



# Naturalist Notes



Booth at 2022 Nature Fest at Jesse Jones Park

## UPCOMING OUTREACH OPPORTUNITIES

Sat April 9<sup>th</sup> - Neighborhood Plant Exchange

Fri April 15<sup>th</sup> - Earth Day at UTMB Galveston

Sat April 30<sup>th</sup> - Spring Outdoor Celebration at Mont Belvieu

To volunteer, please contact Irmie Willcockson via email.

## UPCOMING PLANT SALES

Mercer Botanic Garden is holding March Mart March 25<sup>th</sup> & 26<sup>th</sup>.

NPSOT Clear Lake Chapter's sale is Mar 26<sup>th</sup>.

Houston Arboretum's Spring Plant Sale is April 1<sup>st</sup> and 2<sup>nd</sup>.

## MN MERCHANDISE

AgriLife Learn is the new name of the bookstore.

<https://agrilifelearn.tamu.edu>

Click on Merchandise, then search for Master Naturalist.



### Fledgling Master Naturalists

Texas Master Naturalist Heartwood Chapter member Terri Stinn captures the attention of some potential future members during a nature tour conducted at Jesse H. Jones Park NatureFest March 5, 2022. Terri and GCMN John Egan partnered to conduct tours of nature trails as part of the event. Park staff indicated approximate attendance for the day at 1,500.

John Egan

### Spring Field Trip - Sea Center Texas

As a part of our Spring 2022 training schedule, there are six field trips from around the gulf coast planned into the curriculum. We have been fortunate to experience them in person as the Fall 2021 class field trips were held virtually setting due to the pandemic. These trips allow us the opportunity to learn in a natural environment and experience things first-hand and from primary resources, rather than virtual visits or photos, and take us to locations that are unique and cannot be duplicated in the classroom.

Our first trip was on February 19<sup>th</sup>, 2022, at the Sea Center Texas marine aquarium, fish hatchery and education center located in Lake Jackson. The class was facilitated by Master Naturalist Spencer Simons who, upon our arrival, split us up into two groups led by volunteer tour guides Dave Brandes and Mason Gillfoil.

Our tours included the visitor center, aquarium, hatchery building, and stock ponds followed by the fresh and saltwater marshes. It was obvious that Dave and Mason are devoted naturalists as they provided an in-depth discussion on the daily operations of the center: specifically, highlighting the center's goal of educating the public, as well as Master Naturalists, on offsetting the effects of fishing pressure, habitat degradation and devastation caused by natural disasters. Their efforts greatly contribute towards reaching the Center's goal of releasing 15 million fingerlings into Texas bays with quality sportfish such as the red drum, spotted seatrout and southern flounder.

It was troubling to learn that the flounder numbers have dropped below 50% in the last 30 years due to overfishing and habitat loss. The Center's renewed focus towards the flounders' more complicated spawning process gives a renewed hope for this "floundering" fish. There were numerous examples, clearly evident and emphasized by the instructors, that the freshwater and saltwater wetlands have vulnerable ecosystems and experience climate changes (in particular the freeze of 2021).



Text and Picture Rob Beaton

## Local Native Plants for Bumble Bees

January's presentation about bumble bees by Rebecca Lloyd sparked a lot of questions about which plants best support them. Plant nectar provides adults with carbohydrates and amino acids, and pollen provides protein and lipids for developing larvae.

To attract bumble bees, you'll want to have pollen and nectar plants blooming continuously throughout the foraging cycle - from bee emergence in early spring to onset of hibernation in the fall. Have diversity both in plant form—trees, shrubs, perennials, and in plant families. Aim to have at least three species blooming in each season. Grasses can provide shelter. To facilitate floral constancy, arrange smaller plants together in groups of 3, 5, 7, etc., rather than as scattered onesies.

Below are general recommendations for pollen and nectar plant genres from Heather Holm, author of several books about pollinators.

Bumble Bee Pollen Plants - Family/Genus	
Plant Family (Common Name)	Genus
Asteraceae (Aster)	Cirsium, Eupatorium, Symphyotrichum
Ericaceae (Heath)	Rhododendron, Vaccinium
Fabaceae (Pea)	Baptisia, Cercis, Chamaecrista, Dalea, Desmodium, Lupinus, Senna
Rosaceae (Rose)	Geum, Prunus, Rosea, Rubus
Solanum (Nightshade)	Solanum

Bumble Bee Nectar Plants - Family/Genus	
Plant Family (Common Name)	Genus
Asteraceae (Aster)	Cirsium, Echinacea, Helianthus, Liatris, Ratibida, Silphium, Solidago, Vernonia
Fabaceae (Pea)	Amorpha, Astragalus, Baptisia, Cercis, Chamaecrista, Dalea, Desmodium, Lespedeza, Lupinus, Senna
Lamiaceae (Mint)	Monarda, Physostegia, Pycnanthemum

It is best to use locally native plants, i.e., those native within 50-60 miles of where you live. Look for plants grown from locally collected seeds/cuttings. Remember to shop by plant scientific name, as common names are not unique. Avoid cultivars and nativars as the breeding process can affect their nutritional value to bees. Avoid pesticide and insecticide use, both topical and systemic.

Below are plant species recommended by Xerces as they appear on the LBJ Wildflower Center's list "Special Value to Bumble Bees" and which are found in Harris and/or its surrounding counties per BONAP. It also includes species recommended by Heather Holm and a few I have observed in my own garden. Learn more about each species at [wildflower.org](http://wildflower.org).

Family	Genus	Species	Common Name
Asclepiadaceae (Milkweed)	Asclepias	A. linearis	Slim Milkweed
		A. verticillata	Whorled Milkweed
		A. viridis	Green Milkweed
Asteraceae (Aster)	Cirsium	C. horridum	Bull Thistle
		C. texanum	Texas Thistle
	Helianthus	H. angustifolius	Swamp Sunflower
		H. hirsutus	Hairy Sunflower
		H. maximiliani	Maximilian Sunflower
	Liatris	L. acidota	Sharp Blazing Star
		L. aspera	Tall Blazing Star
L. punctata		Dotted Blazing Star	
L. pycnostachya		Kansas Gayfeather	
Plectocephalus	P. americanus	American Basket-flower	
Silphium	S. laciniatum	Compassplant	
	S. radula	Rosinweed	
Solidago	S. sempervirens	Seaside Goldenrod	
	S. tortifolia	Twistleaf Goldenrod	
Campanulaceae (Bellflower)	Lobelia	L. puberula	Downy Lobelia
Caprifoliaceae (Honeysuckle)	Lonicera	L. sempervirens	Coral Honeysuckle
	Viburnum	V. dentatum	Arrowwood Viburnum
Commelinaceae (Spiderwort)	Tradescantia	T. ohiensis	Ohio Spiderwort
Ericaceae (Heath)	Rhododendron	R. viscosum	Swamp Azalea
	Vaccinium	V. corymbosum V. stameum	Highbush Blueberry Deerberry
Fabaceae (Pea)	Amorpha	A. fruticosa	Desert False Indigo
	Baptisia	B. alba	White Baptisia
		B. bracteata	Longbract Wild Indigo
		B. sphaerocarpa	Yellow Wild Indigo
	Cercis	C. canadensis	Eastern Redbud
	Chamaecrista	C. fasciculata	Partridge Pea
	Dalea	D. candida	White Prairie Clover
		D. compacta	Compact Prairie Clover
	Desmodium	D. canadense	Showy Tick Trefoil
		C. ciliare	Hairy Small-leaf Ticktrefoil
Lupinus	L. subcarnosus	Sandyland Bluebonnet	
	L. texensis	Texas Bluebonnet	
Psoralidium	P. tenuifolium	Slender Scurfpea	
Senna	S. lindheimeriana	Lindheimer's Senna	
	S. marilandicca	Maryland Senna	
	S. obtusifolia	Java=bean	

Lamiaceae (Mint)	Monarda	M. citriodora M. clinopodiodes M. fistulosa M. lindheimeri M. punctata	Lemon Beebalm Basil Beebalm Wild Bergamot Lindheimer's Beebalm Spotted Beebalm
	Prunella	P. vulgaris ssp. lanceolata	Lanceleaf Selfheal
	Pycnanthemum	P. albescens P. muticum P. tenuifolium	Whiteleaf Mountainmint Clustered Mountainmint Narrowleaf Mountainmint
	Salvia	S. azurea	Blue Sage
Lythraceae (Loosestrife)	Lythrum	L. alatum	Winged Lythrum
Ranunculaceae (Buttercup)	Delphinium	D. carolinianum ssp. virescens	Carolina Larkspur
Rosaceae (Rose)	Prunus	P. mexicana P. serotina	Mexican Plum Black Cherry
	Rosa	R. carolina R. setigera	Carolina Rose Climbing Prairie Rose
	Rubus	R. argutus R. trivialis	Sawtooth Blackberry Southern Dewberry
Rubiaceae (Madder)	Cephalanthus	C. occidentalis	Buttonbush
Rutaceae (Rue)	Zanthoxylum	Z. clava-herculis	Hercules Club
Salicaceae (Willow)	Salix	S. nigra	Black Willow
Scrophulariaceae (Figwort)	Penstemon	P. cobaea	Prairie Penstemon
Violaceae (Violet)	Viola	V. missouriensis V. sororia	Missouri Violet Common Blue Violet

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These sources collect their own seed and grow it out:

- NPSOT Clear Lake Spring Plant Sale - March 25-26 [Spring 2022 Native Plant Sale - CLEAR LAKE CHAPTER - NATIVE PLANT SOCIETY OF TEXAS \(npsot.org\)](#)
- Houston Arboretum Spring Plant Sale - April 1-2 [Spring Plant Sale - Houston Arboretum & Nature Center Houston Arboretum & Nature Center](#)
- Houston Audubon Natives Nursery - order online and pick up on Friday mornings. [Natives Nursery | Bird-Friendly Communities | Houston Audubon](#)
- Greenstar Wetland Plants - [Green Star Wetland Plant Farm \(greenstarwetlands.com\)](#)
- Morningstar Prairie Plants - [Morning Star Prairie Plants](#)

Mary Spolyar

## How I Got Into Leafhoppers

I have enjoyed doing black light events with moth friends for over a decade and in the last 9 months or so I started following John Schneider's lead of looking at smaller insects that come to our lights, or any lights. That is how I got into Leafhoppers - it is really fun and very interesting to have something to look at and photograph when there are not many moths around. I now try to go out and check my front porch every night during the warmer months - going out that often has greatly increased the variety of what I have seen.

I must confess that I have been quite happy with the cold wintery weather since it means there are no insects and I don't have to look for insects at midnight or later.

Note: I do turn off my porch lights before I go to bed since lights can confuse insects and the lights attract geckos which then would be eating my moths and other friends.



Leafhoppers. Left - *Hymetta balteata*; center - *Protalebella conica*; right - *Erythroneura rubrella*

## What Are Leafhoppers?

There are three types of insects with "hopper" in their common names: Leafhoppers, Planthoppers, and Treehoppers. I see mainly leafhoppers and that is what is seen here.

Leafhoppers are in the family Cicadellidae and there are about 3,000 species in North America and about 22,000 species worldwide. Leafhoppers range in size from 2mm-30mm, usually under 13mm. The ones I have seen so far are under 5mm except for a large nonnative one. Leafhoppers have spines on their back legs, which makes them easier to recognize.

Eggs are laid in the stems or leaves of plants and may hatch in a few weeks or may remain dormant for over a year. The eggs eventually hatch into nymphs and then the nymphs undergo 5 molts, becoming adults after a few weeks or months.

Both nymphs and adults feed on plant sap/juices found in the stems and leaves, and, like moths and butterflies, some have a specific host plant and some feed of many varieties of plants. Lots of websites have information about how to kill and prevent leafhoppers, but unless you are growing a commercial product, I see very little to worry about, just let them be and let the natural food chain/predator system take care of things.

Katy Emde

## Equipment Needed

My camera is a pocket camera with a pretty good macro lens, an Olympus Tough TG-6, but it isn't made for photographing 3mm creatures so I struggle to get sharp photos.

When in the field, I use a portable black light that is run off a battery or a black light tube that requires an electrical outlet and often a very long extension cord. I have a portable sheet set up that is very easy to set up, but it is possible to simply hang a sheet between two trees. Bioquip.com offers all sorts of products for studying insects.

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## Well Intended Actions - Unintended Consequences - Educate, Educate!

I recently read an article (posted on Facebook - Texas Pollinator Powwow), written by a scientist who studies native wild bees. It is a satirical commentary on the misguided practice of keeping honeybees to "save the bees". He uses the analogy of "Keeping honeybees to save the bees is like keeping chickens to save the birds"!

As a long-time backyard beekeeper, I read the article with interest and empathy, as I have heard this misguided sentiment from many individuals.

I was introduced to the vast world of our native bees, beyond the many carpenter bees in my deck cover, at my Texas Master Naturalist training from GCMN member Michael Eckenfels, and our fieldtrip to Jones State Forest where we observed native bees. I shared this experience as my class presentation, including photos of bees from the fieldtrip.

Following that experience I bought several copies of the Backyard Bees of North America poster and tailored my high school class Environmental Science presentation to include both the agricultural elements of honeybees and the amazing range of local native bees, and their common challenges to thrive.

The plight of native bees involves many elements already being shared with the public, under different labels and from many organizations, eg. habitat preservation / restoration, native plant use, pollinator gardens, pocket prairies, reduction in pesticides, etc., but perhaps it is time for Houston to consider becoming a Bee City USA.

It would seem that TXMN are in all the appropriate education arenas and may be able to educate all so that they make informed decisions before embarking on keeping honeybees.

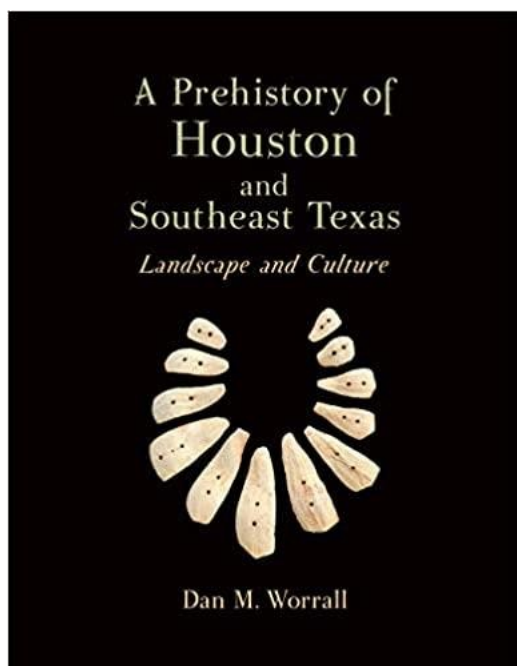
Sources and Resources:

"Buzz Kill"- a 2020 award winning video by Brooke McDonough, featuring Sam Droege, USGS and some amazing images from his Bee Lab [Backyard Battle: Helping Native Bees Thrive in a Honeybee World - Yale E360](#)

[Honey bee hives decrease wild bee abundance, species richness, and fruit count on farms regardless of wildflower strips | Scientific Reports \(nature.com\)](#) - reads as the title

[About Bee City USA - Bee City USA](#)

Julie d'ablaing



## Book Review

Dan M. Worrall, *A Prehistory of Houston and Southeast Texas: Landscape and Culture*, Fulshear, Texas: Concertina Press, 2021 (485 pages, 326 full color illustrations, maps, and charts), with contributions from John B. Anderson, Cary Burnley, Don Dobesh, and Rosemary Nevin.

Note: The book can be bought or ordered for about \$60 plus tax, from independent stores in the Houston area and the museum shop of the San Felipe de Austin State Historic Site, in San Felipe. You can order the book directly from the publisher. It is also available from Amazon (shipped by Texasbooks).

Copies are available at the Houston Public Library downtown, the Fort Bend County Library, Rice University and the University of Houston Libraries.

This splendid volume is written by retired geologist Dan Worrall, with contributions from oceanographer John B. Anderson, archeologist Cary Burnley, and geoscientists Don Dobesh and Rosemary Nevin. Worrall also draws heavily from the extensive work of the Houston Archeological Society as well as other archeologists and anthropologists working in the region. The book offers an account of the geology, ecology, and human history of the Houston - southeast Texas gulf coast region from the Sabine River to Matagorda Bay, and inland about 125 miles, going back 13-16,000 years (perhaps as much as 20,000 years) when humans first arrived in the area. As the title indicates, the book focuses on prehistory that is, the history of native peoples who lived in the area from their arrival until the historic period which began when Europeans came in the sixteenth century CE. Worrall includes aspects of the period after European contact, since much of what we know about ancient native peoples is derived from the writings of Europeans who had early contact with them. For example, he includes stories from the Spanish explorer Álvaro Núñez Cabeza de Vaca of the ill-fated Narváez Expedition in 1528, René-Robert Cavalier de La Salle's attempt to establish a colony on Lavaca Bay (1688), and Simar de Bellisle's 1½ years with the Atakapa in what is now Harris County (1719). These individuals wrote down accounts of Indian lifeways that are important resources today.

Worrall paints a vivid picture of what we know of Native American life in the region. Human groups communally hunted bison and deer on the Katy and San Bernard Prairies, using fire, which helped maintain the prairie ecosystem. They moved and changed over time as they interacted with one another, adapted to climate changes, rising sea levels (At the last glacial maximum 22,000 years ago, the coastline lay some 130 miles seaward from Galveston.), and new technologies appeared - such as pottery around AD 100, the bow and arrow ca. AD 500, and agriculture AD 1100. At the time Europeans arrived, there were three tribes in the area: the Atakapa along the coast from about the Brazos to the Sabine Rivers; the Karankawa south of the Brazos, the Tonkawa inland, and the Caddo in the East Texas Woodlands. Europeans,



of course, brought new things that transformed indigenous ways of life, including horses, which spread north from Mexico beginning around 1700, transforming hunting, transportation, and warfare; and metal goods, such as knives and pots. Europeans also brought things that were harmful, such as alcoholic drinks and new diseases (smallpox, measles, and others). Indigenous groups in the area were decimated by diseases, the taking of their lands, and conflicts with whites, but a few were absorbed into white communities. The native population of the region was perhaps around 5000 around 1700, but by the late nineteenth century, all groups had virtually disappeared.

Large sections of the book deal with details of archeology, such as projectile point traditions. General readers may find these less interesting. As Worrall himself notes, much of the book is “not a light read” (xv). But the book also has fascinating chapters where Worrall recounts the ecology of the area, the lifeways of native peoples, and the experiences of early Europeans. For many of us, the book would be a reference, although some may want to read it cover to cover.

Worrall’s careful thought and humility is evident throughout, as he considers various theories and interpretations of the evidence and consistently cites the work of others on which he relies for this great synthesis of local prehistory. For Master Naturalists it is an invaluable resource.

John Mustol



## Frigatebirds on Westheimer 2

The rains have come, and the flood is here,  
The worst-case storm again striking fear,  
Floodwaters rising into the first floor,  
Homes near bayous tranquil no more.

The frigatebirds flew down Westheimer today,  
They came from the bay up the Gulf freeway,  
This predator bird seeking new feeding grounds,  
West Houston no longer being out of bounds

With water from Harvey simply everywhere,  
Dreams colliding, falling from the air,  
Houston gut shot by tropical rain,  
Needing to find a cure for the pain.

Let the frigates on Westheimer be a sign,  
We need to come up with a better design  
To continue to inhabit this low coastal plain  
Where the rains will come again and again.

We need resolve, we need a mentor,  
We need to be moved at our spiritual center,  
For we must change our way of existence,  
Developing our future with brains and persistence.

We are searching for hope, saying a prayer,  
Of climate change, we must be aware,  
And search for the place where new ideas reside,  
Let the frigates on Westheimer be our guide.

The frigates tell us the climate’s changing fast,  
That the way things were will not last,  
That we cannot depend upon the past  
To predict tropical rain or a wintry blast.

We must admit we have much to learn,  
Honest questioning must not be met with scorn,  
For we’re on the edge of a narrow ledge,  
To survive will require a spiritual pledge.

So welcome to Earth Church,  
Pull yourself up a pew,  
Here our changing climate  
Plumbs the spirit in you.

Jim Blackburn, illustration by Isabelle Chapman

## ORGANISM OF THE MONTH

### SNOWY EGRET ( EGRATTA THULA)

Snowy egrets are graceful, medium-sized herons with long, black legs and yellow feet. Their narrow black bills have a patch of yellow at the base. In the late 1800s, these pure white birds were once hunted extensively for their “fashionable,” wispy plumes they grow during their breeding season. These feathers were valued at \$32 per ounce, which was twice the price of gold at the time. The work of concerned citizens pushing back helped save these birds, contributing to the start of the conservation movement!

These birds are very active feeders, often dashing through the shallows to stir up a variety of fish, insects, and crustaceans. They nest in colonies in isolated areas with thick vegetation, building shallow nests. Both parents care for their young, sometimes presenting a stick to the other parent when duties are swapped -- much like passing a baton.

Though they are seen year-round in Central and South America, their breeding and migration patterns send them throughout much of the United States. Texans have a chance to see snowy egrets in our mudflats and tidal wetlands all year, and they're often spotted further inland along the bayous and marshes in breeding season.

Text credit: Liberty Johse

Photo credit: Lindsay Donald/Audubon Photography Awards

Sources:

[https://www.allaboutbirds.org/guide/Snowy\\_Egret/](https://www.allaboutbirds.org/guide/Snowy_Egret/)

<https://www.audubon.org/field-guide/bird/snowy-egret/>

