Rio Grande Valley & South Texas Border Chapters
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The Chachalaca

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IN THIS ISSUE

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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.

What a wonderful (and weird) world it is

Stories & photos by Anita Westervelt, South Texas Border Chapter

The annual City Nature Challenge is a great opportunity to explore. I love a BioBlitz. It's a time to challenge myself. It's an anything goes, exciting nature venture that's ever-changing, whether because of human involvement of the land or from the elements of the great beyond. This year was especially interesting, possibly because of storms at sea sending a variety of treasures to the beach. The dry land also gave up a few secrets. I've captured some interesting observations in this story-trilogy.

Beachcombing during the City Nature Challenge 2023

I had the Isla Blanca Park beach nearly all to myself on the last morning of the City Nature Challenge 2023, sharing it mostly with beached wonders that had washed ashore from recent stormy turbulence in the Gulf.

Little pink discs a bit larger than a quarter dotted the beach every so often; objects with which I was not familiar. I have since identified them as **sea pansies, *Renilla muelleri***. It took some research, and I was able to find that the sea pansy is a colony of polyps, their shape is similar to a lily pad, according to txmarspecies.tamug.edu. The rachis (body) is flattened but fleshy and has a single polyp which forms an anchoring stem (peduncle) on the underside, which anchors it into the sand or mud.

Sea pansy (*Renilla muelleri)*

Sea pansies are generally reddish to reddish-purple to deep purple in color. The *R. muelleri* is the only sea pansy in the Gulf of Mexico, spending its time on the sandy bottoms. They can grow to four inches in diameter.

The polyps bear stinging cells, which are used to snag tiny, drifting animals known as zooplankton. When handled in the dark, waves of luminescence move concentrically over the colony, according to gulfspecimen.org.

Sea pansies are a type of soft coral. Even if uprooted by rough seas the peduncle can establish a new mooring once it settles back onto the sand, according to CoastalReview.org.

A cluster of tentacle-less polyps form an outlet valve that releases water to deflate the colony. If the colony is on a sand bar at low tide, it usually deflates and becomes covered with a thin film of silty sand. Small white dots between the feeding polyps are polyps that act as pumps to expand the deflated colony. The feeding polyps secrete a sticky mucus to trap tiny organisms suspended in the

water. The colony's rigidity and purple color come from calcium carbonate spicules throughout the polyps' tissues, according to What'sthatfish.com.

Interspersed between the sea pansies were remnants of interesting sea creatures that looked like broken, shell-studded elastic bracelets you'd expect to find in a touristy beach shop. **Plumed worms, *Diopatra cuprea***, also known as decorator worm or ornate worm. It is a species of polychaete worm in the family Onuphidae, native to the northwestern Atlantic Ocean, Caribbean Sea and the Gulf of Mexico.

Plumed worms (*Diopatra cuprea)*

According to Wikipedia, the *D. cuprea* inhabits a parchment-like tube. The deflated tube is visible in the photos. The tube is made of a mucous polysaccharide material, the tip of which projects from the sediment in which the rest of the tube is buried. This tube acts as a chimney; the outer surface is reinforced with shell fragments and tiny pebbles which are cemented in the style of an overlapping mosaic.

When the tubes are no longer occupied, they get washed out of the seabed and washed ashore. The living worm is described as colorful, with an iridescent reddish-brown segmented body, dotted with grey. The worm is an omnivore and scavenger; often found in seagrasses, it feeds on algae and small invertebrates such as gastropod molluscs and barnacle larvae.

Puzzling matter stuck on shells

What in the world? Plant, animal, jellyfish, coral? I was mystified. I examined the first one I found while I was walking the wrack line in the wake of a receding tide on Boca Chica Beach.

I'd picked up an Eastern oyster shell nearly half covered in some sort of growth that seemed cemented onto the shell. The growth appeared silky, pliable and reminiscent of the texture of squid, the coloring creamy white to lavender and pink; they were pretty, in a frightening sort of way, as the unknown can sometimes be. I didn't want to poke it in case it bit or stung.

Oyster drill egg casings attached to oyster shell

There were many more shells in similar states. Whatever the growth, it seemed indiscriminate as to what it decorated, Eastern oyster, angelwing and other shells.

The motherlode was at Isla Blanca on a piece of dark wood nearly two feet long; it was completely covered in pinkish, blunt topped "fingers;" from the distance, it looked like a castoff mophead.

After having no luck with identification, I sent the photos to our chapter sponsor, Tony Reisinger, Cameron County extension agent for coastal & marine resources with Texas Sea Grant at Texas A&M University and the Texas AgriLife Extension Service. He suspected they were egg casings and knew just who to ask and the mystery was solved:

***Stramonita haemastomav*, oyster drill egg casings.** Oyster drill is in the Muricidae family, rocksnails. Other common names include Florida rocksnail, Florida dog winkle and red-mouthed rock shell. It is not a good thing. Wikipedia defines it as a species of predatory sea snail.

Oyster drill can be found throughout the Gulf of Mexico. They are one of the most devastating predators to oyster reefs because of their large population, according to a Mississippi Department of Marine Resources document prepared by the Mississippi Oyster Stewardship Team. Oyster drill lay their eggs in creamy yellow casings and attach them to any hard surface, including live oyster shells. Once the eggs hatch or the casings have dried out, the casings turn purple. The egg casings can each contain up to 900 embryos.

The adult sea snail is a gastropod; the shell is spiral shaped, similar to a whelk, and has a maximum length of three and one-half inches. The shell has gray to tan spiral lines mottled with dark brown, grayish or orange marks; the inside aperture is orange, according to a Texas A&M University at Galveston Webpage.

Oyster drill are so named because of their mechanism of feeding: they use a tongue-like muscle, called a radula, to rasp away like a saw at the shells of bivalves such as oysters and mussels, drilling a small pinhole through which to feed on the soft tissue underneath.

The land is not without its own mysteries

I admit to a frisson of fear sometimes when I'm taking photos, especially during a BioBlitz when I'm keen to notice everything and anything that might be a unique species.

Last fall, during a pollinator BioBlitz, I came across two weird looking objects sticking out of the bare ground with nothing surrounding them. I was walking a barren track between a plowed field and the top bank of a resaca. I stared at the mystifying masses, but any recollection of an image memory was absent. The six-inch stubby fixtures were like alien matter, poking up from who knows where, or little clubs that had been stuck in the soil, for whatever reason.

They were a bit creepy because they were such an unknown, so I was wary and kept my distance; I certainly wasn't going to touch them in case they were some sort of farmer-rigged security system. In the end, I took a couple of photos, then backed away.

Later, viewing the photographs on the big monitor, I plugged them into iNaturalist, which offered no clues with identification, so I forgot about them.

This year, during the City Nature Challenge, along that same field path, the woody clubs were still there, or so I thought, weird as that seemed, standing like chess pieces out of sync. This time, iNaturalist identified one as a **termite inkcap**, **Genus *Podaxis***, which gave me a starting point for later research.

Desert shaggy mane (*Podaxis pistillaris)*

After the spring bioblitz ended, my curiosity piqued. I walked the dusty path to see if I could find the odd-looking things and I found about a half dozen or so in various stages of growth and decomposition. They were each identified as ***Podaxis pistillaris*, desert shaggy mane**. The earlier one identified only by genus had apparently not completed maturity.

Podaxis pistillaris is a desert fungus. It grows alone or scattered in arid, desert settings, including wasteland, and fields. It is usually found during the fall through spring and is more common in the deserts of the southwest and California.

When young, the growth is oval and becomes more or less cylindric with a rounded apex; it is described as being shaggy to scaly, composed of gill-like plates that are white initially but turn into dark brown or nearly black powder. It does not have a distinctive odor. When it begins deteriorating, the outer scales become discolored and seem to slide off the stalk and sink to the ground, leaving only a rusty-looking spike, like an overcooked, desiccated corn dog.

Deteriorating desert shaggy mane

Interestingly, in Australia, desert shaggy mane was used by many desert tribes to darken the white hair in old men's whiskers and for body painting. Another *Podaxis* species in Australia, *Podaxis beringamensis*, was found on termite mounds. Hence the initial identification on iNat, perhaps. Desert shaggy mane is related to the fungus, puffballs, and like many puffballs, the species was used to dye textiles to give them a tan or reddish hue; the process requires an alkaline base which was solved back in the day by using urine. A more modern substitute is ammonia.

A number of websites were helpful in gathering this information, including Wikipedia, mushroomexpert.com, out-grow.com, birdandhike.com, arizonanensis.org, mykoweb.com, kcet.org, projectnoah.org and ultimate-mushroom.com.

Spring Migration 2023

Article & photos by Javier Gonzalez, Rio Grande Valley Chapter

It feels like spring literally flew by! It can feel that way when we have an exciting spring bird migration with plenty of action as we had these past months. It seemed like we had waves of migratory birds land on the island at least once, sometimes twice a week as the birds met quite a bit of northern headwinds throughout the season. Despite the challenging winds, I didn't see many totally exhausted birds this year, so I think most did well, which is always good to see.

Every spring is different and has its own set of unique environmental factors that come into play. While the winds might be the biggest factor in terms of how many migrants we see touching down on the island, winter precipitation, as well as how early or late the spring comes, dictate what sort of foraging conditions the birds are going to meet when they arrive.

Last spring, the mulberry trees were completely loaded with large crops of berries. Gray Catbirds, tanagers, and grosbeaks gorged on the berries well into late April. This spring, the trees didn't bare much of a crop and the Kiskadees ate most of the berries before the migration even ramped up!

Differences in the spring seasons can be noticed just about anywhere. For example, around mid-April I made a pass by my friend's Shane Wilson's side yard where I had found a rare Painted Redstart last spring on April 18. The redstart was attracted to a large and blooming coral bean tree and this year that same tree's blooms were already mostly spent when I passed by. Even though I checked it around the same time as I had last year.

This is why plant diversity is so important in a habitat. Some years certain species will be the big players during migration. In following years when the big players from years past aren't producing for whatever reason, other species could have an important impact. It's kind of like a sports team, the squad must have a good depth of players if the team is to perform to a sustained standard and win!

This early spring had pigeon berry and Turk's cap performing together to high quality. These two are always amazing as a pair, almost like they were meant for one another. Together they make a fantastic understory in shady areas. That type of environment is precisely where I found a bird that I really wanted to see this spring, a Worm-eating Warbler. One of my favorite sights of the early spring was finding this bird foraging through the Turk's cap understory in the Songbird Alley on March 29. I missed Worm-eating Warbler last spring, and since they are rare as fall migrants through our area, I missed them then too, so that means I hadn't seen one in two years! I locked my binoculars on it for a good while and savored the moment.

Worm-eating Warbler on Turk's cap

Rose-breasted Grosbeak eating pigeon berries

The following week, the first male Rose-breasted Grosbeaks arrived on April 6 and enjoyed plentiful amounts of juicy red pigeon berries while feisty adult male Ruby-throated Hummingbirds claimed and defended patches of bright red Turk's cap blooms at different corners of the gardens.

The migration then started to come thick about mid-April with the passing of several cold fronts. Mid-season warblers started showing up in good numbers all over the island, including a couple of highly sought after male Cerulean Warblers. This species can be a bit slippery and since I was slow to react, I missed them. But I was redeemed by a pretty female Cerulean that showed up in the front gardens on April 18. Cerulean Warbler is a bird that I personally use to measure the overall success of the habitats that we have created at the birding center; it is the garden's goal bird. I feel this way because they are a near threatened species, so when I see one utilizing the habitats that we have grown it makes me feel like the job is complete. This gorgeous sky-blue warbler mostly spent its time foraging between two tenaza trees. The legumes with tiny leaflets seem to be favorite foraging trees to warblers looking for insects.

Female Cerulean Warbler on tenaza

A few days later, buntings started showing up just in time for our Earth Day celebration! Spring rains by then had brought on fresh growth in the gardens, including the patches of guinea grass. Most of the time we are fighting against invasive guinea grass in our habitats, but April is an exception, and the buntings are a perfect excuse to just lay back and let it go for a bit. Painted and Indigo Buntings flocked in grass bunches to enjoy the grass seed during our spring migration celebration.

Indigo Bunting on Guinea grass

Around this same time, I also noticed that the Mexican wild olive trees were totally thick with blooms! Such a beautiful sight in the gardens. There weren't many butterflies on the wing at this time, but I was happy to observe the Baltimore Orioles pocking their heads into the big white star-shaped flowers to sip on the nectar. A nice little energy boost for their migration!

Baltimore Oriole nectaring on wild olive flower

Migration felt like it came to a sudden grinding halt towards the end of April as the passage of north winds dwindled and lost intensity. My body felt like it hit a wall after having gained so much momentum trying to keep up with the migratory waves. The tiredness finally had a chance to set in. Things weren't over just yet though, a slow flow of birds continued to trickle in as we came into May. Chestnut-sided Warblers kept the motivation up.

Early May was hostile. The island got battered with a line of destructive thunderstorms baring 80-100mph straight-line winds. We lost several large trees in the gardens, which is always a sad sight. After one of the storms, a migratory flock of about 40 Cedar Waxwings arrived May 14 on site. Cedar Waxwings are on their own agenda when it comes to migration. Their movements are more dependent on the availability of berries, their main food source. They nest across Canada and in some of the farthest northern corners of the US. They are late season nesters who take their time getting to breeding grounds as they enjoy different types of fruit on their travels. They arrived at the birding center for one thing and one thing only – Berlandier's fiddlewood berries. The numerous bushes had been loaded with berries and I was afraid that most would go to waste, but the waxwings are still here as I type this three days later and likely won't leave until they've eaten them all! They've been a joy to watch as the curtains of the migration show close.

Cedar Waxwing feeding on fiddlewood berries

Spring migration is such an incredible spectacle of nature that always leaves me in total awe and extremely exhausted. But most of all, I feel happy and grateful to be able to help these migratory birds as they pass through. The quality of habitat at the birding center wouldn't be possible without the collective efforts of staff, Texas Master Naturalists, and community volunteers. Our efforts make a difference and enjoying the fruits of our labor inspires us to keep planting native habitat. That we will do. The birds need us more now than ever.

Texas to Colorado Migrants

Article & photos by Carolyn Cardile, Rio Grande Valley Chapter

We've lived on South Padre Island (SPI) since 2007, but almost every year we travel from our home in SPI to Denver, Colorado in the spring and return in the fall. Recently, while visiting the Rocky Mountain Arsenal National Wildlife Refuge, east of Denver, I discovered that we are not the only ones that do this annual round trip. Although the Lark Bunting is the Colorado state bird, it spends its winters in Texas, too.

During the 25 years I lived in Colorado, I had never seen a single Lark Bunting, however, I had seen them while driving through Nebraska in July 2010. I only know this because I started keeping records of bird sightings in 2003 when I received the third edition of *Birder's Life List and Diary* published by Cornell Lab of Ornithology. It turned out to be one of the best gifts I've ever received.

The male Lark Bunting is easy to recognize with its black, sparrow-sized black body and white on its wings. The females, non-breeding males, and immature Lark Buntings look like sparrows to me. They are described as a large sparrow with a very thick beak and bluish bill on the Lark Bunting Identification in All About Birds. They have "brownish feathers above and are pale with brown streaking below with extensive white in the upper wing coverts and small white tips to the inner tail feathers," according to the All About Birds website.

As we drove through the refuge, I saw large flocks of Lark Buntings swooping across the fields and feeding in the grass along the road. I found them more interesting than the bison in the fields.

Immature male or female Lark Bunting

Male Lark Bunting

When I looked at the All About Birds site on the internet, I learned that they migrate just like me. I also found that according to the American Bird Conservancy, "Lark Buntings eat seeds, invertebrates, and some fruits. During the breeding season they feed mostly on insects, especially grasshoppers. They also make short flights to capture insects in the air." Lark Buntings breed in open grasslands, and they forage and nest in agricultural fields from the southern Great Plains into northern Mexico.

Texas Master Naturalist Annual Meeting
- What's happening?

Article by Donna Otto, President, South Texas Border Chapter

At the conclusion of the 2022 Texas Master Naturalist Annual Meeting it was announced that the 2023 Annual Meeting would be in McAllen. Sworn to keep this a secret, our advisors and chapter presidents were given only a few days' notice prior to the announcement that we would be hosts for this event. After our initial surprised (stunned?) reaction both the Rio Grande Valley and South Texas Border Chapters got into gear and have been busy preparing for the meeting at the McAllen Convention Center in October.

As you may recall, surveys were sent to our chapter members to determine who could assist and in what areas. Both chapters received an outstanding number of responses, with individuals indicating their area(s) of interest and if they were willing to serve in a leadership capacity. As a result of our survey, it was decided the two chapters could manage the various event activities. Each sub-committee was able to have individuals from each chapter serve as co-chairs.

Leadership members from our two chapters have met almost weekly the last few months, and have met monthly with State Coordinators. Working from a shared folder of documents, team members have developed spreadsheets for potential speakers, field trips, vendors and sponsors. A Master Plan lists all sub-committees with their co-chairs and identifies tasks and timelines.

While the State has been posting requests for speakers and field trip proposals, chapter co-chairs have sent invites to those on our spreadsheets and have been tracking the responses. Follow-up messages have been sent with a goal of 100 speaker programs and 20-30 field trips. Proposals are being reviewed and schedules will be developed.

Other chapter co-chairs are reviewing the guidelines for the Photo, Arts and Media Contests and have worked on the timeline for soliciting those items including methods for members to electronically view and vote on contest submissions. Sponsors are being sent packages of information on sponsorship levels and related benefits. Vendors have been identified (some of which may also be sponsors) and will be receiving vendor information in the near future. Pricing for vendor spaces is being determined, pending additional input from the McAllen Convention Center. Other areas to be addressed in future meetings include the set-up/take down efforts, registration, room monitors for speakers, and coordination of activities related to the Saturday event off-site.

While work is on-going through this summer, please know that another call for volunteers will be sent to members after the programs and field trip schedules are released. Many of our members previously indicated their willingness to help in various areas – or wherever needed. With schedules available, you will be better able to identify exactly when and where you want to volunteer, leaving you time to enjoy presentations and field trips. At this time the registration fees have not been determined.

Any member wishing to attend will need to pay the registration fee (which includes all meals for the event). Both host chapters are looking at how we can help defray the member expenses.

To view the current information on the Texas Master Naturalist Annual Meeting at McAllen Oct. 12-15, check out the state website: https://txmn.tamu.edu/2023-annual-meeting/

Thank you to all our members who are helping and will be helping to bring the Texas Master Naturalist Annual Meeting to the Rio Grande Valley for the first time in the organization's history.

Texas native bee gathering pollen grains in a prickly pear cactus – photo by Camille M. Rich

Closer look at a Texas native bee ground nest – photo by Camille M. Rich, Rio Grande Valley Chapter

Mabel's Orchard Orb Weaver

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

Its rich geometric patterns of blue, yellow, orange, green and black recall delicately inlaid stones in Zuni jewelry or a tinted cut-glass pendant. I wonder where this elegant creature has been hiding the 40 some years I've lived in the Valley, but then realize it is I who have been inobservant.

The lustrous Mabel's orchard orb weaver (*Leucauge argyrobapta*) derives its species name from ancient Greek words meaning "baptized in silver." It, along with its more northerly, far less abundant Valley cousin, *Leucauge venusta*, belongs in the family Tetragnathidae, for long-jawed orbweavers, spiders with especially big, strong jaws, or chelicerae.

This spider, which commonly occupies citrus groves, also thrives in meadows, woodland edges, woody suburbs, flowerbeds and beneath eaves of houses. Records show it in the southern United States, Mexico and Brazil, but it may be more widespread.

Mabel's orchard orb weaver (*Leucauge argyrobapta)*

With its hind feet, an orb weaver draws out liquid strands of silk of various sorts from the spinnerets at the tip of its abdomen. The Mabel's orchard orb weaver may create a nearly horizontal web with a slope of less than 45 degrees, but sometimes one that is nearly vertical. The spider awaits prey on the underside of a central hub amid sticky spirals. It also frequently creates a barrier web underneath, which may dissuade other creatures from destroying its carefully wrought construction. When food is abundant, these gregarious spiders sometimes hitch their webs together.

Often the spider constructs its web near that of a golden silk orb weaver (*Trichonephila clavipes*). In this case, the orchard orb weaver builds a loftier, sometimes nearly upright web, which helps it

snag flying creatures, but may hinder its capture of crawlers and jumpers. Also, this spider's proximity to a neighboring web may spare it the labor of constructing a barrier web.

Hunting both in the daytime and evening, the Mabel's orchard orb weaver feasts on all manner of insects, particularly mosquitoes and small flies. Like other orb weavers—noted for their poor vision—it awaits vibrations in its web, then ventures out from its hub to procure the captive stuck on sticky strands, an insect which may outsize the spider. The orb weaver bites and wraps the captive in silk, turning it with its forelegs and wrapping silk with other legs, thereby preventing the victim's escape. The spider carries it to the center and, piercing it with fangs, injects digestive enzymes which liquefy its guts. Then it eats, straining out waste materials.

This orb weaver lays eggs in a sac that it fastens to a leaf or twig. Spiderlings can weave webs shortly after they hatch.

Enchanted by this jewel, I insist on showing off my photos, sometimes, I admit, to those who find spiders abhorrent. But orb weavers like these are major controllers of mosquitoes and other pests that spread diseases and damage crops.

Foes of Mabel's orchard orb weavers include mud-dauber wasps, which paralyze them and place them in nests for their own larva to eat, and also *Rhomphaea projiciens*, a small spider which may stroll onto the web, bite the orb weaver, pump enzymes into the wound and suck out its guts.

We must be thoughtful and vigilant in protecting these helpful spiders, along with others of our fellow creatures, even when we use pesticides nonlethal to them. Some of these substances have been found to render orb weavers sluggish in making webs and capturing prey, giving even decimated mosquito populations a good chance to rebound from their poisoning.

To Capture a Predator

Article & photos by Luciano Guerra, South Texas Border Chapter

At the National Butterfly Center (NBC) near Mission, Texas, we had been receiving reports of a bobcat being seen jumping out of the bushes and pouncing on squirrels and large birds in the bird feeding area. Since this was occurring on a daily basis, I decided to make it a priority to see and document this activity for myself. As much as people think that as the NBC's photographer I spend most, if not all, of my time out in the gardens taking pictures, I actually spend much more time in in my office working on different projects or helping out with school field trips. That was why I had not had much of an opportunity to try capturing photos of the bobcat myself.

From the reports we were receiving, we decided that this was a female bobcat with nearby kittens to feed. The fact that she was catching several large birds and a squirrel or two on a daily basis, is what led us to come to this conclusion. However, we had no direct knowledge of what she was doing with her kills once she disappeared into the bushes.

On Thursday, April 27 I was in the bird feeding area talking to a group of school kids about birds when the bobcat jumped out of the bushes and grabbed a Great-tailed Grackle. With my back to the action, I did not get a very good view of this predator/prey interaction at all. Had it not been for the reaction of the school kids and their teacher, who had a great view of what had just transpired, I would probably have missed the whole thing all together. As it turns out, all I got to see was the bobcat, with a mouth full of grackle, heading back into the bushes.

The following morning, we did not have a school field trip scheduled and I did not have a project deadline looming. Consequently I decided to head out to the bird feeding area before the morning feeding just in case the bobcat made another appearance. I also decided that as long as I was going to be taking photos, I might as well set up my cell phone on a tripod and try to get slow-motion video as well. I did so for two reasons. First of all, I anticipated this being the kind of action that would be much more dramatic in slow-motion video than in still photos. Second of all, I did not know if I would be quick enough to capture the anticipated action with my camera. And even if I would be, I knew that there would always be the chance of the photos being out of focus since I did not know exactly where the action would be taking place.

As I sat on one of the picnic tables visitors usually sit at in the bird feeding area, I watched as Omar fed the birds that morning. It didn't take long at all for the birds to start coming in to feed. From what I had been told by those fortunate enough to see the bobcat in action before, and from what I had personally witnessed the day before, I knew that the bobcat usually waited for either a large bird, such as a grackle, a dove or a chachalaca, or a squirrel to move into the "kill zone," the patch of grass directly in front of the bushes, before pouncing. That was why my strategy was to start shooting video, and get ready to take photos, as soon as a large bird or squirrel approached the area.

After a couple of false alarms, a male Great-tailed Grackle flew in and landed on a large flat rock, that is part of a water feature, directly in front of the bushes. I knew that this could be exactly what I, and the bobcat, had been waiting for. Sure enough, after hesitating for a bit, the bird

obliged us both by hopping down off the rock and onto the grass. That was when it happened. Almost instantaneously, as the bird's feet hit the grass, the bobcat made its soon-to-be-deadly move.

Having not given any indication of its presence up to this point, the predator burst out of the bushes, in what I could only make out through my camera's viewfinder to be a brown blur, and leapt at the grackle as it took flight in a desperate attempt at escaping. The action was so fast and furious that all I could do was to keep my camera pointed in the general direction of the action, while keeping my finger pressed down on the shutter release and fire off a burst of shots at 10 frames per second.

As I continued shooting the photos, I noticed in-between shots that the bobcat was no longer visible in my viewfinder. Apparently, it had leapt so fast and so far that I had not been able to follow the action. That was when I took my finger off the shutter release and I looked to see where it had gone, first through my viewfinder and then by peering over my camera to get a wider view. That was when I saw the cat, with the now dead grackle in its mouth, staring me down. It was almost as if she was daring me to try taking the bird away from her. Or possibly even double-dog daring me.

By the time I was able to recompose a shot with the bobcat in it, she was heading back toward the bushes. While I did take several photos of her disappearing into the foliage, I was anxious to see what, if any of the action I had actually managed to capture. I really had no idea at this point if I had captured anything worthwhile or not.

Author's favorite photo of the predator in action

Much to my surprise, excitement, I did get the three shots I am sharing here; the first one being my favorite. To me it almost looks like a photo of a bobcat and its prey that have been posed by a taxidermist.

The second photo is almost as good, but would probably be better viewed from a different angle.

Capturing a photo of the bobcat in action was a challenge

As for the third photo, I like how it shows how high the bobcat had to leap to catch the grackle and how large its front paws are when fully open, but in my opinion it's not as good a shot as the first two.

The bobcat's speed and large front paws aid in capturing prey

In closing, I feel fortunate to have been in the right place at the right time to capture what I consider to be these shots of my lifetime. Luck had very little to do with the taking of these photos. It was much more a matter of my years of experience photographing wildlife and the fact that the bobcat had made a habit of using the National Butterfly Center's bird feeding area as its own personal all-you-can eat (and feed to your kittens) buffet. This experience and habit allowed me to anticipate what the bobcat was about to do and document it with photos and video. For anyone interested in watching my video, visit the National Butterfly Center's Facebook page and scroll down to the post I shared on April 28. It's quite an amazing thing to watch.

Devil-bird!

Article & photo by Michael McClure, South Texas Border Chapter

Among the most common, and most maligned, of South Texas birds, the Great-tailed Grackle, or "devil-bird" as some have dubbed it, has on most occasions proven as great a personal annoyance for me as the English/House Sparrow and the European Starling. I have found it a noisy, messy bully: a bird menace. During winter months, they rarely stop by, but each summer, they arrive to reclaim my yard as their personal fiefdom and seem to dare me to approach when I move to evict them. They leave if I insist, but only reluctantly and petulantly. Although I grudgingly admit that the males have a certain splendor in their plumage, I do not find them attractive birds, and the "ordinary" brown females fare even worse in the "looks" column.

Growing up in Dallas, I had never seen a grackle until I traveled to Austin in the late 1950s-early 1960s. Now, however, they constitute a common sight as far north as southern Minnesota. Since my first encounter, I have curried very little regard for them, and taking my cue from the grackle rantings of a former McAllen mayor, I have developed a number of my own special epithets for this nuisance.

A few years ago, however, an unusual young male Great-tailed Grackle visited my yard and his attire piqued my curiosity. Although obviously somewhat immature, he sported plumage that gave me the impression he was the love child of a Great-tailed Grackle and a White-winged Dove. (I entertained this fantasy in spite of my difficulty understanding what any other bird could find attractive in a grackle... Perhaps the dove was the victim of an assault, or the young bird was the result of a ***blind*** date.) Regardless of the affair that occasioned his birth, he had the gleaming black plumage of the male grackle but the white outer-wing primary flight feathers of a White-winged Dove. The intrigue thus established, I decided to attempt to develop some appreciation for the genus *Quiscalus* via a little research.

Young Great-tailed Grackle with unique plumage

Although three different grackle species make their homes in North America, all of which we can find in Texas, the Great-tailed Grackle claims the greatest numbers by far in our area, the others being the Boat-tailed and Common Grackles. The Great-tailed and Boat-tailed Grackles have at times been considered the same species; however, current thinking leans toward their being closely related, but different species. The Boat-tailed Grackle, appropriately enough, prefers life right along the coast.

Believed by some scholars to have been brought to Mexico by the Aztecs from the jungles of Central America for their plumage more than 500 years ago, the Great-tailed Grackle or Mexican Grackle (*Quiscalus mexicanus*) is a medium-sized, gregarious passerine bird (perching and songbirds) indigenous to both North and South America. It is one of ten extant species of grackle. (An eleventh is extinct.) Sometimes referred to as a "blackbird," it is often called "cuervo" (crow) in areas of Mexico owing to the male's shiny black feathers; however, it is not closely related to the genus *Corvus* even though it has some of the problem-solving ability of the crow and raven. In Mexico, the grackle is known as "el zanate." This New World blackbird bears no relation to any of the Old World blackbirds, which are species of the Turdus genus. (There's an opportunity missed…)

A slender, brash blackbird with a v-shaped tail almost as long as the rest of his body, the male Great-tailed Grackle sports plumage of iridescent black, a flat head with bright yellow eyes, and a long, black, stout, straight bill. He reaches up to 18 inches in length and weighs just under half a pound. The female is significantly smaller at 14 inches, weighs a little more than a quarter pound, and is mainly brownish-black, with a paler brown throat and belly.

Great-tailed Grackles can be found from sea level to 7,500 feet. They naturally seek chaparral and second-growth forest as habitat but avoid dense forests, deserts, or prairie habitats that lack access to water. They have also become quite comfortable in both agricultural and urban settings that provide open foraging areas, a water source, and trees or hedgerows.

In fact, unlike many animal species, grackles have benefited from the expansion of human populations due to their resourceful and opportunistic nature. Where people have modified the landscape to the liking of the Great-tailed Grackle, these birds have followed. In 1900 the northern edge of the Great-tailed Grackle's range barely reached southern Texas. Since the 1960s, they've followed the spread of irrigated agriculture and urban development into the Great Plains and West, and today comprise one of North America's fastest-expanding species. Their range stretches from Minnesota in the north, to California, Oregon, and Idaho in the west, Florida in the east, and Peru, Venezuela, and Colombia in the south. They have even been seen in Canada and are, of course, common in the cities of Central America, their ancestral home.

Great-tailed Grackles tend to congregate in large groups, popularly and understandably referred to as "plagues." In Texas, the Southwest, and the southern Great Plains, flocks of these long-legged, social birds hop about residential lawns and golf courses, as well as visit cemeteries, fields, and marshes. Before dawn and after sundown, they often congregate in large numbers in urban areas, for example, on roofs and in tree branches (and on power lines at the McAllen intersection of Tenth and Trenton). There they caw and "sing" for long periods before taking wing to leave simultaneously until the next gathering. On winter evenings, they fill the sky with their ear-piercing racket and crowd into trees and other roosting areas, enabling them easily to detect unwanted bird species and predators, which are mobbed when they dare intrude. These winter roosts can contain thousands of individuals, with flocks of up to half a million occurring in sugarcane fields in Texas' Rio Grande Valley.

Many people consider the grackle a noisy pest. Consisting of a large variety of raucous, cacophonous calls, the resulting "gracket" becomes especially grating when large numbers perform in chorus. The grackle can also mimic the sounds of other birds or even humans to a limited extent.

Omnivorous, Great-tailed Grackles eat plant material year-round, including grains and fruits. In rural areas, they often flock with other blackbirds to peck for seeds in feedlots, farmyards, and newly planted fields, and follow tractors to feast on the disturbed bugs. Although some believe grackles assist in pest control, farmers in many places consider grackles pests because of their large numbers and their, especially the males', penchant for grain consumption. (Because of the difficulty in thwarting the grackle's threat to crop harvests, farmers have employed hawks and other large birds of prey to help control their numbers.)

In town, Great-tailed Grackles forage in parks and other large open areas, on neighborhood lawns, and at dumps. As they hunt for food, they will turn over rocks and pick dead insects from the fronts of cars. Although they usually feed on land, they will wade into shallow water for frogs, tadpoles, small fish, and crustaceans, and even dive a few inches into water in their food quest. They have even been known to exhibit sufficient bravery to approach humans for food scraps.

In winter, Great-tailed Grackles tend to flock with their gender when they forage. In summer and early fall, they substantially increase their intake of animal matter, which comprises up to 80% of female grackle diets. Prey includes a variety of bugs, snails, worms, and slugs. They will also feed on small reptiles and mammals, as well as the eggs and offspring of other birds.

The social mating system of the Great-tailed Grackle is primarily polygynous, but individuals of both genders sometimes prove unfaithful to their social mates. The social, or territorial, males tend to be larger and will sire many more offspring than the smaller residential and transient males because the female will allow the large males to mate with her and will usually (but not always) reject smaller males.

Although first-year Great-tailed Grackle males do not mate, first-year females often do. In the breeding season, males tip their heads back and fluff up feathers to display and keep other males away. (This same behavior is used as a defensive posture to attempt to intimidate predators.) When a male spots a female, he engages her by puffing up and gaping his mouth, a display called the "ruff-out." He then proceeds to make loud calls and follow the female.

Great-tailed Grackles tend to nest in groups, several females nesting in the area of a single territorial male. Females weave a bulky, well-concealed cup of various plant and man-made materials, anchoring the rim to upright twigs or small branches and lining the nest cup with mud and a soft inner layer of fine grasses. She then produces three to four pale to bright blue eggs, which she incubates 13-14 days before the chicks hatch blind and mostly naked, with pale, salmon-colored skin.

Because they are smaller and require less food, female Great-tailed Grackle chicks are more likely than their brothers to survive to fledging. Likewise, adult females may outlive males, resulting in a "sex-biased" population with greater numbers of females than males (hence, the polygyny?). The oldest Great-tailed Grackle in the wild (based on banding records) lived 12½ years.

Twelve and a half years seems an excruciatingly lengthy time to have to tolerate such an aggravation with few, if any, evident redeeming qualities. While my research has done little to endear grackles to me, I have developed a slightly expanded respect for their perseverance and cunning. Regardless, I still resent the return of this summer plague, this DEVIL-BIRD!

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Scarlet Musk Flower

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

The indescribable beauty of the scarlet musk flower is best illustrated with a picture. This picture was snapped on a somewhat cloudy day in Starr County while I was out and about on a driving tour of the countryside. Recent, ample rains had helped native flora spring forth with renewed vitality, luster, and brilliance. Sharp pops of bloom colors, ranging from blues, purples, yellows, creams, and whites, just to name a few, were generously scattered and strewn up and down the lone gravelly road that my vehicle crept along for as far as my eye could see.

Scarlet musk flower (*Nyctaginia capitata*)

At a certain point in my driving tour, I parked my vehicle, and got out to walk amongst the many low-growing, blooming, wildflowers so that I could get a closer look at each of them. I treaded as lightly as I could to avoid crushing any flowers underfoot as I continued to meander through the blooms. Soon, I spied a plant sporting something bright red. Could this be a red bloom? Whatever this plant was, it towered at least four to five inches above its plant neighbors. I picked up my pace and soon I arrived at this breathtaking scarlet musk flower. (*Nyctaginia capitata*) This flower was mesmerizing, gorgeous, exquisite, and delicate. It was hard for me to move forward on the path after gazing upon its beauty.

As soon as I got home, I had to consult a few of my go-to plant books for more information on this member of the Nyctaginaceae family. This plant also goes by the name Devil's Bouquet. It is a perennial that grows from a tuberous root up to heights of 16 inches and is an excellent nectar plant for butterflies. Geographically speaking, this plant is "widespread from Cameron County north through Edwards Plateau, west throughout Chihuahuan Desert. Grasslands, fields, prairies, open desert scrub, roadsides, and other open areas. Summer, fall. Common," according to *Wildflowers of Texas* by Michael Eason.

The Solar Eclipse of October 14, 2023 is not a total solar eclipse!

Article by Tom Butler, South Texas Border Chapter

The eclipse this fall will be a partial solar eclipse, but it is not an ordinary partial eclipse. It is the rarest type of solar eclipse, an annular eclipse. At maximum, and as seen anywhere along the center line of the eclipse, you will see the entire Moon silhouetted against the Sun. The explanation of why this occurs is that the Moon will be at or near apogee in its orbit of Earth. Apogee is the point in the Moon's orbit when it is the maximum distance from Earth.

You may have heard of a super Moon, this is a mini Moon. It will appear smaller than the disc of the Sun. You must have protective glasses to view this eclipse and you will never see the darkness associated with a total solar eclipse. Nor will you see the corona or any other features of the dimmer, outer layers of the Sun. There will be a significant dimming of the daylight and the view of the Sun with the Moon centered within the Sun and blocking a significant portion is unique to this type of eclipse. You must be on or very near the center line to see the Moon silhouetted against the Sun. As seen from the Rio Grande Valley, this will be nothing more than a very deep partial solar eclipse. What makes this one special is seeing the silhouetted Moon surrounded by the Sun.

For further reading regarding this information I am including a link to the preeminent astronomy magazine, Sky and Telescope. https://skyandtelescope.org/ It has extensive information on the eclipse in a link on the main page. The main page this month is highlighting the total solar eclipse which will occur April 8, 2024. Take the time to study that eclipse as it will pass through Texas. This will be the last total solar eclipse in the United States for many years. If you ever want to see a total solar eclipse, the 2024 eclipse will be your best opportunity.

On that page you can click on the Countdown to the Eclipse to get to a map that shows the path of the 2024 eclipse. In the upper left hand corner of that map there is a box to select another eclipse and you can click there to get a look at the path for the October 2023 eclipse and details for that eclipse. If you look over the information, you should find there is a simulator that shows what the 2023 eclipse will look like.

For viewing any eclipse including the annular eclipse this fall, clear skies are a must. For this reason, when planning travel to see the eclipse I like to keep my options open. I watch weather forecasts as the eclipse approaches and make tentative plans based on long range forecasts. As the eclipse day approaches I narrow my options down. Considering travel time to various locations along the eclipse path I may relocate to a place nearer my best options. In the last day or two before the eclipse I will select my preferred location along the eclipse path. A check of the weather before the eclipse will determine if a last minute adjustment can improve my chances of seeing the eclipse.

I suggest purchasing eclipse glasses early so you have them when you need them. They are inexpensive, get a pair for every family member. The cardboard glasses with aluminized Mylar are quite suitable for viewing the Sun. You should never look directly at the Sun without the protective glasses as long as even the tiniest portion of the Sun is visible.

It all Started with a Bee

-how an American bumble bee changed the way I accomplish things

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

On one particularly hot, humid spring day, back in 2022, before I began working on my chore list at the ranch and arboretum for that day, I took a few moments to glance around at the habitat to see if anything of note stood out that needed to be addressed first. Although I did not see anything that warranted it be urgently moved to the top of my chore list for that day, one thing was glaringly apparent. There were no blooms on any plant material to speak of. Drought conditions had negatively affected the entire Tamaulipan thornscrub habitat, right down to the lack of wildflowers. As I skimmed and scanned, I was disheartened to note that there were very few native pollinators out and about either.

As a citizen scientist and Texas Master Naturalist, the lack of bountiful blooms, observing just a handful of native pollinators on my quick walking tour that day, was both troubling and problematic. Truthfully, I was horrified and saddened. I felt an overwhelming need to try and arrive at some sort of solution to the current state of the dry, arid, bloomless habitat on the spot. However, temperatures rose quickly, and I needed to get to work. Therefore, I tucked the dilemma away for future contemplation and moved forward with my list of chores.

After almost a full day of work in the hot sun, I was exhausted. Consequently, I took a moment to stop and enjoy the beautiful clouds that hung effortlessly in the sky for a few minutes so I could catch my breath. That is about the time I noticed an extremely large black and yellow bee on a cowpen daisy. A pollinator! I quickly grabbed my cellphone and began recording video of this large, fuzzy bee. Almost as soon as I began recording the bee, it flew off. I hoped that I had been able to get enough video of the bee to distinguish which native bee it might have been.

American bumble bee (*Bombus pennsylvanicus*)

I stepped over into the shade of a mesquite tree and reviewed the video. Much to my surprise, the bee I had recorded was an American bumble bee (*Bombus pennsylvanicus*)! I was ecstatic as this was my first American bumble bee sighting on the property. Additionally, given the fact that just hours before I had observed a mere handful of native pollinators flying, buzzing, and darting around, it lifted my spirits and gave me hope. I prolonged my rest break and spent a few more minutes trying to figure out why an American bumble bee had visited the property. Was there something I could learn from this large, fuzzy bee?

After a few minutes of staring at the little green patch of blooming native plant material where I had seen the bee, it occurred to me that the reason the bee was on the cowpen daisy was because it was one of the few plants that was in bloom at the time. That made perfect sense. My mind quickly moved on to the question, "Why was the daisy blooming?" The daisy was blooming, because it had grown up beside the livestock water trough and had access to water that overflowed out of the trough and out onto the soil.

It was at that precise moment that I had my epiphany: "What if I corralled the water overflowing out of the livestock trough to help increase blooming, native plant material year-round?" That question was quickly followed by, "How could I corral the water?" The answer to that question was immediately obvious to me. After watching my grandparents working in their yard for years, I knew I could install a dirt border around the low spot that had naturally formed beside the livestock water trough. That was simple enough, and totally doable. All I needed was my shovel and time dedicated to both creating and maintaining the dirt border. I immediately got back to work and took my shovel and created a dirt border around the edge of a single livestock water trough.

Things have not been the same since I began corralling "overflow" water in 2022. I am happy to report that areas around numerous livestock water troughs are now sporting dirt borders of their own and boasting lush areas of native plant material loaded with blooms. All manner of pollinators, as well as other wildlife, have also come to rely on these small microecosystems, if you will, for their food, shelter, and nesting material. That single, solitary American bumble bee gets all the credit for flying into my life and getting my attention, causing me to ponder and extend my thinking to methods that I could find and utilize to increase thriving, blooming, native plant material for pollinators that involved minimal cost and minimal labor.

Lush habitat where the water trough overflows

In closing, I must share the latest, extraordinary chapter in this story. On a hot, humid spring day this year, I observed and documented another single, solitary American bumble bee visiting a cowpen daisy not ten feet from the exact spot where I spotted an American bumble bee visiting a cowpen daisy on that fateful hot, humid day back in the spring of 2022. Pretty cool, right?

Where the Water Trough Overflows

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

Where the water trough overflows, a dirt border is built to contain and hold precious drops of water as it spills out over the top and out onto the South Texas Sand Sheet.

Where the water trough overflows, a young Brasil tree's roots are like anchors, providing excellent erosion control as they dig and cut deep down into the loose, red, sandy soil.

Where the water trough overflows, after a fashion, green, native plant material begins to spring up next to sturdier shrubs that have been by the water trough's side from years before.

Where the water trough overflows, Cowpen daisies Tiny Tim, and Three Lobed Florestina grow, thrive, and feed a plethora of pollinators, including an American bumble bee.

Where the water trough overflows, Pipevine Swallow tails float on warm, breezy currents as they dart in and around mature Wild Olive trees sporting fresh, crisp, white blooms and bright green, soft leaves.

Where the water trough overflows, Hummingbirds, Green Jays, Northern Cardinals, Long-billed Thrashers, Pyrrhuloxias, Groove-billed Anis, Northern Bobwhite, Great Kiskadees, and White-winged Doves take refuge in the arms of Lotebush and Colima.

Where the water trough overflows, native plant material provides shade and cover for insects, birds, lizards, and all manner of creeping, crawling, slithering, living things.

Where the water trough overflows, an unexpected, wonderful microecosystem will spring up and sustain life when significant amounts of native habitat have all but dried out to mere sticks and twigs due to lack of precipitation.

Where the water trough overflows, flora will grow and all manner of fauna will be attracted to it.

Well Hello, Chickadee!

Article by Caroline Cardile, Rio Grande Valley Chapter

Today I really appreciated technology. Using Google and a high-tech bird feeder, I got a special birding experience. My son-in-law put up a new bird feeder that he gave my daughter for Mother's Day. This amazing feeder has a built-in camera and sends a signal to your cell phone whenever a bird lands on the food platform.

High-tech bird feeder with built-in camera

Amazing! Today he assembled the feeder, filled it with seeds and meal worms, and put it on a tree outside the kitchen window. It wasn't long before a chickadee found the feeder, landed, and grabbed a beak-full.

I looked in my *Birder's Life List and Diary* to where I'd recorded seeing these birds in the past. In July 2010, I saw them in the mountains of central Colorado. In May 2014, we watched Black-capped Chickadees at Tamarac National Wildlife Refuge near Rochert, Minnesota. Only a couple of months ago we saw them in Ladybird Johnson Park in Fredericksburg, Texas. Could this be possible, I wondered. So, I asked Google.

According to an article on Google from TheLongmontLeader.com, Black-capped Chickadees can be found in all those locations. Black-capped Chickadees are only 4.5 to 5.5 inches long and weigh only 0.03 to 0.04 ounces. The males are slightly larger than the females and it is difficult to tell which is male or female. These birds eat mostly insects in summer and more seeds and berries in winter. They live in monogamous pairs for several breeding seasons. The article states that the males feed the females in early spring, although scientists are not sure whether this is a courting behavior. Females lay one clutch of eggs per year which they incubate for 12 to 13 days. The male brings food to the incubating female. The hatchlings fledge after about 16 days, but the parents continue to feed them for about another month before they are on their own. Once they leave their parents, they usually join a different winter flock than their parents.

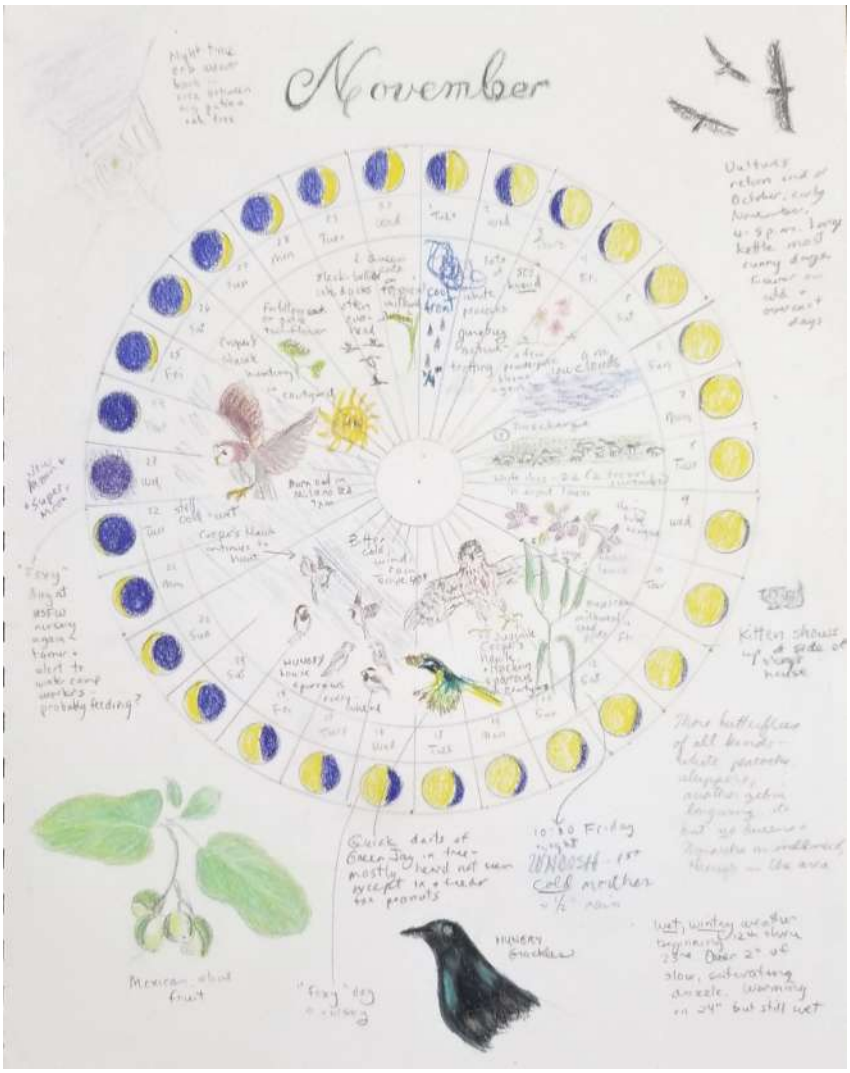
This is just some of the information from research by Robert Taylor, Ontario, Canada, that was summarized in the article I read.

Nature's Calendar
- Are you a phenologist?

Article & photos by Lisa Kay Adam, South Texas Border Chapter

Do you know which tree usually blooms earliest in the Rio Grande Valley? Which months monarchs often migrate through? Or when the pink evening primrose might first be found along a roadway each year? If so, you are a great phenologist.

As the National Phenology Network explains, phenology is simply "nature's calendar," the study of when cyclical and seasonal natural events occur in a particular location. Always a fascinating study, phenology's importance is growing because of climate change. Seasonal and weather changes may throw out of sync the timing of interdependent species, such as the migration of butterflies and the flourishing of their host plants, or the emergence of caterpillars and the breeding season of birds who feed them to their young.



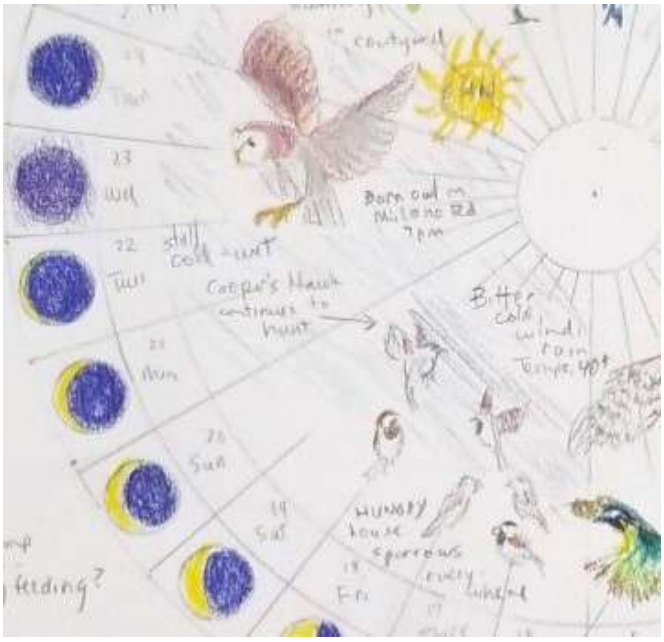
A phenology wheel is useful for recording observations in nature

I am *not* a great phenologist. I think I know when things happen, but it turns out I have only a vague notion. However, I've been keeping better track recently through a *phenology wheel*. The basis of the wheel is a large circle divided by spokes into labeled segments; these can represent the days or weeks of the months, the months of the year, or the seasons of the year. Within those segments, the creator draws, doodles, or paints small images of natural observations and/or makes written notes. Examples might be the appearance of wildlife, the budding or blooming of plants, the cycles of the moon or astronomical observations, weather data, and anything else of personal

interest. I also note observations in my garden. As a cultivated space, a garden isn't a traditional subject for phenology, but since I garden for wildlife, it's useful for me.

As far as I can tell, the phenology wheel is a recent innovation. But it surely must have kinship with both ancient and modern forms of recording chronological observations in a circular shape. Examples might range from the famous Aztec "calendar" stone or *Piedra del Sol,* to the text-based *Desert Flowers* by contemporary artist Richard Long. The circular form is a perfect way to embody time's cyclical passage and nature's rhythms, and a completed wheel is not unlike a mandala.

I find making a wheel is a lower-pressure alternative to a nature journal. I like to be creative, but the "blank page syndrome" in writing that Anita Westervelt recently talked about applies equally to making art and journaling. The wheel's form gets me started. I haven't completed a full year of phenology wheels yet, but I'm already looking forward to comparing my observations to the next year.



Author's varied observations and notes for November

But using a wheel is only one way to participate in phenology. As mentioned before, the National Phenology Network is a citizen science project. I've noticed, however, that they don't track many of the plants native to our area. Much closer to home, John Brush, in his blog for the Center of Urban Ecology at Quinta Mazatlan, describes two phenology databases he has created in iNaturalist for the Rio Grande Valley: one for blooming plants and one for fruiting plants. Contributing to either of these networks adds important data to the scientific study of phenology.

My phenology wheels are purely for personal pleasure, but they are making me a better observer of natural phenomenon, and they only increase my awe and wonder at the complexity of nature.

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Celebrate and Document Moths

-National Moth Week 2023 is July 22 to 30

Article & photos by Anita Westervelt, South Texas Border Chapter

National Moth Week is a citizen science opportunity where Texas Master Naturalists can get involved and earn volunteer hours documenting moth species in their own yards, neighborhoods and local parks.

Major online biological data depositories, including iNaturalist, Project Noah, BugGuide, Moth Photographers Group and Butterflies and Moths of North America have partnered with National Moth Week. Participants can join as many groups as they like; joining a database is free. Users of iNaturalist may sign into their account and join the project at this link: https://www.inaturalist.org/projects/national-moth-week-2023

Several local parks are expected to have Moth Nights for observation and educational opportunities during the national celebration week. The STBC invites Texas Master Naturalists from both chapters to any of the events and is using the opportunities in lieu of an organized monthly field trip. Joining an educational experience is an opportunity for Advanced Training for Texas Master Naturalists. Once times and dates are finalized in early July with the participating parks and other venues, schedules will be posted on both chapters' Facebook pages.

Painted Shinia moth (*Shinia volupia*)

National Moth Week was founded in the United States in 2012 by the Friends of the East Brunswick Environmental Commission, a non-profit organization in New Jersey. Participation has grown to include events in all 50 U.S. states and more than 80 countries worldwide.

Coffee-loving Pyrausta moth (*Pyrausta tyralis*)

Or set up a moth attracting station in your own backyard and invite your friends. A home yard set up can be as simple as draping a white sheet over a portable table and aiming a UV light onto the surface. Purchase a LED black light (ultraviolet or UV-A light) bulb that will fit a standard lamp or clamp-style work light fixture from grocery or hardware stores or online. A flashlight or headlamp with white light to illuminate moths for photographing is helpful. Smartphones make it easy to crop and upload from the phone onto iNaturalist.org.

Set up the moth-attracting unit in an open space, if possible. Turn black light on at sunset. Moths usually appear within two hours. The more consecutive nights, the more variety of moths and bugs you may attract. Read more about how to get into Mothing at our chapter's blog: https://www.stbctmn.org/post/mothing

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Would you like to help? Please contact us at riograndevalleychapter.tmn@gmail.com

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.

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At-Large Director	Pierre Tessier
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Immediate Past President	Robert Hernandez
Membership Director	Rohny Escareno
New Class Director	Anne Mayville
New Class Director	James Gerry
State Program Representative	Kathy Tonn (Tessier)
Volunteer Service Project Director	Susan Coleman
At-Large Winter Texan Director	Mary Baker

Committee Chairs

Archivist/Historian	Kathy Tonn
Website/Webmaster	Joseph Connors

Advisors

Texas Parks & Wildlife Advisor	Javier DeLeon
Texas AgriLife Advisors	Tony Reisinger

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