



Rio Grande Valley Chapter, Texas Master Naturalists

# The Chachalaca

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The Rio Grande Valley Chapter Texas Master Naturalist 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.

## And he's off again!

Article & photos by Anita Westervelt, South Texas Border Chapter

It was a late July Dog Day Afternoon – perfect for a tram ride at Bentsen-Rio Grande Valley State Park in Mission. South Texas Border Chapter Texas Master Naturalist, Jani McGee, drives the tram Thursday afternoons from 1 to 4 p.m., making rounds at the top of each hour. Bring a camera, grab a cold can of lemon iced tea at the visitor's center and hop on the tram. You can ride as long as you like. Jani accommodates stops for photo ops, so long as she's on time getting back to base.



Greater Roadrunner charging down the road

Toward the middle of our first round, we were about to take off from a stop when something in the distance was approaching at speed down the middle of the road. I aimed the camera through the tram windshield, ready to get a shot of whatever it was. As it got closer, Jani said, “roadrunner.” I began focusing and shooting. The bird was charging hell-for-leather, chattering away, like it was excited to see us.

As it neared the tram, it scooted off the road and slowed pace, obviously familiar with the vehicle. I slid out of my seat and quietly walked to the rear and captured more photos. And just like that, I had my bucket-list-photo of a roadrunner! And then it was off again!

**Greater Roadrunner (*Geococcyx californianus*)** is a bird that prefers sprinting to flying; it can run to speeds around 20 miles per hour – the fastest known ground speed for a bird of flight, according to [blog.eyewire.org](http://blog.eyewire.org). Before you ask, coyotes can reach speeds more than double that of a roadrunner.

Roadrunners are a large slender bird about 20 to 24 inches in length with a wingspan of 32 inches – when they choose to reveal it, which displays a white crescent in their primary feathers. The overall feathers are a streaking of tan, brown/black and cinnamon colors. The birds have a long bill tipped with a hook, a shaggy crest, tan legs and blue feet. There is a patch of bare skin around and behind the eye that is blue proximally to red to orange distally. Plumage is similar in both sexes.



Subtle, but striking plumage of Roadrunners

Roadrunners run on the ground in pursuit of a meal, seldom flying for prey. They are agile on the ground, racing along roads and paths, using their long tail as a rudder. They eat insects, snakes, lizards, rodents, small birds, and some fruits and seeds. They can jump, which allows them to take insects from the air and snag hummingbirds and bats in flight. They don't fly so well; flying is limited to gliding from nest to perch to ground or perch to perch or to seek a hiding place. Their predators are raccoons, hawks and coyotes.



Roadrunners prefer running over flying when after prey.

A shy bird and often solitary, roadrunner pairs are known to hold their territory all year, which may encompass an area of a half-mile in diameter. They are nonmigratory. Although rare to see a gathering of these birds, collective nouns for such a sight would be a marathon or race of roadrunners. They are monogamous birds and may mate for life, renewing their bonds each spring with a courtship dance.

While adult roadrunners are terrestrial, their nest-building will be in shrubs, trees or cactus from two to 12 feet above ground. The male brings twigs to the female, who builds a compact nest, lining it with grass, mesquite pods, leaves, feathers, snakeskin and flakes of horse and cattle droppings. A finished nest may reach more than 17 inches in diameter and eight inches high. The female will lay two to eight eggs and have one to two broods a year, depending on food resources. Both parents care for the young and may continue to work on the nest during incubation and possibly continue to build up the sides of the nest as the chicks grow, according to All About Birds.

Greater Roadrunners are year-round residents of Texas, Oklahoma, New Mexico, Arizona and southern California and found throughout eastern, central and northern Mexico. The Lesser Roadrunner (*Geococcyx velox*) range is along the west coast of Central America from northern Mexico to Nicaragua.

Interestingly, the Groove-billed Ani and Yellow-billed Cuckoo are Valley summer resident birds in the same family as the greater roadrunner, the Cuculidae family.

The Greater Roadrunner is the newest Texas conservation license plate in a Texas Parks and Wildlife Department program that helps raise money to support and expand wildlife programs, habitat conservations work and nature tourism in Texas. It can be ordered online:

[https://conservationplate.org/nature-tourism.phtml?utm\\_campaign=clp&utm\\_content=8.9.2022&utm\\_medium=email&utm\\_source=family](https://conservationplate.org/nature-tourism.phtml?utm_campaign=clp&utm_content=8.9.2022&utm_medium=email&utm_source=family)



## Mangrove Yellow Warblers nest at SPI Birding & Nature Center

Article & photos by Javier Gonzalez, Rio Grande Valley Chapter

There is a new resident breeding species along the South Padre Island Birding Nature Center & Alligator Sanctuary's (SPIBNC&AS) boardwalk trail, but technically, it currently stands as a subspecies, rather than a full species. "Mangrove" Yellow Warbler (*Setophaga petechia sp. oraria*), is a subspecies of the most common North American warbler, the Yellow Warbler (*Setophaga petechia*). Yellow Warblers are neotropical migrants that breed in northern woods across the northern half of the U.S. as far north as Alaska. They migrate through our area on the way to and from wintering grounds in the tropics, with some rarely wintering in the Rio Grande Valley.

Mangrove Yellow Warblers, on the other hand, are non-migratory and are special to mangrove habitats, making them strictly coastal and mainly tropical since mangroves are tropical trees. They reach the northern end of their range in the subtropical southern coastal tip of Texas, making them an RGV coastal specialty and a sought-after bird by visiting birders.

There are times of year during migration when both, "Northern" Yellows and "Mangrove" Yellows can be seen at the SPIBNC&AS for good comparison. The northern yellows seem a tad smaller, daintier, brighter yellow, where the mangrove yellows are bit more robust, are more of a yellowish green in color (especially the females), and the adult males have a full red head!



Male Mangrove Warbler

Mangrove Yellows first started to be seen along the boardwalk in the fall of 2019 when an adult male spent the winter in the sanctuary where it attracted and thrilled lots of birders! Beforehand, the only way birders were able to get the best chance at seeing one was by taking a boat tour to the mangrove islands at the end of the Port Isabel boat channel just west of Long Island Village with the Dolphin Whisperer, Scarlet Colley, or by taking a trip to the mouth of the Rio Grande at the south end of Boca Chica Beach. They were first recorded in the U.S. back in the early 1990's in the tall mangroves along the riverside at Boca Chica Beach.

In the time since, these birds have now become more common and have settled into our area following the northward expansion of the Black Mangrove's (*Avicennia nitida*) range over the last few decades, which is related to a warming climate. Milder winters and longer periods between hard freezes have allowed Black Mangrove to make way up the Texas coastline.

If you talk to the locals that have lived in the area their whole lives, they'll tell you that there were hardly any mangroves along the shores of SPI thirty years ago. I remember visiting the SPIBNC when it opened nearly fourteen years ago and the habitat along the boardwalk was mainly a grassy saltmarsh. It has now shifted to being a Black Mangrove Forest for the most part, and a big one

since the mangroves here grow larger because they get freshwater from the water treatment plant that supplies the water to our constructed ponds.

Coastal biologists are concerned and a bit unsure about what consequences to coastal ecosystem functions the expansion of black mangroves could have on the Texas coastline as it creeps into saltmarshes, but they got a bit of reprieve last year. The “Big Texas Freeze” of 2021 finally pushed the mangroves back some as a good majority of them north of Port Mansfield froze. About a quarter of the mangroves at the birding center also froze, which caused me to worry about how the warblers would react. I first I thought wouldn’t see Mangrove Yellow Warblers for a while, but they survived just fine and even nested for the first time in our habitats this past summer of 2022!

In the years since their first sightings along the boardwalk in 2019, it seemed like mainly adult or immature males would come in to winter in the area, they’d be counted during Coastal Tip Christmas Bird Counts, stay through the season, then they’d start singing their hearts out in the spring (sometimes perched right on the boardwalk rails!), their distinctive song heard across the mangrove forest (similar sounding to northern Yellow Warblers), but ultimately, they’d move on. This past winter though there was a surprising increase in number, and some females were noted!



Female Mangrove Warbler

Come spring the males started singing as usual, but this time, instead of the song disappearing as the summer set in, I heard their song deep into the season, they didn’t show face as much as in the springtime, but I knew they were around. Then one overcast morning in July, I came up to a frenzied female busily foraging for caterpillars to feed its young that was following her around. A first confirmed breeding record for the SPIBNC!



Juvenile Mangrove Warbler

This bird is fast becoming a symbol of the SPIBNC as it is currently the only birding center in the country where this subspecies can be seen, so it is sure to continue to attract visitors to the center! I’ve continued to get good views of the young juvenile bird born here in the time since. The birds along the boardwalk get quite used to people and give excellent viewing opportunities. I’m starting to get the same vibe from this new, SPIBNC bred, Mangrove Yellow Warbler!

## South Texas Ecotourism Center: Introducing future generations to ecosystem preservation and restoration

Article & photos by Ed Meza, Rio Grande Valley Chapter

For the month of July, the South Texas Ecotourism Center offered a four-week summer camp to students ages seven to ten on Tuesdays through Thursdays. The goal was to introduce the children to the preservation, restoration and education of our various rich ecosystems in the Rio Grande Valley and South Texas.

The first week focused on native plants. Students learned how to keep a journal of their lessons and findings. They explored the life cycle of plants, created miniature ecosystems, played nature-based games, watched nature movies and gave presentations of what they learned that week.



(Above) STEC Educators Michael Flores and Pablo Medrano work with students on the water cycle.



(Left) Michael Flores and campers observe evaporation experiment.

The second week focused on birds. Campers learned about the structure of birds, native and migratory birds, as well as raptors and raptor identification.

On the third week, students learned about native wildlife. Activities focused on wildlife habitat, animal footprints, and what animals eat. During the final week, the students learned about butterflies and insects. They explored butterfly and insect structure, habitat and food. They created butterflies as an art project. Students participating were from Laguna Vista, Port Isabel, South Padre Island, Bayview, Los Fresnos, Brownsville and Cd. Victoria from Mexico.

Staff and volunteers, including Texas Master Naturalists Marilyn Lorenz and Madeleine Sandefur, shared their knowledge and experience with the students and made the classes more interesting.



Blue Marlin Supermarket of South Padre Island sponsored the entire summer camp with a generous donation. The summer camp ended with a luncheon for the students and their parents, volunteers and staff. Gift bags, STEC T-shirts and certificates of participation and appreciation were given out.

What made this summer camp special was the use of our 10 acre site which gave the students an opportunity to experience the beauty of nature in one location. STEC interprets the six major types of habitats found in the Rio Grande Valley including the coastal prairie, lomas, savanna, thorny brush forest, salt prairie and agricultural. Interpretive panels with QR codes, inside classroom and lab, outdoor classrooms, lookout platform with binoculars and telescopes, outdoor displays with sculptures, ponds, agricultural garden and WiFi are useful tools to enhance learning.



The lookout platform provides observation tools and exciting views for students.

Education is the major goal of the center and this year's summer camp focused on our youth. In the fall, we plan to have a speaker series, seasonal events, and evening events.

The South Texas Ecotourism Center is a department of Cameron County and is free to the public. It is open daily from 8 am to 5 pm and is located at 501 W. State Highway 100, Laguna Vista, Texas. For information please call (956) 772-0210. Please check out our webpage [www.stec-lv.org](http://www.stec-lv.org) and FB page: [www.facebook.com/STECLV](https://www.facebook.com/STECLV)

## **Tropical Orb Weavers**

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

“I’m going out to check on my spiders!” I declared as I traipsed into the darkness for one last look at backyard wildlife. No, of course, they’re not *my* spiders. Wild creatures are not pets. Yet, I became oddly attached to these two tropical orb weavers, which, each night this June, wove gigantic geometric masterpieces in roughly the same locations along the eaves of our shed.

I admire their mastery, industry, and rapt attention to detail. When my dog or I clumsily ripped a section of a spider’s three or four feet of delicate webwork, the diligent creature, not stopping to scold, unfurled new silk and went right to work repairing the damage. To dine that night, the spider required a massive web whose sticky parts would entrap mosquitoes and other insects. Such is a tropical orb weaver’s evening.

Many nights I watched as an orb weaver made its detailed creation, first making a bridge between boards, sometimes repeating its steps to thicken silk strands, then dropping on a thread it fastened to the bridge, expanding and reinforcing the structure before it began its spirals. It spins silk of various thicknesses and stickiness.



Tropical orb weaver on bridge and beginning web

These orb weavers, like many, create their elaborate bicycle-wheel webs each evening and devour these protein-rich constructions before daybreak, leaving only support lines for the next day’s creation. In daytime, they conceal themselves in a nearby leaf or man-made structure.

Once it has finished construction, the spider sits upside down, legs resting on radial spokes which report vibrations, from which the spider can discern the wind, a mate, leaf or a struggling victim. It bites an insect, immobilizing it, then wraps it in silk before consumption.

The goddess Athena must have transformed gifted weaver Arachne into an orb weaver, with its stunning, intricate web, when she bested the goddess at a weaving contest.

One evening, no silky, geometric patterns obstructed my nighttime view; one orb weaver had disappeared. Was it me? I thought. Was it the nightly, albeit brief, glare of my cellphone near its face? My dog’s or my occasional slashing of its web? Telling my five-year-old granddaughter that maybe a bird, lizard or other creature ate it, she replied, “No, Grandma, maybe it said, ‘I’m getting bored of this place! I think I’ll move!’” Soon, the other spider had disappeared, too.

Joseph Connors, spider enthusiast with the South Texas Border Chapter of Texas Master Naturalists, noted that, since these orb weavers are nocturnal, “diurnal predators would need to find them early in the morning while they are taking down their web or find them in their hiding spots.” Spiders are rich in the amino acid taurine, he said, which is “important to early baby bird development.” The orb weavers I had observed could have died of old age, he surmised. They don’t usually live longer than a year.



A tropical orb weaver may be abducted and paralyzed by a mud dauber wasp, which places spiders in cells of its adobe-like nest to feed its soon-to-hatch larvae. Here is a video demonstrating this phenomenon: <https://www.facebook.com/tiffany.kersten/videos/1189665845147511/?flite=scwspnss>

The tropical orb weaver (*Eriophora ravilla*) derives its genus name, which it shares with other orb weavers, from Ancient Greek terms for “wool-bearing”. A female tropical—which one generally sees more frequently— can reach almost an inch in diameter, while a male is half to two-thirds its size. Females, whose bodies are covered with hair-like spines, have round abdomens. Markings on their backs, which vary, are often streaked with greenish or whitish colors and may bear a rectangular or diamond patch. The smaller male usually has a dark gray abdomen, banded legs and a deep groove on its carapace. “Juveniles of this species,” Connors said, “have a nice green spot on their back” and “two eye spots on top of the abdomen to confuse predators.”



Tropical orb weaver resting on web spirals

The tropical orb weaver, a common local spider, thrives in woods, orchards and yards, especially along the Gulf Coast, and southwards into Mexico, Central America and northern South America.

A tropical orb weaver, like any local spider other than the black widow or brown recluse, poses scant danger to Valley residents and pets, unless they have an allergic reaction to its extremely uncommon bite. Also, spiders help cut down on mosquitoes.

We do ourselves, and especially our children, a grave disservice when we further the myth that spiders are scary or “yucky”—despite our chagrin when, after a nighttime collision with a web, we find spider silk glued to our arms and hair. (It’s much worse for the spider!).

Also, unlike other fascinating locals—say, the beautiful speckled racer or Painted Bunting—tropical orb weavers and other spiders are busily constructing or sitting in their webs right outside our backdoors. From a bedroom window, we’ve enjoyed watching excellent specimens on webs hammocked between spikes of a century plant.

## The not so bad news about grasshoppers

Article & photos by Anita Westervelt, South Texas Border Chapter

I cringe every time I see a grasshopper. Sure, I'll stop and photograph them, but then turn my back, quelling the panic that could so easily arise. Many Midwesterners recall the summer of the near defoliation in the 1990s by grasshoppers – if not the year, certainly the event.

I had a cute little cloth cat sandbag cup holder that I kept on my desk at home to hold my hot or cold drink. I came in from doing yard work one afternoon to find a large grasshopper eating away at the cloth. I have a lot of Kansas grasshopper stories all prior to the iNaturalist data base and apps on phones; I have no idea what kind of grasshoppers they were, other than destructive.

The millions of grasshoppers eating away at southeast Kansas flora weren't quite the plague of biblical proportion, although damaging, but this story is about a couple of grasshoppers found locally and ones that don't precipitate that sort of fear -- well, not so much, anyway.

**Bird grasshoppers are in the genus *Schistocerca*.** They are called bird grasshoppers because they are strong fliers and can fly over long distances, and yes, they also do that startling spring-jump that only grasshoppers can do. Bird grasshoppers have quite a coast-to-coast range, and they eat a wide variety of plant matter. Many of them can swarm like locusts, but BugGuide.net offers that they are “much less prone to swarming behavior.”



Gray bird grasshopper at moth light

These grasshoppers are sometimes quite large, up to nearly four inches when idle. Their coloring blends with grasses and stems; food crops are a food source for bird grasshoppers, as are ornamental garden plants, shrubs and trees. “They can be pests in large numbers, but in North America their impact does not devastate,” according to Insectidentification.org.

The grasshoppers become sexually mature at 3 to 4 months of age. In Texas, they can be seen at any time of the year in any stage of life cycle, but the adult is less active during the winter and fall. Mating usually occurs on warm nights in summer, and often around bright lights.

Bird grasshoppers have short antennae and overlapping plaits on the legs. Many species look so similar it is hard to tell them apart in the field.

Grasshoppers in general are possibly the most ancient living group of chewing herbivorous insects, dating back to the early Triassic, around 250 million years ago, according to Wikipedia.org. For that, I give them a hearty salute.

I've photographed two species of bird grasshoppers in my yard.



Gray bird grasshopper

**Gray bird grasshopper (*Schistocerca nitens*).** Also known as the vagrant grasshopper, it is closely related to the desert locust. They are native to southern North America including Mexico and the southwestern United States from California to Texas. They grow to about 3.7 inches in length and are known pests throughout the year in Texas. Adult gray bird grasshoppers may eat pest insects in the garden, such as aphids, mites, and scale.

**Obscure bird grasshopper (*Schistocerca obscura*).** This species is common in open woodlands and fields in the southern United states from Arizona to Florida and in Pennsylvania. They can reach more than three inches in length. While grasshoppers will generally eat almost anything green, this species favors plants in the citrus family, but will eat many different broad-leafed plants.



Obscure bird grasshopper

The genus *Schistocerca* also includes species that swarm in devastating hordes in Africa and South America, but our local species are not usually numerous enough to be very destructive, according to Austinbug.com.

On an up note, because of the size of grasshoppers, they are an important food source for other animals, like skunks, birds, lizards, mantids, spiders and rodents. In their own way, grasshoppers have a positive impact on the ecosystem. Their frass contributes nutrients to the ground as fertilizer for the plants.



## Sea Turtle Adventures

Article & photos by Robin Gelston, Rio Grande Valley Chapter

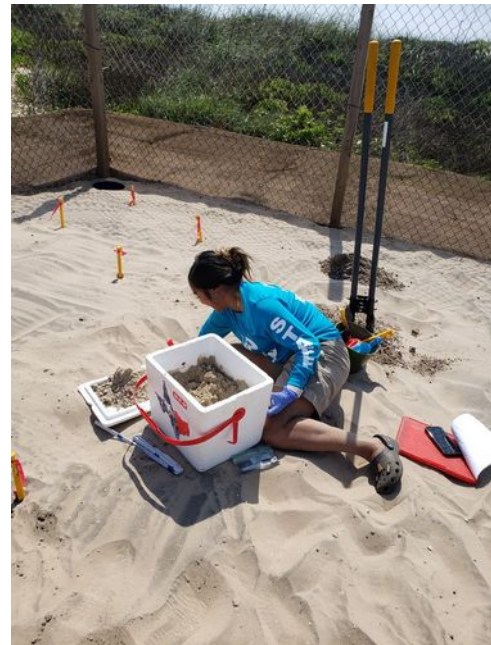
So what does a science nerd, with a BS in Biology and a MS in Environmental Science, do in retirement? When I was asked back in 2019 about my future plans, I realized I had no idea. It was time to investigate. I did know that I could not just sit down for too long as it would drive me crazy and I am not good at twiddling my thumbs.

In preparation for my February 2022 retirement, I decided to join the January 2019 Texas Masters Naturalist (TMN) class and subsequently started volunteering at Sea Turtle, Inc. (STI). Of course, I had to do the most challenging things (that is just my nature) so the all-terrain vehicle (ATV) patrol seem right up my alley. With the spouse and the kids telling me I was too old that was more of a reason to do it – so I could at least show them and myself I could still do it.



Kemp's ridley sea turtle returns to sea after laying her eggs.

ATV patrol involves a six to seven hour drive on the beach from STI to the Port Mansfield jetties and back, approximately 64 miles. Although it can be extremely tiring, it has also been extremely satisfying. ATV patrolling allows you time to be totally alone to think, with the sounds of waves breaking against the shore and the wind in your face.



STI staff members Tess (left) and Dena (right) locate and re-bury Kemp's ridley sea turtle eggs in corral.

This year I have seen Kemp's ridley sea turtle tracks and a real momma Kemp's ridley turtle returning to the sea after laying her 123 eggs. I watched Dena placing eggs in the corral so that the eggs could be protected from predators until they hatch. I also got to identify a green sea turtle false crawl. This means the momma turtle crawls up the beach and around the dunes without finding a satisfactory place to lay her eggs. She then carries her eggs back with her to the sea to try again another day. So, this year has been a great year.



Green sea turtle false crawl

However, ATV patrolling is also a sensory overload as you are looking for turtles to come out of the surf, tracks going up the beach into the dunes, and looking into the dunes for a disturbed area where they might have created a nest to lay their eggs. Of course you are doing all this while driving an ATV at a steady pace of 10 mph, along the beach in the perfect location where you are not too high or too low on the beach so you can see the tracks, but make sure you do not run over holes or trenches made by beach-goers.

As this year's nesting season ended, it was noted that it was a record year! As of August 29, 2022, there were 103 nests found, 10,011 eggs collected and 6,409+ hatchlings released. STI had six public hatchling releases which they announced at 6:00am on the morning of the release.



One of the sad things about being out on the beach looking for the endangered Kemp's ridley sea turtle, especially after a holiday weekend, is all the trash and garbage left behind. South Padre Island beach is a special place which should be protected and taken care of. Please remember that if you take an item to the beach you should bring it home to recycle, reuse or dispose of properly.

Beach litter is unsightly and unsafe.

Would like to help with sea turtle conservation? There are several ways and volunteering at Sea Turtle, Inc. is just one of them. At STI you can either foot or ATV patrol, help in the office or store, or you can volunteer at one of the numerous beach cleanups that occur on SPI or Boca Chica. Boca Chica beach is also a site for nesting turtles.

## Texas Symbols

Article & photos by Linda Butcher, Rio Grande Valley Chapter

The Texas Legislature has designated 72 “official” state symbols over the years. The broad collection of favorites ranges from the beautiful blue topaz, the state gemstone to the tough prickly pear which is the state plant.

In 1901 the Texas Legislature adopted the BLUEBONNET as the state flower. *Lupinus subarnosus* was the species chosen. It’s also known as buffalo clover, wolf flower and el conejo. It is said that one reason it was chosen is that the beautiful blue flowers resembled the bonnets worn by the pioneer women.

While *Lupinus subarnosus* species was originally chosen, it was the least attractive. In 1971, the legislature decided to combine all the lupine species that grow in Texas as the official state flower.

Although the flowers are beautiful, care should be taken if planting bluebonnets in your home landscape as the flowers are toxic to humans and pets if eaten. The most popular and widespread variety is *Lupinus texensis*. It prefers gravely well drained soil and full sun.



Texas bluebonnets (*Lupinus texensis*)

If you’re lucky when looking into a sea of bluebonnets, you might see a rare white or pink one. Legend says that while on the way to church an elderly grandmother and her two grandchildren found a white and a pink bluebonnet. She explained to the children that the white one represented the Lone Star and that some of the white ones changed to pink representing the blood that was shed at the battle of the Alamo. The pink variety continues today to stand for the battles that our ancestors fought for Texas freedom.

Texas historian Jack Maguire once wrote “The bluebonnet is to Texas as the shamrock is to Ireland and the tulip is to Holland.”

The LIGHTNING WHELK was designated as the state shell of Texas in 1987. It’s one of the largest shells in the Gulf of Mexico and can be found all along the Texas coast. Its unique shape makes it easy to recognize. The whorls coil in a counterclockwise direction with the opening on its



left. This spiraling profile is shared by few other shells. On rare occasions a right-handed variety can be found.

Its common name comes from the lightning-like colored stripes that run along the side of the shell. As the shells age, the stripes fade. The thick-walled shell protects the sea snail or whelk from

predators and heavy surf. As the whelk grows it adds another layer to the outer edge of the shell.

It takes 10 to 20 years to grow to normal maximum size of eight inches in length, but offshore specimens have been known to reach 16 inches. It can withdraw its soft body into its shell and close the opening with a trap door called an operculum.

Lightning Whelks are primarily carnivores. They prefer small clams and oysters.

The whelk reproduces annually. They mate during the cooler autumn months and lay their eggs in the early spring. The egg case is disc shaped and is attached to a tough cord-like string. It can contain 50 to 175 egg capsules. Each capsule contains as many as 200 eggs. The eggs hatch and grow through all the larval stages within the capsules. They emerge as fully formed miniature whelks during late spring and early summer.



Lightning Whelk shells, operculum and egg case

There are strict rules regarding collecting the live shells. You must have a valid Texas saltwater fishing license. There is a closed season for harvesting whelks as well as a few other species on South Padre Island from November 1 through April 30. To avoid any problems, check with Texas Parks and Wildlife for all rules and regulations. The local shell club discourages the collection of any live shells for conservation reasons.

The third and last symbol for this article is one of my favorites, the TEXAS HORNED LIZARD (*Phrynosoma comutum*). It was adopted as the state reptile in 1993. It is known by several names such as horny toad and horned frog. As the horned frog, it is the mascot of Texas Christian University in Fort Worth. It is one of about 14 North American species of spikey-bodied reptiles in

the genus *Phrynosoma*. Its lineage can be traced back to dinosaurs. In 1977 it was put on the threatened species list.

There is good news for this little lizard. A coalition of zoos and wildlife scientists released 204 captive-bred hatchlings into the wild in 2021. One hundred of them were hatched at the Fort Worth Zoo. There is also evidence that previously released lizards are now reproducing in the wild.



There is also evidence that previously released lizards are now reproducing in the wild.

They can be found in arid and semi-arid habitats in open areas with sparse vegetation. They prefer loose sand or loamy soils since they dig for hibernation, nesting and insulation.

Texas horned lizard (*Phrynosoma comutum*) at Laguna Atascosa—photo by Diane Hall

Horned lizards range from Colorado and Kansas to Northern Mexico and from Southeastern Arizona east to Texas. They have been introduced to the Carolinas, Georgia and Florida. Most records from East Texas, Louisiana and Arkansas are thought to be escaped pets and not part of the species natural range.

They feed on ants, grasshoppers, crickets, beetles and spiders. However, ants are their preferred diet.

It is a fierce looking little lizard and when threatened, it can inflate its body to frighten away its enemies. As a last resort in self defense the horned lizard can squirt blood from its eyes.

The horned lizard plays an important role in Native American cultures. It is seen as a symbol of strength and healing.

## A brief look at a South Texas specialty bird – Couch's Kingbird

Article & photos by Anita Westervelt, South Texas Border Chapter

Flashes of yellow dart through the branches of a honey mesquite tree outside my kitchen window in the late afternoon. They're Couch's Kingbird (*Tyrannus couchii*) and I think there's one or two adults and possibly four young from this year's brood.

These birds are a permanent resident in the very tip of Texas. We've had two or three adults for as long as we've had the house. Their morning habit is to sit on the utility wire near the garage. I've called, "good morning" to them for years; they ignore me. They fly from the wire, snag insects midair, then perch in the tall reaches of an old avocado tree. Before the freeze of winter 2021, when the tree was full of leaves, they nested at the very top.

This year, their late afternoon routine is to hang out in the mesquite tree, putting on a show for us as we prepare dinner and posing long enough for photos through the window between short sashays to grasp bugs.

Couch's Kingbird has bright lemon-yellow underparts, gray head with a darker gray ear patch and brown wings and back. They are very similar to the Tropical Kingbird, whose range is similar. Couch's usually have a longer wing, a shorter, wider and deeper bill than the Tropical Kingbird, a shallower notch in the tail and an olive-green cast at the scapular feathers. These variations are difficult to tell in the field without comparing the two species. Mostly, birders make the distinction from the bird's call; Couch's is mostly a short repeated *pshuwer* – try to pronounce that out loud and you'll get it. It's something of a phishing sound.



Couch's Kingbird eyeing insects

Couch's and Tropical Kingbirds live side by side in eastern Mexico without interbreeding. Couch's Kingbird is mostly a Mexican species with a range north into Texas, from the mid Texas coast and Tamaulipas south along eastern Mexico into the entire Yucatan Peninsula, including Belize and northern Guatemala. Many remain in south Texas year-round.

They prefer lightly wooded habitats of thorn forest, wooded stream edges and into the suburbs. Couch's Kingbirds eat flying insects that they capture in flight. They dash from a tree perch to take prey then return to the perch to consume it. They can hover to take insects from vegetation or from the ground. Their diet includes large insects like beetles, grasshoppers, wasps and large flies. They will eat small fruits of coma, anacua, brasil, possum grape and chinaberry.

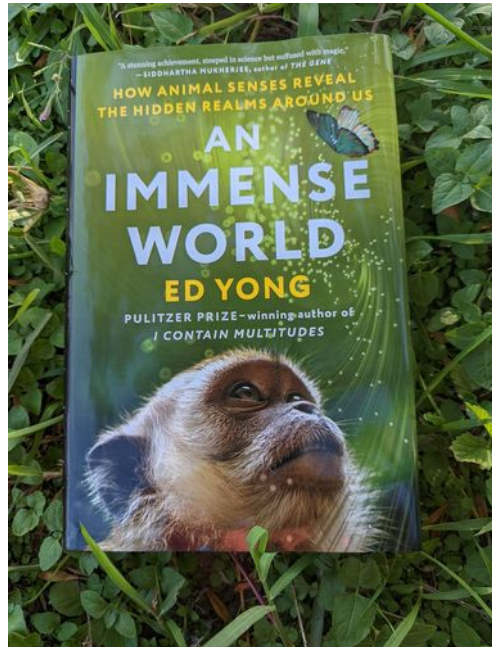
A group of kingbirds, such as our evening exhibition would collectively be known as a coronation, court or tyranny of kingbirds, although I wonder if a collective noun would apply to a family unit?



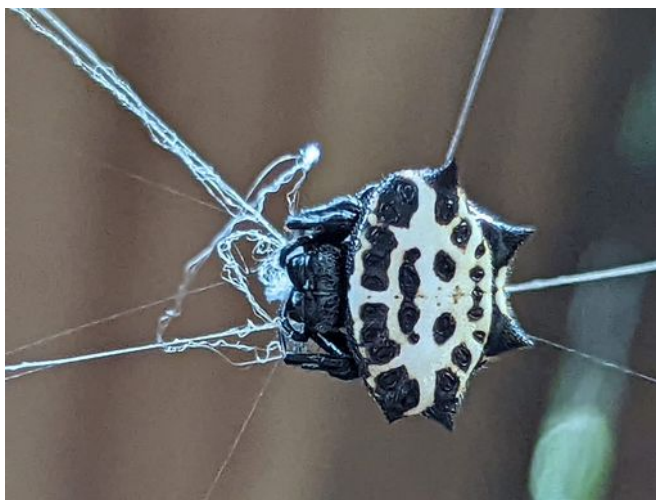
## Review of *An Immense World*

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

I heartily recommend this new book, *An Immense World*, by Ed Yong (published in 2022, 464 pages), which explores the umwelten, or sensory worlds, of various species—including everything from scallops, orb weaving spiders and octopuses, to bats, manatees and lions. It is a humbling read, but he never denigrates our own remarkable senses, particularly our vision. Yong encourages our admiration for all species, a respect I felt keenly as I wandered through the Gladys Porter Zoo this afternoon, marveling as much at fish, amphibians and reptiles as birds and mammals.



For me, a worthy book is one I find myself pondering for days, maybe weeks or years, one that makes me a better person for having read it. That's the case with *An Immense World*. I exit my door into the realm of my backyard and marvel at the bejeweled spiny-backed orb weaver preparing to eat a captive fly. I more keenly observe ants. At night, I even find myself admiring the glossy carapaces—with yellowish strips along the front—of American cockroaches scaling our olive tree, vacuuming up leftover fruit or peanut butter set out for birds. What a wonderful world!



Spiny-backed orb weaver (*Gasteracantha cancriformis*)

I expected to learn about creatures' expertise in the classic five senses: vision, hearing, taste, smell and touch. I was surprised and humbled, though, to read in detail about vibrations, electric fields, magnetic fields and echolocation—which I was intrigued to learn is also performed by some visually-impaired humans.

Yong describes how and why light and noise pollution is so detrimental not only to our fellow creatures, but ourselves, proposing solutions, many of which—like curbing city lights during bird migration—are neither expensive nor difficult to achieve. He writes:

“Instead of stepping into the Umwelten of other animals, we have forced them to live in ours by barraging them with stimuli of our own making. We have filled the night with light, the silence with noise, and the soil and water with unfamiliar molecules. We have distracted animals from what they actually need to sense, drowned out the cues they depend upon, and lured them, like moths to a flame, into sensory traps.”

He tells of insects “fatally attracted to streetlights, mistaking them for celestial lights and hovering below them until they succumb to exhaustion.”

Yong shows equal awe for the obvious grandeur of, say, Yellowstone or the Grand Canyon, as for expanses of grasslands. He notes: “Eighteenth-century thinkers believed that vast and magnificent landscapes reminded people of their own mortality and brought them closer to glimpsing the divine.” However, he says, “Equating wilderness with other-worldly magnificence treats it as something remote, accessible only to those with the privilege to travel and explore.” He thinks doing so “imagines that nature is something separate from humanity rather than something we exist within.”



Bifurcate trashline orb weaver (*Allocyclosa bifurca*)

The inspiration to read *An Immense World* sprang from listening to this fascinating recent interview with Yong on NPR’s Fresh Air:

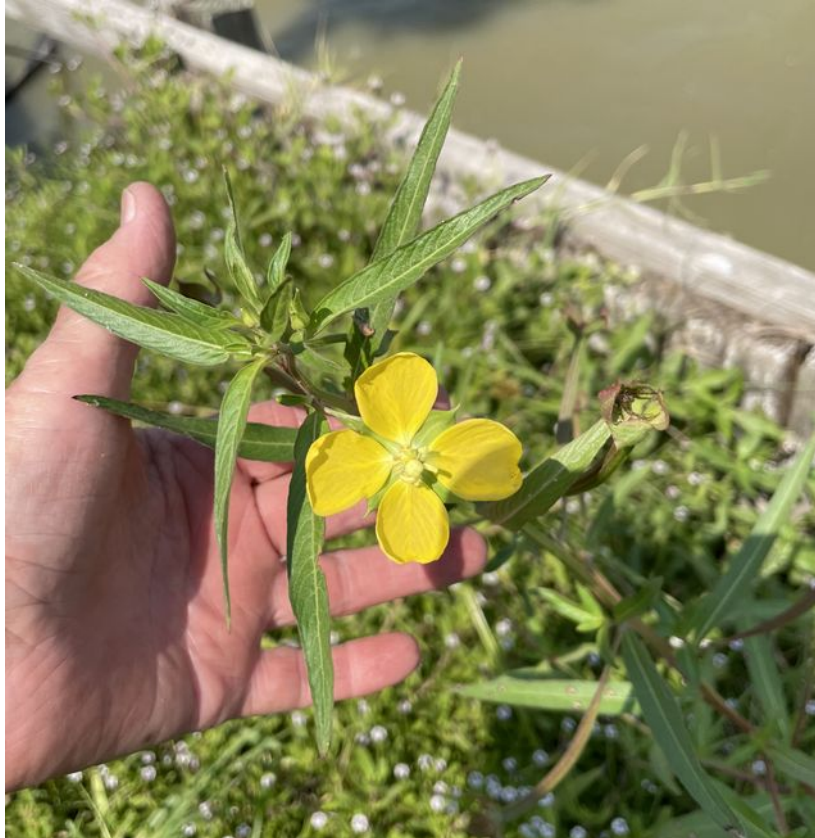
<https://www.npr.org/sections/health-shots/2022/06/22/1105849864/immense-world-ed-yong-animal-perception-echolocation>

## Two pretty surprise plants

Article & photos by Anita Westervelt, South Texas Border Chapter

I had some fun this summer with two new pretty plants at the resaca bank. The plants sort of just appeared one week, about five feet apart, one yellow and one lavender.

The yellow one goes by the name, Mexican primrose-willow (*Ludwigia octovalvis*). It is listed in Richardson, A., King, K., p. 338. 2011. Plants of Deep South Texas. Texas A&M University Press,



where the authors describe it as a species found in wet places such as resaca and canal banks. It is a host plant for some Sphinx moths and popular with insects for nectar and pollen.

Mexican primrose-willow has a bright yellow radial four-petal flower about one inch in diameter; it blooms summer through fall. The shrubby plant can get nearly four feet tall and spread out about as wide in an erect but airy growth with numerous flowers. The leaf blades are about five inches long and botanically described as lanceolate.

Mexican primrose-willow (*Ludwigia octovalvis*)

A perennial plant, Mexican primrose-willow is found in Cameron and Hidalgo Counties. Its native habitat is swamp and wetlands mainly in the southern half of Texas. It also is found along the Gulf Coast states, up to Georgia and the Carolinas as well as in Hawaii, Puerto Rico and the Virgin Islands – it is suggested that its remarkable wide dispersal has probably been with human assistance. This fast-growing plant will grow in full sun or partial shade; it will heavily reseed. The shrub can be trimmed to keep it from growing too large.

The second surprise plant has beautiful lavender flowers and was identified in iNaturalist.org as catchfly prairie gentian (*Eustoma exaltatum*) and in Richardson/King, PDST, p. 277, as bluebell gentian.



The Latin, *Eustoma*, means open mouth and refers to the large throat of the flowers which are purple in the bowl and lavender at the upper petals. The bell-shaped flowers are nearly three inches across and have five to seven one-inch petals. The plant has a single erect stem one to two feet tall with multiple branches of blooms. The leaves are ovate; stems and leaves are a pastel gray/green color.



Catchfly prairie gentian (*Eustoma exaltatum*)

This plant likes sun or part shade and damp sandy coastal habitat to saline or freshwater marshes. It is found in Cameron, Hidalgo and Willacy Counties and has a native distribution through the southern United States from Florida west to California and north into the interior to Montana and South Dakota in moist prairies and fields.

An annual plant, it blooms spring and summer, but all too soon will dry to a rich cinnamon color and should be left to disperse its seeds. The word catchfly generally refers to white, pink, red or purplish flowers that have sticky stems and calyces (the sepals that form a protective layer around a flower in bud) on which – you guessed it – small insects may become stuck.



Gentian seedpods in foreground and mature primrose-willow shrub near the resaca.

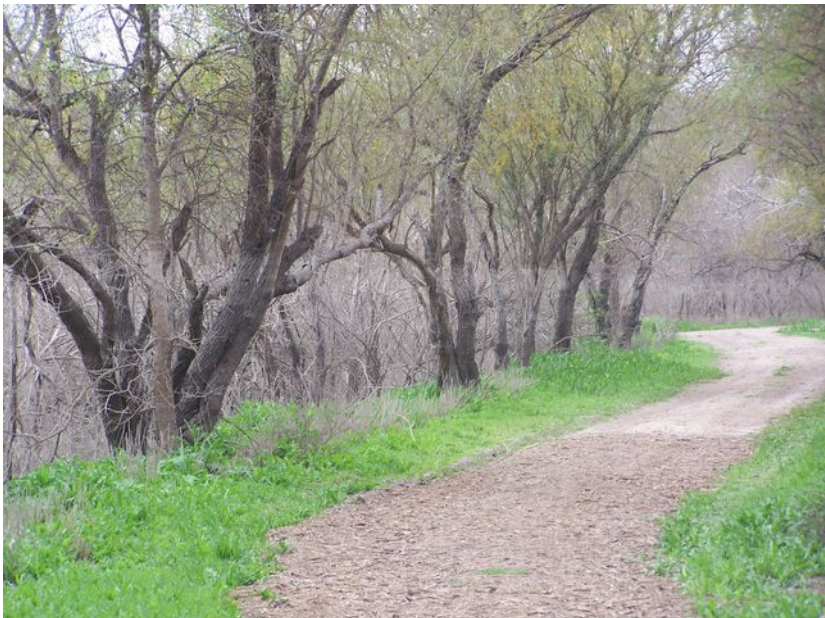
## Not a Cloud in the Sky – Where were you during Hurricane Alex?

Article & photos by Joseph and Nellie Kowalski, Rio Grande Valley Chapter

Back in July 2010, weather experts with the National Weather Service posed the question, “How can there be a flood coming when there’s not a cloud in the sky?” Hurricane Alex of 2010 came ashore in early July in northeastern Mexico, about 100 miles (180 km) south of the Rio Grande Valley. The outer-most rain bands made their way into south Texas where they deposited seven to 18 centimeters ( three to seven inches) of precipitation. For the most part, the Rio Grande Valley avoided much damage from this Category 2 storm compared to cities upstream. Few immediately noticed what Hurricane Alex had in store for us.

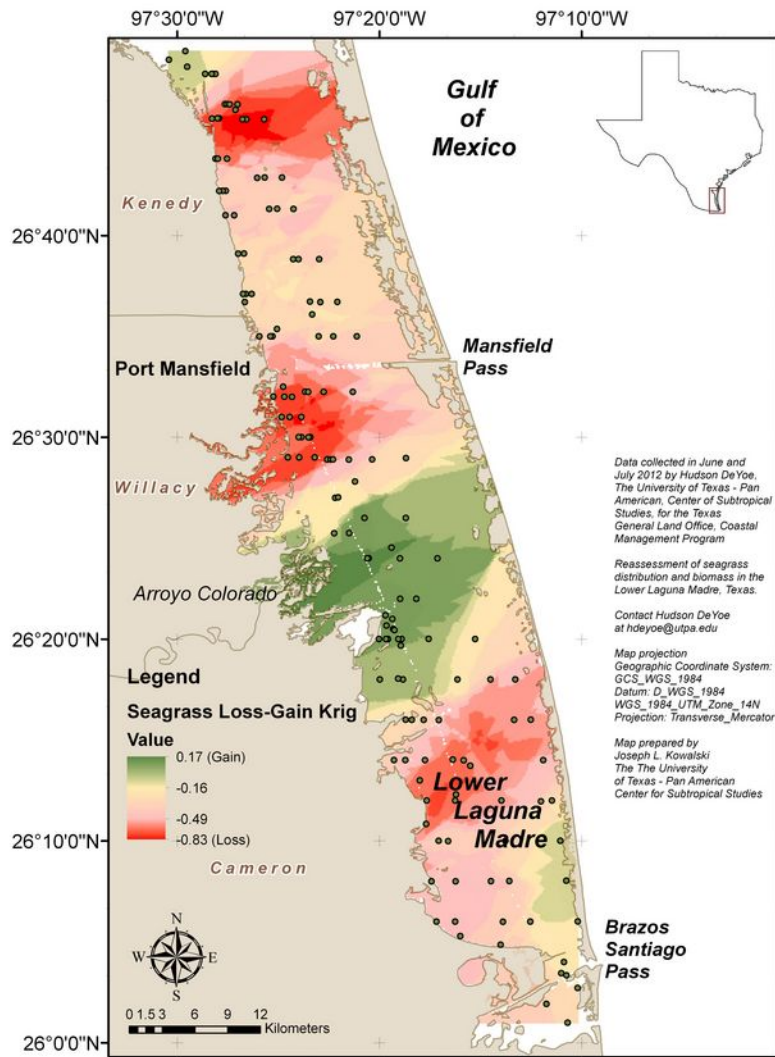
What was not yet apparent was that the mountains and basins of the Rio Grande/Rio Bravo drainage basin were collecting 25 to 55 cm (10 to 20 inches) of stormwater. That water needed to go somewhere, In Mexico, reservoirs, like the Marte Gomez Presa, filled to capacity. To prevent damage to the dam, water was released and flowed to Texas. It took a couple of days, but the stormwater made its way to the Rio Grande/Rio Bravo. Once there, cities like Laredo experienced flooding. It wasn’t long before the need to release excess water across Amistad and Falcon Dams increased downstream flooding. Stormwater kept coming downstream and was then diverted to the flood control channels of the North Floodway and Arroyo Colorado levee drainage system from Mission/McAllen.

Hurricane Alex flooded inland sites like Bentsen-Rio Grande Valley State Park and Santa Ana National Wildlife Refuge resulting in habitat loss. Bathtub ring-like markers left on trees at Santa Ana showed several feet to which the water rose during peak flood. Many areas in each park were covered with water for weeks. Some areas have not yet recovered. Nutrients, like nitrogen and phosphorous, were washed downstream. These enriched the stormwater discharge that fed phytoplankton communities causing blooms that choked the water of light and oxygen. Lack of oxygen suffocated the more susceptible fish populations.



Note white line showing vertical height of flooding at Santa Ana NWR in 2010.

Perhaps the greatest impact from that stormwater disturbance resulted in the loss of seagrasses in the Laguna Madre after continuous exposure to freshwater (zero salinity) for more than two months after the storm struck northeastern Mexico.



The five seagrasses found in the Laguna Madre, a normally saltwater bay, were all affected, including widgeon grass (*Ruppia maritima*) and shoal grass (*Halodule wrightii*), both small grasses with narrow flat leaves. The zero salinity stress on seagrass also caused a die-off of 58 percent of the turtle grass (*Thalassia testudinum*) and 74 percent of manatee grass (*Syringodium filiforme*); the former producing a wider flat blade, the latter distinguished by rounded leaves. Clover grass (*Halophilia engelmannii*) was also affected. These five seagrasses, the cornerstone of the photosynthetic food pyramid, are critically important to the health of the Laguna Madre.

The extent of losses and gains of seagrasses in the Laguna Madre exposed to freshwater from Hurricane Alex (2010). Values closer to +1 indicate gain of seagrass, 0 (zero) no change, and values closer to -1 are loss.

Several factors contributed to what we experienced when Hurricane Alex came ashore: the direct hit to Mexico instead of the United States, the topography of the watershed where stormwater initially collected, and finally, the enormous discharge that flowed to the salty Laguna Madre estuary. These events quickly and substantially changed the ecology of our inland parks and refuges and the Laguna Madre for several years to come. All that without a cloud in the sky.





Milestones & awards for June 2022,  
July 2022, and August 2022



# Congratulations!

## Newly Certified Texas Master Naturalists

Dan Martin '22

Adrienne Wheatley '22

\*Victoria Grayson '22

### 100 Hours Milestones

Bobbie Brown '22

Butch Palmer '20

### 500 Hours Milestones

Dana Allamon '18F

Volker Imschwiler '17

Shelby Bessette '18W

Molly Smith '21

### 1000 Hours Milestones

Ed Langley '14

Susan Upton '21

Kathy Raines '18W

### 2500 Hours Milestones

Chuck Cornell '18W

**WELL  
DONE  
ALL!**

\*Earned in August to be awarded in September



## Re-certified for 2022

Drew Bennie  
Sherry Borrayo  
Bobbie Brown  
Tamie Bulow  
Linda Butcher  
Yvette Cano  
Chuck Cornell  
Ket Donchester  
Tommie Elium  
Keith Foerste

Emma Gonzalez  
Volker Imschweiler  
Joliane Lanehart  
Ed Langley  
Sondra Leigh  
Deborah McCoy  
Linda McGonigle  
Cecilia Montalvo  
Skippy Palmer  
Carol Rausch

**Making a total of 48 members who have re-certified for 2022**

**Keep up the hard work all!**

## Contributors to this issue of The Chachalaca



Linda Butcher



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Javier Gonzalez



Diane Hall



Nellie & Joe Kowalski



Ed Meza



M. Kathy Raines



Anita Westervelt



## RGVC Leadership Team 2022

### Officers

President	Roberto Gaitan
1 <sup>st</sup> Vice President	Robin Gelston
2 <sup>nd</sup> Vice President	Barbara Peet
Secretary	Carolyn Cardile
Treasurer	Betsy Hosick

### Directors

Membership	Joni Gillis
New Class	Barbara Peet
Communications	Diane Hall
Advanced Training	Teresa Du Bois
Volunteer Service	(open)
New Class Rep	Dan Martin
At Large: Winter Texans	Carolyn Woughter

### Committees

Membership	Adrian Ramos, Norma Trevino
Training	Robin Gelston (chair), Pam Bradley, Barbara Peterson, Emma Gonzales
Education	Penny Brown
Outreach	Pat Avery, Diana Lehmann, Jerald Garrett
Volunteer Service	Tira Wilmoth
Communication	Diane Hall, Chet Mink, Tamie Bulow, Robert Gaitan

### Advisors

Texas AgriLife	Tony Reisinger
Texas Parks & Wildlife	Javier de Leon

**Would you to help? Please contact us at [riograndevalleychapter.tmn@gmail.com](mailto:riograndevalleychapter.tmn@gmail.com)  
RGV Chapter Texas Master: This chapter is an affiliate of the Texas Master Naturalist Program  
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