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.

Saving the Guayacáns - A Native Plant Santa Story

by Janis Silveri
Rio Grande Valley Chapter

As Christmas approaches, I try to find projects that give me the same thrill as a child seeing presents from Santa left under the tree. As an adult, the closest I have come to this feeling is rescuing animals or releasing a tree or bush that has become intertwined or overgrown with vines, grasses, sprouting trees and other unwanted growth.

Similar to an animal being helpless to remove parasites, plants and trees can become overwhelmed and die. By removing unwanted plants, along with their roots, around the base of the desired tree, competition from the undesired growth is eliminated. Following this up with composting, watering, and mulching makes you their Santa.

Guayacán and competing vegetation -- photo by Janis Silveri

My latest extrication involved three Guayacáns. Not only were they covered by the usual unwanted growth, but a nearby cut-down Brazilian Pepper with an undestroyed trunk was sending out roots with accompanying growth taller than the Guayacáns. The Guayacáns were totally obscured by all the unwanted growth and even some wanted growth: Turk's Cap (*Malvaviscuss arboreus*). Debbie Gossman helped me expose the stump of the invasive Brazilian Peppertree (*Schinus terebinthifolius*) by removing all the suckers covering it. She will drill holes and fill with stump killer granules. All the unwanted tree growth throughout will be cut and brushed with a stump killer.

Brazilian Peppertree stump and cut suckers--photo by Janis Silveri

Following the removal of other growth along with their roots, the Turk's Cap will be removed, if too close to the Guayacáns. I will compost, water, and mulch. I learned from a recent presentation that if a plant is properly prepared with compost, one should not have to replace the compost for years; just replace the mulch as it disappears.

I would be remiss by not describing Guayacáns in all their beauty. Guayacáns growing uninhibited in Hugh Ramsey Park flow freely up to 23 ft. tall, as compared with more controlled ones liberated at the Cameron County Master Gardeners' Education Garden in San Benito. In the Education Garden surrounded by Turk's Cap, these Guayacáns are almost unrecognizable as the same tree, until one gets really close. Upon closer examination, one sees the similarities as described in Richardson and King's *Plants of Deep South Texas*, Texas A&M University Press, 2011.

Liberated Guayacán and Turk's Cap – photo by Janis Silveri

Guaiacum angustifolium (*Porliera angustifolia*) are grayish green or blue-green shrubs or trees up to 23' with opposite, compound leaflets found in Cameron, Hidalgo, and Starr counties. Bloom period is spring and summer with radial, usually purple small five-petaled flowers; winged fruit, usually 2-lobed with two red seeds up to ¾" broad. "This woody plant would be beautiful in the garden. It vaguely resembles the appearance of the northern evergreens sometimes used here. Although slow-growing, it has attractive leaves, flowers, and fruit. It is a host plant for the Lyside Sulphur butterfly and is heavily browsed by deer. The wood is green, dense, and sinks in water. It is prized for articles such as knife handles." Richard, King pg. 425.

Guayacán flower and fruit --photo by Diane Hall

The American Kestrel

- a Dazzling Winter Gem

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

American Kestrel (*Falco sparverius*)

What an agreeable surprise! Training my binoculars upon what seemed to be a lone grackle or dove on a wire near a Brownsville middle school, I was greeted by the intense brown eyes and striking geometric patterns of one of my favorite winter visitors, the American Kestrel.

This falcon, the smallest in North America, breeds throughout most of the continental U.S., including Texas, but, interestingly, not from about San Antonio southwards. But this beauty, along with the Osprey and Northern Harrier, among others, chooses to winter in the Valley, accentuating our newfound joy and relief at awakening to morning temperatures in the 60s and, without heroic toughness, being able to saunter or bike along nature trails during bright midday. Also, daytime is when kestrels sit on wires and snags watching for prey. Our wintertime fields, scrublands and yards offer these guests a lush buffet of arthropods, as well as small mammals, reptiles and birds.

Splendidly attired in autumn colors, a kestrel sports a black streak beneath each eye. It also wears two black spots resembling another set of eyes on the back of its head, which may serve to confuse its predators—including hawks, owls and crows—as to where and how it is likely to move. Its upperparts are rust-colored with black bars, while its underparts are white or orangish. The male has bluish gray wings and a gray tail ending in a black band, while the female's tail is barred. Females are about 10% heavier, too. The American Kestrel's orange cere above its sharply hooked black beak recalls chocolate candy corn.

Kestrels' migration habits vary, with many southern birds, which continue to enjoy ample prey, staying put. Employing updrafts and thermals and usually skirting sizable bodies of water, migrating birds tend to travel alone or in loose associations. Kestrels relish open farmlands and

scrub, but also thrive in cities, where they perch on wires, fences and treetops—anywhere that offers a good view.

The American Kestrel (*Falco sparverius*) was formerly called "Sparrow Hawk"; in fact, its species name means "pertaining to a sparrow." It has also been called "Grasshopper Hawk" and "Killy Hawk", the latter, due to its call of "killy, killy, killy." Spanish speakers call it "Cernícalo Americano."

American Kestrel (*Falco sparverius*)

This kestrel, largely diurnal, may hunt from a perch or by hovering—facing windward, its head seemingly fixed, its wings flapping and gliding, and its tail, making constant adjustments, serving rather like a boat's rudder. It may also stoop from on high, hovering and lowering itself repeatedly. While a kestrel may seize insects midair, it usually catches prey on the ground, initially grabbing its victim with one or two talons. It kills a vertebrate by biting its head and neck area, then stabbing it with its notched tooth beak, severing its spinal column.

Kestrels are not picky eaters. One Canadian study found that kestrels ate 74% invertebrates and 16% mammals, the remainder consisting of birds, reptiles and amphibians. A kestrel may cache uneaten remains, hiding carcasses from would-be thieves in sundry clumps of grass, roots, bushes and various holes.

A kestrel's flight is like that of a typical falcon; it beats its wings deeply, in a rowing movement, and it glides. Its varied vocalizations include a "klee" call—a rapid and far-carrying series of 3-6 notes—a 1-2 minute whine, mainly performed by a breeding female, and interactive "chitter".

Kestrels, which are usually monogamous, nest in ready made cavities like those created by woodpeckers or holes in buildings or dead trees—for which they may have to battle squirrels and

other creatures. They will also use nesting boxes. During courtship, a female flies slowly, her wings slightly lowered, while a male, soaring higher, calls and dives. During flight, he passes her a gift of food. The female lays from 4-5 brown-marked eggs and does most of the nest-sitting and attending to chicks. Fire ants and snakes, among other predators, threaten eggs and hatchlings.

Combative kestrels raise their back feathers and stand straight, often with tails outspread. Then they either fight, grappling with feet or beaks, or "curtsy" and depart. A kestrel may harass a hawk or eagle, attacking one that ventures into its territory.

While American Kestrel populations appear stable in Texas, they have declined elsewhere, particularly in the Northeast, four of whose states list them as "threatened", and 21 U.S. states list kestrels as "of concern." In fact, according to the Cornell Lab of Ornithology, the last half century has seen their 50% decline.

Also, some evidence suggests that kestrels are becoming smaller. This decline in populations is likely due to the rampant clearing of brush, which may deprive kestrels of dead trees for nests and lookouts. In addition, this clearance may destroy arthropods and other small creatures kestrels enjoy. Pesticides and pollutants, besides destroying insects, may interfere with kestrels' hatching and clutch sizes. Also, kestrels may suffer from competition with the introduced European Starlings, which contend for nesting cavities.

American Kestrels, since they breed well in captivity, have been widely studied. Researchers have found, for example, that hand-raised kestrels appear to play as they manipulate objects that resemble natural prey. Scientists have also studied kestrels to better understand the effects of pesticides on birds, and kestrels have also been reproduced by artificial insemination. Kestrels are popular in falconry—in which they catch sparrows and starlings— especially as a starting bird, due to their small size and proclivity for short distance flights.

I saw a Texas horned lizard!

by Anita Westervelt, South Texas Border Chapter

I only had time to stop my scooter as the lizard scurried at speed across the road in front of me, quickly melting into the tangle of vegetation along the side of the road -- not 50 feet from our driveway entrance -- my phone camera safely tucked in a back pocket of my shorts.

So, no photo, but I know what I saw.

The Texas horned lizard is about three and a half to five inches long. It is short and wide with a flattened body, short tail and tan or beige in color with dark spotting, or dappling. It has many pointed horn-like projections covering its body. The two central head projections at the rear and center of the skull are horns; the rest of the spikes are spines (modified scales) which help keep the lizards from losing moisture through their skin. They have two rows of spiky fringe scales on the sides of the body, gray to brown to rust, with dark spots in rows down the back and a light central stripe with dark lines radiating from the eyes.

Rio Grande Valley Chapter member Roberto Gaitan had better success capturing the colors, spots, dappling, horns, spikes, spines, stripes, lines and fringe scales of the Texas horned lizard in all its striking beauty one spring day at the Palo Alto Battlefield National Historical Park, Brownsville.

Texas horned lizard – photo by Roberto Gaitan

The Texas horned lizard's range is through most of Texas, up to Oklahoma and Kansas and south into Mexico, although they are nearly gone from the eastern third of Texas, according to Texas Parks and Wildlife Internet fact sheets.

I was elated to see a Texas horned lizard in my neighborhood. I was also excited because I now had proof that my diligence has paid off!

During Texas Master Naturalist training (Class of 2013), I learned that the Texas horned lizard (*Phrysonsoma modestum*) -- AKA horny toad to young Texans growing up pre-1970s -- is nearly extinct. The primary cause is because they don't have a diverse diet; they feed only on red harvester ants (*Pogonomymex barbatus*), the class was told.

In a double-jeopardy scenario, red harvester ants also are declining. The underlying cause for the decline of both Texas horned lizards and the red harvester ants is habitat loss due to development.

As is what's supposed to happen when one becomes a Texas Master Naturalist, I thought about the big picture. Never thinking I'd ever see a Texas horned lizard -- the lecturer had painted that bleak a picture for them -- but learning about what they eat would allow me to take care to not destroy their source of food. I quickly learned to recognize a red harvester ant nest -- an incredibly easy task because the ants remove all the vegetation from a circular area three to six feet in diameter with one entrance hole in the center of the circle.

All the ant activity is underground except for the ants entering and exiting the hole. Tiny trails are often visible leading from several points from the cleared area through the surrounding vegetation. The underground nests can be up to eight feet deep.

A large red harvester ant nest at the bottom of our property – photo by Anita Westervelt

There are 22 species of harvester ants in the United States, ten of which are found in Texas. Seven of those species are found only in far west Texas. The ant's diet consists mostly of seeds. They participate in mymecochory (pronounced mer-ma-cock-ery), an ant-plant interaction through which the ants gain nutrients and the plants benefit through seed dispersal, according to Texas A&M AgriLife Extension information.

Red harvester ants are most active during hot, dry conditions. The foragers collect grass seeds and store them in their nests. Their foraging range can be 250 to 300 feet.

The worker ants are one-quarter to one-half inch long and are red to dark brown in color. They are a good-looking, shapely ant with a squarish head and no spines on the body. They use their large mandibles to grind seeds into a bread-like material which they store in their nests in areas termed granaries. Dead insects also are collected for food for the colony.

Red harvester ants at work – photo by Anita Westervelt

For the last several years, I've protected red harvester ant nests that I come across while working in the yard. The first sighting was in a most inconvenient place: the triangle made by the end of our driveway and the edge of the county road. I put reflecting posts around it so cars entering or exiting our driveway would keep to the pavement and not run over the nest; the nest is still intact.

Another nest appeared a couple of years later under one of our grapefruit trees. In the past couple of years, additional nests began appearing along the 25-foot wide strip between our fence and the adjacent plowed farm field. I diligently mow around each nest in a direction that does not spew clippings onto the bare circle surrounding the ant's entrance. This summer, there were five red harvester ant mounds along that strip.

A red harvester ant nest near a plowed field – photo by Anita Westervelt

A colony will pick up shop and move if they're mowed over or elsewise disturbed too many times. AgriLife Extension literature reports that red harvester ants are a native species and are not considered to be serious pests; they recommend considering the option of not controlling these ants, especially in areas inhabited by the few remaining horned lizards.

After habitat loss, the second reason for decline of horned lizards and red harvester ants is due to invasive ant species from Central and South America, like fire ants that attack the lizard's nest and eat its eggs. Fire ants do not prey upon harvester ants, but they out compete them for resources.
During my research, I found some good news about Texas horned lizards. They don't completely rely on red harvester ants; they will supplement their diet with termites, grasshoppers, beetles and other insects. Good to know, but I'll continue to help keep a ready supply of their preferred food available on our lands.

Harlingen Christmas Bird Count --January 1, 2022

by Norma Friedrich, Rio Valley Grande Chapter

Mark your calendars! It's time to continue a 122 year tradition...

> "Beginning on Christmas Day 1900, ornithologist Frank M. Chapman, an early officer in the then-nascent Audubon Society, proposed a new holiday tradition—a 'Christmas Bird Census' that would count birds during the holidays rather than hunt them," states the Audubon website. For more historical information see https://www.audubon.org/conservation/history-christmas-bird-count.

The data collected by observers over the past century allow Audubon researchers, conservation biologists, wildlife agencies and other interested individuals to study the long-term health and status of bird populations across North America. When combined with other surveys such as the Breeding Bird Survey, it provides a picture of how the continent's bird populations have changed in time and space over the past hundred years.

Groove-billed Ani –photo by Norma Friedrich

This 2021-2022 count is the 122nd official Christmas Bird Count (CBC). The Harlingen CBC will take place on January 1, 2022.

Sign up to be part of this fun day of teams counting birds in the 17 mile circle that covers Harlingen and parts of San Benito and Rio Hondo. **No need to be a bird expert to participate.** The more eyes on a team, the better the count. Covid regulations will be observed so create your teams with that in mind.

Co-compilers are Mark Conway and Norma Friedrich. Call 361-676-6416 or email hgtxcbc@gmail.com to join a team or create a team and be assigned to an area.

Sprague's Pipit – photo by Norma Friedrich

Harlingen Christmas Bird Count
Feeder Watchers Needed!

by Norma Friedrich, Rio Grande Valley Chapter

Become a Citizen Scientist by counting birds in your backyard on January 1, 2022 as part of the Harlingen Christmas Bird Count. Spend only a few minutes or several hours. Any birds identified will help this special cause. **Don't know your birds, but still want to make a difference? No problem, we can help you!**

Northern Cardinal – photo by Norma Friedrich

Chipping Sparrows at feeder – photo by Norma Friedrich

If you do not know many birds by name, you can have a CBC team come visit your yard, front or back. Simply put out bird seed feeders, hummingbird feeders and/or a pan of water to attract birds to your yard, then call:

Norma at 361-676-6416 or email hgtxcbc@gmail.com to take part or for more information.

Include your name, the address where you will do the feeder watch and an email or phone number. You will be supplied a tally sheet, instructions and information sheets.
Thank you for your assistance with this important project!!

Mourning Doves at water feature – photo by Norma Friedrich

Not always what it seems

by Anita Westervelt, South Texas Border Chapter

Many winged visitors to my black light and moth sheet set up were not what they seemed at first glance.

Tinkerbell showed up at dusk one evening. On a closer look -- and an ID from iNaturalist.org -- it turned out not to be a wee fairy, but an owlfly -- something just as mystical sounding.

Possibly Macleay's Owlfly (*Ululodes macleaynus*) – photos by Anita Westervelt

Owlflies (***Haplogenius appendiculatus***) are considered beneficial; they are nocturnal predators and capture insect prey while in flight. They can be found during the mid-summer twilight in most areas of North America. They are not true flies, but belong to an order of carnivorous insects that have four net-veined wings and mouthparts adapted for chewing, according to an aggie-horticulture.tamu.edu/galveston info sheet.

Most owlflies are about two inches in length with slender bodies, clear wings and very long clubbed antennae; adult owlflies have large, bulging, divided eyes, which is where the common name owlfly comes from. They are attracted to lights at night.
Owlflies are closely related to lacewings and antlions.

Brachynemurus is a genus of **antlions** (also ant lions) in the family *Myrmeleontidae* and the order Neuroptera. There are at least 20 described species. The larvae (known as doodlebugs) are predatory on ants and termites. The adult has four intricately veined wings. They fly at dusk and at night and feed on nectar and pollen, aiding in pollination.

Antlions are cousin to owlflies and lacewings and are often mistaken for damselflies and dragonflies.

A *Brachynemurus,* a genus of antlions – photo by Anita Westervelt

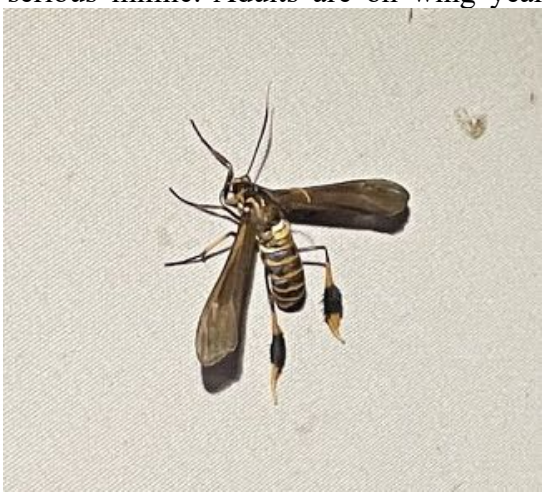
In the light of my head lantern, with my phone camera ready, I was so surprised to see a really pretty green bee! And it wasn't; it was a green fly!

Green soldier flies (***Odontomyia cincta***) are true flies in the family *Stratiomyidae* that play an important role in pollination. They are generally about three-quarters of an inch long, bright lime green with black stripes and reddish eyes; they are active during the day and live safely out in the open by mimicking bees and wasps.

The adults nectar on flowers (they also glean nutrients from dung -- after all, they're a fly, right)? Green soldier flies are found around water. Eggs are laid on the edge of a water body; larvae develop in water and feed on algae. They will sometimes come to lights after dark, which explains why it was on my moth sheet before dawn one morning -- or it was just mustering before soldiering on with its daily duties in its bee/wasp camouflage.

Green Soldier Fly (*Odonto cincta*) – photo by Anita Westervelt

Texas Wasp Moth (***Horama panthalon texana***) is a serious mimic. Adults are on wing year round; they mimic a paper wasp, according to Jungledragon.com. They are active during the day, although I captured a photo of one on the moth sheet when I checked it before dawn one morning. The moth's wing span is nearly one and one-third inches. Its body has yellow and black stripes and the wings resemble wasp wings. The hind tibiae have a band of long black hair-like scales, further adding to the moth's pseudo-dangerous waspish vestige. The adults feed on nectar; wasp-like, they tend to crawl over flowers as they feed, only flying short distances to the next bunch of blossoms, according to austinbug.com.



Texas Wasp Moth (*Horama panthalon texana*) – photo by Anita Westervelt

A Texas wasp moth has been documented at an ultraviolet light set up along the highway on a cliff between San Cristobal and Tuxtla Gutierrez in southern Mexico, according to projectnoah.org. I found one on my moth sheet outside of San Benito in Cameron County. South Texas Border Chapter Texas Master Naturalist Joseph Connors observed a Texas wasp moth on his moth sheet set up in McAllen, Hidalgo County, at 3:24 a.m. last August.

Texas wasp moths are considered common to abundant in southmost Texas. The southern portion of the U.S. is its northern most range. Its larval food is almost unrecorded; there is one record of a caterpillar on desert yaupon (*Schaefferia cuneifolia*) on iNaturalist.org, according to BugGuide.net.

Now, these are the real deal; no mimic here, it's a real wasp, but a unique one -- it flies at night and it's stingless.

Wasps in the genus *Enicospilus* resemble crane flies, but their two sets of wings distinguishes them from the single pair of wings of the crane fly. These wasps parasitize the larvae of various large moths. Adults drink nectar from flowers, if they eat at all; much of their time is spent searching for hosts or for mates.

There are almost 700 described species of *Enicospilus*, according to Wikipedia.

These night fliers can often be found near porch lights. The one I photographed was on the window screen near my black light moth sheet set up at about 4:30 a.m.

Enicospilus, a genus of the *Ichneumonidae* family of parasitoid wasps – photo by Anita Westervelt

It May Be Canary Food

by Frank Wiseman, Rio Grande Valley Chapter

The plant, so often seen as a weed, grows wild in many places all over the RGV. It can be seen growing along roadways, in parks, in some yards and by the curbs of some businesses. What is it? *Lepidium astrinum,* common names are peppergrass, pepperwort, cress, and peppercress.

Peppergrass (*Lepidium astrinum*) – photo by Frank Wiseman

When I was a child, my mother used to also a have a canary. She would go out to find this peppergrass, because it had a small seed that the canary would eat. Free bird food back then in the 1930s and 1940s.

Peppergrass, a member of the Brassicaceae or Mustard family, can be an annual or biennial. It is often hirsute (hairy) with simple, erect stems. Its leaves are entire or dentate. What makes it good bird food is the elongated racemes covered in fruiting pedicels. The resulting seeds are ovate. The plant normally flowers from March-June, and as I previously stated, in disturbed grounds, railroad tracks, fields and roadsides. If you see peppergrass in a neighbor's yard among other native plants, the owner probably knew of its value for birds and planted it.

When I used to give tours in Harlingen's Hugh Ramsey Park for some of our TMN trainings, I would have them in March so we could see the peppergrass plants that grew in various parts around the Ebony Loop's areas, but especially along the upper banks of the Arroyo Colorado.
In researching, I found that *Lepidium* species are reasonably well-defined worldwide, and taxonomists often find no problems in telling them apart. Our particular species of *Lepidium* can be found in Texas, Oklahoma, New Mexico, Louisiana, Arkansas, Alabama and into Mexico.

I also learned a new word: Silique. It has to do with the seeds of this plant. It is defined scientifically as an elongated dry dehiscent seed pod that is the characteristic fruit of the mustard family. The two sides split off at maturity and leave a central partition to which the seeds are attached. This is the same type of raceme that our native scarlet sage, *Salvia coccinea,* has, and it reminds me of the time I saw finches devouring the raceme's seeds as they moved up and down the plant's seeding top.

Peppergrass (L. alyssoides) – photo by Frank Wiseman

Besides seeing Peppergrass growing along the Arroyo, I would also notice it when I drove through the alley behind Church's Chicken on the corner of Eye Street and Tyler in Harlingen. That particular stand of the plant is no longer there. I guess someone decided to get rid of the WEEDS. I always admired it.

When you are out in the Valley wilds, be on the look out for this beneficial bird food plant.

Popular Valley butterflies use exotic plants as larval hosts

Story and photos by Anita Westervelt, South Texas Border Chapter

Logically, butterflies and plants don't recognize borders. Three such butterfly species whose range includes the Valley are the guava skipper, red-bordered pixie and the big yellow sulphurs. For larval food hosts, they look for non-native plants that many homeowners have planted.

As we've learned in our local master naturalist training, November to February is the recommended tree-planting time in the Valley because the cooler months allow trees a dormant period when their roots can grow without the stress of heat and drought.

As Texas Master Naturalists, although we strive to adhere to the practice of planting native plants, this article is about trees that are not considered Rio Grande Valley natives, but they exist amongst us and provide a service. A caution when including non-native plants into the RGV habitat is that they can become invasive; a prudent naturalist, of course, will be prepared to monitor and manage exotic plants and eradicate when necessary. Introduced species also may not survive extreme winter weather such as what the Valley experienced earlier this year. Many of us, though, are butterfly aficionados and are willing to take the chance and extra efforts in order to accommodate and foster colorful butterflies-without-borders species.

Guava skipper butterflies, for example, use the **guava tree (*Psidium guajava*)** and other plants in the Myrtle family as larval hosts. The guava tree is native to Mexico, Central America, the Caribbean and northern South America and has been adopted in a number of countries for commercial produce. In some Valley habitats the guava tree can be fast growing and reach heights of 20 feet.

Guava tree with bloom – photo by Anita Westervelt

Red-bordered pixie butterflies use the **guamuchil tree**, also called **monkey pod**, **(*Pithecellobium dulce*)** as a host plant. Guamuchil is a fast-growing tree in the legume family; it is native to Mexico, Central America and northern South America. It can reach heights of 50 to 60 feet; its bloom period is December to May -- a plus for providing nectar during the winter months.

Tandem growth of Guamuchil leaves – photo by Anita Westervelt

Red-bordered Pixie – photo by Anita Westervelt

The **large yellow Sulphur butterflies**, such as cloudless and orange-barred use both native and non-native plants and trees in the Legume family in the Senna and Cassia genus as larval food, including the exotic **Lluvia de oro (Cassia fistula)**, a fast-growing tree that can reach heights of 60 feet with a 20-foot spread. Many of these trees suffered heavy damage in the freeze. Branches have regrown from the trunk, although weaker; the overall health of the tree may not revive.

Cloudless sulphur caterpillar on Lluvia de oro – photo by Anita Westervelt

Non-native winter-blooming plants can be important in order to provide nectar for adult butterflies remaining in the area during the colder months.

Pata de Chivo, also called **goat's foot (Bauhinia Mexicana)**, has been naturalized in the southern U.S. states and been known to bloom well into the winter. Pinkish white, orchid-like blooms feed butterflies, hummingbirds, wasps and moths. Young, unprotected trees suffered with the freeze, requiring them to be cut back at soil level; they sprouted multiple stems from the roots. Mature trees eventually saw regrowth in upward, dead-seeming branches. In addition to providing nectar, pata de chivo is a host plant to **long-tailed skipper butterflies**.

Guava Skipper in Pata de Chivo – photo by Anita Westervelt

Mexican flame vine (Pseudogynoxys chenopodioides) is an excellent nectar source for butterflies and pollinators, such as bees, ants, wasps and hummingbirds. Its vibrantly colored orange flowers bloom profusely during the winter. It is best to grow this prolific vine on a trellis or other support. It is native to Mexico and tropical regions of South America and the West Indies. It requires full sun and well-drained soil. It dies back with frost but re-grows from the roots.

Mexican flame vine with Queen butterfly – photo by Anita Westervelt

Sense of Wonder

Article & photos by Diane Hall, Rio Grande Valley Chapter

"If a child is to keep alive his inborn sense of wonder -
he needs the companionship of at least one adult who can share it,
rediscovering the joy, excitement, and mystery of the world we live in."
– Rachel Carson A Sense of Wonder

Could YOU be that one adult in a child's life? I know what you're probably thinking..."Who me? I'm not qualified, I don't know how to work with children." Don't give up yet! What if I were to share with you some pointers I picked up at the TMN Annual Meeting held October 21-24, 2021?

There were several sessions at this hybrid event focusing on engaging children in the natural world: "Interpretive Trail Guiding to Help Adults and Children Enjoy Being Outdoors" by Dave Powell; "Hook, Line, and Sinker: Secrets to Engaging and Educating Through Interpretive Programs" by Carol Brinlee, Linda Brinlee, and Reah Easley; "Interpreting for Kids and School Groups" by Katie Raney; and "Ready, Set, Start Out WILD using Starting Out WILD and Family Nature Guides" by Dr. Wendy Drezek.

Nature fun with grandchildren – photo by Diane Hall

You may not start your adventure into engaging children in the natural world with a school group, but perhaps you have a grandchild or young neighbor who would benefit from your companionship and interest in nature. Relax, you don't have to have all the answers to get started, just the right attitude and your curiosity. As Rachel Carson encourages in her quote above, unpack and share your sense of wonder, joy, and excitement with a child!

Are children ages one to three too young to engage in the natural world? No, says Wendy Drezek, Project WILD Facilitator who helped develop **Starting Out WILD (SOW) for toddlers**. The curriculum Growing Up WILD (ages 3-7) and Project WILD (Elementary and Secondary) were already successfully engaging older children. The goal of SOW is that "children will experience the natural world in the ways young children learn – through movement, touch and acting on, and in, nature and that children will enjoy and therefore return to, learning about nature."

Experiencing and exploring are important for toddlers, but do allow the children to approach new experiences as they feel comfortable, usually through successive experiences. Drezek uses a "move-touch-do" approach. Take a short walk, but move leisurely so the child can find items of interest and develop curiosity about the natural world. Natural objects can be used for manipulation and to engage the senses. A simple craft or snack can be used to reinforce key ideas or features. Visit your local library for nature books to read to your toddler or older children.

Originally SOW was developed for use in preschool and park programming and was met with great success. **Family Nature Guides** were developed by taking the best of SOW and tweaking it for use in a variety of settings by a broader age range for families during the pandemic. You can access these lessons at https://txmn.org/alamo/area-resources/natural-areas-and-linear-creekways-guide/family-nature-guides/ for use with the toddlers in your life.

Would you feel more comfortable if you had a few more "tools" to assist you? Perhaps an older audience? Let's put our brains to work...

Katie Raney, Program Specialist with Texas Parks and Wildlife, addressed the **brain development** of children in her session "Interpretation for Kids and School Groups" to help audiences understand the best approach to teaching. Children's brains up to age six need: 1) experiences to be connected – new experiences build from previous knowledge, 2) acknowledgment of a child's emotional needs, and 3) movement associated with experience to drive learning and make teaching effective. Brain development in children age seven and up: 1) abstract and symbolic thinking, 2) understanding of parts of a concept before knowing the whole picture, 3) understanding of feelings of others, and 4) more complex thinking than preschool age children.

Discovering the world of insects –photo by Diane Hall

So how do we put this new knowledge into action? Raney suggests children ages three to eight respond to "Nature Playscapes (playgrounds with natural objects), micro environments (areas directly in front of them), and tending (nurture and care)." Children ages eight to twelve will respond to active exploration and discovery (climbing trees, wading, jumping, competitions, catching insects, etc).

Raney mentioned a wonderful resource that I have used often, **Sharing Nature With Children** by Joseph Cornell. It's an oldy, but a goody and a new edition has recently been released. https://www.sharingnature.com/sharing-nature.html. In his book, Cornell states **six best practices for all age groups:**

1. Teach less, share more – tell them your feelings, not just the facts; invite them to share
2. Be receptive – listen and be aware of child's mood/feeling and alert to nature around you
3. Keep programs active and engage multiple learning styles
4. Focus the child's attention – set tone at the beginning and try to keep everyone involved
5. Look and experience first, talk later – children can explore ordinary things with wonder
6. A sense of joy should permeate the experience – children are drawn to learning if you keep the experience happy and enthusiastic.

A few more "tools" for you, suggested by Dave Powell in his "Interpretive Trail Guiding" session, include a magnifier, mirror, empty bottle for temporary bug observation, tree cookie, acorn, small bone, shelf mushroom, pictures of birds, and paint color swatches all carried in a handy pack. The paint chips make a fun theme for a hike – can you find a natural object that matches the paint color you chose?

"Hook, Line, and Sinker..." speakers, Brinlee, etal also suggested **themed hikes**: Seasonal, First Day, Night, Historical, Color, etc. "Keep it simple, involve everyone, and make it fun! And don't underestimate the power of a good story to help people remember," Brinlee shared.

The tools are at hand, the children are out there. Are you ready to be the adult who will keep alive the sense of wonder in a child?

Spider Sniffing

Article and photo by Joseph Connors, South Texas Border Chapter

Many people know me for mothing, but spiders are my favorite subject. On a recent Night Hike at Bentsen State Park, we spotted hundreds of wolf spiders (family Lycosidae). Wolf spiders are always fun to find, especially for kids.

The reason they are so easy to find is a technique called Spider Sniffing. You hold a flashlight in front of your nose (or next to your eyes). When the light hits the reflective layer at the back of the wolf spiders' eyes, it will shine like a cat's eyes.

Wolf spiders are often difficult to identify to species and they are so common; I only photographed one of them that night. I don't know why I chose this one, but when I uploaded it to iNaturalist, I learned it was a species and genus I hadn't even heard of before, *Sosippus texanus*, a type of funnel web wolf spider.

I bet I had seen the species before and not noticed the difference. I am sure there are still plenty of RGV spider species to learn about, but it was a surprise to find one this big I hadn't noticed before.

Funnel web wolf spider – photo by Joseph Connors

In mid-October, I gave a spider presentation and walk at Bentsen State Park. It was their first in-person presentation since the pandemic, mine too. Nicely social distanced. I never liked public speaking before, but when it is about spiders and insects, it is fun. I never would have known that if I hadn't been asked to give half of a Creatures of the Night presentation for a South Texas Border Chapter TMN meeting a few years ago.

Then Estero Llano Grande State Park asked if I could do a short video on spiders for their Virtual Spooky Science Festival. I did a quick version of my presentation with a focus on spiders that seem spooky. It includes a demonstration of Spider Sniffing. You can watch on the park's Facebook Page. https://fb.watch/8Uy6XxlkZo/

It's all in the details

- Lantana camara versus *Lantana strigocamara*

Article and photos by Anita Westervelt, South Texas Border Chapter

West Indian Lantana – photo by Anita Westervelt

An interesting conversation ensued between expert iNaturalist.org verifiers about one of my April 2018 entries.

The topic was the plant we know as **West Indian Lantana (*Lantana camara*).** What had been identified as *Lantana camara* has recently been identified as *Lantana strigocamara.*

This isn't meant to be a technical article, but the discussion and references are technical. If you don't want to get bogged down with the discussion, just read the next paragraph and then skip to the ending paragraph.

It's all about the abaxial hairs on the veins on the underneath of the leaves. Abaxial is the side away from the axis. The axis is the stem bearing the leaves. In other words, this is about the hairs on the underneath of the leaf.

The iNaturalist discussion is supported by a 2012 paper: "Taxonomy of Lantana sect. Lantana (Verbenaceae): II. Taxonomic Revision" by Roger W. Sanders at this link: https://www.jstor.org/stable/41972430 and a 2006 paper by the same author: "Taxonomy of Lantana sect. Lantana (Verbenaceae): I. Correct Application of *Lantana Camara* and Associated Names" by Roger W. Sanders at this link: https://www.jstor.org/stable/41968588

Our local authors, Dr. Al Richardson and Ken King, note the identification confusion in their 2011 book, "Plants of Deep South Texas: A Field Guide to the Woody and Flowering Species," Texas A&M University press, College Station, page 415, of some of our *Lantana* species saying, "*L. camara* has leaves with fine-toothed margins, **without noticeable white hairs along the veins on the lower leaf surfaces**." The authors also cite the Roger Sanders (2006) paper.

According to iNaturalist verifier Joshua_tx: "The nature of the hairs on the undersides of the leaves is considered the strongest single diagnostic feature in the genus Lantana. In *L. strigocamara*, the hairs are concentrated along the leaf veins and are antrorsely (directed forward or upward) strigose (bearing straight, stiff, sharp, appressed (pressed close or flat against another organ) hairs." He offers an example of *L. strigocamara*: "Check out the last photo for a good view of the strigose hairs along the leaf veins which easily distinguish it from *L. camara*:" https://www.inaturalist.org/observations/101410583

A good explanation between strigose and pilose: An iNaturalist verifier, @dohlmeyer, replies: "Wow great photos, especially the last photo which is the real money shot! Yes, the abaxial hairs here are concentrated along the veins and are clearly largely antrorsely strigose (strigo-camara) meaning the stiff conical hairs are bent near their base and then point forward along their vein. By contrast, the abaxial hairs on actual *L. camara* are pilose (fine soft hair; downy) and are not concentrated along the veins, instead dispersed across the entire leaf."

Possibly *Lantana strigocamara* showing abaxial hairs on leaf vein – photo by Anita Westervelt

I've provided definitions in this article in parentheses using the book, Harris, James G. and Harris, Melinda Woolf, "Plant Identification Terminology, An Illustrated Glossary," Second Edition, Spring Lake Publishing, Spring Lake, Utah.

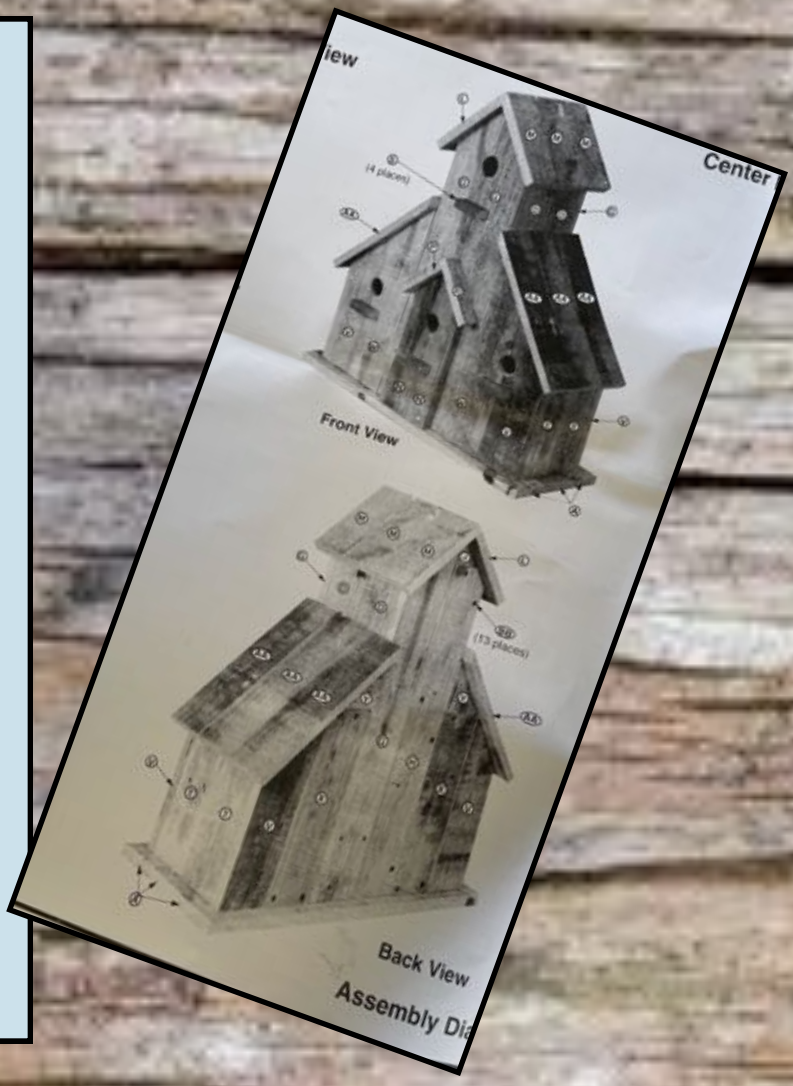
My take-away to the discussion is this: When photographing and uploading Lantana species to iNaturalist, take a photo of the flower (if blooming), the top side of a leaf and a clear close-up of the underside of the leaf that distinctly shows the hairs. Take a shot of the fruit and an overall shot of the shrub too, if you'd like.

Texas Master Naturalist—Rio Grande Valley Chapter
ADRIAN RAMOS
MASTER CARPENTER (WANNABE)

4 ROOM BIRDHOUSE PROJECT

Day 0

As an engineer I have always believed myself to be a builder. And now as my retirement is approaching I found a hobby I really enjoy. WOODWORKING! A website of wood working plans caught my eye a few years ago and so did all those cool tools. So I got the plans and got the tools ….. now its time to play. This is my latest project. This project took about 20-22 real labor hours over the month of October.



Disclaimer

Also, as you will see later, my impatience always gets the best of me. Measure twice, cut once, yeah, yeah, right. I had to use shims, have a few gaps in the wood and it kinda looks like a frankenhouse. What I mean is, I am not a professional carpenter , I do this for fun and stress relief. But I think it turned out pretty good in spite of my shortfalls.

Day 1– Gathering Material

Wood is really expensive right now. So being the thrifty soul that I am and a conservationist I opted to use reclaimed wood from old pallets (as I do with most of my woodworking projects). This is sometimes challenging. Pallet wood is often damaged, different thicknesses, and its warped, stained and hammered in with 100 nails. But I did find some good ones.

Day 2—Pallet Busting

Busting pallets on a hot humid day in October provided a good workout and plenty of material. This project require widths of 3”, 2 1/2”, 2” and even smaller pieces like 7/8” x 7/8” x 2” long. Fortunately I have the tools to get that done: table saw, chop saw, scroll saw, rotary saw, clamps, wood glue, carpenter square, etc.. My tools are mostly Ryobi from Home Depot (my favorite store).

Days—3 and 4 Finding good pieces of the same thickness in good condition. Then cutting a clean edge with the table saw, and cutting to the correct widths. This took me a few days. This project was like putting together a jigsaw puzzle—but you have to make the pieces yourself.

I always use hearing protection,… but I'm pretty deaf anyway

57 total pieces, with orange stickies so I knew where my puzzle pieces needed to go

Day 5—The Building Begins Now that all the pieces are cut to size and sorted I can start. Started by nailing and gluing the floor pieces together, then clamping them for a tight fit. Then left and right main walls with 45 degree cut for the roof. This was a weekday—had to cut it short.

Day 6—Building Continues Front and back walls center room. Then walls for left and right rooms along with intermediate roof supports. Another short day and now its getting dark.

Days—7 The Roof Thought I'd never make it this far with all the (ahem) adjustments I had to make. No pictures of the roof install (it was pretty ugly anyway). Had to buy some new stuff to drill 1 1/2" holes (pallet wood is very hard). But the final unweather-proofed 4 room bird house—looked like this and is supposed to look like this.

Epilogue— Worked hard, had a lot of fun and learned a few things on this project. I have donated this 4 room bird house for the Birding Festival (just in time too). The next bird house will be better (shown here), but it'll have to wait—here is my next TXMN wood working project. Horned Toad Planter Box

If you enjoyed this article let me know and I will do the same for the horned toad build.

Best Regards,

Adrian

Milestones & awards for September 2021, October 2021, and November 2021

Congratulations!

Newly Certified Texas Master Naturalists

Kate De Gennero ‘21

100 Hours Milestones

Pat Avery ’21
Diana Lehmann ‘21
Melanie Dimas ‘19

250 Hours Milestones

Evelyn Alpert ‘21
Betsy Hosick ’21
Molly Smith ’21
Alex (Maria A) Gomez ‘19F
Janis Silveri ‘18F

500 Hours Milestones

Susan Upton ’21
Peggy Walker ‘17

Well done all!

Thank You!

As we approach a new TMN year, we would like to say thank you to all the 2021 Rio Grande Valley Chapter Officers, Directors, Standing Committee Chairs. Tamie Bulow, 1st Vice President, and Maria Reyna-Gomez Treasurer, are stepping down from the Leadership Team.

Thank you Tamie and Maria for your service. Everyone's dedication and hard work is greatly appreciated. Thank you all for making a difference in the Rio Grande Valley!

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We welcome our 2022 Rio Grande Valley Chapter Officers:

President: Roberto Gaitan

1st Vice-President: Robin Gelston

2nd Vice-President: Barbara Peet

Treasurer: Betsy Hosick

Secretary: Carolyn Cardile

Contributors to this issue of The Chachalaca

Joseph Connors

Norma Friedrich

Robert Gaitan

Joni Gillis

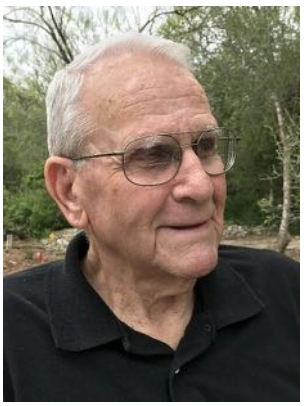
Diane Hall

M. Kathy Raines

Adrian Ramos

Janis Silveri

Anita Westervelt



Frank Wiseman

RGVC Leadership Team 2021

Officers

President	Roberto Gaitan
1st Vice President	Tamie Bulow
2nd Vice President	Barbara Peet
Secretary	Carolyn Cardile
Treasurer	Maria Reyna-Gomez

Directors

Membership	Joni Gillis
New Class	Barbara Peet
Communications	Diane Hall
Advanced Training	Teresa Du Bois
Volunteer Service	Alejandra Gomez
New Class Rep	Susan Upton
At Large: Winter Texans	Carolyn Woughter

Committees

Membership	Adrian Ramos, Norma Trevino, Heidi Linnemann
Training	Robin Gelston (chair), Pam Bradley, Barbara Peterson, Emma Gonzales
Volunteer Service	Tira Wilmoth
Communication	Diane Hall, Chet Mink, Tamie Bulow, Robert Gaitan

Advisors

Texas AgriLife	Tony Reisinger
Texas Parks & Wildlife	Javier de Leon

Can you help? We can always use additional help on our committees!

Please contact us at riograndevalleychapter.tmn@gmail.com

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