



Rio Grande Valley & South Texas Border Chapters  
Texas Master Naturalist

# The Chachalaca

Volume 22

Number 1

March 2025

## IN THIS ISSUE

<i>Janthina janthina</i> Violet Sea Snail	2	This Mantid Drives our Curiosity	18
<i>Mary Grizzard</i>		<i>Joseph Kowalski</i>	
See? Grass! Lower Laguna Madre	4	<i>Mesoxaea texana</i> Update	19
<i>Tia Offner</i>		<i>Camille M. Rich</i>	
Invasive Species Awareness	6	Shary Heights Butterfly Garden	23
<i>Anita Westervelt</i>		<i>Logan Dovalina</i>	
Winter Storm 2025	9	RGV Home and Garden Show	25
<i>Joaquin Villareal</i>		<i>Robert Hernandez</i>	
Great Backyard Bird Count	10	Wetlands and More	26
<i>Velma &amp; Bob Schmidt</i>		<i>Christopher Akana</i>	
Birds on the Wire	12	Epiphytes in Estuaries	28
<i>M. Kathy Raines</i>		<i>Joe Kowalski</i>	
Go Birding!	14	Milestones	32
<i>Michelle Cano</i>		Contributors' Gallery	35
Another Day in Paradise	15	Leadership Teams	37
<i>Ken Lee</i>		Editor: Diane Hall	

T E X A S



The Rio Grande Valley Chapter of the Texas Master Naturalist program is organized exclusively for charitable, scientific, and educational purposes, more specifically to develop a group of knowledgeable volunteers to provide education, outreach, and service dedicated to the study of conservation of natural resources and natural areas within the Rio Grande Valley of Texas.

## *Janthina janthina*, the Exquisite and Surprising Violet Sea Snail

Article & photos by Mary Grizzard, Rio Grande Valley Chapter

The loveliest specimen in my seashell collection is one I have found only once on the beach. It was after an early spring norther, whose winds had tossed the booming waves of the Gulf helter-skelter, driving them all the way to the base of the dunes and tugging back rip currents as the seawater returned to its basin. The morning after had dawned sunny and fair, and I was astonished to find four perfectly intact shells of the violet sea snail, *Janthina janthina*, resting together in the wrack. I had never seen one before, but had only read about them in Rachel



Carson's classic work, *The Sea Trilogy*. So exquisitely lovely, so thin and fragile, I couldn't imagine how these shells had survived the tempest. Yet that is the way most violet sea snail shells arrive on the beach, stranded after a blustery spring storm, as their other common name, purple storm snail, testifies.

*Janthina janthina*, found around the globe in tropical and subtropical waters, are most unique gastropods. They do not glide over the sands of the ocean floor but rather spend their entire adult lives floating upside down on the surface of the sea, buoyed by a five inch long raft of bubbles they create by agitating the water with their foot and then sealing the bubbles with mucous. The mucous quickly hardens, preventing the air inside the bubble raft from escaping. If ever they should become separated from their raft they would sink to the ocean floor and die.

A portion of the bubble raft still attached to the purple sea snail (*Janthina janthina*) shell

Like all castaways adrift at sea on an inflatable raft, purple sea snails have no control over their direction but simply ride the waves and the wind, relying on chance to bring them dinner. And like their benthic-dwelling distant relatives, the moon snail and sundial, they are highly successful predators. In fact, their diet may surprise you — in addition to jellyfish and goose barnacles, they especially like to eat by-the-wind sailors, blue buttons and even the Portuguese Man-o-War! How they manage to take on a Portuguese Man-o-War is difficult to imagine, and unfortunately I couldn't find any information that specifically detailed such an impressive feat.

Another intriguing fact about purple sea snails, which is also true for many ocean-dwelling creatures, is that they begin life as males, but change to females as they mature. (Marine species seem to write their own rule books!)

The delicate coloration of *J. janthina*'s shell — dark purple on the underside and pale lilac on top — is a phenomenon called countershading, and serves as very effective camouflage. When viewed from the ocean below, the upside down pale lavender shell blends in with the lighter sky; when viewed from the air above, the deep purple underside blends in with the water. But while being most clever, this is not a perfect disguise, and fish, sea turtles and ocean-going birds will opportunistically consume them.



Lavender top of purple sea snail



Deep purple underside of purple sea snail

Look for *Janthina janthina* shells on the beach this month after an early spring storm passes through. If you enjoy collecting seashells, bring a small container and a napkin to wrap them in. (Make sure there's not a snail inside!) More fragile than an egg shell, they easily shatter with anything beyond a gentle touch. In a seashell world of mostly tan, white, and brown mollusks, these bicolor purple beauties truly shine.

## See? Grass! -Lower Laguna Madre's seagrasses

Article by Tia Offner, Rio Grande Valley Chapter 2025 Trainee  
Photos by Texas Parks and Wildlife – Coastal Fisheries Division

Sandwiched in between South Padre Island and the rest of Texas is a unique bay system with an incredible array of diversity despite its small size. Hundreds of species call the lower Laguna Madre home, including fish, invertebrates, mammals, reptiles, birds, and plants. If you've ever taken a flat-bottom boat on our bay, or just dipped your toes in the warm water, you've probably gotten a glimpse at the luscious green seagrasses that cover the bottom. But have you ever wondered about the diversity of seagrasses found in our estuary? Have you ever thought to yourself, why are these species here, and why are there so many signs telling me about their importance? Let's take a moment today to learn and reflect on the few species that support an even larger food web, just a few miles from home.

Seagrass is named as such because, well, it lives in the sea and it looks like grass. This is a bit of a generalization though; the different species of seagrass have different ranges of salinity tolerance. Wigeon grass (*Ruppia maritima*), for example, is better suited in low-salinity systems, and can even tolerate freshwater. When I worked in coastal Mississippi, in a bay system that usually sat around ten parts per thousand (ppt) salinity, this was one of the dominant seagrasses.

Here, in the lower Laguna Madre, it doesn't grow at all. This makes sense once you learn that our bay typically measures ~37 ppt, which is even saltier than the ocean (~35 ppt). The grass label has some truth to it though. Like some terrestrial grasses, seagrasses have an underground component known as a rhizome. Unlike the stereotypical root structure of a plant, a rhizome grows horizontally in the ground, sprouting new leaves periodically as it spreads. A few blades of seagrass poking out of one spot is actually part of a much larger organism!

There are three main seagrasses found in the lower Laguna Madre Bay system, which ranges from the land cut north of Port Mansfield to the southern tip of South Bay. In this area, you are most likely to find shoal grass, manatee grass, and turtle grass. Distinguishing the three grasses is quite simple once you know what to look for. Let's take a closer look.



Shoal grass (*Halodule wrightii*) rhizome -photo by Brenda Bowling, TPWD, used with permission

Shoal grass (*Halodule wrightii*\*) is a very tolerant species of seagrass compared to others, and is the most common species you will find along the Texas coast. The leaves are very thin and flat, about the thickness of pencil lead, which is how it can be told apart from other species. The blades, like other grasses, can grow to be several inches long. The species is tolerant in that it can

stand wide ranges of salinities and temperatures. That explains how this species lives both here and in the lower salinity bays of coastal Mississippi!

\*This scientific name, along with the other seagrasses' scientific names, are sometimes different. As names get updated, scientists and scientific resources sometimes continue using an old name to prevent confusion, or even out of personal preference. The old and new names at times are synonymous.



Manatee grass (*Syringodium filiforme*) is superficially similar to shoal grass, but instead possesses cylindrical leaves. When holding it in your hand, you can roll it between your fingers, and that's how I tell it apart from the other species! This species is actually considered invasive in Texas waters, but thankfully is only found in handful of spots. It is known to out compete Shoal grass, which is native.

Manatee grass has rounded leaves –photo by Jennifer Bronson, TPWD, used with permission

Turtle grass (*Thalassia testudinum*) is the most distinct looking out of the three seagrasses. The leaves of turtle grass are thicker, and flat like shoal grass. They are about the width of a pinky finger, and can grow over a foot long! Turtle grass, along with its rhizomes, also reproduce using seeds. Sometimes you may find them floating along in the water or attached to the grass itself. These look spherical and spiky, and can be green or brown depending on age.



Turtle grass (*Thalassia testudinum*) has flat leaves – photo by Brenda Bowling, TPWD, used with permission

There are other aquatic plants (And another species of seagrass!) you will surely see in the lower Laguna Madre, but the most common are shoal grass, manatee grass, and turtle grass. These seagrasses, along with the others in the bay, provide food and habitat that is essential for the organisms living among the leaves. Smaller fishes, like sheepshead minnow and longnose killifish, are commonly found within the seagrass beds, munching on the leaves. Popular sport fish, like red drum, spotted seatrout, and mullets, utilize the beds both as juveniles (for shelter and food) and as adults (as a hunting ground to find food). The presence of all this fish diversity attracts larger animals further up the food chain, such as bottlenose dolphins and sharks!

The presence of plants is not only restricted by salinity and temperature range, but also by water quality and depth. The lower Laguna Madre is perfect for seagrass, as it boasts (mostly) crystal clear water and an average depth of two and a half feet. The water clarity and depth maximizes the amount of light the grasses receive, causing them to grow with vigor. Our healthy seagrass meadows are teeming with life, and it is abundantly clear if one looks close enough.

## Invasive Species Awareness

Article & photos by Anita Westervelt, South Texas Border Chapter

Toward the end of winter and the beginning of spring, a week is set aside as a National Invasive Species Awareness time. The 2025 National Invasive Species Awareness Week this year was February 24 to 28. It was hosted by the North American Invasive Species Management Association, <https://naisma.org/programs/nisaw/>.

As Texas Master Naturalists, that awareness is all the time, all year long. It's another learning opportunity. Texas Parks and Wildlife Department encourages all Texans to learn more about invasive species that negatively impact the state's natural resources and economy.

Texas' different ecosystems each have unique problems. Five problem plants in the Rio Grande Valley are briefly discussed below.

**Giant reed, *Arundo donax*.** Native to India. Canes can grow to 30 feet tall; leaves grow like corn stalks; feathery plumes stand above the foliage.

The plant spreads from big, thick, knobby rhizomes. Large, continuous, clonal root masses are formed that can cover several acres. Stems touching the ground sprout roots; dried cut canes can do the same. The plant sucks water from its surrounds.



Giant reed competes with and displaces native vegetation, reducing habitat for wildlife and inflicting drastic ecological change. It interferes with flood control, invades riparian areas, altering hydrology. It is highly flammable and recovers three to four times faster than native growth.

Giant reed (*Arundo donax*) creates dense vegetation up to 30 feet tall

Its mass growth habit hinders Border Patrol, cutting off passage in rivers. Impenetrable to surveillance cameras, it allows illegal activity to go undetected across the Rio Grande. A density of 10 stems per square foot is not uncommon. (Information from the Fort Worth "Cattleman.")

**Common water hyacinth, *Pontederia crassipes*.** Native to the Amazon River basin South America. This plant was included in an article highlighting six of the most invasive plant species in the world, according to The Week.com. It is considered to be invasive in more than 50 countries. The plants reproduce so quickly they can blanket large portions of lakes and ponds with a thick mat of vegetation, according to an online article from NASA's Earth Observatory. In our part of Texas, they are covering large sections of resacas and the Rio Grande itself at the Progresso bridge.



The free-floating plants can get about three feet tall; long dark roots reproduce vegetatively via fragmentation and stolons – horizontal stems that are used by plants to reproduce asexually – forming dense, impenetrable mats that clog waterways. Submerged native plants become shaded by the mass of water hyacinths and often die; the resulting decay processes deplete dissolved oxygen in the water and lead to fish kills.

Flowers are in groups of eight to 15. Fruit is a three-celled capsule that may have as many as 50 seeds. Common water hyacinth is regarded as the most troublesome aquatic plant of lakes, ponds, rivers, wetlands, marshes and resacas.

Water hyacinth blankets large portions of the Rio Grande riverbed

**Queen's wreath, AKA corona de reina and coral vine, *Antigonon leptopus*.** Native to Mexico's Pacific and Atlantic coastal plains and to South America. A deciduous, fast-growing vine that climbs by tendrils to 40 feet. Large, three-inch wide heart-shaped leaves are textured with reticulated veins (wrinkled look).



Cascading clusters of coral, hot pink or white flowers bloom profusely along the vine, subsequently producing huge amounts of seeds which can remain viable wherever they end up. A wide range of animals and birds eat fruit and seeds and spread the plant.

Queen's wreath vine can quickly grow 40 feet in length

The vine also reproduces via huge underground tubers and massive rootstock which produce suckers. The vine resprouts when cut back or damaged by frost. It climbs to the top of trees, seeking sun, sending out new growth from the vine stem. It eventually restricts sunlight to what it ascends, killing what it smothers. It out-competes native vines and understory vegetation.

**Castor bean, *Ricinus communis*.** Native to tropical east Africa around Ethiopia. It has naturalized in tropical and subtropical areas around the world. A single plant can reach heights of 15 feet in a spring-to-summer growing season. It has a single thick, tough stem at the ground and numerous ascending branches above.

The leaves can reach 23 inches across with seven to nine deeply toothed, palmlike lobes; they are sturdy, green and textured between prominent, ivory-colored venations. It has orchid-like blooms; showy pink stigmas are female flowers; yellow anthers, male flowers; pollen is toxic to honeybees.



A heavy seed producer, it readily reproduces by seed; seeds can remain viable for two to three years and germinate in spring. Leaves and especially seeds contain a powerful toxic enzyme called ricin which is seven times more deadly than cobra venom, according to United States Department of Agriculture's AgResearch Magazine online article.

**(Left)** Castor bean plants can reach a height of 15 feet in one growing season

Ricin is toxic to humans, cattle, horses, rabbits, sheep, pigs, goats, gophers, cats, dogs and poultry.

Only a few seeds ingested can be fatal to humans. The foliage may cause contact dermatitis; the plant can cause allergic asthma.

The thick, massive leaves can shade out native plants and create monospecific patches; it is noted to exhaust soil and be particularly harmful to surrounding ecosystems because of the high ricin concentration in the seed and leaves. The plant can poison local fly, beetle, and ant populations and deposit ricin into river ecosystems.

**Santa Maria Feverfew (AKA false ragweed), *Parthenium hysterophorus*.** Probably native to Mexico, Central America and parts of South America.

It's been called an aggressive colonizer. There's a website, CABI.org (the Centre of Agriculture and Biosciences International) which is a compendium for worldwide invasive plants. CABI calls this plant "one of the 100 most invasive species in the world."



The plant has been accused of becoming one of the most feared weeds on earth due to its health effects on humans and cattle: asthma, bronchitis, dermatitis and hay fever as well as its allelopathic (toxic, growth-inhibiting, chemically soil-altering) effects on other plants and crops, according to the Native Plant Trust, Go Botany.

Santa Maria Feverfew is an aggressive colonizer

The plant displays photo- and thermo-insensitivity, lack of natural enemies, drought tolerance, high seed production ability, longevity of seeds in soil, small and light seeds that travel long distances via wind, water, birds, vehicles, farm machinery and other animal traffic.

Helpful sources to learn about and help identify invasive species in Texas include the following links: <https://tsusinvasives.org/home/>; <https://www.texasinvasives.org/> and [https://texasinvasives.org/plant\\_database/](https://texasinvasives.org/plant_database/).



## Winter Storm 2025

Article & photos by Joaquin Villareal, Rio Grande Valley Chapter 2025 trainee

Gulf Coast inhabitants of all types were cold-stressed by Winter Storm Enzo from January 20-22, 2025. Enzo affected the Lower Rio Grande Valley when the southward dip in the jet stream allowed polar vortex winds to reach South Texas and Mexico.



Northern winds of 35 mph buffeted the Gulf coast of South Padre Island creating a rough surf with near freezing temperatures. All creatures took refuge. The juvenile Brown Pelican (*Pelecanus occidentalis*) pictured here was discovered on the lee side of the southern tip of Isla Blanca Park.

Juvenile Brown Pelican observed during Winter Storm Enzo

When the author, on sea turtle patrol, first saw this elegant resident about three feet away, the startled pelican looked eye to eye with him. It rose about 12 inches, mustered a half-hearted extension of its massive wings, then hunkered down again and rolled its eyes shut. An unspoken pact was made to take a quick photo and move on; both trying to stay warm from the frigid wind.

Because of the cold temperatures, Sea Turtle, Inc (STI) officially declared a “Cold-Stun Event” for sea turtles in the area, particularly in Laguna Madre. The unique, hyper saline estuary has an average depth of only four to four and a half feet. This shallow body of water will drop in temperature much quicker than the Gulf waters. And, when water temperature dips to 50 degrees Fahrenheit, sea turtles get cold-stunned (aka hypothermic stunning). Exposure to the colder air on the surface can result in the sea turtle drowning. Consequently after a cold-stun event, there is a very short period of time when these weakened and inactive sea turtles can be rescued.

Numerous volunteers patrolled the South Padre Island shores, and others on boats responded to cold-stunned turtle reports to rescue the distressed marine reptiles. Most important, STI personnel provided coordination and professional support to care for these beautiful creatures.

Sincere thanks and gratitude to everyone who participated on land and sea to save hundreds of endangered sea turtles. After the rescue operation, the sea turtles were rehabilitated and released back to their natural habitat.

There are several species of endangered sea turtles in the Laguna Madre. Of these the Kemp’s ridley sea turtle (*Lepidochelys kempii*) is the most common. The picture here is a healthy one returning to the Gulf; it is not cold-stunned.



If you ever see a distressed sea turtle on land or water at South Padre Island, please contact the Sea Turtle, Inc hotline at: 956-243-4361. Rescuing these endangered sea turtles on-site is done by trained and certified professionals. And, don’t touch the pelicans either!

Kemp’s ridley sea turtle returning to the Gulf

## Great Backyard Bird Count Provides Invaluable Citizen Science

Article by Velma H. & Bob Schmidt, South Texas Border Chapter  
Photos by Velma H. Schmidt

With a fist pump and a high-five, a common Northern Mockingbird was celebrated as the 20th species counted in the Schmidt's backyard on the morning of February 15—the enthusiasm all the more palpable because it signaled the largest single species count during the Schmidt's participation in this year's Great Backyard Bird Count (GBBC) sponsored by Cornell Lab of Ornithology, National Audubon Society, and Birds Canada.

For the past 27 years, the world has been invited to participate in the annual citizen science project “for the love of birds,” as the GBBC website states. This year's event took place from February 14-17. Collecting data from birders around the world assists scientists in studying bird populations, migratory patterns, and other data that could not otherwise be collected without the participation of hundreds of thousands of individuals of all ages and walks of life.



American Goldfinches feeding in the author's backyard



Great Kiskadee and Mourning Doves take advantage of backyard water

This year's GBBC began with a live, online broadcast from the Cornell Lab of Ornithology orienting would-be participants with the basic information and resources needed to have the best possible experience during the four-day count. Participants were given the option of using the eBird or Merlin birding apps, or entering their data the old-fashioned way by making a handwritten list and entering their data on the GBBC website.

Participants have the option of doing a count from their backyard, or from any location they can find birds. Observations must be a minimum of 15 minutes but can last as long as participants wish and can include any number of observations throughout the four days of the GBBC. One of the unique components of this event is that data is made visible and available in real-time—meaning participants can see where and how many observations are being made throughout the four days. This makes for an amazing experience of global solidarity on the part of birds.



Green Jays add a splash of color to the backyard

For Texas Master Naturalists like the Schmidts, the Great Backyard Bird Count is an opportunity to combine their love of birding and the outdoors with participation in citizen science. It's even more fun to involve others in the experience, especially first-time birders. We have worked hard to make our backyard ideal for birding. Velma also used the occasion to build a stronger relationship with the trainees who live nearby, inviting them to participate in her family's backyard birding. Even the Schmidts' special needs daughter, Katherine, got into the act with her uncanny ability to identify many of the bird species by sound—truly a gift.



A Buff-bellied Hummingbird visits the backyard feeder

Some of the birds seen were Northern Cardinals, Great Kiskadees, Green Jays, Golden-fronted Woodpeckers, a Black and White Warbler, Orange-crowned Warblers, Buff-bellied Hummingbirds, Turkey Vultures, a Crested Caracara, Mourning Doves, a House Wren, Clay-colored Thrushes, and several American Goldfinches.

If you couldn't participate in this year's Great Backyard Bird Count, mark your calendar for next February and start preparing now to count the birds.

## Birds on the Wires

Article by M. Kathy Raines, Rio Grande Valley Chapter  
Photos by Anita Westervelt, South Texas Border Chapter

Plowing my way through rush hour traffic one winter afternoon —sifting through the worries of the day—I reached an intersection, when, waiting for the light to change, a splendid sight brought me mind-freeing joy. Hundreds and hundreds of birds huddled together on crisscrossing electrical wires, like a symphony’s worth of musical notes.

In constant flux, the birds preened, jostled for space, fluttered, alit and dove down to adjacent convenience stores and fast food lots chockful of discarded food as well as insects churning in the lights.



Multitudes of grackles and other birds perched on wires is an intriguing site

Identifying birds from my car at a busy intersection—as I am loath to use binoculars for more than a few seconds—is challenging. Most were Great-tailed Grackles— their oversized tails wagging in the wind—and the shorter-tailed, large-beaked birds were European Starlings, our local ones joined by winter migrants. I’ve seen Rock pigeons and various doves on the wires, too. Where plentiful, Red-winged Blackbirds sit on wires, too.

Seeing such a huge congregation of birds, it’s tempting to open one’s windows and clap, causing startled birds—if not too distant—to fly off *en masse*. My family often recalls when, I, seeing a tree packed with grackles and starlings at a rest stop, impulsively clapped. The startled birds flew off at once, but, in their panic, they deposited gooey droppings on my jacket and in my hair.

Flocks of starlings may lift off from wires in wondrous murmurations—patterns of coordinated swirling and swooping—creating captivating patterns of black and gray. Starlings likely do this both for warmth and protection. A raptor has difficulty selecting a solitary victim from the mass. Within the whirl, each starling apparently reacts to the movements of only six or seven of its neighbors, resulting in very few collisions.

The wire-sitting birds likely forage during the day, in fields, yards and on streets, then perch in the late afternoon or evening.

Perching birds allow each other sufficient wing space so they can launch themselves and land with wings outspread, thus avoiding collisions. Birds face into the wind for balance to facilitate secure perching. If they faced the other way, winds might catch their back feathers and blow them off the lines.



These passerines, or perching birds, pull and tighten their leg muscles as their feet curl and stiffen around a wire or branch, enabling them sit securely and even fall asleep without falling.

Birds roosting snugly together on lofty wires alert one another both to predators and to scraps of food and insects.

Perching birds can sleep without falling off wires or branches

Also, nestling together on wires creates heat—from each other, nearby cars, roads and lights—and their feet gather heat from the currents in the wire they wrap around. Also, busy intersections, parallel overpasses and heavy lights lessen the impact of strong, cold winds.

Perching birds aren't usually electrocuted because they sit on only one wire and have no contact with the ground or anything touching it. However, a bird could be electrocuted if it simultaneously touches the wire and a piece of equipment or grounded metal or if it touches two lines, which could create a circuit. Hawks and owls, with their larger wingspans which can touch two lines, are at greater risk than smaller birds. Chances of electrocution are minimized when wires are suitably spaced.

Though these wire-perching birds—primarily grackles, starlings, pigeons and doves—do not usually excite avid birders eager to add to their life lists, they—in their huge, rowdy assemblages—certainly brighten up our chilly days. And, as urban generalists—creatures we're likely to see every day—they provide us with lively, interesting company.

## Go Birding!

Poem & photo by Michelle Cano, Rio Grande Valley Chapter

Go birding, you never know what you will see  
Is my own ideology  
So off I went on a Saturday,  
February the first, Texas Wildlife Day

It was a beautiful day, so like a boat, I set a sail  
walking among the trees, along the nature trail  
Looking for birds high and low  
Anticipating which species would be the first to show

Then suddenly from inside the brush  
Out it came, without a hush  
It was a bobcat, looking straight at me  
Go birding, you never know what you will see!



A glimpse at a bobcat makes for a fun discovery while birding!

## Another Day in Paradise -A Journey to a New Beginning

Article & photos by Ken Lee, Rio Grande Valley Chapter 2025 trainee

In July of 2024, I sold my business in Dallas and retired. I used the proceeds of the business sale to buy a new home on four acres near Bayview on Resaca de Los Cuates. I packed up my belongings along with my faithful dog, Paxton, and moved to my new rural home immediately. It is in an agricultural area where the neighbors are few and far apart. I have a grapefruit grove to the east side of my place and a sorghum field on the west. I enjoy the privacy, and it is very peaceful and quiet here compared to Dallas.

My new life in the Rio Grande Valley brings with it a blend of tranquility, natural beauty, and vibrant culture that I am eager to explore. There is little that I miss about the big city, other than my friends and family.

I have never considered myself a birder, but I now find myself in a birder's paradise. The first thing I discovered is a pair of nesting Great Horned Owls on the property. Sometimes they hang out in the giant southern live oak tree in the front yard. Other times they are perched atop the chimney, but they always seem to look at me as if I am intruding on their domain.



Great Horned Owls assist other predators in controlling rodent numbers

Underneath the tree, I often find their pellets. These are balls of fur and tiny bones that they regurgitate, as they cannot digest them. I am thrilled to have them patrolling my place for rodents, along with the rat snakes. Other raptors include Barn Owls, Screech Owls, Red-Shouldered, Coopers and Harris Hawks. The Crested Caracara is a distinctive raptor that I was unfamiliar with until moving to the Rio Grande Valley.



Snake-like appearance of Anhingas

Cormorants and Anhinga are often spotted cruising the water for fish or spreading their wings to dry in the sun. Anhinga use their sharp beaks to spear fish, as opposed to grabbing them in their open beaks like cormorants. The first time I saw an Anhinga, I thought it was a snake, because they swim with their bodies underwater, with only their necks and heads exposed.



Sometimes, I have a flock of whistling ducks stop by for visit. Other water birds include egrets, ibis, Great Blue Herons, Little Blue Herons, Roseate Spoonbills, and occasional Wood Storks.

Graceful Great Egret at the resaca

The peaceful waters and lush surroundings attract a myriad of other bird species, creating an ever-changing canvas of colors and sounds. I like to spend my mornings with a glass of iced tea (I'm not a coffee drinker) on the veranda, watching these elegant creatures go about their daily routines. Evening times are the perfect time to relax with a glass of wine and just observe. The hummingbirds visit my feeders, even throughout the winter months, but seem to prefer the flowers that bloom during the warmer months. My seed feeders are attacked each morning, mainly by the Green Jays.



The colorful Green Jay is a Valley specialty bird

There are two orioles that nest near my home. The Hooded Oriole builds a tiny little nest, mostly made from palm fibers. I have found these often attached to the underside of palm fronds. Palm fronds often fall, especially during windy days, and if you check closely, you can spot them on the fronds after they fall to the ground. There are approximately 100 palm trees in my yard and many more nearby.

The Altamira Oriole builds a very large nest by comparison, which hangs from the tree limbs like a bag. The nest I found in July was still actively occupied when I arrived and was hanging from a limb of the giant southern live oak. It finally fell during the last strong wind. These two orioles are quite similar in appearance, and being a novice birder, I still have difficulty distinguishing between the two species in the field. However, the nests could not be more different. Cameron County is the only part of the United States where you will find the Altamira Oriole.



I have at least two species of woodpeckers, Ladder-backed and Golden-fronted. These birds seem to prefer the palm trees when they are not attacking the stucco on the side of my house. They are fun to watch and quite vocal. I also have wrens, Great Kiskadees, phoebes, thrashers, Northern Cardinals, warblers, sparrows, Couch's Kingbirds, and of course the Texas state bird, the Northern Mockingbirds. One of my favorites to watch is the Belted Kingfisher. These guys look so exotic to me. I never saw them until recently.

My latest find was a group of Plain Chachalacas. I was particularly happy when they stopped by for a visit. You will definitely not find these in Dallas. I tried to approach them with my camera, but was afraid I would flush them if I got too close. The pictures didn't turn out great, but I will try to get closer next time they return.

The resaca has lots of fish for the shorebirds and waterfowl to feed on. The alligators seem to like the fish as well. I have catfish, bass, long-nosed gar, alligator gar, and many other species. I am looking forward to doing some kayaking and canoeing on the resaca this year. I am sure at some point I will be harvesting some fresh fish myself.

I am so happy with my new life down here. I love the laid back vibe of the Rio Grande Valley. I have made many new friends here. Everyone in the city is wound up like an eight-day clock. I suppose I was also caught up in that rat race to an extent. Now that I am retired, I feel like I am on a permanent vacation.



Roseate Spoonbill feeding in the resaca

I am in the 2025 Texas Master Naturalist class, and I have learned so many things about my new environment. This education in flora and fauna of the Rio Grande Valley is exactly what I was looking for. Tomorrow morning, I look forward to waking up to another day in paradise.

## This Mantid Drives Our Curiosity

Article & photo by Joseph Kowalski, South Texas Border Chapter

When I was a kid I spent my fair share of time playing outside. Curiosity fed exploration and I was exposed to all sorts of wonderful experiences. I remember my first encounter with a mantid (praying mantis). It was with both admiration and fear that I beheld this small creature.



Later I learned that some types of mantids will kill and eat its mate. I think it has to do with helping to meet their nitrogen demands. This is also why we husbands should be nice to our wives.

Mantids have been around for several million years (the Cretaceous period... partying with the dinosaurs). Today, there are five species and we find them on both sides of the Rio Grande.

I found this fellow on the driver's side view mirror. That's why it looks like there are two of them. Seeing him against a mirror provided a nice dorsal-ventral aspect. After I took the photo I flicked him on his rear end and he flew away.

Praying mantis (*Bistanta campestris*) on a mirror provides both a dorsal and ventral view.

# **Mesoxaea texana update from the South Texas Sand Sheet:**

## **-A few pages from my phenology journal for your review**

Article & photos by Camille M. Rich, Rio Grande Valley Chapter

Dear Fellow Nature Enthusiast,

Before I get to my update of the last observations I recorded for both a male and a female *Mesoxaea texana* (*Mt*) on the South Texas Sand Sheet (STSS), I would love the opportunity to tell you a little bit about the phenology journal I am keeping for *Mt*, and how I got my inspiration.

Back in the Spring of 2023, I had the wonderful opportunity to look at a beautiful phenology wheel that my friend, and fellow Texas Master Naturalist, Lisa Adam, had created. Lisa's phenology wheel was nothing short of a modern-day work of art! Her phenology wheel contained detailed plant, insect, and climatological observations punctuated with exquisite, precise illustrations. I was blown away by Lisa's phenology wheel and instantaneously inspired to keep a detailed phenology journal for *Mt*.

### **What is phenology you might ask?**

With one Google search, I found a couple of succinct definitions of phenology from the online homepage of Audubon Vermont that I appreciate: Phenology is “nature’s calendar---it is the study of plant and animal life cycles throughout the seasons.... Phenology is a branch of science dealing with the relations between climate and periodic biological phenomena (such as bird migration or plant flowering).”



### **What is a phenology journal?**

A phenology journal is a journal where one can record nature observations with regard to climate, seasons, precipitation, migration, emergence of insects, plants blooming, and so on and so forth.

A phenology journal is a useful tool for recording observations

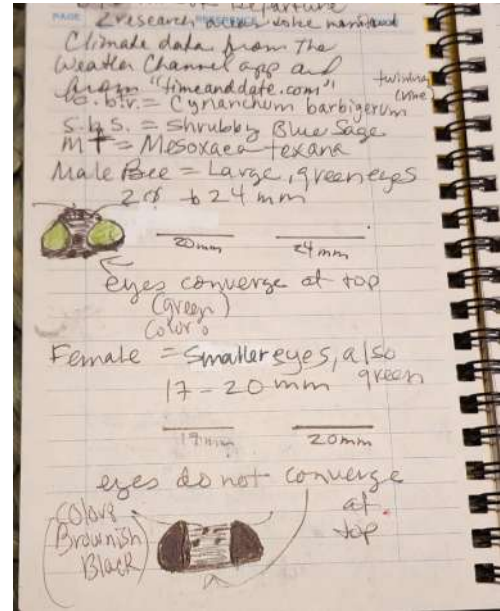
### **Why keep a phenology journal?**

In my opinion, the beauty of a phenology journal is that you can look back and see trends and patterns and then try to see how all of these puzzle pieces of data fit together and/or explain relationships between items being studied.

For example, one of the items that I am purposely tracking in my phenology journal includes the preferred Texas native host plants that the *Mesoxaea texana* uses for nectaring and pollen collection.

Another piece of data that I am mindfully tracking and recording includes the times of year that I observe the *Mesoxaea texana*'s presence on the STSS.

As an aside, this year a few of us were able to observe the *Mesoxaea texana* utilizing Texas native plant sources that, as best as I can tell, have not yet been documented. The plants I am referring to include *Waltheria indica*, *Cynanchum barbigerum*, *Eysenhardtia texana*, and *Funastrum cynanchoides*.



Times of year, plants used and bee details are noted here

### What data did I record about the *Mesoxaea texana* prior to my phenology journal?

Although my phenology journal formally began in May 2023, I was already keeping data, of sorts, on *Mt*. However, when I saw Lisa's brilliant phenology wheel, and then took the time to educate myself on phenology, I "upped my game," on the type of data I was recording for *Mt*.

Historically speaking, I recorded the dates and times of day *Mt* was observed. I also kept track of precipitation totals. Therefore, I was able to see simple trends in the time of year of *Mt*'s appearance, what times of day *Mt* was out and about, and how much rain had fallen during the time of *Mt*'s presence.

For example, *Mt* has historically shown up on the STSS sometime in May and June of 2021 and 2023. In 2022, I observed zero *Mesoxaea texana* on my little piece of the STSS.

This past year, however, *Mt* showed up on the STSS not only in May and June, but it also showed up again in late August through mid-October. Two *Mt* visits in 2024! Wow! How cool is this, and why?

### What do I track in my phenology journal for the *Mesoxaea texana* currently?

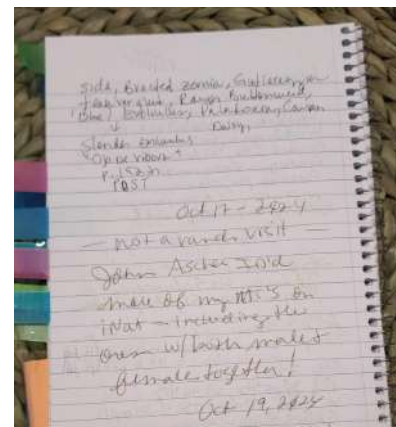
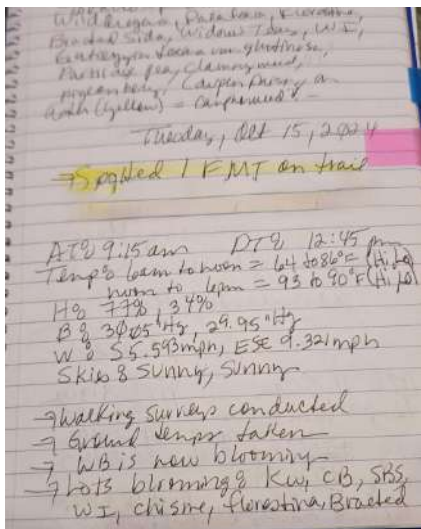
I keep track of every ranch visit, regardless of the time of year or whether *Mt* is out and about. Since this native bee is a ground nesting bee, I now take ground temperatures with an infrared thermometer in places where *Mt* has been historically and/or most recently observed. I note any

rain in the rain gauge and plants blooming. Once home from my ranch visit, I go online and get data on temperatures—highs and lows, humidity, barometric pressure, wind speeds/direction, and sky data for the duration of my ranch visit that day. I also include drought outlook and prediction data from the National Oceanic and Atmospheric Administration (NOAA) and the National Integrated Drought Information System (NIDIS).

When *Mesoxaea texana* are on the scene, a typical ranch day visit will include numerous intermittent walking surveys of survey sites where the *Mt* have been documented. I observe their behavior, count their numbers, and note any plant material they are nectaring on/gathering pollen from. I note all flowers that are blooming. I note any rain in the rain gauge. I make notations/descriptions of behavioral displays, including territoriality and interactions with each other. Additionally, I watch where they are flying, and I track them in the hopes of recording a nest site one day.

This past fall of 2024, I had the great fortune of being able to add a ninth survey site to locations where *Mt* has been observed; I named this new survey site “The Meadow.” Why this name? Well, simply put, there were so many *Mt*'s in “The Meadow” that for a moment I found myself having difficulty counting them. Needless to say, my heart soared with joy at the substantial increase in the numbers of *Mt*, at any given survey site, to date!

My last observation of a female *Mesoxaea texana* on the STSS was on October 15, 2024. My last observation of a male *Mesoxaea texana* on the STSS was on October 26, 2024.



Here are a few pictures from my phenology journal entries for October 2024, for your review

**Key for my Phenology Journal:**

- |                     |                         |                           |                       |
|---------------------|-------------------------|---------------------------|-----------------------|
| AT = Arrival Time   | B = Barometric pressure | KW = Kidneywood           | WI = Waltheria indica |
| DT = Departure Time | W = Winds               | CB = Cynanchum barbigerum |                       |
| H = Humidity        | S = Skies               | SBS = Shrubby Blue Sage   | WB = White Brush      |

**How to read my ground temperature spreadsheet:**

DATE	TEMPERATURE	TEMPERATURE	TEMPERATURE	TEMPERATURE
1/14/24	92.1°F	90.2°F	73.8°F	103.8°F
1/15/24	87.8°F	74.7°F	70.5°F	81.0°F
1/19/24	85.6°F	82.6°F	91.6°F	98.4°F
1/23/24	89.4°F	74.3°F	108.9°F	100.6°F
1/26/24	90.1°F	75.4°F	92.6°F	103.8°F

The date ground temperatures were taken is the first entry on the spreadsheet. Each column that follows the date represents a monitored sight where *Mt* has been spotted. In the box for each monitored sight, the time of day is listed above the ground temperature reading (in degrees Fahrenheit) for that day.

In closing, if you would like to see photos of the *Mesoxaea texana*, please visit [www.elmestenoranch.com](http://www.elmestenoranch.com). If you would like to observe the *Mesoxaea texana* flying around on the STSS for yourself, you will find many *Mesoxaea texana* videos on the following **YouTube channel: El Mesteno Ranch and Arboretum**.

Please stay tuned. There is more to come, and thanks for your time!

All my best,  
Camille Marie

**Books containing information on the rare *Mesoxaea texana*:**

“A Guide to North America’s Bees: The BEES in Your Backyard,” by Joseph S. Wilson & Olivia Messinger Carril, Princeton University Press, Princeton and Oxford, 2016.  
 “Native bees of the Lower Rio Grande Valley: A Photographic Guide,” by Paula Sharp. Texas A & M University Press, January 29, 2025.

**Online resources used for this article:**

Audubon Vermont: <https://vt.audubon.org/> Accessed on February 9, 2025, and February 15, 2025.  
 Bureau of Land Management: [www.blm.gov](http://www.blm.gov) Accessed on February 9, 2025.

## Developing the Shary Heights Butterfly Garden

Article by Logan Dovalina, South Texas Border Chapter

In 2007, my parents and neighbors had a radical idea. With the assistance of the City of Mission, they transformed a patch of grass into the first neighborhood butterfly garden in Mission. I was young at that time, but I remember being amazed by the mounding lantanas and sprawling frog fruit placed at the entrance of the oval-shaped garden, as well as the variety of species we would encounter. I especially recall photographing a white peacock butterfly that I hung near my desk, completely wowed by its striking pattern.



Author at age six enjoying the newly planted garden -photo by Luis Dovalina

The garden was particularly impressive in those early years, thanks to the Atchison and Martinez families, our neighbors who helped conceptualize it. However, when they eventually moved, we were left with a project that turned into more of a nightmare. Invasive grasses and wilting mist flowers replaced the original vision once they departed. In many ways, I don't blame anyone. The Shary Heights Butterfly Garden was an afterthought alongside maintaining our almost-acre yard.

Nevertheless, we continued to care for it, watering and ensuring that we had flowers by October, the prime season for butterfly migration. I remember being impressed by the prolific coma, attracting everything that flew in the sunlit skies. It was the first time I saw our impressive variety of pollinators. What struck me even more was the cycle of life surrounding it; the plants produced the bugs, which attracted small birds, then the tantalizing stray cat, culminating with our neighbors who came by to admire the garden, however it appeared.

In the years that followed, we planted bluebonnets in this space, adding a splash of color we had never seen before. I began to understand what environmental stewardship entailed, especially as I grew older and became more aware of my responsibilities. I slowly became the caretaker of this butterfly garden during high school and college, eagerly anticipating new blooms and species.

My life changed dramatically when I entered college and the pandemic struck. My home became my universe. It was a unique experience. All of my efforts, apart from virtual undergraduate classes, were focused on nurturing the butterfly garden. Once again, it blossomed into beauty. Every ounce of my work was a testament to what consistent effort can achieve. That's the beauty of hard work. We began to attract numerous species of skippers and sulfurs, and occasionally, a red-bordered pixie fluttered from my guamulchil tree to nearby flowers.

Yet again, it fell into disrepair after I left Mission to return to Denton, where I continued my undergraduate and graduate courses at the University of North Texas. During that time, the hardy roots of Guinea grass began to overrun the garden; however, becoming a Texas Master Naturalist made me realize I needed help.

The South Texas Border Chapter Texas Master Naturalist (STBCTMN) group became a willing partner in the advocacy, upkeep, and development of this garden. It has been life-altering. With the help and advocacy of botanists like Joey Santore and the Texas Master Gardeners, the Shary Heights Butterfly Garden has doubled in size. New plants are on the way, and hopefully new species will grace this space, bringing beauty to the Shary Municipal Golf Course and our neighborhood.

The final part of this new chapter has been the sculpture. Assisted by Bob Codina of the Upper Valley Art League, the STBCTMN chapter significantly funded the butterfly sculpture of the Red-Bordered Pixie for this new garden. It's the last installment in this eighteen-year-long journey I've been crafting.



Neighborhood group at the sculpture dedication with Texas Master Gardener Mary Escaname and Texas Master Naturalist Joseph Connors-photo by Connors

Overall, I've learned how to ask for help and ensure that volunteers or neighbors take ownership of community spaces. It's incredibly important to guarantee that communities are invested in initiatives, environmental or otherwise. That's the secret to ensuring that beautifying and protecting spaces like this comes from a broad coalition of stakeholders. I'm so glad to be a Texas Master Naturalist and to have shared this childhood and native space with new friends.



## Rio Grande Valley Home and Garden Show

Article & photo by Robert Hernandez, South Texas Border Chapter

The South Texas Border Chapter of Texas Master Naturalist has accepted the invitation to participate in the 34th annual Rio Grande Valley Home and Garden Show. This year the show is scheduled to take place at the McAllen Convention Center on April 11-13, 2025.

Our chapter has been assigned a 10 foot by 20 foot space during the three day event which will be used as an outreach booth to inform the public about the benefits of incorporating native plants into their garden spaces or landscapes. We will have pamphlets, books and other literature related to native plants of the Rio Grande Valley (RGV) available for visitors. Our goal is to encourage visitors to convert their non-native gardens into native plant habitats which will provide food and shelter for our native and migratory pollinators, as well as other critters.



Visitors discover native plants from the Texas Master Naturalists

We will have native plants for sale to the public that are donated by our membership with proceeds going into our operating fund. At this time we encourage those of you who already have pollinator gardens established in your spaces and have plants beginning to sprout to dig them up, put them in containers, and donate them for this fundraiser. We will utilize the funds for upcoming projects that focus on our Texas Master Naturalist (TMN) mission of outreach and service dedicated to the conservation of natural resources and areas in our community.

We are also providing the show's organizer with speakers from our TMN organization to conduct seminars related to the propagation, use, and care of native plants to enhance native garden spaces or also speak on other topics related to issues that affect plants or the environment.

Please come by and visit our booth during this event to purchase native plants or simply enjoy the day getting ideas on home improvements or gardening tips. You can also stop by the seminars to listen to our speakers and obtain advanced training hours for your personal VMS record. As of now we have six speakers signed up to talk on their selected topic related to nature. You can go to the RGV Home and Garden Show website to obtain show hours and speaker seminars schedule as we get closer to the dates of the event.

## Wetlands and More

### -west side Laguna Atascosa Lake loop

Article by Christopher Akana, Rio Grande Valley Chapter 2025 trainee

Nestled in the heart of Cameron County exists one of the most pristine wetlands in the state of Texas. Just a short jaunt from South Padre Island (SPI), one has an ecologically spiritual experience at their finger tips in Laguna Atascosa National Wildlife Refuge. This year I was afforded an amazing opportunity by the SPI Birding and Nature Center's 2025 Winter Wildlife Expo to experience this site.



The adventure begins as you enter the west side drive area of the sanctuary. A most pleasant sound of nature greets and nurtures ones ears and senses. The quietude is overwhelming and peaceful. There is, however, an intense sound of nature, as you enter the thick thornscrub ecosystem, whose theme is a marsh wetland habitat in a coastal prairie. The recent rains have resulted in an amazing cache of water permeating these delicate wetlands. As we slowly drive along, one can only wonder in amazement as to how untouched these naturally contoured mosaic-like habitats have existed over the years, decades and longer.

As we wind along the thick dense thornscrub, we witness the many creatures thriving in this ecosystem. We also notice evidence of those not so visible by our group of expo-neers. the funny dung piles left by the nilgai who are known to be communal defecators. Multiple creature footprints left in the recently wet mud/caliche road and sand lomas hugging the quiet drive. The sounds of the many birds echo and emanate from every direction. We also hear the buzzing and symphony-like harmonies of the many insects in the thornscrub.

Laguna Atascosa contains more than 120,000 acres

As we slowly creep along wide-eyed in wonderment, our nature center guide, Javi, describes and points out certain bird species like the Crested Caracara, Bobwhite Quail, White-tailed Hawk, Ringed Kingfisher, Osprey, Black Phoebe, Loggerhead Shrike (and of course the creatures it has skewered on the Spanish dagger yucca plant), Black Vultures, Long-billed Thrasher, Greater Roadrunner (a very curious and smart bird), and last but not least the Aplomado Falcon, a most rare and elegant coastal plains raptor.



Aplomado Falcon at Laguna Atascosa  
-photo by John Saenz

Soon we find ourselves winding along the wetlands. There is water on both sides of the narrow west side drive road with schools of alligator gar on the left and lurking alligators on the right. Crystal clear freshwater flowing and reflecting the winter colors of light piercing the cloud filled sky above. It's serene, peaceful, and for me a most spiritual moment. I have been fortunate to have been brought by my family to Laguna Atascosa National Wildlife Refuge for many years, but this was the first time to explore the freshwater Atascosa Lake, especially with so much water. The wetlands were rich with life, brimming with energy and beauty. I was awestruck.

We continue on and witness another nature scene. A feral hog in the marsh surrounded by vultures and some caracara. Who knows how the creature perished. However, it's another awe inspiring moment as the carrion birds flap around and hover in the mesquite trees along the wetland waiting for us to pass. I can only think this scene could be out of a moment from thousands of years ago. The scene before me is epic and my mind becomes muddled with ecological terms like consumers, producers, reducers, commensalism, food chain, and so on.



As we continue on, the wetland expands more and more. The colors of the sky and cool breeze vaguely erasing the reality that we are in south Texas where heat and dry is commonplace. As we cross the last section of wetlands, I'm reminded of the importance of this ecosystem where nature nurturing surrounds our small group of visitors in every direction. I'm also reminded of the frailty of it all as it pertains to mankind developing and reducing these open spaces for development and parking lots. As we wind down the adventure, I think to myself that I would like to return soon to this pristine place by bicycle, but more importantly I have hope that this will remain for future generations of creatures, plants and ecosystems to thrive and flourish swimmingly in these amazing wetlands.

Long-billed Thrashers and all wildlife require adequate habitat to ensure survival- photo by Christopher Akana

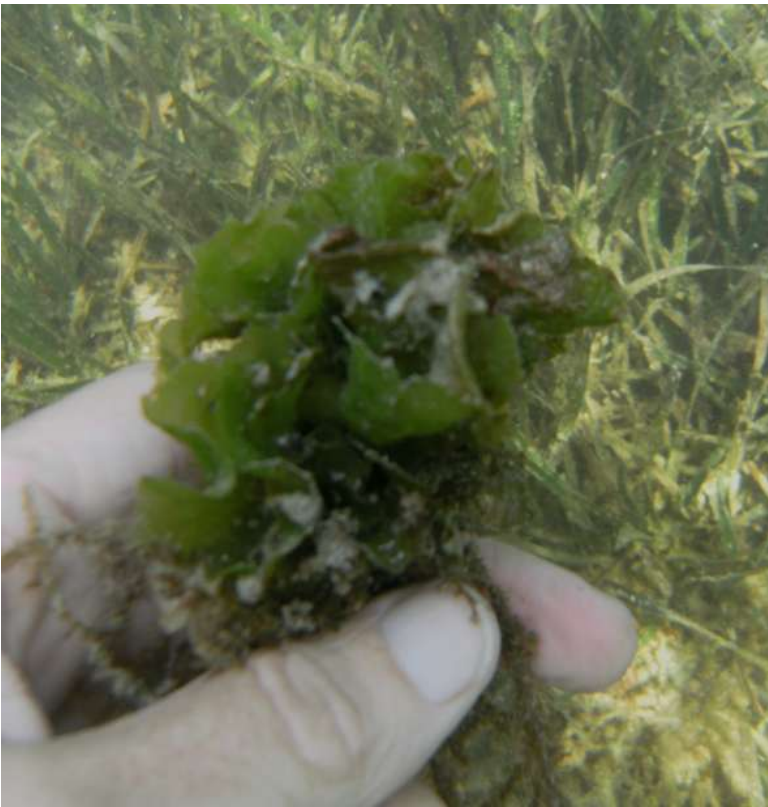
## Epiphytes in Estuaries

Article & photos by Joseph Kowalski, South Texas Border Chapter

True plants have roots, stems and leaves. Those are something like plumbing. Plants move water, minerals, and food around in those tubes. In true plants we say they are “vascular.” Leaves are the rock stars of the plant world because they make their own food. Roots are those plant organs that typically anchor a plant in some sort of sediment (soil) and transport the food and minerals. Stems connect the leaves to the roots.

Of course, there are always exceptions. Very few plants are parasitic, like mistletoe, which bore into the host plant and feed, like Dracula. Some plants, like bromeliads, are true plants and are notable because they merely grow attached to a larger plant, such as trees. The tree is not harmed or helped. Bromeliads are epiphytes and they live in close association with another plants.

Let’s diverge from trees and consider the waters of estuaries - a place where salty ocean waters meet and mix with fresher waters. Many types of algae are non-vascular and can be epiphytes on seagrass plants. Some of the algae came out of the ocean and established themselves in freshwater habitats, but they were still non-vascular. Algae are typically single-celled, but there are also multi-celled algae that are loosely referred to as plants.

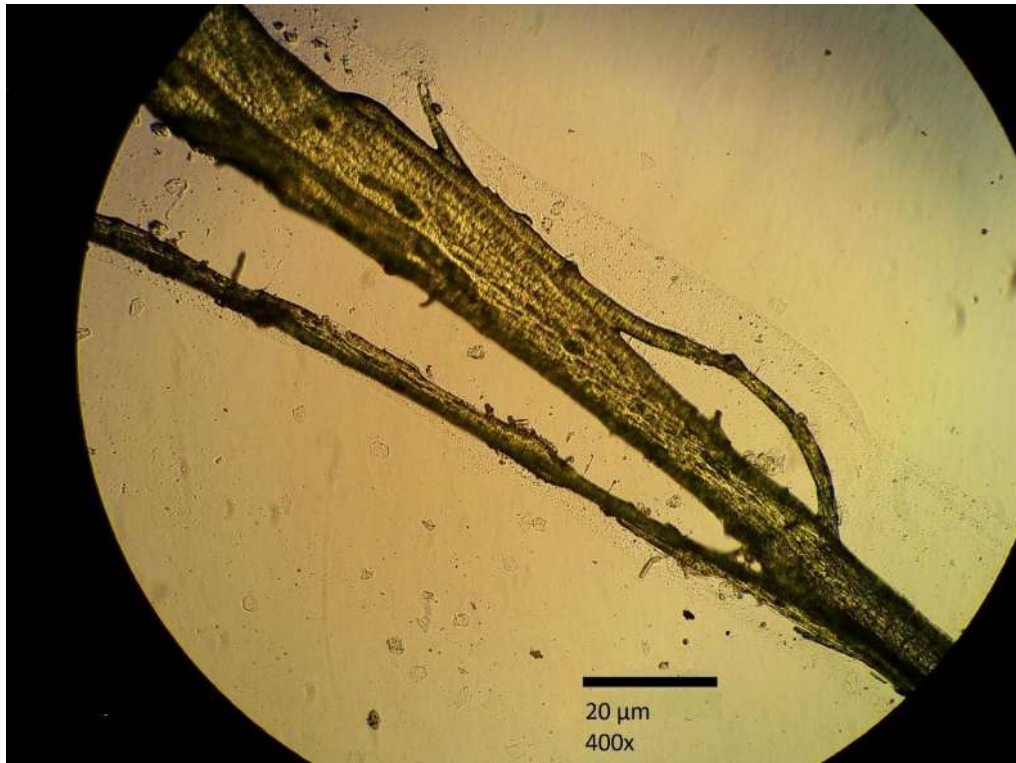


*Anadyomone stellata*, a multicellular green algae, is an epiphyte

These are characterized by possession of color with different types of photosynthetic pigments. Some are green, as in the image at left. Some are red, and others brown. Just to show you how convoluted biology can be, even the multicellular green alga at left (called *Anadyomone stellata*) is an epiphyte that is found on another epiphyte, called *Digenia simplex*. These colored types are all multicellular. As Dr. Malcom says in the Jurassic Park movie, “life finds a way.”

In some cases, algae are colonial. After the algae colonized freshwater habitats some of them returned to the sea and gave rise to plants like seagrasses. Living in a watery medium presents some unique challenges.

In the air almost nothing grows on the surface of terrestrial leaves. Air is mostly empty space. Vascular plants obtain their water from roots buried in soil. But seagrasses live in an environment where water swirls and flows around the leaves and there are nutrients dissolved in the water. If there are nutrients available, then something is there to gobble them up. They take in nutrients from the surrounding water column and the pore spaces in the sediment. The more nutrients the plants take up the faster they grow and the more abundant the algae become. Some algal epiphytes behave like weeds. The image below is *Cladophora* species., a very weedy alga. Some places along inland and coastal waters have wastewater treatment plants, where water used for bathing and washing are discharged into the river or estuary.



*Cladophora* species is a very weedy alga

Wastewater is, by definition, water no longer usable compared to its original purpose. At home, washing clothes and bathing creates wastewater. The term “gray water” is an alternative term used for wastewater. The treatment of wastewater is typically done We focus here on the word “treated” where the wastewater is subjected to sedimentation, filtration, and disinfection. This removes the nastiest part of wastewater and leaves the treated water. But this water is still carrying a huge load of nutrients, like nitrogen and phosphorous.

So, on the one hand gray water is great for use in agriculture and watering golf course lawns, and municipal landscaping. On the other hand (the not so good hand) that nutrient-rich water that makes its way into the waters of the Laguna Madre (an estuary) and taken up by seagrasses and particular algal species, some of which are in balance with the seagrass ecosystem and some that actually cause harm to the seagrasses by blocking light.

The image below was captured underwater way back around 1988. The water was about one meter deep. The site was adjacent to the Andy Bowie Wastewater Treatment Plant, which has a freshwater marsh between the wastewater treatment plant and the open waters of the Laguna Madre. The water is crystal clear. The marsh takes up all of the nutrients. The town of South Padre Island has another wastewater treatment plant. This one is next door to U.S. Coast Guard Station and the Isla Blanca wastewater treatment facility.



The town of South Padre Island has another wastewater treatment plant. This one is next door to U.S. Coast Guard Station and the Isla Blanca wastewater treatment facility.

A freshwater marsh after the Andy Bowie Wastewater Treatment Plant helps create crystal clear water

The image below is of a seagrass leaf overgrown with our old friend, *Cladophora*. We predicted that the Isla Blanca site (no nearby marsh) would have heavy epiphyte load, compared to the Andy Bowie site. We anchored plastic strips to the seafloor at both sites. The plastic strips are called artificial seagrass. The orange flag was to allow locating the strips. The strips, of course, went in the water with nothing growing on them. Over the next couple of weeks different types of microalgae and bacteria settled on the surfaces, colonizing the artificial seagrass leaves.



Over the next couple of weeks different types of microalgae and bacteria settled on the surfaces, colonizing the artificial seagrass leaves.

Without a marsh near the Isla Blanca site, seagrasses are overgrown with *Cladophora*

I was a graduate student then and had landed a small award of research funds from the Texas Academy of Science (TAS). I had been gobbling up as much background information as I could lay my hands on to understand how different plants affect other kinds of plants. The proposal was entitled, *The Growth of Epiphytes and Seagrasses Under the Influence of Treated Wastewater Discharge*. It wasn't the sexiest title.

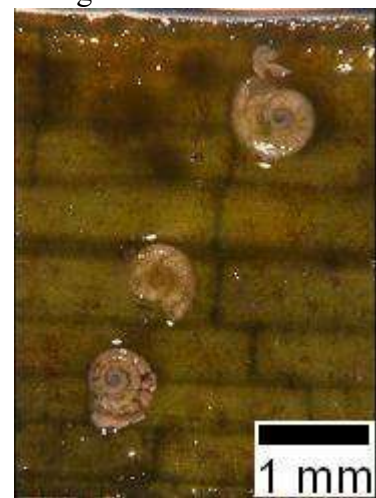


A canopy of seagrass commonly called turtle grass with light sensor near Andy Bowie site

For the most part, the tips of turtle grass are whiteish. Those are commonly foliose (leafy) algal epiphytes. The lightbulb-looking shape at left is what we use to measure how much underwater light there is. The light sensor is covered by a plastic bag because, if we didn't cover it epiphytes would cover the surface of the sensor and block the amount of available light.

Note that that water column visibility is fairly high. The reason for this is because the water column has very little dissolved or suspended. Water with color (like green, reddish, or golden), is dominated by the type of phytoplankton whose color characterizes that given algal group name.

Plants are not alone in the colonizing of seagrass leaves. The image at right shows spirorbid worms (animals), living on the surface of the seagrass, *Thalassia testudinum* (turtle grass), as epizoites. Like Dr. Malcolm said... "Life finds a way."



Spirorbid worms on turtle grass



Milestones & Awards for  
December 2024, January, February 2025



# Congratulations!

## Certification

Corinne Waite '24



## 100 Hours Milestones

Nadine Byram '22  
Tess DeSerisy '24

Mark Sorenson '24

## 250 Hours Milestones

Theresa DeSalvo '24  
Rob Gardner '24

Jody Nelsen '23

## 500 Hours Milestones

Mary Grizzard '23  
Noemi Romero '21

Janis Silveri '18F

## 1,000 Hours Milestones

Amy Daley '16





Milestones & Awards for  
December 2024, January, February 2025



## Recertification for 2024\*

Drew Bennie  
Penny Brown  
Tami Bulow  
Roberto Cepeda  
Chuck Cornell  
Kit Doncaster  
Teresa. DuBois  
Tommie Elium  
Alex Gomez  
Emma Gonzalez  
David Gordon  
Victoria Greyson  
Sharon Helsley McGinley  
Maki House

Eileen Mattei  
Chet Mink  
Mara Lee Moats  
Pete Moore  
Jose Palmos  
Jimmy Paz  
Kamala Platt  
Kathy Raines  
Janis Silveri  
Mark Sorenson  
Marby Sweeney  
Norma Treviño  
Karen Weaver  
Tira Wilmoth

72 RGVCTMN members re-certified for 2024

\*These TMNers re-certified after June awarding of re-certification pins in 2024

# South Texas Border Chapter

T E X A S



Milestones & Awards for  
December 2024, January, February 2025

## Congratulations!

### Recertification 2024

- Vanessa Pena
- Arturo Contreras
- Steve Murray
- Susan Coleman
- Rohny Escareno
- Lisa Murray
- Catherine Brush
- Mario Pineda
- Dave Hayner

**Well done!**

### 1000 Hours

- Cindy McKee
- Dayna Austin

### 500 Hours

- Jaime Rodriguez

### Recertification 2025

- Dayna Austin
- River Rivera
- Nancy Newton
- Velma Schmidt
- Jaime Rodriguez
- Anne Mayville
- Donna Otto
- Melissa De Pagter
- Amanda Hernandez

### 250 Hours

- Ruth Nix
- Stevan Schiefelbein
- Nancy Newton

### 100 Hours

- Melissa De Pagter
- Mario Pineda
- Judy Perkin
- Chantel Ortiz

## Contributors to this issue of The Chachalaca



Christopher Akana



Michelle Cano



Logan Dovalina



Joni Gillis



Mary Grizzard



Diane Hall



Robert Hernandez



Joseph Kowalski



Ken Lee



Tia Offner



M. Kathy Raines



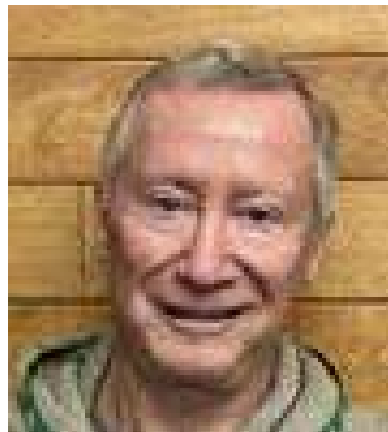
Camille M. Rich



Velma Schmidt



Bob Schmidt



Joaquin Villareal



Anita Westervelt

# Rio Grande Valley Chapter Leadership Team 2025



## Officers

President	Robin Gelston
1 <sup>st</sup> Vice President	Rob Gardner
2 <sup>nd</sup> Vice President	Chad (TC) Wilmoth
Secretary	Evelyn Alpert
Treasurer	Betsy Hosick

## Directors and Committees

Past President

Membership Karen Weaver

New Class Amy Daley and Barb Peterson

New Class Rep Sam Solfest

Program Chair Tamie Bulow

Communication Mara Lee Moats

Outreach: Marilyn Lorenz Historian/Archivist: (open)

Newsletter Editor: Diane Hall Facebook Editor: Mara Lee Moats

Website: Chet Mink, Richard Blanton

Accountant Jody Nelson

Parliamentarian Penny Brown

Advanced Training Teresa Du Bois

Volunteer Service Project David Batot

At-Large: Winter Texan Joyce Baer Halpern

At-Large: Tira Wilmoth, Mary Grizzard, Rolando Garza, Emma Gonzalez

## Advisors

Texas Parks & Wildlife Javier de Leon & Ernesto Garcia-Ortega

Texas A&M AgriLife Sara Stewart

**RGV Chapter Texas Master Naturalist: This chapter is an affiliate of the Texas Master Naturalist Program jointly sponsored by Texas AgriLife and the Texas Parks & Wildlife Department.**

**Educational programs of the Texas A&M AgriLife Extension Service and Texas Sea Grant at Texas A&M University are open to all people without regard to race, color, religion, sex, national origin, age, disability, genetic information, or veteran status. The Texas A&M University System, U.S. Department of Agriculture, and the County Commissioners Courts of Texas Cooperating.**

## South Texas Border Chapter Leadership Team 2025

### Officers

President	Anne Mayville
First Vice President	Velma Schmidt
Second Vice President	Jennifer Rektorik
Secretary	Melissa de Pagter
Treasurer	Taylor Kittleman



### Directors

Immediate Past President	Donna Otto
Membership Director	Jaime Rodriguez
Awards: River Rivera	
Hours review/approval: River Rivera, Donna Otto	
New Class Director	James Gerry
Communication Director	Anita Westervelt
Publicity: Anita Westervelt	
Newsletter: participate with RGV Chapter	
Webmaster/IT: Joseph Connors	
Outreach Director: Velma Schmidt	
Historian/Archivist: Donna Otto	
Advanced Training Director	Judy Perkin
Volunteer Service Project Director	River Rivera
At-Large Director	Robert Hernandez
Winter Texan Director	Mary Baker
New Class Representatives	Eric Luebanos, Bob Schmidt
Chapter State Representative	President assumes role

### Advisors

Texas Parks & Wildlife Advisors    Javier DeLeon & Ernesto Garcia-Ortega

