



Naturalist Notes

President's Note

Hi everyone,

I woke up this morning thinking about the word 'sanctuary'. Prior to the pandemic, sanctuary had a different meaning to me. It was someplace outside of my home that I had to travel to in order to experience it. I associated a name with the location – Edith L. Moore Nature Sanctuary, Hogg Bird Sanctuary, Smith Oaks Bird Sanctuary. These are places set aside as refuge for the plants and animals that live and visit there so that we may get a glimpse of them, maybe snap a few pictures and take in the beauty that resides there. Perhaps, in those brief visits we can find our own bit of sanctuary, if only for a few moments.

In the wake of the pandemic, those areas have been closed to the public. Our ability to access areas of constructed sanctuary has been limited, to say the least. For myself, my sanctuary has become my backyard. It's not much. A standard backyard with a few trees backed up by a wooded low area that will hopefully never be cleared and built on. Last year, that spot was a haven for fireflies that lit up my backyard every evening throughout the spring. This year, not so much. A few wayward males have flitted across the yard in desperate search for a mate in the tall grass below. I'm not sure why their numbers have diminished. It may be that it's just their life cycle. After all, they do live in the ground as larva for up to two years. I do miss them though.

This year has finally allowed me time to reconsider my backyard and create my own personal sanctuary. I looked around the yard and finally decided to just plant the native plants I've been collecting for the last couple of years randomly. No great master plan; just get them out of the pots and into the ground. It's haphazard and messy, but such is life sometimes. By doing this I've also created a sanctuary for a myriad of birds, insects and a couple of mammals that visit this small patch of nature in amongst a virtual dead zone of sterile turf grass yards and non-native shrubs. I've slowed down and sat on my porch watching and listening as all of them benefit from my efforts. I often wonder who benefits more; them or me. Perhaps it's just the balance in this localized ecosystem that's important. All I know is that it has become the one place I feel safe.

In closing, I hope you all have found your own version of sanctuary in these uncertain times and that you've been able to surround yourselves with things that bring you joy, comfort and sanctuary. It is the best we can do for now.

Until we meet again,

Rebecca Lloyd

President

Sightings along Buffalo Bayou

You could say that the corona virus has brought out some new and unique nature sightings. I read a chronicle article on Sunday about fire flies making a comeback. Migrating warblers, like a blue bunting I spotted, have brought a smile in an otherwise neutral climate. I think we are on to something good. The weather has been delightful, and promotes the idea of getting out and discovering. And doing not just hiking, biking, and running, but wandering and exploring.

Both of these pictures were taken on Buffalo Bayou in Buffalo Bayou Park just outside of downtown Houston. The first is an American alligator, a very rare sighting for the bayou. I have lived on the bayou for eight years and this is the first one I have seen.

The second pic is of a very large catfish caught on the Bayou by this gentleman. He was at least 20 pounds and probably much more. Now I knew there were catfish in the bayou, but this is the largest I have seen ever.



Top: American Alligator, Bottom:
River Otter

Jane Wood



City Nature Challenge Results

Houston/Galveston area ranked **5th** globally for number of observations!

Houston/Galveston are ranked **1st** globally for number of species observed!



Sandhill Cranes 6

Early fall on the Texas coast near Oyster Lake,
Experiencing the migration in Matagorda
County.

The dirt road runs along the shore
Of Tres Palacios Bay,
Leading to where it joins with Matagorda Bay,
The shell shoreline dotted with the debris
From summer storms long past.

The low scrub is alive,
Migrating butterflies draping the boughs,
Ornaments decorating a living Christmas forest,
Gathering here where the land ends
And the water starts,
Finding rest and food before moving on.

The barred owl stirs in the scrub oak,
Wings extending from the stocky body,
The pug face moving across the landscape,
Away from us, the interlopers,
Who dare invade this sanctuary.

The haunting call of the Sandhill Crane
Penetrates the calm afternoon,
Signaling their arrival from the Platte River,
Announcing their presence, spiraling down,
Bringing the message of the changing season,
Greeting the barred owl
With whom they will spend the winter.

Departing, we greet the first specklebellies
Of the season, the white-fronted geese
Honking hello to the Texas coast,
Honking hello to me and I whisper back
"Hello my friends. Welcome back home."

Nothing compares to a day on the coast,
Greeting friends, renewing acquaintances
Living life to the fullest by breathing it,
Seeing it, absorbing it, experiencing it,
Sucking it deep down into my marrow
Where it nourishes my soul.



Poem by Jim Blackburn; illustrations by Isabelle Scurry Chapman



Organism of the Month

Gray Treefrog (*Hyla versicolor* & *Hyla chrysoscellis*)



Distinguishable only by their calls and the number of their chromosomes, both species change color to match their environment or activity. The hidden underside of the hind legs is bright orange to yellow-gold, thought to confuse predators when the frog jumps. Both species are found in the eastern part of Texas except far south Texas. Conservation status is "Least Concern", meaning the population appears stable.

Prefer swamps, and wooded ponds or streams where it can call from a relatively high perch. Breeding season is April to June.

This frog was photographed at Brazos Bend State Park in March 2020.



SKY OF THE MONTH

Alfred Stieglitz (1864-1946) promoted photography as an art form in its own right. Between 1922 and 1931 he printed 400 photographs of clouds that survive. He called the series 'Equivalents'. "Through clouds to put down my philosophy of life - to show that my photographs were not due to subject matter ...clouds were there for everyone - no tax on them as yet - free."

Several other photographers included cloudscapes in their subjects. Ralph Steiner's (1899-1986) photographs feature predominantly dark, billowing clouds. Robert Davies is a contemporary artist who photographs cloudscapes, "landscapes that seem solid, but ephemeral." Tzeli Hadjidimitriou is a contemporary photographer from Greece. Many of her cloudscapes show the interplay between sun and light.

The picture included here was taken May 12, 2019.





"Restoring Insects, the Little Things That Run the World"

"Restoring Insects, the Little Things That Run the World" is the title of Chapter Eight of [*Nature's Best Hope: A New Approach to Conservation that Starts in Your Yard*](#) by Douglas W. Tallamy. I did not touch on this very rich chapter in my all too brief review of this book in the March issue of this newsletter. To make up for this omission, here are some of key ideas of this chapter with some important implications and practical recommendations.

Caterpillars

"Plants...are the foundation of all food webs" (p.128). If we want to decide which plants are most needed, we have to first decide which insects are most beneficial for maintaining the food webs where we live. One group of insects, more specifically the larval stage of these insects, provides the biggest transfer of energy and nutrients (especially carotenoids, needed by all vertebrates) up the food web. That group is caterpillars, that is, the larval stage of [Lepidoptera](#) (butterflies and moths), of which there are 14,000+ species in North America.

So which plants are best for caterpillars? How to know which of the 217 native plant genera in the lower forty-eight states support caterpillars (most of them have species that serve as host plants, that is, as feeding grounds, for one or more species of caterpillar)? It turns out that there is an extensive database of host associations that can be readily accessed through two websites: the National Wildlife Federation's [Native Plant Finder](#) and Audubon Society's [Plants for Birds](#). Here is also a more local and informative listing: [Host Plants by Butterfly Species](#). But for all practical purposes, we need to narrow this down to a manageable number that support the most species of Lepidoptera.

In order to decide which plants, of the many, are best, we are helped by the concept of keystone species, that is, in this case, keystone plants, which have "... a disproportionately large effect on the abundance and diversity of other species in an ecosystem" (p. 138). It has become clear that not all native plant genera contribute significantly to food webs. So it is possible to have a landscape that is 95% native but contributes much less to food webs if it does not have some keystone plants. So which are the keystone plants?

It turns out that the genus *Quercus* (oaks) with 90+ species in the US (supporting at least 934 species of caterpillars) and 400~600 worldwide is the champion group of keystone plants. This is great news for us here in Harris County. For if there is one thing we are not lacking in are oaks as well as other keystone plants (see Tallamy's [Lepidopteran index](#)). But there is one catch. To get the full benefit of keystone plants, "...we have to use these plants in our landscapes in ways that enable the caterpillars they support to complete their lifecycles" (p. 146). Of the four stages of development, only the first two, the egg and larval stages, happen on the host plant. At the end of the larval stage, most caterpillars drop to the ground and spin their cocoons in the leaf litter or burrow into the loose soil or even tunnel into soft wood to pupate.

Other than concrete as in the case of trees planted along some city streets and asphalt in some parking lots, the worst thing we can have around keystone trees and plants is lawn, which has soil compacted by lawnmower wheels and feet and typically where no leaves remain over the winter, much less a decaying log. This highlights the need to landscape differently around our keystone trees and plants so that there is leaf litter and "...a thick O horizon, a soil layer with a high percentage of loose organic matter that is perfect for pupating Lepidoptera...." (p. 151). "We can meet the needs of our caterpillars by replacing some of our lawn with three-dimensional plantings" (p. 150; for a plethora of ideas see [The Living Landscape: Designing for Beauty and Biodiversity in the Home Garden](#) by Rick Darke and Douglas W. Tallamy).

Finally, we must have food in the form of nectar from [flowering plants](#) for the overwhelming majority of our butterflies and moths. In particular, most moths, which far outnumber caterpillars, get their nectar from [nocturnal flowers](#). And it has been shown that artificial lights severely reduce the number of visits by moths to nocturnal flowers. So we not only have to have plants flowering when their nectar is needed, these plants and their flowers need to be in unlit areas at night, where at most a light with a motion sensor will come on momentarily "...when you, or an intruder, are out and about in your yard" (p. 155).

Bees

The other important groups of insects that do the most to support food webs are those that pollinate. Although there are many insects that pollinate plants, our nearly 4,000 species of native bees "...perform the lion's share of pollination duties" (p.155). Since "Pollinators are essential to life as we know it on planet earth" and since bees are the group of animals that are most "...responsible for pollinating 87 percent of all plants and 90 percent of all angiosperms (flowering plants)...." (p. 157) and since they, along with many other insects, are in trouble, we have compelling reasons to take action to save them from local and global extinction by providing the habitat that they need to survive and reproduce.

First of all, we need to make sure they have shelter. There are ground nesters "...particularly in the families Colletidae, Halictidae, Andrenidae and some Apidae...." (p. 161) which need small (two square feet) bare patches of dry uncompacted soil. Pithy stem nesters like Mason bees use herbaceous plants like goldenrods with essentially hollow stems with loose fibrous material to make nests in. Woody stem nesters such as carpenter bees build their nests in soft wood such as in a downed log or branch or a dead branch attached to a tree. This is where "Our fall cleanup is particularly hard on bee populations" (p. 163) and where we need to landscape differently. If we don't want to leave the "senescing stems of black-eyed Susans, penstemons, sunflowers, and all of the other perennials...." (p. 163) up, we can cut the stems off near the ground and bundle them and stand them up somewhere out of the way and out of view. "The bees and katydid eggs within should be able to make it through the winter just fine" (p.165).

There is one more important consideration. "We also have to recognize that many bee species require pollen from particular genera [goldenrods, asters, evening primrose, etc.] in order to reproduce" (p. 165). "...so if we don't include those genera in our plantings, those specialist bees cannot survive in our yards" (p.168). "Clearly, saving our bee specialists by planting what they have specialized on is the key to saving diverse bee communities around the country" (p.168). If we "...meet the needs of our specialists, the generalists will follow" (p. 168). For a helpful listing of food plants for bees (and butterflies), see the following very informative article: "[Superfoods in the Insect Garden](#)" published by the [Ecological Landscaping Alliance](#). And for pollinator – plant associations, see [Pollinator Syndromes](#).

Finally, there has been a proliferation of bee hotels. They are good solutions for providing increased nesting capacity in our yards. But "...by concentrating nesting opportunities in one place (in one large bee hotel), we have made it very convenient for bee predators, parasitoids, and diseases to wipe out our bees...." (p. 167). "...we need to make them [bee hotels] much smaller, with just a few cells each, and scatter many throughout our yards. In this way, we are not putting all of our bees in one basket" (p. 167).

Bob Romero



Red Canna 1919
Georgia O'Keeffe

"A flower is relatively small. Everyone has many associations with a flower — the idea of flowers. You put out your hand to touch the flower — lean forward to smell it — maybe touch it with your lips almost without thinking — or give it to someone to please them. Still — in a way — nobody sees a flower — really — it is so small — we haven't time — and **to see takes time, like to have a friend takes time**. If I could paint the flower exactly as I see it no one would see what I see because I would paint it small like the flower is small."

So I said to myself — I'll paint what I see — what the flower is to me but I'll paint it big and they will be surprised into taking time to look at it — I will make even busy New-Yorkers take time to see what I see of flowers."

Georgia O'Keeffe (emphasis mine)

Member Profile

Shannon Morrison, Vice President, Gulf Coast Chapter, TXMN and Certified Interpretive Guide

What drew you into becoming a Master Naturalist?

I moved to Midland, TX for work in 1984. The only person I knew there was my new boss, and I'd only met him once. But I was ready for this big adventure – my first real job! So, to meet new folks, I looked around my new city and saw several things that tweaked my interest. One was this group called The Midland Naturalists, MidNats for short. They met every Saturday for a field trip. Have you seen Midland? Flat, sandy, dusty, treeless. What in the world would we see that was interesting enough to go out every Saturday? I was so surprised. I realized that I wasn't really looking at the world. Three ecosystems come together in Midland: High Plains, Trans Pecos, and the Edwards Plateau. There are draws, ephemeral lakes, prairies, plateaus and a short 5-hour drive away – mountains. Also, Midland is on a major flyway for migrating birds. While the main focus of our field trips was birds, this group of 20 or so was interested in everything. They went out of their way to include me and to show me everything they loved and treasured – trees, flowers, reptiles, bugs, birds, weather, geography, native plant gardening. Here's where I fell in love with birdwatching, made friends for life, started gardening, and met my husband. Midland and the MidNats will always have a special place in my heart.

When we moved to Houston in 1990, I was deep into my career. I fed birds and we built a purple martin house that filled up every year, but I didn't garden much. When we built our house in 2000, I dreamed of having a backyard full of native plants to support birds. I worked with a landscaper who assured me that he was familiar with native plants, so we designed and built a beautiful backyard. I still fed birds, but never saw any birds anywhere in the yard other than at the feeders. It was much later that I learned that those plants, Nandina, Sago, Aztec grass, and Crape Myrtles, are natives – just not to Houston!

As my retirement approached, I looked at what I wanted to do with my time: I wanted to rip out all those plants that I had thought would sustain birds in my backyard. I wanted to replace them with natives. I wanted to volunteer my time and I wanted to travel. We thought it might be interesting to volunteer as park hosts at Texas State Parks, so I went online to find out what we had to do to make that possible. That is where I saw the Master Naturalist program for the first time. It was a perfect fit. I contacted Julia and was disappointed that the upcoming class was full, but she kept me on a list and contacted me for the next one. I had schedule conflicts so could not attend. Finally, the stars aligned and when she contacted me for the next one, I joined the class, February 2016. My world expanded again. And again. And again. I have learned so much and met so many people, who, like the MidNats, are inclusive and want to share everything that they love and treasure. Between volunteering for Plant Propagation and Bellaire Nature Discovery Gardening, advanced training, lots of reading and new friends who are native plant experts, I finally got the nerve to re-landscape my backyard. I have studied the micro-ecosystem that is my backyard and am working to make it a haven, not just for birds, but for pollinators, too. It's already paying off. I've had two new butterflies visit my yard – a Red Admiral and an American Painted. I'm seeing bumblebees and syrphid flies, too. What kind are they? I don't know. My next learning adventure begins now!

What drew you to become part of chapter leadership?

Not very exciting. I was told I had been nominated for the VP position on the board and would I be willing to serve. This position is responsible for identifying speakers for our chapter meetings and ensuring we have a meeting place. I had also been approached to join the property owner's association board for our bay house community. Hmm... opportunity to be part of a learning organization that shares its knowledge or to manage people's complaints and POA violations? Not much of a decision!

What have you enjoyed about your position? What has surprised you (good or bad)?

I've already met new people who love to share their particular passions, whether it's mycology, Galveston canids or transforming Houston's horticulture to native plants. Everyone on the board is committed to our chapter's success.

Any favorite memories?

Gail in her hat, shoveling dirt into pots as fast as she could to keep up with the volunteers at Plant Propagation. Mary identifying plants at Galveston State Park while we were looking for White-tailed Kites. Celeste giving me native plants and sharing her backyard. Meeting a pecan tree orchardist who showed me and my brother a family of Eastern Screech Owls lined up on a tree branch in the Bellaire Nature Discovery Center and convinced me that the pecan that had 'volunteered' in my yard would produce only pignuts and should come out. Collecting seeds with Lan behind the Memorial Park Running Center surrounded by blooming liatris and prairie plantain, chasing Gulf Fritillaries, trying to take macro photos with my phone! I have so many memories I treasure, it is hard to pick a favorite.



Left - Red Admiral on Virginia Sweetspire; Right-
Painted Lady on Virginia Sweetspire (credit Shannon
Morrison)