

# The Midden

Sunset by Sheron Evans

Galveston Bay Area Chapter - Texas Master Naturalists

October 2022

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## President's Corner by Pam House

As I was donning my naturalist regalia in preparation for greeting our new class, the glint of my initial certification dragonfly pin caught my eye. I began to wonder about that dragonfly and its history. How and why was it chosen as the Master Naturalist logo? I realized that I knew little about the real creatures it represented - other than they liked to eat mosquitos (always a good thing in this part of the country). Dr. Google filled in some of the gaps in my knowledge.

You may already know this, but it turns out that it is not just some generic dragonfly that is represented in our logo and by those certification pins, but it is the Cyrano Damer (*Nasiaeschna pentacantha*). The logo was adopted in 1998 when the statewide program began and its name references Cyrano de Bergerac. Our favorite dragonfly has a greenish-blue forehead (surely not what it is really called) that makes up 1/3 of the length of its head - sort of its own over-sized nose. It typically is found at the edges of ponds, lakes, and marshes and rarely perches, except when roosting for the night. It is described as large, strong, and brightly and distinctively patterned. If you are interested in learning more, the state web site is a place to begin. Of course, you are likely to fall through wormholes from there that might lead you to *A Dazzle of Dragonflies* by Forrest L. Mitchell and James L. Laswell or leave you stranded exploring the Digital Dragonfly Museum.

When you can escape the dragonfly wormholes, you might want to make a special effort to attend our next chapter meeting in person. If you haven't had a chance to meet the members of the fall class, the October 6<sup>th</sup> chapter meeting will provide you with that opportunity. The class will join us for Food, Fun, & Friendship that evening. Although it will be a hybrid meeting, we hope that as many of you as possible can join us in the old-fashioned way that night for Mel's store, excellent food, and the special spark of face-to-face gatherings.

As we continue to seek new ways to welcome a broad community of members into our fold, we are trying a fresh approach. For this session, training classes are being held on Thursday evenings with field trips on several Saturdays. Our 31 trainees are diverse in many ways - backgrounds, work experiences, racial, gender, age and ethnic profiles. None of them has a particularly protuberant nose (unlike the Cyrano Damer, ha ha?). Their enthusiasm probably reminds you of your own excitement when starting out.

Please note the many and diverse upcoming special fall events. A few of them: Beach Heroes participating in the Galveston Art Walk (at The Grand) on October 8, Bayside Park's Naturefest on October 29, and the TMN Annual Meeting at the Houston Omni Hotel where our chapter is hosting the Silent Auction October 20 - 23. The chapter Nominating Committee will soon be seeking officers for 2023. Please consider how you may want to serve. Get your volunteer shoes on and be on the lookout for the emails inviting you to help and participate. See you there.

## Next Chapter Meeting

October 6

People of the Late Archaic  
Lower Brazos Culture

By

Dr. Dan Worrall

At  
Extension Office\*  
and via Zoom

## Women in Nature: Maria Martin Bachman by Meade LeBlanc

John Audubon is well-known for his detailed studies of birds in their natural habitats, but just as beautiful are the flora and fauna in the background. One of the background painters was named Maria Martin Bachman, who not only painted flowers and trees, but also added bees, butterflies, caterpillars, spiders and beetles among others.



Photo courtesy of NY Historical Society

Maria Martin, the second daughter of a wealthy family, was born in 1796 in South Carolina. She and her sister, Harriet, were quite well educated for the time; Maria's letters mentioned she studied literature, French, music and natural science.

Little else is known about her childhood, but she began living with her ailing

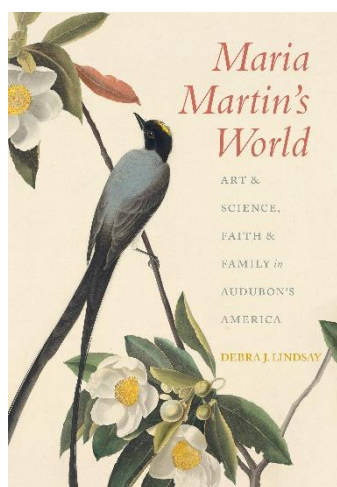
sister, Harriet, and brother-in-law, John Bachman, in 1827 at the age of 31. Several years later Harriet died, and several years after that, Maria married her John.

John Bachman was a clergyman and naturalist who wrote or edited most of the text for Audubon's books. Maria met John Audubon during one of his trips to study birds in South Carolina. Audubon encouraged Maria in her artistic endeavors and tutored her in illustration. He recognized her talent and supplied her with paint brushes and other materials.

Audubon asked Maria to assist with paintings for his book *The Birds of America*. Having assistants allowed Audubon to focus on the birds, and Maria was one of three. She spent five years contributing illustrations and was credited with only nine, whereas it is believed that she worked on more than 30.

While her work was unpaid, she was paid a high compliment when Audubon wrote to his son: "Miss Martin with her superior talents, assists us greatly in the way of drawing; the insects she has drawn are, perhaps, the best I've seen." Audubon named a variety of the hairy woodpecker (*Picus martinae*) Maria's Woodpecker, in her honor.

Her talent went beyond plant life and insects. Maria assisted her brother-in-law with the editing of *The Viviparous Quadrupeds of North America*, and also provided illustrations for *North American Herpetology*, written by John Edwards Holbrook.



As with most women of the early 19th century, Maria's work was generally not signed or acknowledged. However in recent years, there have been exhibits of her work at places including the New-York Historical Society Museum & Library. A book about her work, *Maria Martin's World: Art and Science, Faith and Family in Audubon's America* by Debra J. Lindsay, was published in 2018. The

cover is one of Maria's drawings.

Perhaps we should allow Audubon's words to reflect on a century of women and their contributions to conservation: "I feel bound to make some ornithological acknowledgment for the aid she has on several occasions afforded me in embellishing my drawings of birds, by adding to them beautiful and correct representations of plants and flowers."

## Masked Hunter Bugs: More Insects in Disguise by Rebekah Gano

When I visited my father in Michigan over the summer, he said he had found something he wanted me to see. Knowing my fascination with small creatures, he had saved a strange insect for me. The insect (found dead) was about a half an inch long and shaped somewhat like a dragonfly nymph or spider, but its most striking feature was that it was coated in a thin, even layer of sand and dust. My father asked if I knew what the insect was, and I admitted I did not and had never seen such a creature before. He triumphantly told me that it was a "dust bug", and of course, I was intrigued and had to do more

research. (Unfortunately, I forgot to pack the bug in my suitcase and bring it back to Texas!)

Dust bugs are nymphs more widely known as "masked hunters", and they are true bugs, unlike the common dust mites that are often called "dust bugs". Masked hunter bugs (*Reduvius personatus*) are in the assassin bug family. They are widespread across North America and much of the earth. Entomologists believe they originated in Europe, but their history is uncertain.



Like “junk bugs”, masked hunter bugs are predatory insect nymphs that camouflage themselves. (See the April 2022 *Midden* for the “Junk Bugs” article about lacewing larvae.) Like other true bugs, masked hunters use their rostrum (mouthpart) to pierce their prey (sometimes repeatedly) and then suck out the nutritious insides of their prey. Unlike their kissing bug (*Reduvius triatominae*) relatives, with whom they are sometimes confused, masked hunters are not known to spread diseases; however, they have been known to inflict painful bites on humans.

Masked hunter bugs do not feed on humans; they only bite in self-defense when they are threatened. In a YouTube video by Texas A&M (“Handling the Frightening Masked Hunter Bug” - <https://www.youtube.com/watch?v=reRp3RGiEF0>), an entomologist handles a masked hunter without any signs of aggression from the bug. This video mentions a famous record of a masked hunter’s bite from entomologist O. Howard in 1899: “intense pain... almost equal to that of a bite of a snake, and the swelling and irritation which result from it will sometimes last a week. In very weak and irritable constitutions, it may even prove fatal.” Most current records of these bug bites curb the drama and note that they feel like a bee sting and may result in localized swelling.

Bedbugs, mealybugs, termites and beetle larvae are on the menu for masked hunters, along with other small arthropods. Scientists note that the predators are not voracious enough to control populations of pests and that finding several masked hunters indoors often signifies a

pest problem that requires chemical treatment. Outdoors, however, masked hunters find habitats where they are usually beneficial. They prefer dark, dry, dusty locations, such as decomposing wood piles and highway overpasses, where they eat pests attracted by birds.

The masked hunter bugs are nymphs when coated in their dusty disguises, meaning they themselves would be attractive prey for many animals. Their camouflage works so well, however, that most predators do not even notice them. (Watch the end of the Texas A&M video to see a wasp walk right over a masked hunter!) The camouflage also allows masked hunters to come very close to their own prey without being detected.

The coating of a masked hunter is composed of very fine particles of dust and sand, along with bits of exoskeletons. It covers the entire nymph, except for its eyes, mouthparts, and antennae tips -- presumably so that it can still sense its environment. According to Penn State Extension, the insect secretes a sticky substance through its cuticle and also has small sticky hairs that hold the bits of debris.



Once masked hunter bugs complete metamorphosis, they no longer wear a costume of dust. Instead, they have a shiny, slender dark brown or black form. They will typically mate and produce just one batch of eggs, completing their lifecycle within a year.

This season, as you enjoy the cooler weather and watch the costumed children frolicking outdoors, remember that some young insects are wearing disguises too!

## Credit Cards Accepted by Patty Trimmingham

Exciting news! You asked, we delivered. This year you will be able to pay for your annual dues via credit card on our website. The new link is (*or will be found*) under the Members tab, the first selection “Pay Your Dues”, <https://txmn.org/gbmn/pay-your-dues/>. Click on the box that has “Square” in it. You’ll be walked through the rest of the payment process.

We are no longer collecting the hold harmless forms, unless your information has changed. As in the past, we will be collecting 2023 dues at the December Chapter meeting. You can still pay by check or cash. A big thank you to Tracy Walpole (Spring 2022 class) for making this happen. If you have any questions, contact Patty Trimmingham.

## Let's Learn Plants: Poison Ivy by Diane Humes

I have recently reminded myself that Emmeline Dodd has spoken to us about a common affliction called "plant blindness." This was first described by botanists Elisabeth Schussler and James Wandersee in 1969 and results in "the inability to see or notice the plants in one's own environment." This blissful lack of awareness can result in unfortunate consequences.

Poison ivy (*Toxicodendron radicans*) is a member of the cashew or sumac family, Anacardiaceae (An-uh-car-dee-a-see-ee). This is a diverse worldwide family of flowering trees and shrubs, including cashews and pistachios, known for characteristically inconspicuous flowers, milky or resinous sap - often poisonous - and fruits which are drupes. Botanically speaking, a drupe is a stone fruit - a fleshy, thin-skinned fruit enclosing a stone with a single seed - think mango, also a member of this family.

Most people seem blind to the ubiquitous poison ivy, yet it is native everywhere in North America except California, Hawaii and Alaska. Its cousin west of the Rockies is poison oak (*T. diversilobum*.) The third member of this trio and eastern cousin, poison sumac, (*T. vernix*) is a tree growing in deep, wet swamps. Its leaves have 7 -13 leaflet; these are not the clonal sumacs with red fruits commonly seen, especially in eastern states.



"Leaves of three let it be." Poison ivy and poison oak usually have three leaflets, but sometimes there are five or, even seven leaflets. Leaves may have smooth, toothed, or lobed edges and all three types of leaf edges may be present in a single plant. Leaves may be shiny or rough. The plants grow as creeping vines, climbing vines or shrubs. Stems are often reddish and very hairy-looking. A robust vine may cover a dead tree; its ropy stem may be 15 cm in diameter; it might not occur to you that the tree is really a vine!

Fruits and flowers on these species are inconspicuous, small, grayish, greenish or whitish and occur in branching clusters. Plants can live in sun or shade, but are commonly pioneer plants, occurring particularly in disturbed areas, so watch for them especially along trails, clearings and sunny meadows. Growth forms are variable and may all occur on the same plant. Look for red stems and leaves, especially in fall.

These plants are neither ivy (*Hedera*), nor oak (*Quercus*), nor sumac (*Rhus*); the common names refer to their superficial appearances. Technically, they are not poisonous either; a wide variety of animals - bears, deer, raccoons, woodpeckers, waxwings, turkeys, insects and toads, feed or shelter on the leaves and fruits with no ill effects. In fact, over 60 species feed on the fruits and are responsible for poison ivy seed dispersal!

We all need to know two important facts about members of the *Toxicodendron* genus: first, they contain the oily compound urushiol and, second, 80 - 90% of all humans are allergic to urushiol, which causes, at best, an itchy rash and blisters. So, in order to protect ourselves, we must learn how to SEE these plants.



The first recorded Western texts about poison ivy were by John Smith in 1624. He might not have been the first Pilgrim with the rash, but he wrote about it, called the plant ivy (*Hedera*) and sent specimens to England where it was widely studied for potential medicinal uses. Actually, the same skin irritation was known for several thousand years to Asian lacquer workers, caused by sap from the lacquer tree (*T. vernicifluum*). The causative chemical, isolated in modern times by a Japanese chemist, Rikou Majima, was named for the lacquer industry.

Urushiol, a very potent allergen, can penetrate skin after a few minutes' exposure, but may be washed off with soap and water. Soap molecules contain two long tails - one bonds with lipids (oils) and the other with water. Given enough lathering time - at least 20 seconds for the molecules to bond - urushiol will wash off your skin. However, once the allergic reaction has begun - usually within 8 and 48 hours after direct contact - further washing is useless; manage symptoms with hydrocortisone, which stops the allergic reaction and/or calamine lotion to control itching

Bottom line: if you realize you have met the plant, the most important thing is to wash your affected skin with plain old soap ASAP - also your clothing, tools, pets to avoid indirect contact. The chemical can survive on surfaces for months to years. Let the urushiol oil wash away down the shower drain!

The best protection is **prevention**. Dress for protection on the trail but, **learn to see** and **ID the plants wherever you**

**go**, because they can grow anywhere - usually along "edges" - edges of trails, in newly-disturbed areas, edges between habitats - often the places we frequent - playgrounds, picnic areas, even growing under your own swing set or at your favorite nature center!

#### Urushiol Facts:

- Burning live plants lofts urushiol oil into the air via soot particles: **DON'T BURN IT**.
- Urushiol is not present in dried leaves that have fallen off the plant naturally.
- 2 micrograms urushiol can cause an allergic reaction, possibly within 5 to 10 minutes.
- Urushiol in its pure form is a pale-yellow liquid, soluble in diethyl ether, acetone, ethanol, carbon tetrachloride, and benzene.
- The uncomfortable, red, itchy rash forms in lines or streaks of fluid-filled or raised blisters.
- The rash is not contagious - blisters contain plasma, not urushiol.
- As atmospheric CO<sub>2</sub> levels rise, poison ivy plants are growing larger leaves with more urushiol.
- Multiple bee species gather the pollen for their honey, which you can enjoy on your toast with no fear; poison ivy pollen contains no urushiol!

Many products are touted to save you from poison ivy rash. Check them all out, but nothing can beat soaping up with ANY soap and water for at least 20 seconds of lathering. Note: importance of TIME, SOAP and WATER.

Best of all, **KNOW HOW TO SEE THE PLANT!**

## Opportunities eligible for GBAC Volunteer Service Hours by Jo Monday

A few months ago, many of us began to leave our homes and venture back into the world, re-engaging with our volunteer partners and fellow GBAC members. We have discovered new opportunities and the joys of working in our favorite outdoor activities, resulting in questions such as "Does this qualify for Master Naturalist hours?" Well, funny, you should ask.

In November of 2021, while we were staying safe by isolating ourselves, the Texas Master Naturalist Program revised its *Chapter Management and Operations Protocols* (TMNCMOP). This publication outlines what organizations and activities qualify for Volunteer Service hours.

One of the more helpful tools is a chart of Actual Volunteer Services Examples. The chart is divided into three categories: Bad/Unacceptable, Better, and Best. When considering volunteering for a specific organization or activity, first consult this resource. Thanks to Tracy

Walpole (Class of 2022), you can access just the chart at <http://txmn.org/gbmn/files/2022/08/Project-Criteria.pdf>.



Another option for those who want more information is the TMNCMOP available on the state website <https://txmn.tamu.edu/chapter-resources/chapter->

[documents/#existing-chapter](#). If you have further questions, contact the Volunteer Services director.

## Member Spotlight: Ellen Gerloff by Meade LeBlanc

Ellen Gerloff, Advanced Training Committee Director for the Galveston Bay Area Chapter, achieved 5,000 hours of volunteer service earlier this year. Ellen was part of the 2005 spring training class, and she has been involved with the Advanced Training Committee since 2006. She recalls that when she was first asked to help with advanced training, she declined because she was still learning about nature. But then she realized that organizing and delegating were important qualifications to developing a successful advanced training event.



Photo courtesy of GBAC photo archives

Advanced training is just one role that Ellen has filled for the Galveston Bay Area Chapter. She has served as chapter Treasurer, assisted the Training Class Committee by matching mentors with class members, and, since 2006, coordinating the greeters for each new training class. According to Ellen, "I enjoy meeting the new class members and encouraging them as they start their Master Naturalist journey."

She has also volunteered at Camp Wild, Feather Fest, Armand Bayou Nature Center's Stewardship Saturdays, Prairie Fridays, Prairie Pandemonium, and Marsh Mania, Sheldon Lake State Park and Mason Park Wetland Wednesdays, and local gardens' Water Smart Program.

When asked about how she became interested in nature Ellen said, "I grew up in Houston and spent every summer and most weekends sailing competitively on Galveston Bay and around Texas. My dad and I bird watched from our Seabrook bay house porch. After college at UT in Austin I have continued to stay close to Galveston Bay while living or working in La Porte, Kemah and Seabrook. I love to feel the wind on my face, hear waves roll in, watch the birds and see the clouds and sky change as the weather moves across the bay. And I became a Texas Master Naturalist where I learned so much more about nature: the beauty of the prairies and wetlands and beaches and marshes and all the creatures that live in those habitats."

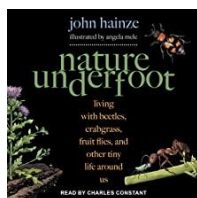
Ellen acknowledged that many people have influenced or guided her journey as a Master Naturalist, and specifically credited Dick Benoit's knowledge of prairies, wetlands, ponds and raptors, Nathan Veatch's help with beaches, bays and marshes, Sara Snell's joy of sharing nature with others of all ages, and Chuck Snyder, for his guidance on solving 'administrative' problems efficiently.

She summarized her experience with the following story of her early days: Going to my first training class and first chapter meeting I was so scared and shy. What was I doing? I didn't know anyone! But upon arrival I was greeted warmly and felt welcome. So I made it my mission to be sure our chapter always has greeters, and everyone feels included in our activities. Our volunteers are happy and helpful because they choose to be there. When you arrive at GBAC events you know you are in the right place and joining some of the best naturalists in Texas. You have found your people!

Meeting at twilight,  
Birds and bats o'er fresh mowed grass,  
Hello and good night.

*by Debbie Carter*

## Heritage Book Study - Review of *Nature Underfoot: Living with Beetles, Crabgrass, Fruit flies, and Other Tiny Life Around Us* by Madeleine K. Barnes



The focus of this book is the smaller creatures and the unappreciated plants or weeds that are under our feet. Why do we perceive these particular creepy crawlies or nuisance plant species fair game to be eradicated at the expense of other species?

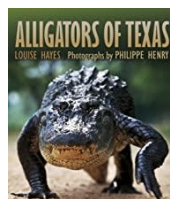
The author, John Hainze, has a very different background from other scientific authors that we have read previously. He has a Ph.D. in Entomology and an M.A. in Religion, with a concentration in Ethics. Hainze is also a film producer, completing a series of educational videos on Christianity and Cosmology, Evolution, and the Environment. In addition, he worked as a scientist and manager at SC Johnson and Johnson, working on pesticide development and insect repellent products for household application. So Hainze shares scientific aspects of invertebrates and plants and ecological benefits from very different perspectives.

As master naturalists, we study the diversity of life forms, large and small. Until we learn about them, we may have an aversion to some based on many factors such as proximity to us physically (not in my house or yard!) and how appealing or revolting their appearance is to us. Hainze states, "My aim is to raise awareness of these smaller living things in our built environment and beyond, and to develop a more widespread appreciation for them." Even dandelions are beneficial to pollinators and can have an amazing 15-foot taproot - think clay soils. Hainze points out that these species are survivalists, given their abilities to proliferate, some relying on unique reproductive strategies or habitat requirements. They have succeeded since before the current Anthropocene epoch because of adaptability.

Hainze describes various examples that we either ignore, like hover flies and pill bugs, or wage war upon, like ants and aphids. This depends on our understanding of them and how they function in the environment. Some species have adapted to humans, living both with us and on us, literally. One, the bedbug, (*Cimex*) has reappeared after long absence. An ectoparasite which typically feeds on the blood of birds and mammals in order to reproduce, bedbugs originally lived in caves, feeding on bats; subsequently, humans became their alternative hosts. They moved in with us until the development of the pesticide DDT. After it was banned, bedbug populations rebounded worldwide; in the 1990's, they developed

pesticide resistance and were spread by more of us traveling globally. Before chemical warfare, some biocontrol may have worked (See "Masked Hunter Bugs", p. 2); perhaps nature has methods we could consider?

According to Hainze, "Appreciating the nature that surrounds us leads to an interest in conserving the diversity of life." That certainly fits with the master naturalist goals of educating others. Written for homeowners and apartment dwellers and with understandable style, this book reveals connections with the natural world and persuades us to reconsider our preconceptions and attitudes about the rest of life, large and small, "underfoot" on Earth.



Our next Zoom AT will be held on Monday, October 3, to begin and conclude our discussion of *Alligators of Texas* by Louise Hayes. The reading assignment is the entire book starting with the Preface, About the Photography, and pages 1-206. The following Zoom

AT will be held on Monday, November 7th, to begin our discussion of *The Man Who Planted Trees:*

*Lost Groves, Champion Trees, and an Urgent Plan to Save the Planet* or a different subtitle of this book: *A Story of Lost Groves, The Science of Trees and A Plan to Save the Planet* is also available depending upon the edition. We will be discussing the



first half of the book, pages 3-104, Chapters 1-10 along with the Preface. If you want to join us for either or both of these AT opportunities, please contact Madeleine Barnes at [Mad2Btmn@aol.com](mailto:Mad2Btmn@aol.com) to be added to the list for additional information and to receive the Zoom meeting link and password.

We welcome your participation each month for two hours on the first Monday of the month starting at 10am for these AT meetings. Please note that we welcome anyone to participate whether you are TMN certified, recertified, or just want to remain a chapter member. We look forward to seeing you and let us know if you have read any good naturalist books lately. Happy trails!

**The Midden Deadline**  
for the next issue

**October 31**

## October and November Activities

### ADVANCED TRAINING OPPORTUNITIES

**Chapter Meeting** - Oct. 6; People of the Late Archaic Lower Brazos Culture  
Presenter: Dr. Dan Worrall  
6pm Social, 6:30pm Meeting, 7pm Speaker  
At Extension Office\* and via Zoom; 1 hour AT

#### Why Ecology Matters

Thursday Nov 17; 6:00 PM via Zoom; 1.5 hours AT  
Registration required  
Presenter: Cindy Howard

#### Focused AT Training - Beach Explorations

Wednesday Nov. 2; 9am-noon; 3 hours AT  
At Galveston Island State Park  
Purpose: train volunteers willing to lead or assist beach walks at GISP and other areas  
To register, please contact [Maureen Nolan-Wilde](mailto:Maureen.Nolan-Wilde@tamu.edu)

### Ongoing

#### Heritage Book Study Group

First Monday of every month via Zoom  
10am-noon; 2 hours AT  
Contact: Madeleine Barnes 281-474-9406  
See Pg. 7 for meeting dates and books.

### STEWARDSHIP OPPORTUNITIES

For a complete list of stewardship activities, see our chapter website, <https://txmn.org/gbmn/what-we-do/>.

### EDUCATION - OUTREACH OPPORTUNITIES

For a complete list of education - outreach activities see our chapter website, <https://txmn.org/gbmn/what-we-do/>.

**Partner and Associate Programs** - Many organizations sponsor guided walks and education programs or need volunteers to staff their nature center. Go to <http://txmn.org/gbmn/partners/> for the list, then click on the link to the organization's website.

### CHAPTER INFORMATION AND RESOURCES

**Calendar** - <https://txmn.org/gbmn/events/month/> Includes meetings, AT and volunteer activities

**Board** - <https://txmn.org/gbmn/board-of-directors/>  
Contact information for the Board of Directors. **Board Meetings** - usually first Tuesday of each month (via Zoom), verify on the calendar

**Committees** - <https://txmn.org/gbmn/board-of-directors/>  
Contact information for the Committee Chairs

**Volunteer Service** - <https://txmn.org/gbmn/volunteer-service/> Volunteer Opportunities

**Advanced Training** - <https://txmn.org/gbmn/advanced-training/>

**Midden Archives** - <https://txmn.org/gbmn/> Go to The Midden on the top menu.

**Facebook** - <https://www.facebook.com/gbactmn>



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### *The Midden*

Published bimonthly by the Galveston Bay Area Chapter - Texas Master Naturalists. The purpose of *The Midden* is to inform, communicate and educate chapter members and the community. If you have an article that contributes this purpose or want to join the team, please contact Diane Humes, [treimanhumes@gmail.com](mailto:treimanhumes@gmail.com).

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*The Midden* is posted on the GBAC-TMN chapter website: <https://txmn.org/gbmn/> two weeks prior to chapter meetings. Archived issues also on chapter website. If you prefer to receive *The Midden* in hard copy and are not currently receiving it, please contact: Julie Massey, [julie.massey@ag.tamu.edu](mailto:julie.massey@ag.tamu.edu).

#### Midden Team

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