

Shorebirds by Chip Morton

Galveston Bay Area Chapter - Texas Master Naturalists December 2026

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Next Chapter Meeting

December 3

Annual Awards Celebration
And
Officer Election

In person only

Wayne Johnson Community Center
At Carbide Park

President's Corner by Mary Dobberstine

After attending the Texas Master Naturalist Annual Meeting in Waco, I came home inspired. More than 600 members gathered to learn, build relationships, and celebrate. Being surrounded by so many people who share a love of the natural world reminded me of what makes our own chapter special—and what we have been celebrating throughout this 25th anniversary year.

For me, this anniversary comes back to our people. Alan Wilde, Julie Massey, and Doris Heard were all part of our chapter's original class, and all three remain active today. Doris finds intriguing topics for advanced training, Alan coordinates our email communications, and Julie supports our training classes. I find that tremendously inspiring. Twenty-five years later, they continue to help us learn, stay connected, and welcome new members into the chapter.

Our newest members remind us how much someone can contribute right from the beginning. Mary McElligott, a member of our 2025 training class, has created our wonderful videos that help tell the stories of our chapter today. Through her talents, we can share the people, places, and work that make this chapter who we are. What a gift to commemorate our anniversary year—and to carry those stories forward.

Across our chapter's 271 active members, there are many more stories of people sharing their talents, stepping forward, and quietly making things happen. These are just a few glimpses of the generosity that keeps our chapter going. Members lead projects, teach, organize, keep records, prepare for meetings, and support one another.

The gathering in Waco also reminded me that we belong to a larger community of people who bring that same curiosity and commitment to the places they love. I returned home with renewed appreciation for what we can learn from one another, both across Texas and here in the Galveston Bay Area.

As our anniversary year comes to a close, I hope we carry forward the things that have brought us this far: a willingness to learn, the generosity to share what we know, and a commitment to helping new members feel welcome and get involved.

Thank you for making this a year worth celebrating. Whether you were in our first class, joined us along the way, or are just getting started, you are helping write our chapter's next story. I'm grateful to be part of it with you.



Women in Nature: Marie Tharp by Meade LeBlanc

Before the 1950s, the structure of the ocean floor was not known; scientists expected it to be a mostly flat, featureless plain. The theory of continental drift, which states that the continents were once joined together into one single land mass which later broke apart, was controversial and not widely accepted. When Marie Tharp, an oceanographic cartographer, identified evidence to support the theory of continental drift, her coworker Bruce Heezen initially dismissed it as "girl talk."

Marie's interests in science and mapmaking were sparked during her childhood. Her father, William Edgar Tharp, was a soil surveyor who mapped soils in 14 states during his employment with the USDA. Marie accompanied him in his fieldwork. The Geological Society of America notes, "As a small child, she would sit in the back of her father's truck, 'making mudpies and generally being a nuisance.'"

She did not immediately gravitate to mapmaking, though. Her college and early working career took several twists and turns. At Ohio University, where she enrolled in 1939, she "changed her major every semester." She graduated in 1943 with bachelor's degrees in music and English, and four minors. World War II opened new educational opportunities for women, since so many young men left schools and universities to join the armed forces. Marie attended The University of Michigan at Ann Arbor and received a master's degree in geology in 1944.

Marie's first job was as a junior geologist at the Standolind Oil company in Tulsa, Oklahoma. She soon discovered that the company did not allow women to do fieldwork – she was only allowed to coordinate maps and data for the men's work. After a few years, she moved to New York, where she was hired to be one of the first women to work at Columbia University's Lamont Geological Observatory, where she met Bruce Heezen.

For the next two decades, Heezen collected bathymetric data aboard a research vessel, while Marie, still barred from working on ships because she was a woman, drew maps of the ocean floor from the data. By the mid-1960s, she was able to join in data-collection expeditions. Their work was the first attempt to map the entire ocean floor.

Using sounding profiles from several research vessels, Marie created depth maps of the North Atlantic. When she examined the data, she identified a V-shape structure running along the Mid-Atlantic Ridge - a rift valley that was formed when the ocean surface was pulled apart by continental drift. Heezen believed it was impossible and dismissed her findings. However, Howard Foster, another scientist, was hired to map undersea earthquake epicenters in the Mid-Atlantic Ridge. Overlaying the two maps showed that the rift valley did exist. At that point, Heezen accepted the theory of continental drift.



Photo courtesy of AIP Emilio Segrè Visual Archives, Gift of Bill Woodward, USNS Kane Collection, CC0, via Wikimedia Commons

Even so, there were detractors. Jacques Cousteau didn't believe the rift valley existed. To prove them wrong, he set out into the Atlantic with an underwater camera. His photos and videos, displayed in 1959, showed "the great black cliffs of the rift valley, sprinkled with white glob ooze, looming up through the blue-green water." These images helped convince others that the rift valley really existed. Their work spurred the new theory of plate tectonics.

Although Bruce Heezen died suddenly in 1977, Marie continued to work for Columbia University until her retirement in 1983. She then operated a map-distribution business. Marie received many awards late in life, as well as posthumously. She died of cancer in New York in 2006 at age 86.

In 1997, the Library of Congress named Marie Tharp one of the four greatest cartographers of the 20th century. In her own words, "I worked in the background for most of my career as a scientist, but I have absolutely no resentments. I thought I was lucky to have a job that was so interesting. Establishing the rift valley and the mid-ocean ridge that went all the way around the world for 40,000 miles—that was something important. You could only do that once. You can't find anything bigger than that, at least on this planet."

TXMN Annual Meeting 2026 by Jenny Dudley

I've been to a lot of annual meetings in my lifetime, but never one as fun and engaging as the 2026 Texas Master Naturalist Annual Meeting, held October 22-25 in Waco. Where else can you find hundreds of people eagerly discussing cockroaches, lichens, Texas land-use case law, forest bathing, volunteer management systems and limnology?



Photo by Rich Sommer

Attendees chose from an impossibly diverse and compelling schedule of workshops and field trips. I went prairie stomping in Bell County with a couple dozen folks, none of whom flinched when a corn snake made its way through the group during our guide's talk. At a session on lichens, we were challenged to think about evolution not just as competition, but also as partnership. Mothing sessions were offered each evening after dark, with Sam Kieschnick, an urban biologist with the Texas Parks and Wildlife Department, serving as something of a pied piper of moths.

Our chapter contributed some of that enthusiasm. "Walking with Fireflies," presented by Mary Dobberstine and Alyssa Goforth, was standing room only. The two have developed quite a following through presentations to other chapters and nature societies. Alyssa, wearing her Xerces Society T-shirt, was stopped by people asking, "Are you the firefly lady?" Mary held the lunch table rapt with the story of how she became interested in fireflies. From the back of the packed room, I watched the audience respond to their remarkable photographs and videos with oohs, aahs, and moments of silence, almost as though we were on a nighttime firefly walk ourselves.

Ruth and Mohammed Nasrullah presented "A Pollinator Garden, a Mosque, and a Church," describing how they incorporated an Islamic view of nature into educational and volunteer activities with neighboring faith communities. Attendees approached them afterward for advice about similar efforts in their own chapters.

Our chapter also earned two photography awards among nearly 700 entries. Steve Dudley tied for third place in Reptiles and Amphibians with his photograph of an algae-encrusted, submerged frog. Chip Morton took second place in Plants or Fungi with his black-and-white photograph of a post oak tree.

One connection I'm particularly excited about is the Hays County chapter's Research Ranger project, a growing library of more than 20 free outdoor educational activities aligned with fifth-grade science objectives. Topics include nature drawing, pollination, birdwatching, and fossil hunting. What a terrific resource for our youth birding clubs and other outreach activities!

Next year's annual meeting will be in San Antonio. I'm already looking forward to more learning—and reconnecting with friends who share this wonderful curiosity about the natural world.

Heritage Book Club by TJ Fox

Below is the book list and short descriptions for our 2027 reading schedule. Our discussion sessions will continue to take place at 1pm via Zoom, with the exception of July and September. Please read or listen to the selected book prior to each meeting.

January and February

The Sacred Balance by David Suzuki. This special 25th anniversary edition of a beloved bestseller invites listeners to see ourselves as part of nature, not separate.

March and April

The Light Eaters by Zoe Schlanger. A captivating, brilliantly researched dive into the emerging science of plant behavior, communication, and intelligence. It takes tremendous biological creativity to be a plant. To survive and thrive while rooted in a single spot, plants have adapted ingenious methods of survival.

May and June

The World Without Us by Alan Weisman offers an utterly original approach to questions of humanity's impact on the planet: he asks us to envision our Earth, without us.

July and August

Timefulness: How Thinking Like a Geologist Can Help Save the World by Marcia Bjornerud. The author shows how geologists chart the planet's past, explaining how we

can determine the pace of solid Earth processes such as mountain building and erosion and comparing them with the more unstable rhythms of the oceans.

September
Wasteland: The Secret World of Waste and the Urgent Search for a Cleaner Future by Oliver Franki Wallis. An award-winning investigative journalist takes a deep dive into the global waste crisis, exposing the hidden world that enables our modern economy -- and finds out the dirty truth behind a simple what really happens to what we throw away.

October and November
The Hidden Nations of Animals by Ryan Huling. The author takes us on an odyssey to places most people don't even know exist. From far-flung forest settlements in Canada's "beaver belt" and disputed territories of clashing Argentine ant armies to the secluded margins of the Korean DMZ—which, despite its reputation as a desolate no-man's-land, teems with life—Huling's journey unveils a radically reimagined world, brimming with abundance.

December
(no meeting)

Replacement/if necessary
A Short History of Planet Earth: Mountains, Mammals, Fire, and Ice by J. D. Macdougall. An accessible, splendid introduction to geology and paleontology for the lay reader. It compresses 4.6 billion years of Earth's history into an engaging narrative covering plate tectonics, mass extinctions, and climate evolution.

Beach Heroes Exhibit Enjoys Record Turnout by Kathleen McClean

"Artist in the House!!" Cindy Liening's buoyant shoutout was heard over and over again as she announced a record 113 guests into the Beach Heroes Art Exhibit this past October. The excited throng was a joyful mix of student artists, their families and teachers, all hosted by the dedicated crew of GBAC volunteer docents dressed for the occasion in their signature Beach Hero capes.



The Beach Hero team puts in countless hours behind the scenes: collecting, mounting, judging, and framing the hundreds of artworks created by the local elementary students each year before, ultimately, hanging them for display in the First Presbyterian Church of Galveston's McCullough Hall. The visual impact of the colorful and exuberant illustrations never fails to impress all those who enter the show. This year, the Beach Heroes were pleased to expand their outreach by welcoming artists from the Sunshine Center to participate in the Art Exhibit.

The Sunshine Center, initially established in 1953 as The Oleander School, a private elementary program serving children with Down syndrome, evolved over the next 70 years into a center providing enrichment programs for adults with intellectual disabilities and support for their families. The Beach Heroes have become a popular and eagerly anticipated presentation in the Sunshine Center program lineup. Said a senior family member in charge of caring for her sister, "I always know when your group has been at the Sunshine Center; my sister comes home in a very happy mood, and to see her art displayed is amazing!"

Although the main attraction of the exhibit is, of course, the fantastic array of artwork, Beach Heroes Exhibits are typically action packed with hands-on activities including arts and crafts tables, a selfie station, door prize giveaways, and the awards to outstanding artists. One young artist excitedly exclaimed "Wow! I never thought my art would be framed- it's going on my bedroom wall when I get home!" This year, Gertie the seven-foot sea turtle made her debut: an activity whereby participants were invited to adorn Gertie's carapace with appropriately placed scutes. The two-hour exhibit flew by as attendees enthusiastically participated in all the activities while contentedly munching on the cookies so generously provided by GBAC bakers.

The joyful warmth permeating a Beach Heroes Art Exhibit is difficult to describe in words. The pleasure and pride the artists of all ages and their families exude seeing themselves and their creations celebrated is beyond satisfying. To quote a parent, "What a wonderful gift you have given my family and daughter- she will have sweet memories of this day forever." And the ultimate compliment, as told to Maureen Wilde by Rebecca Downs, Minister of First Presbyterian Church: "You and your team are truly the heroes; thank you for all that you do."

Martinique's Balata Botanical Gardens by John Jons

While on a cruise through the Windward Islands of the Caribbean, we had the opportunity to stop at the beautiful island of Martinique. As someone with a lifelong interest in plants and gardens, I was especially intrigued to learn that Martinique is known as the "Isle of Flowers." It seemed only fitting, therefore, that one of our stops should include a visit to the renowned Jardin de Balata, or Balata Botanical Garden, often described as the "garden of an artist."


Photo by John Jons

Located about 10 kilometers north of Fort-de-France, Jardin de Balata is one of Martinique's best-known botanical gardens, created by horticulturist Jean-Philippe Thoze in 1982 and opened to the public in 1986. This former farmland has developed into an extraordinary tropical garden blending horticulture, landscape design and the natural beauty of Martinique's mountainous landscape. Today, the garden contains approximately 3,000 varieties of tropical plants from around the world, including an impressive collection of about 300 types of palms. For a plant enthusiast, the diversity is almost overwhelming. The collections include anthuriums, begonias, bromeliads, cycads, heliconias, hibiscus, mahogany, bananas and enormous stands of bamboo, including species of *Dendrocalamus* (giant bamboo). Everywhere you look there seems to be another unusual leaf, flower, texture or plant form competing for your attention.

For a Texas Master Naturalist, one of the most interesting aspects of Balata is that the garden is not just a collection of plants, it is also a living habitat for wildlife. The dense vegetation, flowering plants, mature trees, ponds and abundant sources of nectar and fruit create an environment that attracts many of Martinique's native birds, insects and other small creatures. As you walk through the garden, the sounds of birds and insects are an important part of the experience. Tropical gardens such as Balata provide food, shelter and nesting opportunities for wildlife, and the diversity of vegetation creates numerous ecological niches. Butterflies and other pollinating insects are particularly well-suited to this type of environment, where flowering plants provide a continuous supply of nectar. Birds move through the trees and understory in search of insects, fruit and seeds, while the ponds provide habitat for aquatic life.

The wildlife is not always immediately apparent. In fact, one of the pleasures of walking through Balata is slowing down and looking beyond the spectacular flowers. A movement in the foliage, the sound of a bird calling from the canopy or a butterfly moving from flower to flower can suddenly shift your attention from horticulture to natural history. It is a good reminder that an attractive garden can also function as a valuable habitat. The ponds provide another important ecological component. Covered with lotus and other aquatic plants and inhabited by large slow-moving goldfish, they add beauty to the formal garden while also creating a small aquatic environment. The transition from water to surrounding vegetation provides yet another habitat for insects, birds and other wildlife.

Beyond the ponds, the landscape opens toward spectacular views of the surrounding tropical forests and the mountainous Pitons du Carbet. This is where the distinction between garden and natural landscape begins to disappear. The cultivated areas of Balata blend visually with the surrounding forests, creating a wonderful sense of continuity between the designed landscape and Martinique's native environment.

One of the features I particularly enjoyed was the garden's tree-top walkway. Suspended cable bridges allow visitors to move through the upper portions of the trees and experience the garden from an entirely different perspective. From ground level, it is easy to concentrate on individual plants, flowers and garden beds. From the canopy, however, you begin to appreciate the structure of a tropical forest and the wildlife habitat that exists above your head. For a Texas Master Naturalist, this was particularly interesting. We often think about ecosystems in terms of what grows at ground level, but the tree-top walk provides a wonderful reminder that forests are three-dimensional environments. Different plants and animals occupy different levels, from the forest floor to the understory and ultimately the canopy, each taking advantage of available light, moisture, food and space.

The garden provided a fascinating lesson in the relationship between plants, wildlife and climate. Coming from Texas, where gardeners must contend with heat, drought, freezes, alkaline soils and highly variable

rainfall, it was remarkable to see the abundance and luxuriant growth produced by Martinique's warm, humid tropical environment. Plants that we might regard as special greenhouse specimens or tender ornamentals can become towering landscape plants under the right conditions.

The same is true of wildlife. A tropical climate combined with abundant vegetation can support a remarkable variety of insects, birds and other organisms. The plants provide food and shelter, while the wildlife, in turn, contributes to the functioning of the garden ecosystem through pollination, seed dispersal, decomposition and predation. Looking at Balata from this perspective makes it much more than a beautiful garden, it becomes an excellent example of the interconnectedness of plants and animals.

Despite the differences between Martinique and Texas, the principles of good horticulture and natural resource stewardship remain much the same. The success of Balata begins with an understanding of the site, the climate, rainfall, soils, topography and natural vegetation. The garden works with the existing landscape rather than trying to completely overcome it. It is a wonderful example of how horticulture can complement and enhance the natural environment.

I also found myself thinking about the importance of plant diversity. With roughly 3,000 varieties represented in the garden, Balata demonstrates how differences in plant form, height, foliage, flowering, texture and habitat can be combined to create a remarkably complex landscape. For Master Naturalists, this is a valuable reminder that biodiversity is not simply about the number of species present; it is also about the relationships among plants, animals and the ecological niches they occupy. After more than 40 years of development, Jardin de Balata has become much more than a collection of tropical plants. It is a living example of what can happen when horticultural knowledge, artistic vision and an appreciation for the natural landscape are brought together. Jean-Philippe Thoze's vision has created a garden in which visitors can experience both the incredible diversity of tropical plants and the wildlife that depends upon them.

For me, the visit was one of the highlights of our Caribbean cruise. Walking the winding paths, listening to the birds and insects, watching butterflies move among the flowers, looking up into the canopy, discovering unfamiliar tropical plants and occasionally stopping to take in the mountain views made Balata a memorable experience for both a gardener and a naturalist.

Martinique may be called the "Isle of Flowers," but a visit to Balata makes it clear that the island's botanical treasures extend far beyond flowers. Its palms, bromeliads, begonias, heliconias, cycads, bamboo, trees and aquatic plants come together with the island's native wildlife to create an extraordinary tropical environment.

Perhaps that is what makes a botanical garden such as Balata particularly valuable to a naturalist. It reminds us that plants and wildlife are never separate. Where there is plant diversity, there is often wildlife diversity; and where we create healthy, layered habitats, we create opportunities for nature to flourish.

In Memoriam: Members Lost in 2026 by Carolyn Miles

With fond memories, we reflect on the passing of our chapter members since November 2025.

Leo Symmank (Spring 2007)		Bill Edmondson (Spring 2006)	
Rita Smith (Fall 2004)		Beth Hester (Spring 2003) *(photo from published obituary at Legacy .com)*	

State Meeting Winning Photos



Photo by Chip Morton



Photo by Steve Dudney

December and January Activities

ADVANCED TRAINING OPPORTUNITIES

Chapter Meeting – Annual Awards and Officer Election
6pm Social, 6:30pm Dinner, 7pm Program
Wayne Johnson Community Center at Carbide Park
In person only; no AT

Coastal Fisheries – 2 hours of AT
Saturday, January 9 at 9am in person at Extension Office*
Presenter: Chase Nimee, TPWD Dickinson Marine Lab

Offshore Wind Energy – 1 hour of AT
Wednesday, January 20 at 6pm via Zoom
Presenter: Shannon Flores, Offshore Wind Energy with National Wildlife Federation

Ongoing

Heritage Book Club
First Monday of every month via Zoom; 2 hours AT
Contact: TJ Fox, tj.fox39@gmail.com
See Pg. 3 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/.

CHAPTER INFORMATION AND RESOURCES

Calendar - https://txmn.org/gbmn/gbac-events-calendar/
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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Texas Master Naturalist
Galveston Bay Area Chapter

The Midden

The Midden is published bimonthly by the Galveston Bay Area Chapter - Texas Master Naturalists to inform, communicate and educate chapter members and the community about our natural world and serve as an archive of chapter activities. To submit an article or join the team, please contact Diane Humes, 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 the extension office at 281-534-3413.

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The Midden Deadline

for the next issue

December 28

*Extension Office = Texas A&M AgriLife Extension Service – Galveston County Office (Carbide Park)