

Fredericksburg Nature Notes



Newsletter of the Friends of the Fredericksburg Nature Center

August, 2023 Volume 4 Number 8

<http://fredericksburgnaturecenter.com>

Editor's Musings: **Lonnie Childs**

Dear Friends of the Fredericksburg Nature Center,

As a partial antidote to this miserable heat, FFNC has some great news to offer our members and supporters. Our Interpretive Center project has achieved an important milestone with the hiring of **Brandon Weinheimer of SKT Architects** of Fredericksburg to provide design services for our facility and surrounding grounds. Our next phase focuses on developing a Conceptual Design that will include a site plan, conceptual layout of the facility and grounds, and a pictorial rendering to give you a picture into the future. This is an exciting juncture for our project whereby the ideas and vision of our Advisory Committee will come to fruition in the form of these documents. Stay tuned for a view of our vision. I would like to express my appreciation to the Advisory Committee for their dedication and commitment to our effort. As always, I invite those who would like to support or participate in this exciting project to contact me.

Our Program Committee has been hard at work to deliver an outstanding slate of programs this year. We are midway through our schedule, so take time to review the remaining schedule on page 3, and save the date(s). The Solar Eclipse workshop is already full as I write, so register early for the Monarch workshop in September which is a reprise of our February workshop that could not accommodate all the registrants. Thanks for your support of these programs, and kudos to the Program Committee!

Don't let the heat totally defeat you. Go early to the park, wear a hat, take some water, and break your cabin fever!

Happy Nature Trails!

Lonnie

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OUR MISSION STATEMENT: *“To enhance, protect and interpret the natural ecosystems of the Texas hill country while providing educational and quality of life opportunities for members of the community and visitors.”*

FFNC Activities



Despite this unbearable heat, our intrepid Garden and Trail crews have been safely working for a couple of hours each Tuesday. We endeavor to be done by 10:30am, or we will be well done. Thanks to everyone who continues to volunteer at the park! It is a true testament to your commitment.

Left: The Trail Crew is completing new steps on the incline from the creek side trail to the Live Oak forest. **Pictured are Billy Guin, Carl Luckenbach, and Frank Garcia. Not pictured are Tom Musselman and Lonnie Childs.** Extra thanks goes to Frank for supplying the cedar timbers.

On your next hike, enjoy the new stairway.

Tuesday Fundays at FNC are in full swing!

We continue to perform **Trail Work** with ongoing maintenance and improvement projects. **Gardening Activities** are in full swing with cleaning, trimming, and weeding.

Typical tasks involve gardening skills and trail maintenance, but no experience is necessary. Use it as a learning opportunity. Work in whatever area you choose for as long as you choose. We work some and have a lot of fun outside in the beauty of nature. It's good exercise for the body and great therapy for the soul.

If you would like to join us at the park, we would love to have you!

Work sessions are typically scheduled for **Tuesday at 8:30am.**

Contact Gracie Waggener at gwaggener@flow-apps.com to receive a weekly email notification about scheduled work tasks for the coming week.

Volunteer!



"Astronomy compels the soul to look upward, and leads us from this world to another."

Plato

Upcoming Programs—Save the Date!

August 11th—Solar Eclipses and Other Dark Skies

REGISTRATION IS FULL!

September 13—Monarchs and Milkweed Propagation II

Presenter: Cathy Downs, Hill Country Master Naturalist
Lady Bird Johnson Municipal Park, Tatsch House
10:00 A.M. to 12:00 Noon.

October 28—Learning Through Nature Journaling

Presenter: Nancy Huffman, Hill Country Master Naturalist
Lady Bird Johnson Municipal Park, Tatsch House
10:00 A.M. to 12:00 Noon

Guided Hikes in September and October—Dates TBD



Damselfly Collection by Mildred Dworsky



Damselfies are predatory flying insects which reside near aquatic habitats, since their nymphs are aquatic. They are classified in the *Odonata* order which includes Dragonflies and dates back to at least 250 million years.

Damselfies may be distinguished from Dragonflies by their smaller, slimmer bodies and the posture of their wings when resting—they fold their wings backward over their body.

Left: Blue-ringed Dancer
Argia sedula



Above: Double-striped Bluet
Enallagma basidens

Left: Familiar Bluet
Enallagma civile

Hummers Suffering the Heat by Dot Maginot

Dot caught this sequence of female Black-chinned Hummingbirds dealing with the extreme heat.

Right: The Hummer appears to be engaging in "fluttering" which is similar to panting whereby they move their throat muscles to expel heat.



Below: Of course, the best solution for the heat is a simultaneous drink and shower from the dam overflow!



Above: A couple of Hummers hover over the dam perhaps enjoying the cooling effects of evaporation from the lake powered by a breeze.

Flutterin' at the Garten



Photo by Deb Youngblood

Bordered Patch
Chlosyne lacinia
nectaring on a member of its favorite family, the Asters.



Black Swallowtail Male
Chlosyne lacinia



Photo by Dot Maginot

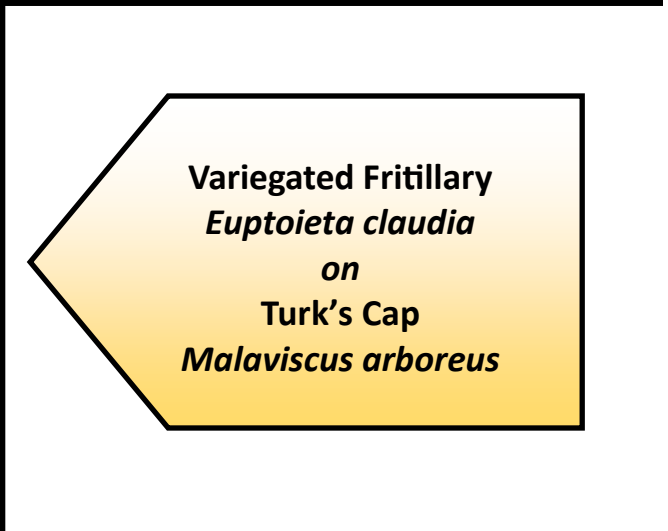


Photo by Dot Maginot

Variegated Fritillary
Euptoieta claudia
on
Turk's Cap
Malaviscus arboreus

Flutterin' at the Garten

Photo by Deb Youngblood



Pipevine Swallowtail
Battus philenor

Silver Spotted Skipper
Epargyreus clarus
Common in US but not central Texas



Photo by Kevin Aanerud

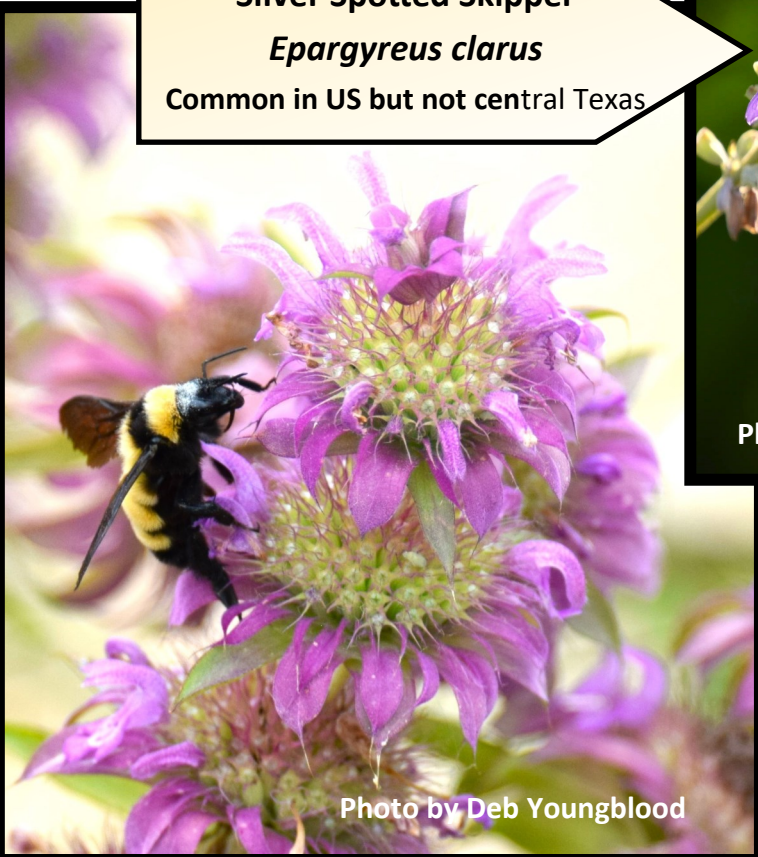
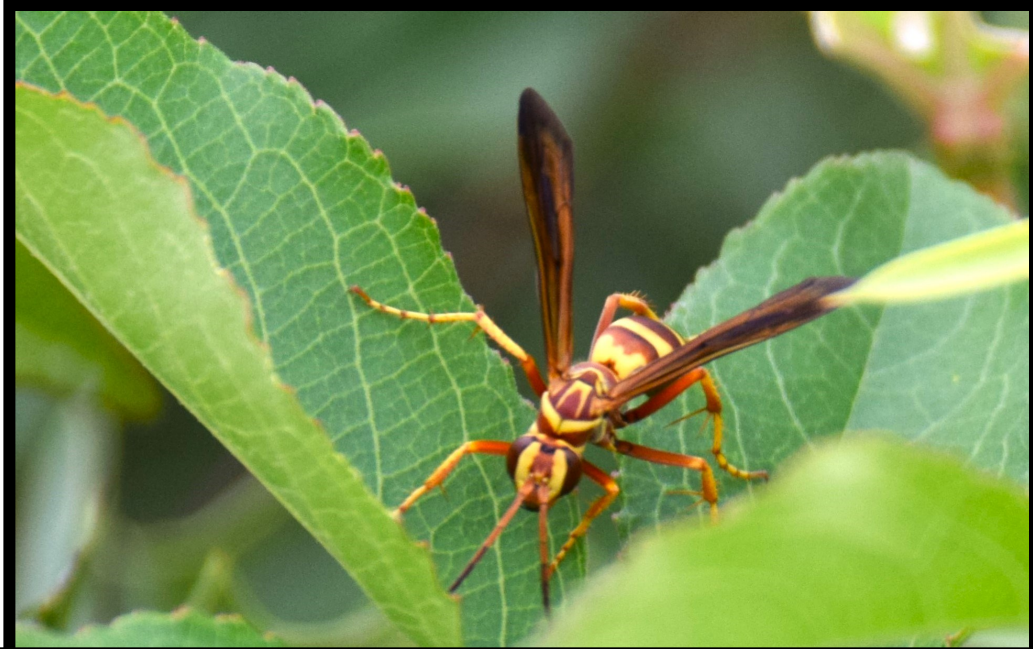


Photo by Deb Youngblood

Sonoran Bumblebee
Bombus sonorus on
Lemon Beebalm or Horsemint
Monarda citriodora
Resident of SW deserts to central TX.
Common at FNC.

Buzzin' and Crawlين' in the Garten

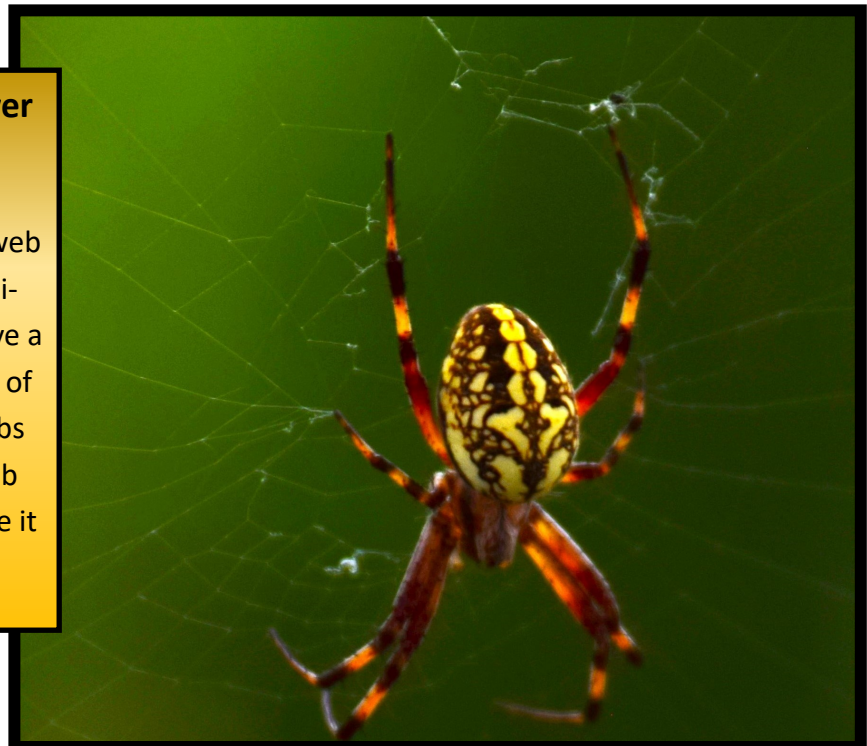


The **Umbrella Paper Wasp (*Polistes sp.*)** is a beneficial wasp that feeds on herbivorous insects. They do build paper nests and may be confused with Yellowjackets but are not so aggressive.

Spotted Western Orb Weaver

Neoscona oaxacensis

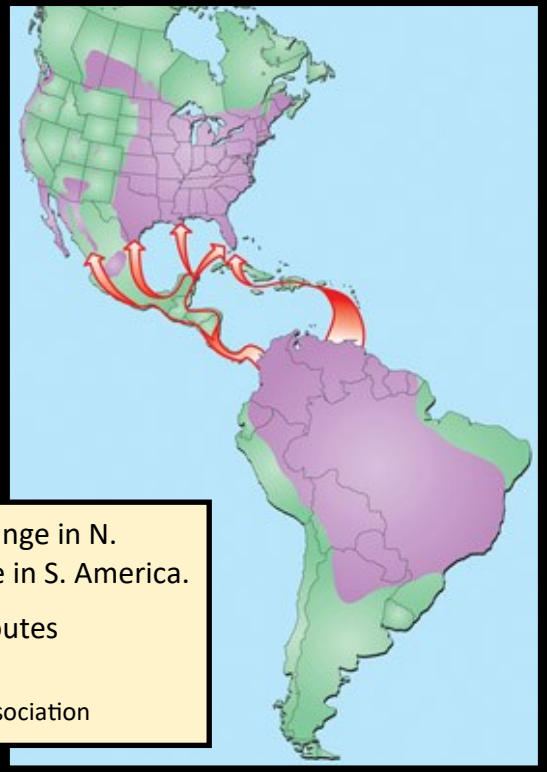
This Orb Weaver spins a circular web in open areas that have sparse foliage. It's circular web does not have a stabilimentum, the zigzag pattern of spider silk in the center of the webs of other orb weavers. Its open web location and colorful pattern make it easier to identify.





*"Twirl on, you and your satin blue.
Be water birds, be air birds.
Be these purple tumblers you are."* Carl Sandburg (Purple Martins)

The Martins Have Left the House



Purple areas = breeding range in N. America & wintering range in S. America.

Red Arrows = migration routes

Map courtesy of
Purple Martin Conservation Association

Photo by Lonnie Childs

I had a couple of recent inquiries about where the Purple Martins had disappeared to—one query about our birds in the park and the other concerning a colony located at a local residence whose owner was worried whether they had suffered a catastrophic event. The simple answer is no This is part of their normal lifecycle schedule.

Purple Martin offspring typically **fledge** (the point at which their feathers are ready for flight) in the mid-May to early July timeframe. They will spend about 26-32 days trying out their newly discovered wings and developing their skills and stamina. In the midst of this process, they liberate from their parents and are on their own essentially.

In central Texas, Purple Martins begin to communally **roost** in large numbers in mid-July to mid-August. They gather in large flocks to feed, socialize, and rest before migrating 5,000 miles to South America. Estimates of roosting numbers in a single Austin location are in the hundreds of thousands.

If you want to enjoy this spectacle, there is a major roost site at Highland Mall in north central Austin or at La Frontera Village in Round Rock—Travis Audubon sponsors roost parties at La Frontera.

If you can't physically get there, then check out this video to see a Texas size Purple Martin Party courtesy of TPWD. <https://www.youtube.com/watch?v=AG9ktu6p4t4>

Purple Martin population numbers are declining significantly over the last couple of decades, possibly due to habitat loss and/or mercury poisoning. Consider establishing your own Purple Martin colony!



**"Each species is a masterpiece, a creation assembled with extreme care and genius."
E. O. Wilson**

Feature Story: Porcupines—the Spiny Pigs by Lonnie Childs

On another recent, scorching afternoon, I discovered a furry bundle napping in the relative cool of my front porch. To my surprise, the bundle revealed itself to be a North American porcupine (*Erethizon dorsatum*). My cautious approach did elicit a defensive response with the raising of its sphere of quills, but otherwise the creature seemed intent on continuing with its nap. After noticing that his hind portion was missing quills, I concluded that perhaps the porcupine had suffered an encounter with a neighborhood dog or other potential predator which motivated the need for a rest, and my porch provided the nearest refuge. We left it to its nap, and the next morning the porcupine had moved on to better habitat.



My recent visitor in a sleepy pose after I had disturbed its nap.

These fascinating creatures earned the scientific name of *Erethizon dorsatum* which descriptively translates to "the irritable back." They have been depicted as having "teeth like a beaver, feet like a bear, claws like a badger, fur like sheep's wool, and spines like a pincushion." Perhaps when Mother Nature came to designing the porcupine, she was out of original ideas and recycled some existing parts, or conversely the porcupine serves as a "best of" design. Either way, porcupines are one of nature's stranger creations.

I would guess that most people in Texas know about porcupines through children's literature but have never seen one or would even recognize one, but with justification. Their geographic distribution historically limited a potential encounter to the area west of the Great Plains and Texas, although this has been changing over the last fifty years, witnessed by the porcupine napper on my porch. In recent decades, I have seen a few who unfortunately became roadkill on the highway of life.

The porcupine common name refers to two families of animals: the Old World porcupines of the family *Hystriidae*, and the New World porcupines of the family *Erethizontidae*. The Old World porcupines have quills embedded in clusters, whereas New World porcupines have single quills that are interspersed with bristles, underfur, and hair. Otherwise, the two groups are distinct from one another and are not closely related to each other. They are both members of the extremely diverse order *Rodentia* (*rodents*) with the largest porcupine species ranking as the 3rd largest rodent species. North American porcupines migrated from Africa to South America about 30 million years ago when the continents were connected.

The porcupine name derives from the French word "porcespin", which means spiny pig. Its roots derive from the Latin words "porcus" or pig and "spina" meaning thorns. The other colloquial name for the animal is quill pig.



“Go pet a kitten, pet a dog, go pet a worm for practice, but don’t go to pet a porcupine....You want to be a cactus?”

Lee Bennett Hopkins

Feature Story: Porcupines—the Spiny Pigs

Porcupines are large rodents wearing shades of brown, gray, and white coloration with, by definition, coats of sharp spines, or quills, that protect them against predation. Porcupines are about 25–36 in long, with an 8–10 in long tail and weigh 12–35 lb. They are rounded, lumbering movers but are surprisingly good swimmers (its hollow quills help keep it afloat) and are excellent tree-climbers, spending much of their time in trees.

The most recognizable feature of the porcupine is its quills which are used as an *aposematic* strategy - having coloration or markings that serve to warn or repel predators of defense. They also emit a strong odor as a deterrent to the predator. A porcupine may have as many as 30,000 quills which are modified, stiffened hairs with scaled tips on the ends. The scales act like barbs when an attempt is made to pull out a quill. If left inserted in the victim’s flesh, the quill will migrate deeper, although interestingly, the quill exhibits anti-biotic properties in preventing infection, perhaps as a self-defense in case the porcupine stabs itself. They have quills on all parts of their body, except for their stomach with the longest quills on their rump. With such a spiny defense, porcupines can afford to be slow and lumbering, although coyotes, foxes, and bears are known to prey on them, which might make for a painful meal and long-term distress and health issues if their faces are heavily quilled.

So, let’s resolve a long standing myth. Can porcupines shoot their quills? The answer is absolutely not. They are able to inflict their spiny defense due to the sensitive hairs that are interspersed with the quills. If a predator touches the hairs, a reflexive trigger will cause the quills to stand out. If the predator’s hide is touched by the hypodermically sharp point, the quill will be inserted with the scales preventing the quill from backing out. Watch the porcupine from a reasonable and courteous distance, and you will be safe from their pointed defense.

The North American porcupine prefers the rocky ridges and slopes of coniferous, deciduous and mixed forests, but in the west, it can be found in scrubby areas. The porcupine is an herbivore dining on leaves, twigs and green plants, while in the



A rear view shows its weaponized rear & tail, a coloration pattern that can serve as a predator warning.



Historical range of N. American Porcupine in green. Note lack of presence in Texas. Courtesy of Nature Works.



**"The love for all living creatures is the most noble attribute of man."
Charles Darwin**

Feature Story: Porcupines—the Spiny Pigs

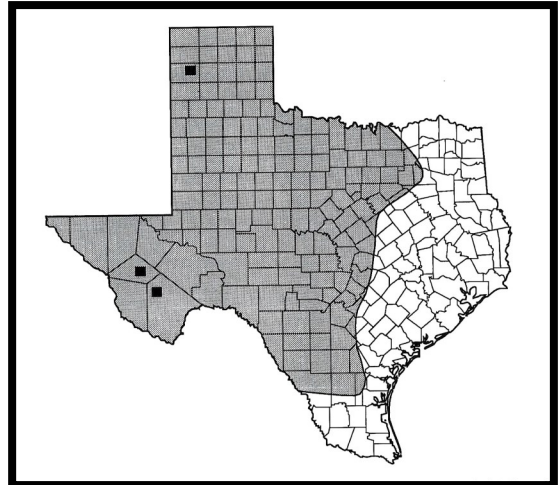
winter, it may eat bark which can put your trees at risk. Being an expert tree climber with a well-developed sense of balance enables it to climb trees to find food.

Although they prefer mostly solitude, porcupines may den in the winter with other porcupines in caves, decaying logs and hollow trees. They do not hibernate but may stay in a den during bad weather and are mostly nocturnal with occasional daytime activity. Surprisingly, they are very vocal animals with a wide variety of calls including moans, grunts, coughs, wails, whines, shrieks, tooth clicking while waddling along and even singing in a pitiful, high pitched whine when sexually excited.

Breeding season occurs in fall and early winter with a gestation period of about 7 months. Potential mates conduct an elaborate courtship involving extensive vocalizations, a courtship dance, and the male usually showers the female with urine before mating. "Porcupettes" are born in the spring/early summer with generally one porcupette per litter, and twins occurring rarely.

One of the great mysteries about the North American porcupine is its increasing distribution into eastern Texas. Its distribution in 1900 ranged from the western Great Plains and the Texas border west to the Sierra Nevada of California and north into and across Canada. The Biological Survey of Texas conducted by Vernon Bailey from 1889-1905 recorded only a few sightings of the North American porcupine in the Trans-Pecos region of Texas. By the mid-1970s, in *The Mammals of the Trans-Pecos*, David Schmidly reported them residing in west Texas to the Pecos River. By 2002, Schmidly chronicles in *Texas Natural History, A Century of Change*, their migration eastward into central Texas to the IH35 corridor. There is no research as to what is driving the migration, but perhaps highways have served as the vector. The porcupine may be slow, but its steady migration eastward demonstrates tenacity and determination.

Porcupines were once revered by Native American cultures as a food source, a source of quills for decoration, and legendary status. In modern times, they have been generally considered a pest, probably because of pet injuries, tree destruction, and chewing damage to human structures. Fortunately, population reducers such as bounties, poisoning efforts, and unregulated killing have recently been reduced. Despite some human aggravating factors, they are literally a low profile member of our ecosystem that deserves their place. They don't shoot quills, so please don't shoot them.



Current range of N. American Porcupine in Texas. The three black squares represent the only reported sightings from 1889-1905 by Bailey.

To learn more about porcupines and their fascinating quills, Right Click [HERE](#) , Open Hyperlink & scroll down to watch a video by the Chesapeake Bay Program.



"Our task must be to free ourselves by widening our circle of compassion to embrace all living creatures and the whole of nature and its beauty."
Albert Einstein

Black-chinned Hummingbird on Mexican Sunflower by Bill Lindemann



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Comments, questions, or future newsletter submissions can be sent to
Lonnie Childs, Newsletter Editor, at lonniechilds@utexas.edu