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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.

Plastics in the Gulf: Can This Story Have a Happy Ending?

Article & photos by Mary Grizzard, Rio Grande Valley Chapter

It was 1907 and Leo Baekeland was experimenting in his New York laboratory, hoping to discover a synthetic substitute for shellac. Shellac was used for insulating electrical cables in the early 20th century; it was in high demand and short supply, as the only way to obtain shellac was by harvesting a resin secreted by the East Asian lac bug. By combining formaldehyde with phenol and carefully regulating temperatures and pressures, Baekeland's experiments eventually yielded a product of far greater significance than shellac. *Bakelite*, the world's first synthetic plastic, was born and life on planet Earth has never been the same.

My own relationship with Mr. Baekeland's invention had been mostly one of ambivalence until my husband, Jim, and I began to spend our winters on South Padre Island (SPI). We were already well aware that plastics do not biodegrade in the environment and that leatherback sea turtles mistook plastic bags for the main staple of their diet, jellyfish. We'd seen videos of seals entangled in plastic fishing nets, and we knew about the Great Pacific Garbage Patch, an accumulation of mostly plastic debris in the North Pacific estimated to cover a surface area twice the size of Texas.



But plastics were just so, well, *convenient*. We purchased and used them on an almost daily basis, carefully recycling everything we could, and properly disposing of the rest.

It wasn't until we began picking up trash on our beach walks that we began to understand how much plastic *wasn't* being recycled or properly disposed. Bottles, bags, cups, flip flops, deodorant sticks, torn tarps — these and dozens of other plastics glistened in the swash zone and along the wrack line. We chased down plastic bags on windy days; we tugged free nylon ropes half-buried in the sand. But once these known offenders were corralled, the rest of the trash we gathered seemed more like just an ugly eyesore rather than a threat to marine species. Until...until that morning we noticed diamond shaped cut-outs around the edge of a styrofoam plate. *Sea turtle bite marks*. Endangered sea turtles were *eating* this stuff!

Gallon jug with sea turtle bite marks

I couldn't for the life of me understand why turtles would chow down on most of these plastics. Yes, turtles are creatures of very little brain, but *really*? What natural food looks like a flip-flop? It turns out, however, that sea turtles depend on their keen sense of smell as much or more than their eyesight to locate their food. Researchers at the University of North Carolina found that plastics

floating in the ocean for as little as one week begin to play host to algae and microorganisms. Turtles smell these and think they're breakfast. Sometimes these ingested plastics pass through the turtles' digestive tract, but often they cause a partial or complete blockage. The turtle feels full and stops eating.

And it isn't only turtles who are eating plastics. Over 700 species of marine mammals, birds, fish, and invertebrates have ingested plastic debris, and 39 species of zooplankton — yes, *zooplankton* — have been documented as consumers of microplastics. Most microplastics originate from larger

plastic products; in the ocean they are subjected to ultraviolet radiation, winds, and currents, eroding into smaller and smaller pieces until they're nearly invisible.

Red snapper juveniles commonly feed on microplastic-munching zooplankton. Filter feeders such as oysters and shrimp inadvertently feed on microplastics as they strain bits of food from the water. It's easy to see where this is going. Throws some shade on last night's grilled snapper and coconut shrimp.

How does ingestion of microplastics affect marine species, and ultimately, human health? It's a fairly new field of study and not a lot of research has been completed, but early results point to increased rates of cancer and diabetes. Be prepared to hear a lot more about this in the future.



Micro plastics with a single-use water bottle cap for perspective

So back to the Gulf. Just how much plastic are we talking about? A 2015 study by Louisiana State University found concentrations of plastic debris in the Gulf as high as 18 particles per cubic meter — among the highest readings in the world.

Wait.

What?

Among the highest in the world?

Where is this stuff coming from??? I was very surprised to learn that most Gulf plastic originates not from ships or drilling rigs but from land, and quite far inland at that. The Mississippi is the Gulf's main culprit. One hundred million Americans live within its basin; every year tons of plastic debris are washed from storm sewers into tributaries, into the great river itself and, finally, the Gulf. This same scenario is repeated in lesser drainage basins in every Gulf state and Mexico.

And because the Gulf is almost an inland sea, what goes into the Gulf pretty much stays in the Gulf.

What a disheartening situation. Are there any realistic solutions to this plastics quagmire? Is anyone even trying? I was greatly relieved to find the answer to both questions is *yes*.

Numerous agencies and organizations, from the National Oceanic and Atmospheric Administration to our own SPI-based Gulf Guardians, are implementing programs to remove plastics from the Gulf and, perhaps even more importantly, prevent them from entering in the first place. There's those fabulous Saturday morning Texas beach trash pick up campaigns to start with. Trash interceptors are being installed along the Mississippi. *Bio*plastics are being developed, enabling microorganisms in the environment to biodegrade them as they do organic debris. Methods of filtering microplastics from sand and sea are in the works. Researchers at the University of Queensland in Australia discovered a worm that thrives on *styrofoam* and are synthesizing its digestive enzymes for use in plastic recycling facilities. These are just a handful of innovative strategies that could turn the plastics crisis around.



A bad day at the beach...collected trash

But this isn't going to happen overnight. It's still easy to feel overwhelmed and discouraged. Last week so many plastic items were stranded on the beach they nearly touched each other. We filled our litter buckets to nearly overflowing and made several trips to the trash barrel. And how many millions of pieces were still floating out there, waiting for the next turtle to take a bite?

Well, I consoled myself, as I emptied my bucket, at least they aren't going to eat these ones. At least they aren't going to eat these.

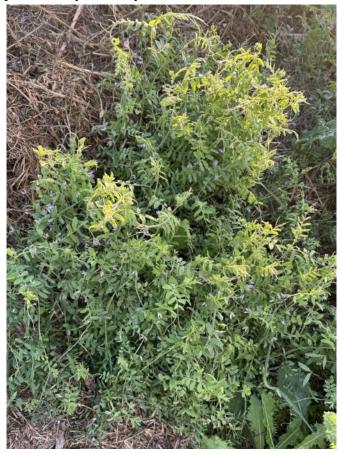
Look Quick – annual plants that disappear as the weather warms

Article & photos by Anita Westervelt, South Texas Border Chapter

Tiny violet blooms on feathery green vines of *Vicia ludoviciana*, var. *texana*, began appearing in crisp latter days of January.

Listed as a spring plant in the Fabaceae (pea family), it has local names, such as Louisiana vetch; slender vetch at <u>www.iNaturalist.org</u>; slim vetch in the Richardson, A., King, K. 2011. *Plants of Deep South Texas: A Field Guide to the Woody and Flowering Species*. Texas A&M University press, College Station; and deer pea vetch in Everitt, J.H., Drawe, D.L., Lonard, R.I. 1999. *Field Guide to the Broad-Leaved Herbaceous Plants of South Texas Used by Livestock and Wildlife*, an excellent resource published by Texas Tech University Press.

By whatever name, this low-growing vine benefits local wildlife but only for a few brief weeks on our Texas Coastal Plains and eastern Rio Grande Plains. This particular species is also found in Louisiana and Mississippi. In South Texas, the leaves and seeds are eaten by white-tailed deer, cattle, bobwhite quail and Rio Grande turkeys. The flowers are a nectar source for the American painted lady butterfly.



Slender vetch (Vicia ludoviciana, var. texana)

The vines use their tiny tendrils at the leaf tips to twine up grass or meander through other plants to get noticed. They will climb a chain link fence nearly unnoticed although completely exposed. Without support, a bundle of the vine will bunch up in a heap. The wee blooms are about one quarter of an inch in size and wouldn't be noticed if they were not a bright violet against the light green leaflets – a striking combination, nearly secondary opposites on an artist's color wheel.

This delicate twining vine doesn't look hardy enough to survive although it holds its own amongst the jumble of spring vegetation at county roadsides. It indiscriminately pops up anywhere in a yard, too. The vines generally top out at three feet. Seed pods are about one inch long, green, turning brown when ripe with four to eight seeds per pod. The plant mostly disappears with the summer heat. Sand phacelia, *Phacelia patuliflora*, var. *austrotexana* is another purple eye-catcher that began appearing along the county roadside in January.

It's always a thrill to find these little clumps of plants intermingled with the eclectic growth, debris and discarded trash at the side of a road. The petals can be a deep purple, fading to lavender with a white eye in the center of the bloom; white anthers top purple filaments; blooms can also be pinkish to lavender with white centers.



Sand phacelia or sand scorpionweed (Phacelia patuliflora, var. austrotexana)

My neighbor, who farms the land adjacent to our property, calls the plants scorpionweed. Other names are sand scorpionweed and blue phacelia. It is listed as South Texas sand scorpionweed in the Richarson/King *Plants of Deep South Texas*. The plant is in the Hydrophyllaceae (Waterleaf) family, a family of plants that is a subfamily of the plant family Boraginaceae and part of the order Solanales, which includes the family Solanaceae, the nightshade family.

The flowers sand phacelia provide nectar for butterflies and moths and are valuable to native bees. Beetles and ants also are attracted to the flowers. The plants are found mostly on the eastern portion of the Rio Grande Plaines and Coastal Prairies. White-tailed deer may eat the leaves.

Like the slender vetch, it's the purple that draws your eye to take a closer look. But look quick, they disappear before spring turns to summer.

Cochineal: The Rest of My Story

Article & photos by Camille M. Rich, Rio Grande Valley Chapter Steward / Owner, El Mesteño Ranch and Arboretum

In the last edition of *The Chachalaca*, I went into detail about the substantial amounts of cochineal on the prickly pear cacti population at El Mesteño Ranch and Arboretum over the last six months. I shared research about the historical use and economic importance of scale insects. I most especially had a lot of fun photographing them under my microscope. However, my article, "Cochineal: Under the Microscope," was just the first part of my cochineal story. This article will bring my cochineal story full circle.



Cochineal insects on a dime for size

After harvesting the cochineal, I was able to extract a dye from them by boiling the dried insects, including the white fluff, in a pan of filtered water on my stove top. Next, I strained the dye concoction through a small colander into a glass jar. Then, I was ready to begin my journey into dyeing assorted items with my cochineal extract.

I "went to town," so to speak, finding unusual ways to apply cochineal to canvas, watercolor paper, and handmade paper. I tried to leave no stone unturned. I worked with the cochineal extract application process using sponges and paint brushes, but mostly I used my hands. I quickly learned that cochineal would dye your skin and fingernails quite nicely. Hence, I began using disposable, vinyl gloves going forward. Although the dye on my skin was not permanent, it did take a day or so of lots of hand washing to thoroughly remove.

Making both handmade paper and handmade seed paper were two of my biggest cochineal dye project undertakings. Let me just say that making paper is messy, so it is no surprise that I made



Cochineal-dyed handmade paper resulted in a lovely lilac hue

huge messes in my garage with this my cochineal part of experiment. Regardless of any drawbacks to my paper caper, I found it very satisfying to see the result of handmade seed paper in a lovely lilac hue. The cochinealdyed seed paper, sprinkled with a hand-picked South Texas Sand Sheet mix of seeds that were available at the time I made the seed paper, looked so beautiful and resembled delicate, small flat bread pizzas!

Now, I would like to shift the last part of this article to include some of the practical things I learned about working and dyeing with cochineal. They are as follows:

Rudimentary overview of how I dyed textiles with cochineal:

- Method used: Solar
- Textiles dyed:
 - 100% raw silk fabric
 - 100% cotton fabric
 - o 100% cotton yarn
 - \circ 50/50 cotton blend fabric
 - Synthetic fibers (lace type fabric)
- Mordants used for dyeing textiles:
 - Alum, which yielded darker, intense shades of purple.
 - Cream of tartar and alum, which yielded brighter, pinker shades of color.



Gauze, cotton and synthetic fibers dyed with cochineal

Basic summary of the process I used to dye textiles:

- Most of the textiles spent days sitting in the dye bath solution and being gently moved and stirred around in the dye bath to try and achieve a uniform appearance.
- After a few days in the dye bath, I removed the different textiles and allowed them to air dry for a few days to try and fix the dye.
- I could never quite get the dye's level of saturation on the textiles to stay as intense as they appeared initially on the textiles coming out of the dye bath for the first time.
- I tried re-dyeing all the textiles numerous times to try to achieve darker, deeper, intense shades of purple and pink. Nevertheless, the colors achieved by subsequent dye baths never appeared to be any more intense than when they initially came out of their first dye bath.
- The textile that, in my opinion, yielded the nicest shade of red was the raw silk.
- After trial and error, including rinsing the textiles with tap water by hand and laundering some of the textiles in my washing machine on the gentlest cycle possible, I arrived at the conclusion that there are no fixed rules for dyeing with cochineal.
- The creative process and experimentation of using the cochineal scale insect in natural dye processes are equal parts science, adventure, and mystery.

Some of the methods of application and materials used I found interesting and challenging included:

- Using an eye dropper to create designs on both ready-made canvases and watercolor paper that I purchased at a local big box store.
- Drizzling cochineal extract over nature textures on watercolor paper to see what impressions were left behind once the nature material was removed.
- Mixing the cochineal dye extract with white acrylic paint to achieve a more uniform material that adhered nicely to the ready-made canvases when applied with a simple, inexpensive paint brush.



My cochineal journey--and my stories about it-have been a labor of love in my personal quest for knowledge about, and experience with, this tiny, crimson insect.

What was my favorite thing produced in my cochineal experiment, you might wonder? That is an easy answer. The homemade seed paper was, by far, the most enjoyable, rewarding product produced.

I even made enough seed paper to share with others, and I look forward to doing so in the near future!

Handmade seed paper – the author's favorite dye project

In closing, I would like to thank you for taking the time to share this creative journey with me. I appreciate being able to communicate my experiences from this project with each of you. My genuine wish is that you find the ending of my cochineal story both informative and educational, perhaps even inspirational.

In case you might have missed the first part of my cochineal story and would like to read more about it, you may find the article entitled, "Cochineal – Under the Microscope," at <u>https://elmestenoranch.com/</u>. Thank you.

Embracing Arid Beauty

-A converted Texan's guide to drought-resistant plants

Article & photos by Roxanne Balousek, South Texas Border Chapter

I recently became a permanent Texas resident after being born and raised in lush, green Michigan, surrounded by four of the five freshwater Great Lakes. Gardening always seemed so easy. Now, having transplanted myself to Hidalgo County, navigating the unique challenges of gardening in the Texas Rio Grande Valley (RGV) is not so easy.

On the bright side, I'm learning to celebrate the resilience and beauty of drought-resistant plants. I have done a lot of personal research in addition to signing up to become a Texas Master Naturalist. We have already had several educational classes on plants that do well in our RGV climate.

Let's explore a little bit of the fascinating world of plants that thrive in arid conditions, bringing both vibrancy and sustainability to our gardens.

Understanding the Texas RGV climate:

The Rio Grande Valley is known for its scorching temperatures and sporadic rainfall. To create a garden that stands up to these conditions, it is essential to choose plants that can withstand the heat and limited water availability. Drought-resistant plants have adapted to these challenges, making them ideal.

Texas lantana (Lantana urticoides)

Top picks for drought-resistant plants:

- Agave: Known for its striking rosette form and succulent leaves, the agave plant is a true icon of arid landscapes. With a wide variety of species to choose from, you can find an agave that fits your garden's aesthetic.
- Lantana: This vibrant, low-maintenance perennial blooms in a spectrum of colors, attracting butterflies and hummingbirds to your garden. It thrives in full sunlight and well-draining soil, making it a perfect addition to your drought-resistant plant collection.



• Yucca: With its sword-like leaves and towering flower spikes, yucca adds drama and structure to any garden. These hardy plants are well-suited to the Texas RGV climate, requiring minimal water and thriving in sandy soils.

• **Blackfoot daisy**: For a touch of elegance, consider the blackfoot daisy. This native wildflower produces delicate white flowers and is a resilient ground cover, requiring little water once established.

Blackfoot daisy (Melampodium leucanthum)



Mulching: Mulch helps retain soil moisture, suppress weeds and regulate soil

temperature. Apply a layer of mulch around your plants to conserve water.

3. **Watering practices**: While drought-resistant plants are adapted to arid conditions, it is crucial to provide adequate water during the establishment phase. Once established, most of these plants can thrive with minimal irrigation.

4. **Native plants**: Explore native plant varieties, as they are naturally adapted to the local climate and require less maintenance.

Conclusion: Embrace the arid beauty of the Texas Rio Grande Valley by incorporating droughtresistant plants into your garden. These resilient species not only survive in challenging conditions but also contribute to the ecological balance of our region. So, roll up your sleeves, grab your gardening tools and let's create a sustainable oasis together.

Tips for success:

Yucca beginning to bloom

1. **Well-draining soil**: Ensure your garden soil is well-draining to prevent waterlogged roots. Consider adding organic matter to improve soil structure and water retention.

A Flock of Haikus

Poetry by Velma H. Schmidt, South Texas Border Chapter

Birding can be fun An oasis in the sun Be you old or young!

Birding is for all Short, tall, big or small, catchall From dawn to nightfall!

Birding is special At any point or level So go, don't settle!



Photo collage by Velma Schmidt



Photo collage by Zeke Schmidt

Birding can be easy Take your time, don't be greedy Birds are so pleasing!

Birding can be great Strap your shoes on, don't be late Time to celebrate!

Winter Wildlife Expo- An Enjoyable Learning Experience

Article & photo by Carolyn Cardile, Rio Grande Valley Chapter

For many years I've been involved with the Winter Wildlife Expo (previously called Winter Outdoor Wildlife Expo or WOWE). The event originated as an educational event about fishing for Winter Texans sponsored by St. Andrew's Church in Port Isabel and eventually grew into a two day event at the South Padre Island (SPI) Convention Center. It then moved to the SPI Birding Center and soon was one of their major annual programs. I was very impressed by the entire event this year. There were lots of new speakers and a variety of programs. The exhibits were interesting. The photos entered in the photo contest were great. Everything ran smoothly. I hope they will continue doing the expo for many years to come.

I was only able to attend four events, but I enjoyed them very much. Two were old favorites and two were new to me. All were outstanding.

• Jonathan Wood brought his birds again this year, and it was fun to watch his show. Between shows a Peregrine Falcon chose to spend part of his time hanging out near the ceiling and a young toucan entertained us with his antics.

• Marilyn Lorenz shared an excellent program about 10 of our Rio Grande Valley specialty birds. I especially liked learning more about the Mangrove Warbler that's been hanging out at the SPI Birding Center this year. I'm going to spend some time on that boardwalk this week until I see it myself.



Captive Peregrine Falcon during presentation

• Dr. David Hicks' topic was "Monitoring Restoration Status of the Re-flooded Bahia Grande." I had the privilege of entering the Bahia Grande area before it was open to the public many years ago. At that time there was very little wildlife. It was good to see how this area has thrived over the years. David Hicks, Ph.D., is a Marine/Estuarine Ecologist and Quantitative Biologist who specializes in the biology, ecology, physiological ecology, and environmental biology of estuarine environmental marine invertebrates. He is the Director of the UTRGV Coastal Studies Lab on South Padre Island, Texas.

• Charles Alexander shared his stories about his wild parrot research that he has conducted as a citizen scientist for the past 11 years. He talked about this experience monitoring a specific group of parrots in Harlingen. He described several of these individual parrots, which he has been watching for many years, telling about their personalities and habits. His enthusiasm and love for these parrots radiated through the room as he spoke.

Nature Lesson from Momma Mouse

Article by Robert Cepeda, 2024 Trainee Rio Grande Valley Chapter



Brush provides habitat for small mammals --photo by Sony Dude (Pexels.com, copyright free)

A swirling cloud of white smoke rose from the brush pile as flames began to consume the thorny mesquite, huisache and ebony limbs, the barbed retama branches, and the tasajillo with its strands of miniature, wiener-shaped cactus pods and tiny, needle-sharp thorns. Suddenly, from out of nowhere, a chubby little field mouse scurried into an opening at the base of the inferno.

What could cause the tiny creature to do such a thing? Several long minutes passed, surely the creature had perished. Much to our surprise and amazement, the tiny rodent emerged covered in dust and ash. With all the strength she could muster, she dragged six tiny, light, pink-colored mice underneath her chubby body. This momma mouse had the maternal instinct to rescue her babies by having them nurse and, while they were nursing, drag them away from their certain death.

I was about twelve years old when my parents purchased a five-acre tract of land near the small community of Sandia, Texas. La Paloma, as my parents had christened it, was bordered on two sides by historic Knolle Farms. With thousands of acres of lush, green, rolling hills and thousands of jersey cows and calves, it had the distinction of being the world's largest jersey heard. On the third side of our *ranchito* was what, at one time, must have been a thriving cattle ranch. However, by this time, it was just a huge spread of land with a small, wood-frame ranch house and a windmill situated at the end of a winding caliche drive. A crusty old rancher and his wife owned the sprawling ranch.

Soon after purchasing La Paloma, my parents set out to transform this small piece of South Texas brushland into a place where we would be able stroll under the canopies of mesquite, huisache, ebony, and retamas and beside the cactus and other native plants.

The murky water of the stock tank at the back of the property was home to countless red-eared sliders, soft shell turtles, and other aquatic critters. Insects danced on the surface of the green-tinged water. With an abundant supply of water nearby, many species of birds built their nests in

the safety of the boughs of the thorny trees. Keen-eyed hawks would frequently circle overhead, searching for their next meal to emerge from the thick brush. Wildflowers attracted a plethora of pollinators and rotting tree trunks provided safe havens for yellow jackets, mud daubers, and paper wasps, as well as owls. One of which scared the fool out of me late one evening as I walked through the woods. Texas whiptail lizards frequently whizzed through the underbrush. Gophers were our constant companions, popping up with lightning speed from the sandy loam and, just as quickly, disappearing into their labyrinth of tunnels. Armadillos would root through the soft soil as a lone skunk would from time to time stop to observe us as we worked. Every now and then, we'd wake up to the sight of a white-tailed deer or the pungent aroma of a skunk who had paid us an overnight visit.

Our weekend trips to La Paloma, as well as our extended stays there, continued from my pre-teen to my young adult years. For me, the novelty of La Paloma soon wore off as the reality set in of the work that it entailed. Many times, I found myself resenting the fact that while my school friends were enjoying their holidays and summer vacations visiting fun destinations, I was on the business end of a shovel, steel rake, or chainsaw trying to tame this patch of South Texas brush. While they were probably enjoying amusement park rides, I was riding a Gravely tractor.

It wasn't until much later, as an adult, that I began to value my experiences at La Paloma and to treasure the time my parents and I spent working together. It was at La Paloma where I learned to appreciate the beauty of nature and the marvelous handiwork of a wise and loving Creator. It was there that I learned to appreciate the beauty of the wildflowers in bloom and take in their sweet aromas. It was there that I first stopped to observe different species of birds with their varied colors, sounds and behaviors.

After graduating high school and becoming a full-time college student with a part-time job, my days of working alongside my parents at La Paloma became more and more infrequent. I was no longer able to help them as before. As they grew older and their strength diminished, they concluded that the time had come to sell La Paloma, the place that the three of us had worked so hard to create. Before they closed on the sale, together we took one last stroll through the native South Texas plants and trees.

All these years later, as my time and travels have allowed, I have driven by the old place. The thick brush has grown back to its original state, and it looks like the first time we set foot on our *ranchito*.

This journey of becoming a Texas Master Naturalist takes me back to the days of my youth when I came face-to-face with nature. (Anyone who has walked into a mesquite, huisache, ebony, or retama branch or brushed up against a South Texas cactus understands the meaning of a face-to-face encounter with nature.) Colleagues have asked if becoming a Texas Master Naturalist will translate to earning more money. When I answer that for me it won't, they then inquire why I would be willing to commit to the many hours of attending classes, going on field trips, give of my time to volunteer projects, and participate in advance training events without some tangible reward. I answer, "Well, let me tell you about the afternoon a field mouse ran into a burning pile of brush to rescue her little ones."

The Power of You

Article by Jim Grizzard, Rio Grande Valley Chapter

A number of years ago two of my college students were discussing their future. The realities of increasingly contaminated air, water and food, the escalation of extinctions and the global decline of oxygen production, pollination and other natural essentials led them to conclude that their lives would be cut short - that humanity is destroying our world. I wanted to say, "Not so." But, so much of what they said was true. So, I asked, "Is there anything that we can do about it?" The answer was quick and sharp. "Yes! But, we are not going to."

I understood this to mean that people have the intellectual capacity to make crucial changes, but they don't care enough to do so. My students taught me. They challenged me to begin the uncomfortable assessment of my life style and to make difficult changes to live more sustainably. A few weeks later, I removed gas lines from my home, bought electric appliances and an electric car and installed solar panels. Cooking, heating and driving on sunshine worked. Then some friends and I planted an organic fruit orchard and started a few bee colonies.

A few friends joined me in the adventure of taking steps to leave our great grandchildren a healthier world than we inherited. One of them, David, told me that when his father saw him install solar panels, reduce fossil fuel consumption and change to a more sustainable lifestyle, then he did the same. And, a number of his father's friends and his church followed suit. David claimed that maybe over a hundred of his friends and contacts had installed solar panels because of his influence in less than two years. The ripple effect is in motion. No doubt, people can change and live sustainably.

When I consider wildlife species and their habitats in the Lower Rio Grande Valley, the cruciality of the human heart grips me. May the lives and words of the following three people who cared, inspire us.

Indeed Chief Seattle practiced what he preached. In 1854, Chief Seattle stated:

"The President in Washington sends word that he wishes to buy our land. But how can you buy or sell the sky? the land? The idea is strange to us. If we do not own the freshness of the air and the sparkle of the water, how can you buy them? Every part of the earth is sacred to my people. Every shining pine needle, every sandy shore, every mist in the dark woods, every meadow, every humming insect. All are holy in the memory and experience of my people.

If we sell you our land, remember that the air is precious to us, that the air shares its spirit with all the life that it supports. The wind that gave our grandfather his first breath also received his last sigh. The wind also gives our children the spirit of life. So if we sell our land, you must keep it apart and sacred, as a place where man can go to taste the wind that is sweetened by the meadow flowers.



Chief Seattle photo by E.M. Sammis (Wikimedia Commons; Public domain)

Will you teach your children what we have taught our children? That the earth is our mother? What befalls the earth befalls all the sons of the earth.

This we know: the earth does not belong to man, man belongs to the earth. All things are connected like the blood that unites us all. Man did not weave the web of life, he is merely a strand in it. Whatever he does to the web, he does to himself.."

• Claudia Taylor (aka Lady Bird Johnson) became "The Environmental First Lady."

The Beautification Act of 1965 (Lady Bird's Bill) to protect clean air, water, parks, wilderness and wildflowers was drafted and passed due to her contagious love of nature. As well, she championed other globally impactful environmental legislation.



Lady Bird also advocated for social justice. She and others created the Head Start Program to elevate and educate impoverished children. President Johnson remarked of her that, "voters would happily elect her over me."

Lady Bird was awarded the Presidential Medal of Freedom and a Congressional Gold Medal (the highest Congressional civilian honor). Her life and her gracious words call us to care for nature and people.

Lady Bird Johnson, at Padre Island National Seashore -photo by Robert Knudsen/ LBJ Library (Public domain)

A few of Lady Bird's most inspiring quotes are:

"It's odd that you can get so anesthetized by your own pain or your own problem that you don't quite fully share the hell of someone close to you."

"The challenge we now face is to build on the record of the past, to continue accepting new responsibilities and seeking new opportunities to serve."

"Many times I have made a plea to save wildflowers and a nesting spot for quail, rabbits, birds, and other small animals."

"Once the battle is lost, once our natural splendor is destroyed, it can never be recaptured. And once we can no longer walk through beauty or wonder at nature, our spirit will wither and our sustenance be wasted."

• John Muir lived a life of profoundly enjoying and advocating for nature.

John inspired the creation of our National Park System in 1916 and became known as, "The Father of America's National Parks" and "Founder of the Sierra Club." John thrived upon experiencing wilderness, often for weeks and months at a time. In 1867, John sauntered over 1,000 miles from Indiana to Florida, "by the wildest, leafiest and least trodden way I could find." John wrote more than 300 magazine articles and 12 books.



John Muir (Public domain; Picryl.com)

John's messages to Americans will continually inspire us to enjoy, study and to protect the wild -- where we can revive our souls. John speaks,

"Everybody needs beauty as well as bread, places to play in and pray in, where nature may heal and give strength to body and soul alike."

"God never made an ugly landscape. All that the sun shines on is beautiful, so long as it is wild."

"In God's wildness lies the hope of the world - the great fresh unblighted wilderness."

"Man must be made conscious of his origin and brought into right relationship with the wilderness so he sees that he is not a separate entity endowed with a right to destroy our common heritage, but rather that he is an integral part of a harmonious whole and know that his appropriation of earth's resources beyond his personal needs would only bring imbalance and beget ultimate loss and poverty for all."

In the account of Jesus calming a perilous storm, I find it interesting that his disciples did not ask him if he could, but instead asked, "do you not care that we are perishing?"

What a question for humanity.

The power of you. More than a hope.

Outdoor and Wildlife Preservation Award

Article & photo by Carolyn Cardile

The Outdoor and Wildlife Preservation Award has been given to someone in the community for "exemplary contribution toward enhancing, preserving and promoting the quality of the Lower Rio Grande Valley" by St. Andrew's Episcopal Church in Port Isabel at the Winter Wildlife Expo every year since 2007. This year the award was presented to Bob Severson.

Since early childhood, Bob has been fascinated by wildlife and wandering about in the outdoors. Growing up close to a large remnant native tall grass prairie, oak/hickory forests and a stream in northern Illinois nurtured his love of nature.

This led to a bachelor's degree in biology, wildlife and natural resources management. He became an outdoor and environmental education teacher to share his passion for wildlife, wild places and the environment with children for nearly 30 years.



Paul Cardile (L) presents award to Bob Severson (R)

Upon retirement, Bob and his wife Mary Ann traveled about in a motor home enjoying the North American outdoors and volunteering which led to Laguna Atascosa National Wildlife Refuge (NWR) in 2005 and a home purchase here the next year.

At the refuge they both worked in the visitor center, led bird and general nature tours, and worked in the ocelot research program live trapping and camera trapping ocelots. Bob has carpentry skills and with the help of other volunteers built two observation decks, a dozen guzzlers, and numerous bird watering features at the refuge and in the local area. He has accumulated over 8,000 volunteer hours at the refuge and has served on the board of Friends of Laguna Atascosa NWR since 2008.

Enriched by worldwide travel experiences and science based books, he has a good understanding of the impact of humanity on worldwide biodiversity and ourselves, and is therefore an advocate for the support of science and local, national and international wildlife and environmental organizations.

What's the difference?

Article & photos by Anita Westervelt, South Texas Border Chapter

There are two kingbird species in the Rio Grande Valley. **Couch's Kingbird (***Tyrannus couchii***)** was here first. It is a Texas specialty.

The newer resident is the **Tropical Kingbird** (*Tyrannus melancholicus*). Prior to the 1990s, its U.S. reach was mainly southern Arizona. In tropical America, the Tropical Kingbird is the most widespread. Its current range is the Lower Rio Grande Valley to northern Argentina.

Couch's Kingbird range, on the other hand, is South Texas and south to Belize and Guatemala. Couch's were considered a subspecies of the Tropical Kingbird until the 1980s.



Couch's Kingbird (Tyrannus couchii)

Kingbirds are in the genus Tyrannus, which is Latin for tyrant. They are passerines, which means perching birds – that's a foot thing: three toes directed forward, and one toe directed backward. They aren't so much tyrannical as they are noted for their fearless and aggressive defense of their breeding territories.

A most general description, or rather definition, of a kingbird is "any of various American tyrant flycatchers that are gray above and white, gray or yellow below," according to www.merriam-webster.com.

With that, how hard can it be to tell two kingbirds apart? According to the experts, Couch's and Tropical Kingbirds are virtually identical in appearance, therefore, in Texas, voice becomes essential in distinguishing the two species in the field. There are subtle differences: In Couch's Kingbird, the bill is shorter and thicker. The bill of Tropical Kingbird averages longer and is less to use the birds are sitting used to be other form.

tapered. Unless the birds are sitting next to each other for comparison, it is hard to judge those differences in the field.

Couch's Kingbird is a large, yellow-and-gray flycatcher. It has a slightly greener cast to the upperparts and a shorter bill than the more widespread Tropical Kingbird. (Source: Allaboutbirds.org)

Tropical Kingbird is a large and big-headed flycatcher with a long, heavy bill. Bright yellow below with a whitish throat. The head is gray with a darker gray ear patch. (Source: Allaboutbirds.org)



Tropical Kingbird (Tyrannus melancholicus)

For observing and documenting photos of the kingbirds onto <u>www.iNaturalist.org</u>, a phonetic spelling of the bird's song must be annotated in the notes section, otherwise, the observation will be categorized as merely "kingbird, Genus *Tyrannus*."

Vocalizations

Couch's Kingbird often includes a sharp introductory kip note, followed by breeeer notes. The dawn song often begins with a series of breer followed by s'wee, s'wee s'wee – which apparently is the call I have heard on a kingbird that hangs out on the power line at the garage bay door in the early mornings. I noted in my iNaturalist upload of that bird, that I heard: Spzzzz, spzzzz, spzzzz, spzzzz, A veteran verifier gave me an LOL and wrote he'd "never heard it described quite like that, but That works." In further research about their vocals, I found that the male makes a long, tzeeeeerr sound, according to All About Birds.

Tropical Kingbirds have a more monotone and metallic call, including a series of sharp, staccato pip-pip-pip notes that accelerate toward the end. Males have been described to sing a stuttering, syncopated series of high trills and twittering calls, pit prrrr pit pit prrrr, according to All About Birds. Tropical Kingbirds are active during the day and at night. They communicate using a series of vocalizations. One vocalization is the dawn song, which happens before daylight and stops once the sun is up.

Many popular bird identification sites include recording of vocalizations. Some of my favorites:

- Cornell University of Ornithology -- allaboutbirds.org
- National Audubon Society -- audubon.org
- Texas Parks and Wildlife Department -- tpwd.texas.gov
- American Bird Conservancy -- americanbirdconservancy.org
- Texas A&M University -- txtbba.tamu.edu
- Birds of the World -- birdsoftheworld.org
- World Birding Center theworldbirdingcenter.com

The name of the Couch's Kingbird immortalizes the naturalist, businessman and soldier Major General Darius Nash Couch, a respected soldier in the U.S. Union Army. Prior to the outbreak of the American Civil War, in 1861, Couch took leave from the military and conducted a scientific expedition in Mexico for the Smithsonian Institution for two years, in 1853 and 1854.

He gathered copious collections in all departments of zoology. Many new species were obtained by him as well as important discoveries respecting geographical distributions. Two species identified by Couch that bear his name are Couch's Kingbird and Couch's spadefoot toad.

Couch was an 1846 graduate of the United States Military Academy, along with classmate Thomas J. "Stonewall" Jackson who went on to be a Confederate General. (Source: biographical information from AmericanHistoryCentral.com digital encyclopedias)

A group of kingbirds are collectively called a coronation, court and tyranny of kingbirds. However, unlike most kingbirds, Tropical Kingbirds are seldom found in flocks, according to Audubon.org.

Creature-Watching Philosophies

Article & photos by M. Kathy Raines, Rio Grande Valley Chapter



"See anything?" or "See anything good?" ardent birdwatchers inquire. This is shorthand, of course, for: did you see any rare or especially flashy birds, like, say, the painted bunting? I too value that information.

Yet, regardless, I'm compelled to answer that yes, I did; I saw much: Great-tailed Grackles strutting and whistling, Red-winged Blackbirds burbling, "Conk-la-ree!" and a silver garden spider, with its Xshaped formation hammocked between prickly pear pads.

Silver garden spider in web

On nature walks, I do indeed have certain creatures in mind that I hope to see. If I'm overly bent on intended quarry however, I miss not only observing other wildlife, but the calm appreciation of a walk in the dirt, among foliage and along waterways. Eager to glimpse an alligator or two at a refuge one sultry Florida day decades ago—three weary children in tow—we spotted nary a gator, and I emerged frustrated. Yet, we likely tromped right by a veritable festival of insects, spiders, birds and other creatures my family and I lacked the patience and knowledge to appreciate.

Now far less acquisitive in my approach— I carry my bird list in my brain—I relish observing and studying creatures in my realm. Regardless of my guidebook study, perusal of birding sites and conversations, the creatures, free agents, do as they will.

Whenever I visit Sabal Palm Sanctuary near Brownsville, I do scour dried palm fronds near the resaca, hoping, at least once, to see the stunning speckled racer that forages there. I haven't seen one yet. Still, I'm met with unexpected delights.

At the sanctuary one late autumn afternoon, I spotted a bobcat and her cub walking along a pathway, pausing as they studied my scent when I stopped to snap photos. Scanning lofty, bare branches near the Rio Grande for the creator of an intricate springtime melody, I was surprised to see not a mockingbird, but a long-billed, brown, mottled-chested bird I'd never noticed before— a Long-billed Thrasher—a fellow mimid and equally talented songster.



Bobcat observed at Sabal Palm Sanctuary

Hearing a series of unexpected cries, I spent an hour or so one December afternoon observing a Gray Hawk as it hunted from a short tree along a boardwalk. A large coral snake slithered across an intersection of paths one hot, humid afternoon. In wintertime afternoons, a convergence of Turkey Vultures, both native and migratory, decorate the grounds with huge, cookie-cutter shadows and tickle ears with the crunch of their weighty landings into and risings from dried palm fronds.

While searching for various hawks along the Brownsville bike path north of Alton Gloor Boulevard, I found myself discovering and exploring Laguna fiddler crabs—which, till then, I hadn't realized lived so far from the coast.

We all differ in our approaches to enjoying nature, but for me, I do not enjoy myself as much when I'm overly set on a target and thus, open to disappointment. That said, however, I much appreciate the observations made by more goal-oriented nature lovers. Walking casually at Resaca de la Palma State Park in Brownsville this December, eager birders alerted me to the rare Roadside Hawk, a youngster that has been hunting in a meadow there. On my own, I would have mistaken it for the Red-shouldered Hawk, a common winter visitor. Though I never saw the Gray-collared Becard birders eagerly photographed that day, I was heartened to know of its presence.

And, birders on South Padre Island have pointed out countless warblers to me, though I've managed to memorize scant few. And I respect the observational skills of those whose nature watching is less casual than my own.

Like with everything—be it playing pickleball or discussing books—we bring along our own personalities and we all learn from one another. I am grateful to the many dedicated observers of creatures and aficionados of native plants who have assisted me along my merry way of educating myself and enjoying the natural world of my beloved home in the Rio Grande Valley.

Hello, Loeflingia!

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

Loeflingia squarrosa or spreading pygmyleaf is not widely documented in the Rio Grande Valley. It was identified by Al Richardson and Ken King several years ago in northwestern Hidalgo County, but is not in their book *Plants of Deep South Texas*.

Family: Caryophyllaceae (Pink Family)

Flower Month: February – August Bloom Color: White, Yellow Duration: Annual

Growth Form: Forb Armed / Unarmed: Unarmed

Leaf Complexity: Simple Leaf Shape: Subulate

Size Notes: Up to 5" tall Fruit Type: Capsule

Online sources for the information presented in this photo story:

- Lady Bird Johnson Wildflower Center https://www.wildflower.org/plants/result.php?id_plant=LOSQ
- U.S. Fish & Wildlife Service <u>https://www.fws.gov/species/spreading-pygmyleaf-loeflingia-squarrosa</u>
- United States Geological Survey
 <u>https://warcapps.usgs.gov/PlantID/Species/Details/4136</u>
- Burke Herbarium Image Collection
 <u>https://burkeherbarium.org/imagecollection/taxon.php?Taxon=Loeflingia%20squarrosa</u>
- iNaturalist <u>https://www.inaturalist.org/observations/197868630</u>



Focusing on Rio Grande Valley Native Plants

Article by Roberto Gaitan, Rio Grande Valley Chapter

I did not join the Native Plant Society of Texas when I first heard about the organization. Within the Rio Grande Valley, we had two Texas Master Naturalists organizations and even the Native Plant Project. Why would we need yet another organization?

The truth is native plants is only one of at least a dozen or more topics we learn about and can focus on as Master Naturalists. You can certainly find plenty of fellow enthusiasts that like native plants but there is only so much you can do when your organization looks to champion all aspects of our region.

The Native Plant Project clearly has experts in the field with excellent speakers and programs. They recently brought their meetings online and are hoping to resurrect their field trips. Nevertheless, I was looking for a combination of the breadth of the Master Naturalist program with the focus of the Native Plant Project.

I began to take a closer look at the information the Native Plant Society of Texas was sharing, the workshops they conducted, and the constant news and activities their members were promoting. Here was a group that was 100% dedicated to Texas Native Plants, held two symposiums a year, worked to Bring Back the Monarch to Texas, developed their Native Landscaping Certification Program, and so much more.

So, about a year ago, I decided to become more engaged with the group. I attended their Fall Symposium and I have almost completed their landscaping program. I am also their Social Media

Team Lead. But there was something that bothered me. I could see a mysterious line drawn from San Antonio to Corpus Christi that defined the southern border of Texas. The Rio Grande Valley and our unique environment and plant species were not covered and not included in the existing Native Plant Database and landscaping program of the Native Plant Society of Texas. For all their great programs, they were missing the southern tip of Texas!

But how could you blame the organization given there was no local chapter to speak for our region. As a result, on February 3, I petitioned and received approval to officially create a Rio Grande Valley Chapter of the Native Plant Society of Texas!



Rio Grande Valley Chapter recently added to Native Plant Society of Texas

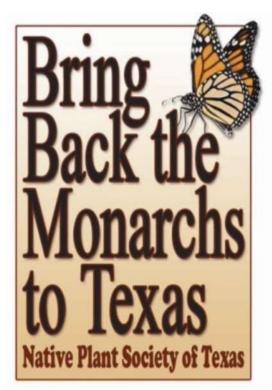


Great! ...but now what? Now the fun begins!

- We have a list of volunteers willing to take officer positions:
 - President Roberto Gaitan
 - o Vice-President Eva Ryan
 - o Treasurer Maki House
 - Secretary James Grizzard
 - \circ Communications Richard Blanton

These are interim positions until we hold an official vote by chapter members.

- We have a chapter page off the state website. It is a work in progress: <u>https://www.npsot.org/chapters/rio-grande-valley/</u>
- We are working on defining our native plant list to incorporate into the Native Landscaping Certification Program for our region. Hopefully we can have our first class this coming fall. <u>https://www.npsot.org/our-work/class-schedule/class-descriptions/</u>
- We will champion the Bring Back the Monarch to Texas initiative. Building a suitable habitat for the monarch and all pollinators is now more important than ever as urban development continues across the RGV. <u>https://www.npsot.org/our-work/bring-back-themonarchs-to-texas/</u>
- We will look to bring in the NICE program so that we can build a closer partnership with our local nurseries. <u>https://www.npsot.org/our-work/nice-native-plant-partners/</u>
- We will ensure our native plants are properly entered into the Native Plant Database. A central location for plant information is beneficial for not only veteran gardeners but for people wanting to set up their first pollinator garden.



https://www.npsot.org/resources/native-plants/native-plants-database/

Native Plant Database



- We will ensure the invasive plants of the valley exist within the Invasive Plants Database to help everyone identify them, consider how to stop their spread, and suggest alternative, native plants. <u>https://www.npsot.org/resources/invasive-plant-database/</u>
- Encourage our members to write articles for the statewide, monthly newsletter and quarterly magazine. <u>https://www.npsot.org/resources/member-magazine/</u>
- Promote the Spring Symposium and Fall Symposium as great learning opportunities whether through excellent speakers or camaraderie with fellow, like-minded champions of native plants. <u>https://www.npsot.org/our-work/symposium/</u>



There are great opportunities for this new organization to promote the conservation and use of our native plants. There are so many opportunities for outreach programs, for creating educational experiences, and so many places to set up sample habitats. There is a great movement across the country and across Texas that encourages the use of local native habitat. I hope you join the Rio Grande Valley Chapter – Native Plant Society of Texas and become the torchbearers for our home. https://www.npsot.org/join-or-renew-membership/



Milestones & awards for December 2023, January, and February 2024



Congratulations!

Rio Grande Valley Chapter

Newly Certified Texas Master Naturalists Michelle Serrano '23

100 Hours Milestones

Josue Ayala '22 Joyce Baer Halpern '23 Richard Blanton '20 Diana Cepeda '23 Kriste Grau '23 Susan Manning '23 Dan Martin '22

250 Hours Milestones

Javi Gonzalez '17 Mary Grizzard '23 James Grizzard '23

500 Hours Milestones

Michelle Cano '22

Teresa DuBois '17

1000 Hours Milestones

Chery Brummett '22 Diane Hall '20 Carol Rausch '14

5000 Hours Milestones

Carolyn Cardile '09

WELL DONE !!



Milestones & awards for December 2023, January, and February 2024



Re-certification for 2023*

Evelyn Alpert Josue Ayala Carolyn Cardile Diana Cepeda Chuck Cornell Kathy Coster Teresa DuBois Keith Foerste Michele Gardner Kriste Grau Alex Gomez Javi Gonzalez Joyce Baer Halpern Susan Kerens Kamala Platt Kathy Raines Barbara Rodriguez Lizzie Romero TiraWilmoth

*87 members earned the Texas Ecoregions re-certification pin for 2023 throughout 2023.

WELL DONE!!



aturalist.

South Texas Border Chapter

Congratulations!



Milestones & awards for December 2023, January, and February 2024

Recertification 2024

Ellie Kidd

River Rivera

Anne Mayville

Anita Westervelt

Velma Schmidt

Amanda Hernandez

Jani McGee

Jack Austin

500 Hours

Ann Whitney Mary Levandoski

WELL DONE!!

250 Hours

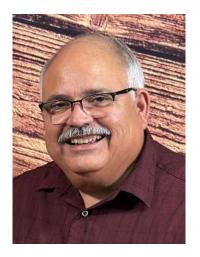
Ellie Kidd Lori Archambault Velma Schmidt

100 Hours Amanda Hernandez

Contributors to this issue of The Chachalaca



Roxanne Balousek



Robert Cepeda



Joni Gillis



Carolyn Cardile



Roberto Gaitan



Jim Grizzard



Mary Grizzard



M. Kathy Raines



Diane Hall



Camille M. Rich



Velma Schmidt



Anita Westervelt

Rio Grande Valley Chapter Leadership Team 2024



Officers		
	President	Robin Gelston
	1 st Vice President	Emma Gonzalez
	2 nd Vice President	Dan Martin
	Secretary	Evelyn Alpert
	Treasurer	Betsy Hosick

Directors and Committees

Past President Roberto Gaitan Membership Joni Gillis Hours review: Adrian Ramos, Norma Trevino New Class Barbara Peet

Education Committee: Robert Gaitan, Amy Daley, Barb Peterson

New Class Rep Communication Robert Cepeda

Mara Lee Moats

Outreach: Marilyn Lorenz

Historian/Archivist: (open)

Newsletter Editor: Diane Hall

Facebook Editor: Robert Gaitan

Website: Eryn Wingert, Chet Mink, Richard Blanton

Advanced Training Teresa Du Bois

Volunteer Service Project David Batot

At-Large: Winter Texan (open)

At-Large: Pam Bradley, Thomas Butcher, Jose Palmos, Rebecca Guera

Advisors

Texas AgriLife	Tony Reisinger
Texas Parks & Wildlife	Javier de Leon

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 2024

Officers

Immediate Past President

Membership Director

President First Vice President Second Vice President Secretary Treasurer

Anne Mayville Roberta Allen Jennifer Rektorik Velma Schmidt Gail Rice/Vanessa Pena



Directors

Donna Otto Rohny Escareno

Awards: River Rivera New Class Application: Rohny Escareno, James Gerry New Class Mentors: River Rivera, James Gerry Hours review/approval: Kathy Tonn, River Rivera New Class Director James Gerry **Communication Director** Anita Westervelt Publicity: Anita Westervelt Newsletter: participate with RGV Chapter Webmaster/IT: Joseph Connors Outreach Director: Roberta Allen Historian/Archivist: Kathy Tonn Advanced Training Director Judy Perkin Volunteer Service Project Director Volunteer Opportunity Director At-Large Director Winter Texan Director Mary Baker New Class Representative Chapter State Representative

Jennifer Rektorik **River** Rivera Robert Hernandez **Roxanne Balousek** Anne Mayville

Advisors

Texas Parks & Wildlife Advisor

Texas AgriLife Advisors

Javier DeLeon **Tony Reisinger**



EXAS A&M EXTENSION

