PM 2nd and 4th Saturdays which fall on 10/12 and 10/26; Garden Workday: 9:00 – 11:00 AM 3rd Thursday which falls on 10/17 (see SignUp Genius for both opportunities)

Coastal Prairie Conservancy Indiangrass Preserve, Katy:

9:00 AM – 1:00 PM Tuesdays, Fridays, and 2nd Saturdays which fall on 10/1, 10/4, 10/8, 10/11, 10/12, 10/15, 10/18, 10/22, 10/25 and 10/29

Join Us!

We invite you to get out and meet TMNCPC members as we commune with nature. Check out the calendar to find the dates and times for our Bird Hikes, Plant Walks, Nature Walks and Insect Hikes.

Chapter Meeting and Board Meeting, remotely via Zoom: 7:00 – 8:30 PM 3rd Wednesday which falls on 10/16 (see #announcements channel on Slack)

Bat WOW Outreach at Long Acres Ranch, Richmond: 9:30 AM – 12:30 PM Tuesday through Thursday 10/8, 10/9

through Thursday 10/8, 10/9 and 10/10 (see SignUp Genius)

Willow Fork Pollinator Garden Workday, Katy: 8:30 AM – 12:00 PM Saturdays which fall on 10/5, 10/12, 10/19 and 10/26

- Lawther-Deer Park Prairie, Deer Park: 9:00 AM – 12:00 PM 4th Saturday which falls on 10/26
- Fall Outdoor Skills Day at Harrison-Long Point Ranch: 8:30 AM – 3:30 PM Saturday 10/19 (see SignUp Genius)
- Bioblitz at Harrison-Long Point Ranch, Richmond: 9:00 AM – 1:00 PM Monday 10/14
- Texas Pollinator Bioblitz at SCNP, Rosenberg: 8:00 AM – 12:00 PM Monday 10/21
- Harris County Precinct 4 Bird Survey at Archbishop Joseph A. Fiorenza Park, Houston (HARRIS): 7:30 – 11:00 AM 4th Monday which falls on 10/28
- John Paul Landing Weekly Bird Walk, Houston (HARRIS): 7:30 – 11:00 AM Thursdays which fall on 10/3, 10/10, 10/17, 10/24 and 10/31
- Kolter Elementary Pollinator Garden Workday, Houston (HARRIS): 9:00 AM – 12:00 PM 2nd Saturday which falls on 10/12

Bolivar Flats Beach Ramble, Bolivar (GALVESTON): 10:00 AM – 12:00 PM 1st Saturday which falls on 10/5

Splash Beach Clean Up at Texas City Dike, Texas City (GALVESTON): 9:00 AM – 12:00 PM Saturday 10/19



Glorious, Glorious Goldenrods and Goldentops By Susie Doe, TMNCPC Class of 2008

Our fall season is upon us now that the equinox has come and gone. Autumn brings with it a season of allergic reactions, commonly known as hay fever, as many of our fall-blooming plants throw clouds of lightweight pollen into the winds. These include many warm-season grasses and the notorious Ambrosia spp. (ragweeds) and Iva annua (sumpweed). These plants have

green inflorescences with small flowers that blend into the green background vegetation all around

us, so that we don't notice these plants at all, except for those of us who react to the lightweight pollen when it enters our eyes and noses. Looking around, however, we do notice the goldenrods with their bright yellow flowers and disparage them, wrongly. They are not to blame for our fall allergies.

Goldenrods, members of the genus Solidago and related genus *Euthamia* (goldentops) are members of Asteraceae the large family including

asters, sunflowers, daisies. They are ubiquitous in fall and provide a wonderful feast for our insect pollinator species, veritable magnets attracting bees, wasps, flies, beetles, butterflies and moths.

Pollen of these species is sticky and heavy, not suited to flying through the air and entering our noses and eyes, but perfect for collection by insects. Pollen adheres to the insects easily and is thereby transferred by



Insects of many varieties will visit the nectarand pollen-rich flowers of Solidago (Photo credit: Sari Garfinkle)

them from flower to flower to make cross-pollination and cross-fertilization possible - a fabulous deal for the plants! And many of these insects also actively collect the pollen for its nutritional value; it is transferred to and packed into their nests so that the larva will be well supplied with food as they develop. These insects are also attracted to the nectar produced by the flowers which

provides food for the parent insect as well - pollen and nectar is a great deal for the insects! A win-win situation for both plants and insects.

In our area immediately southwest of Houston, the most common species of Solidago include:

- S. altissima (tall, late or Canada goldenrod)
- S. mexicana (seaside goldenrod)
- S. tortifolia (twistleaf goldenrod)
- S. odora (sweet goldenrod)

They can be difficult to identify to species; however, these four are fairly easy to differentiate. All of them have inflorescences with many involucrate



flowerheads arranged in a paniculiform,

Continued next page



Glorious, Glorious Goldenrods and Goldentops (Cont'd) By Susie Doe, TMNCPC Class of 2008

Continued from previous page

pyramidal structure. Leaf traits are a much better way to determine species in this group, as they are for the genus.

In *S. altissima*, (photos, previous page) our tallest species (growing up to 2 m), the leaves are 10-15 cm long, flat and straight, lanceolate-oblanceolate with entire or somewhat serrate margins near the distal end.

S. mexicana (photos,

previous page) also grows up to 2 m tall but can be much shorter as well – its inflorescence is relatively



Good Gall-y, Y'all!

Solidago sects. Gall

species hosts several gall-making insects. Galls are produced by plants as a reaction to having insects lay their eggs inside their plant tissues. The reaction makes the plant grow certain kinds of "abnormal" tissues meant to wall off the insect to protect the plant from harmful effects, such as interfering with the vascular system. In the case of goldenrods, there are two types: the stemswelling or ball galls; and the leaf-bunching or rosette galls. Interestingly, the initial gall-forming insect will itself be parasitized by other insects. it's an insect-eat-insect world out there! The ball galls (photo) are the easiest to find on the stems of goldenrods, especially common on *S. altissima*.

More information on Solidago galls

distinct anise or sweet smell when its leaves are crushed. The leaves range from linear lanceolate to narrowly ovate, 4-11 cm long.

Our two goldentops, when blooming, can be distinguished from the goldenrods by their flat-top inflorescences. These two species, *Euthamia gymnospermoides* and *Euthamia leptocephala*, while they are said to grow to 1 m + tall, in my experience are usually in the 50 -70 cm range. The two species can easily be differentiated by their

leaves: E. gymnospermoides

are very narrow (1.4-4 mm

wide, 12-49 X longer than

long and narrow and its mid to distal cauline leaves are somewhat fleshy, narrowly ovate to



oblanceolate and only 4-6 cm long, usually strongly appressed upwards along the stem.

S. tortifolia (left) is 30-130 cm tall, with mid to distal cauline leaves being bright green, 2-7

cm long, linear to linear-lanceolate, often twisted.

S. odora (right), as its Latin name and common name imply, is a plant with a wide); *E. leptocephali* are wider (3-6 mm wide, 8-18 X longer than wide).

These two Euthamia ssp. (right) often grow right next to each other in the field. The goldentops, like their goldenrod cousins, are extremely important late season pollinator plants, especially important for native bees as well as beetles and butterflies.



Fall 2024 Training ... Fully Underway! By Shannon Westveer, TMNCPC Fall 2024 Training Class Director

BELOW and RIGHT: Trainees at CPC's Indiangrass Preserve *dug right in!* They planted 390 milkweeds while learning about soil and coastal prairie restoration.





BELOW: Trainees studied **plants and aquatic insects** with TMNCPC trainers Susie Doe and Kerry Padilla at Seabourne, our Signature Project.

RIGHT: Trainees kicked off training at The Range with chapter orientation and Ecological Regions of Texas with TPWD's Clint Faas. Invited mentors participated with trainees in a Symbiosis Matching Game to get better acquainted.







Where the Poobah goes, so does the Dubious Achievement Award — **the Blue Donut!** (Clockwise) Jacob Perry, Claire Williams, and Cee Cee Parker were all honored recipients.





[3] Common name for *Schizachyrium scoparium*

[4] One of five factors that establish character of soil: parent material, climate, topography, organisms, and

SABWSNA

7. disturbance; 8. gulfmuhly; 9. mulch; 10. sedge

DWN1 1. hypoxia; 2. mycorrhizal; 3. little

bluestem; 4. time; 5. vertisols; ACROSS 6. invasive;

^[5] Clay rich soils highly susceptible to shrink-swell cycles depending on rainfall

Arthropod Archives: Pollinators and Pollen By Sari Garfinkle, TMNCPC Class of Fall 2023

Because they fly by day and produce honey, domesticated honeybees are perhaps the most extensively studied of all the pollinators. Attention has now shifted toward other native pollinators: wasps, beetles, butterflies, and moths. While none are as well-adapted and adept at pollination as bees, collectively they provide a great service to plants.



Dieunomia heteropoda, a sunflower specialist, covered with *Helianthus annuus* pollen (Photo: S. Garfinkle)

Pollination is the movement of pollen—the plant equivalent of sperm—from a flower's male parts to the female parts of a flower of the same species. Think plant in vitro fertilization. While some plants self-pollinate, 75-90% rely on wind, water, or animals. Over the eons, both plants and animals have developed adaptations that benefit both parties.

As adults, most bees feed on floral nectar. Their larvae eat pollen gathered by adult females on scopa, hairs specialized to collect pollen. As the bees forage amid the blossoms, some pollen comes loose and adheres to the flower's reproductive parts.

Generalist bees, whose larvae eat anything, visit a wide range of flowers. Specialist bees, whose larvae restrict their diet to particular plant families or individual species, often have adaptations specific to their target plants. For instance, *Ptilothrix bombiformis* has long, dense, feather-like leg hairs wellsuited to collect hibiscus pollen.

Most bees are diurnal and attracted to flower color, fragrance, and/or nectar guides (low-UV areas invisible to human eyes). Common bee adaptations include tongue length, hair placement and density, hair type, body shape and size, and maturation timed to coincide with plants' bloom times.

Adult wasps frequent flowers, both for nectar and to seek prey for their larvae to eat or parasitize. Like bees, most wasps are diurnal. Unlike bees, their bodies are smooth, and they lack scopa. Despite that, adult wasps still move some pollen as they sip nectar. Researchers believe that wasps warrant more study.

The larvae of pollen wasps (family Vespidae, subfamily Masarinae) are vegetarians. Mom provisions each larval chamber with a loaf of pollen mixed with nectar, then lays an egg on the loaf. Because females lack scopa, they store the pollen and nectar they've ingested in an internal crop. All pollen wasp species in the US belong to the same genus, *Pseudomasaris*, and each is a flower specialist. The four species that live in Texas concentrate on either phacelia or penstemon blossoms.



A little *Cerceris* wasp has accumulated pollen on its head and thorax while visiting *Croton lindheimeri* flowers (Photo: S. Garfinkle)

Fig wasps and fig trees have coevolved to enjoy a mutualistic relationship, meaning one that benefits both parties. Fig wasps lay eggs inside figs containing male flowers. Newly emerged females brush against the anthers as they exit their natal figs to seek a new fig in which to lay eggs. If they enter a fig with female flowers, the pollen they share unintentionally will lead the fig flowers to develop seeds. The wasp will then die without reproducing.

Beetles are believed to be among the world's oldest pollinators.

Arthropod Archives: Pollinators and Pollen (Cont'd) By Sari Garfinkle, TMNCPC Class of Fall 2023

Continued from previous page



Messy eaters, beetles inadvertently collect and share pollen as they dine. *Acmaeodera mixta* on *Gaillardia pulchella* (Photo: S. Garfinkle)

Fossil evidence demonstrates that they were already abundant about 200 million years ago. Angiosperms emerged about 100 million years later. Though butterflies and bees had yet to emerge, flowering plants could rely on beetles. Pollen-consuming beetle species are attracted to particular floral scents and inadvertently spread the grains as they move from flower to flower in search of their next meal. Present-day beetles are especially important to ancient flowering plants such as magnolia and spicebush.

Butterflies operate in a similar fashion to beetles, except that they consume nectar and use visual cues—color and nectar guides, for example—to locate the right flowers.

Moths also appear to be inadvertent pollinators. Some moths, like the *Schinia* species, are diurnal. However, most are nocturnal feeders that rely on scent to locate suitable flowers on which to nectar. They prefer pale or white flowers, reflective in moonlight, that open at night and produce a strong fragrance. In most cases, an adult's food source is different from the larval host plant.

New studies have found that moths visit flowers less frequently than bees but may be more efficient pollinators. As a moth sits and feeds, it extends its proboscis into the flower's nectary and its body brushes up against the flower. Pollen accumulates on the hairy underside of its thorax or is brushed onto the flower's female apparatus. Research suggests that though moths make fewer trips than daytime pollinators, they pollinate more quickly and travel farther, making them a potential driver



Phoebis philea nectaring on Odontonema tubaeforme's tube-shaped flower. The anther protrudes ever so slightly from the flower's opening (Photo: S. Garfinkle) of genetic diversity for plant species.



Flower moths are specialists. Here *Schinia mitis* feeds on its host flower, *Pyrrhopappus pauciflorus*. Pollen adheres to its head and thorax (Photo: S. Garfinkle)

Why are pollinators important? Plants are the base on which all life on Earth rests, but they can't continue to propagate if their pollinators disappear. From a practical standpoint, our food sources—plants and the animals that eat them—rely on the survival of pollinators.

Habitat destruction, invasive species, air, water, and noise pollution, pesticides, and climate change all negatively affect pollinator populations. To assess the current state of Texas' pollinators and their related plants, Texas Parks and Wildlife asks citizen scientists to participate in the annual Pollinator Bioblitz. Anyone can photograph what they see and report what they find on iNaturalist. This year's Pollinator BioBlitz dates are October 11-27. Be sure to JOIN the project and help survey all Texas pollinators.

Hodge Podge Decoupage By Shannon Westveer, TMNCPC <u>Courier</u> Co-Editor



Welcome Pam, NEW! Courier Co-Editor

Pam Jackson — Class of Spring 2024 — will join Raji Mahesh and Shannon Westveer in taking turns with monthly issues for the remainder of 2024 and into 2025.

She already left her mark helping Raji with the September Issue. *Welcome to the newsletter team, Pam!*



Early September, **Bayard Nicklow** (below, TMNCPC Class of 2022) led a flora survey for Harris County Precinct 4 properties with a few other TMNCPC members: Hoiman Low, Ute Welk, and Susie Doe. (Photos credit: Hoiman Low)







ABOVE: **Kerry Padilla** (TMNCPC Secretary) finds her groove with kids and insects! She leads the monthly insect walks at Seabourne and engages in many other public outreach and citizen science events.

BELOW: **Pelin Ünal's** "zine" foldable on bird migration was a great supplement that helped kids connect to their feathered world! See the <u>cover of the stunning sunrise</u> that started their day of learning and journaling together at Seabourne Creek. *Inspiring outreach.*



Hodge Podge Decoupage (Cont'd) By Shannon Westveer, TMNCPC <u>Courier</u> Co-Editor

BELOW: Chevvy Tang and others shared "Fungus Among Us" at partner HMNS Sugar Land Saturday outreach. Dozens of people enjoyed these fun guys!



RIGHT: Veteran birders David Goff, Hoiman Low, and Ute Welk joined recently certified members Howard Kanelakos and Cindi Tanner at Harrison-Long Point's September bird survey. (Photo: Howard Kanelakos)





LEFT: Occasionally, more than insects get captured in the aquatic dip nets. Many young bullfrogs enjoyed portraiture by the Fall 2024 training class participants while identifying insects in the Seabourne Wetlands pond, Aquatic Ecosystems curriculum. This one stayed in the fish tank for just a bit. Say "cheese!" (Photo: Kerry Padilla)

Special Edition Summer Issue — Seabourne



Creek Nature Park

Please follow the link for the <u>Special</u> <u>Edition Summer Issue</u> to the October Issue *Courier*. Read it!

Featured articles include:

- Native Plant Garden (NPG)
- Bouncing Back from Beryl
- Butterfly Garden Activities

Sugar Land's Assistant Parks and Recreation Director, Fenglin Du, sent this photo of the recent pocket prairie installation at Cullinan Park just as it was about to reopen post-Beryl cleanup. It was thriving without us, full of bees, butterflies, beetles and flies, all doing what they do best. The pocket is beautiful *and* functional!



Elected Officers

President	Susan Walther
Vice President	Joyce Tipton
Secretary	<u>Kerry Padilla</u>
Treasurer	<u>Carrie Dolezal</u>

Board of Directors

Past-President	<u>Terri Hurley</u>
Membership J	an and <u>Kevin Kolk</u>
Programs	Jan Peterson
Communications	<u>Tom Zaal</u>
Volunteers	<u>Jan Poscovsky</u>
Adv. Training	Lisa Sanders
New Class Fall S	hannon Westveer
New Class Spring	<u>Lauren DeShazo</u>
	and Lisa Sanders
New Class Rep.	Becky Jones
Info. Tech.	Bert Stipelcovich
State Rep	<u>Hoiman Low</u>
Seabourne Creek	Jerry Trenta and
	Randolph Watson

TPWD / AgriLife Chapter Advisors

Prgm. Coordinator	Brandy Rader
Fort Bend Ag Agent	TBD





Register Today

Many of us are already attending and or presenting. Come find us!

https:// txmn.tamu.edu/2024annual-meeting/







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**: <u>www.CoastalPrairie.org</u> Email: <u>Info@CoastalPrairie.org</u>