



# Naturalist Notes

## Chapter Leadership – 2021

**President – Rebecca Lloyd**

**Vice President – Shannon Morrison**

**Treasurer – Sheryl Mills**

**Secretary – Julia Trimble**

**Chapter Advisor – Kelly Norrid, TPWD**

## Directors:

Membership – Mary Horn

Communications – Irmi Willcockson

New Class/Training Director – Michelle Broussard

Class Representative – Bonnie Brown

Volunteer Services – Lisa Morano

Advanced Training – Adrian Medellin

State Representative – Carol Oeller

Immediate Past President – Julia Trimble

Webmaster – Sarah Wiesbrock

## Committee Chairs:

Newsletter – Irmi Willcockson

Outreach – Irmi Willcockson

Speaker’s Bureau – Julia Trimble

Plant Propagation – Gail Baxter



“Do I not see how the trees tremble, as though  
sheets of water flowed over them  
though it is only wind, that common thing,  
free to everyone, and everything?”

Mary Oliver, Am I Not Among The Early Risers

West Wind, 1997

## Introduction

Sky and clouds were the theme for 2020. As naturalists we focus often on the flora and fauna, neglecting the abiotic parts of the environment. This year, I will be using Tristan Gooley's book "How to Read Water- Clues and Patterns from Puddles to the Sea" as the guide. "Many books have been written in the past that claim to be about water, but even the good ones like to deceive by treating water as a container.... In this book water will not be relegated in this way; it will be treated as the subject." Gooley writes in his introduction.

Pacific Islanders are renowned for their navigation skills. While some skills are best learned on a boat, many of the most important skills reading the water are taught on land. So, no need for you to get wet on this journey!

Furthermore, the behavior of water can be studied in small bodies of water found all over, bayous, ponds, puddles on paths. The picture above was taken at the Eastern Glades in Memorial Park. For now, look at patterns of waves across the surface. We will revisit this picture later to talk about what causes the different patterns. And as always, if you have a picture of water, please feel free to send it to me.



### Chapter Dues are Due

ONLINE: On our website, <https://txmn.org/gulfcoast/current-members/>, click the "Pay Your Dues - Donate" button and follow the prompts. After clicking the button, you will have an option to pay by credit card or your Paypal account. You do NOT need to have a Paypal account to pay with a credit card. Dues processed online will be \$21.00, which covers our processing fee.

If you need to submit a check (No Cash, please): send to this address: GCMN, P.O. BOX 273087, Houston, TX 77277.

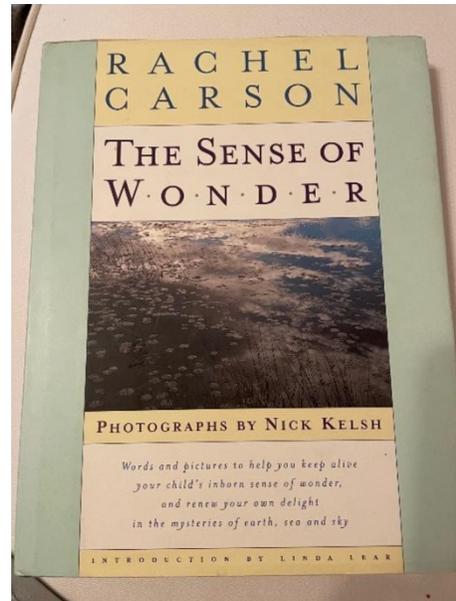
Sheryl Mills Treasurer [sheryl.mills@txgcmn.org](mailto:sheryl.mills@txgcmn.org)

## Book Review

### The Sense of Wonder

Rachel Carson, 1998, Harper Collins

We think of Rachel Carson as the author of *Silent Springs*, as a founder of the modern environmental movement and as the recipient of the Presidential Medal of Freedom. And, indeed, she was all of those things and more. She was one of the first to sound the warnings... Before her death in 1964 she said, "Only within the moment of time represented by the present century has one species – man – acquired significant power to alter the nature of the world." And yet she also said, "The more clearly we can focus on the wonders and realities of the universe around us, the less taste we shall have for destruction."



It is in her book, *The Sense of Wonder*, that she shares that wonder so eloquently – and that she teaches us how to easily instill that wonder in the children that touch our lives – our children, our grandchildren, the children we lead on wilderness hikes, or the child that lives next door.

"A child's world is fresh and new and beautiful, full of wonder and excitement. It is our misfortune that for most of us that clear-eyed vision, that true instinct for what is beautiful and awe-inspiring, is dimmed and even lost before we reach adulthood." Carson's wish is that each child in the world would have a sense of wonder so indestructible that it would last throughout life as an unflinching antidote against the boredom and disenchantments of later years, the sterile preoccupation with things that are artificial, and the alienation from the sources of our strength. She says if a child is to keep alive that inborn sense of wonder, he needs the companionship of at least one adult who can share it, "rediscovering with him the joy, excitement and mystery of the world we live in."

Many adults think they don't know enough to be that guide, but Carson says it's not half as important to *know* than it is to *feel*. "once the emotions have been aroused – the sense of the beautiful, the excitement of the new and unknown – then we wish for the knowledge."

In her signature lyrical prose, Rachel Carson teaches us through her adventures with her nephew Roger on the shores and in the forests of her place on the northern coast of Maine. She talks of taking him as a toddler down to the shore at night – both in stormy times so that they could enjoy together the vast roaring ocean and in calm times to search by flashlight for ghost crabs. In the woods they played the Christmas tree game, finding one seedling that was a perfect Christmas tree for a squirrel and then a smaller one that was just right for a chipmunk. Always her way of sharing nature was based on having fun together rather than teaching.

“Exploring nature with your child is largely a matter of becoming receptive to what lies all around you. It is learning again to use your eyes, ears, nostrils and fingertips, opening up the disused channels of sensory impression.” Carson talks about how a simple magnifying glass can open up the world of little things. She tells us to become aware of earthy smells and talk about them with our children. She writes, “take time to listen and talk about the voices of the earth and what they mean – the majestic voice of thunder, the winds, the sounds of the surf or flowing streams.” She suggests nighttime adventures of trying to find the cricket that is singing or the frog that is croaking.

And so, my friends, I encourage you to find *A Sense of Wonder* and read it. And then read it again. Let its wisdom sink into your heart so that you can share it with the children in your life – and so that you, yourself, can tap into the beauty and wonder of this world we live in more deeply than ever.

Jan Dollinger



 **Organism of the Month**  
**Squarestem Spikerush (*Eleocharis quadrangulata*)**

Squarestem Spikerush (*Eleocharis quadrangulata*) is a perennial member of the Cyperaceae or Sedge Family. It is a wetland plant native to Texas and many other states, primarily the Eastern to Southeastern states. The stems grow up to 1 m high, 2-5 mm wide, and have four convex sides, giving it its obvious name. It is an erect plant with a single stem and no leaves. Growing in clumps, it forms dense stands in shallow water. A terminal seedhead that appears scale-like with short white hairs often visible is formed in early summer to early fall.

Squarestem Spikerush provides food and habitat for aquatic invertebrates that in turn feed fish, amphibians, reptiles, and other animals. Waterfowl and mammals such as muskrats and nutria also eat the plants, including the seeds, rhizomes, and tubers. Spike rushes grow from rhizomes and seeds. This means they can be propagated by transplanting whole plants with the rhizomes—but it also means that digging up or cutting the plants allows them to regenerate. It can colonize, but certain species of fish, including carp, can keep it in check



credit Janice Barlow

Sources: [plants.usda.gov](http://plants.usda.gov); [ponds.org](http://ponds.org)

Janice Barlow.

## Let's save the world!

There are a couple of things that might cause pollinators to ignore a flower. One of them is that the flower might not want them. This sounds kind of weird, but plenty of plants specialize in a particular pollinator and they make it hard for others to get anything. Later in this series, we will discuss this sort of thing in detail. But I know from experience that Mbs is an all-purpose pollinator.

So how did I come to have a plant on the preserve that was apparently invisible to pollinators? Unfortunately, this not being my first rodeo, I had a very good idea what had happened. I had purchased a cultivar that was somehow incomplete.

You may not realize it, but we now have a two-track system for flower development. The first is the one that has been in effect since the beginning of time.

### System One: The old-fashioned way

Plants need insects for reproduction. Hard to breed if you can't move around. So plants make use of those highly mobile insects. They lure them in with free sugar water that plants can make from nothing more than the soil they stand in and the sun that shines upon them. While the insects are feasting, they more or less inadvertently collect pollen from one plant and deposit it on another. Plants and insects worked out this first system in partnership, and continuously road-test and improve it in a process that has been in place since time began. The shorthand way to refer to this is evolution.

The second system produced my invisible plant.

### System Two: The new way

Humans throughout time have bred one plant to another hoping for something "better." Not a big problem when we were out there like Gregor Mendel breeding one type of pea to another and deducing genetics. That's because then, plants still required pollinators.

If Mendel or his successors bred one pea to another and the resulting pea plant produced no peas, there would have been no way and no reason to continue. Who wants peas with no peas?

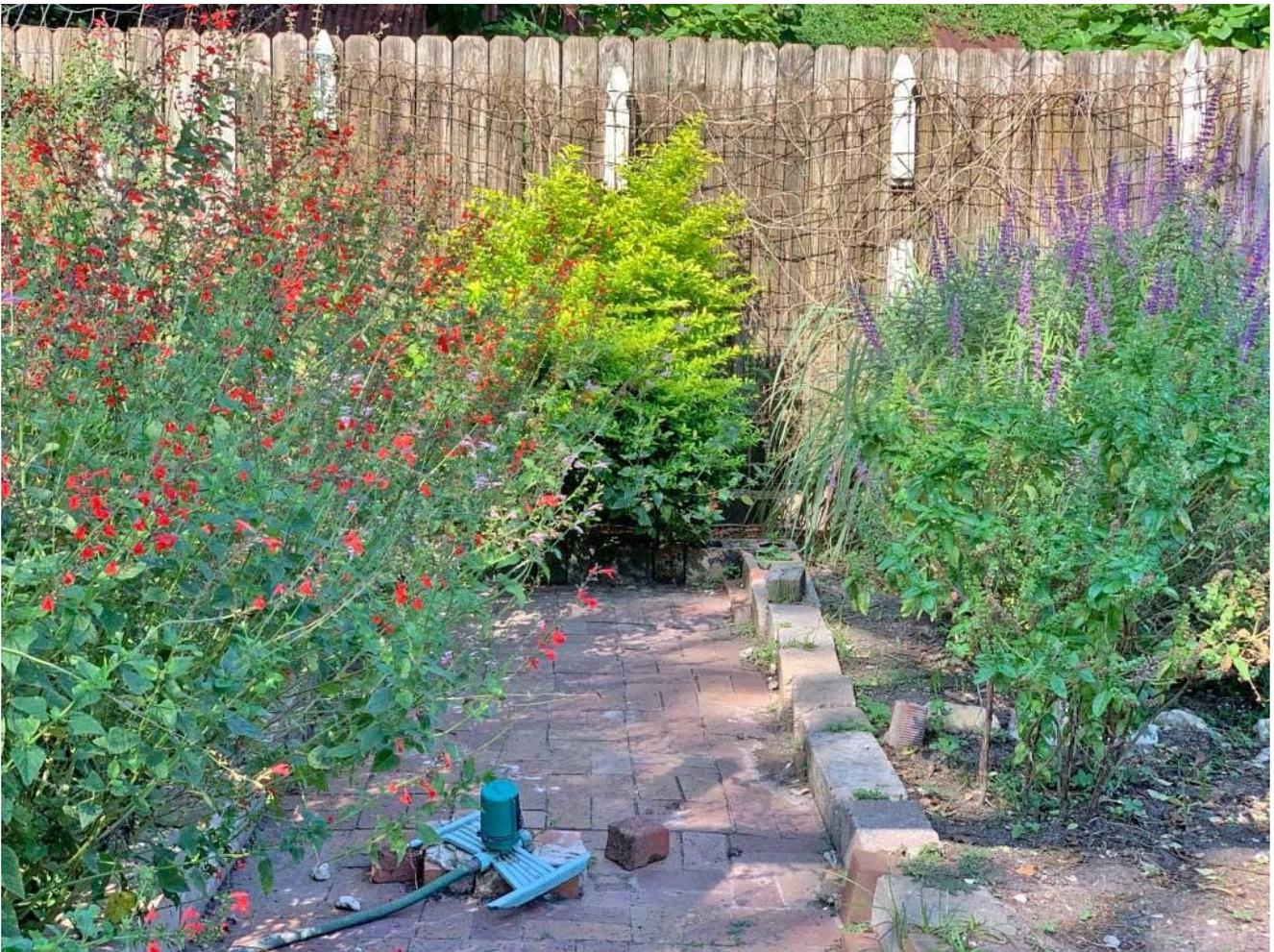
But today, if that fruitless-pea had unusually large flowers that were startlingly fragrant, who cares about the fruit! Nurseries can manufacture seedless plants in perpetuity. People will stick them in the ground and be glad not to be cleaning up pods all summer. A cultivar is born.

A cultivar is a variety built by us. When we cultivate a plant, we decide to breed what to what in order to create a plant more pleasing or useful to us. That more useful variety is a cultivar.

As an example, apples are all in the genus *Malus* and many of the ones we like are of the species *domestica*. When we use Latin nomenclature, we call apples *Malus domestica* with the genus capitalized and the species lowercase; it is usually italicized. Apples have tons of cultivars that you know well, Macintosh, Red Delicious, Jonnagold. In Latin, a Macintosh apple would be *Malus domestica* "Macintosh." The cultivar isn't italicized and is usually in quotations. Nature produces species, humans produce cultivars. Still, nothing terrible going on. In theory.

But we have a problem on our hands. Plants have spent eternity working out complicated signaling systems to draw insects to them. I promise I will entertain you with the details in coming posts. But, when we breed plants to draw humans rather than insects, we sometimes, accidentally, erase the signals. Or we change the nectar so it is no longer palatable or even present. And we have no idea that we've done it. We don't see in the UV spectrum. But butterflies and bees do. They rely on signals in this spectrum to even find flowers. After we are children, we usually stop pulling flowers apart for the sweet part. But that's what feeds a huge percentage of the insect population. If nature makes changes that turn plants invisible or unpalatable, the resulting plant won't last.

To be successful, a plant needs to attract someone to help with sex and then reward them for bothering. If a plant suffered a mutation that erased its signaling ability, not a single pollinator would show up and not a single seed would be set and this mutation would last only a single generation.



*On the left is a local cultivar I named Salvia greggii "Lilliana B." It is a salvia that beloved by every pollinator that passes by. It is the workhorse of the preserve. It springs up everywhere, grows to enormous size before you know it, blooms constantly and sets abundant seeds. Lilliana is for our street and B is for backyard. The Lilliana in the front yard is pink and is named Salvia greggii "Lilliana F." Both were produced by the old method; every salvia we ever dragged home from a nursery, bred together over time to produce these consistent cultivars. On the right is the Mexican bush sage Salvia leucantha "some cultivar." It was bred because it is gorgeous. It never sets any seeds because it is never pollinated.*

There are over a million single-family homes in Harris County. At almost every one of them, the occupants have put plants in the ground. Probably cultivars developed to please someone not a pollinator. Estimating based on a land-use chart, residential real estate occupies over 80% of Harris county.

So, on 80% of the land in Harris County, bees are starving and no one is doing anything about it. No one even notices.

### **Job One: Start noticing**

So here is your first job in saving the world. Start noticing. Notice in your own yard. You, too manage a small private nature preserve. You might not think of it that way, but in Harris County, 80% of nature is in private hands. Are you doing well at management? I know many have to balance the requirements of HOAs, but at minimum, you should make sure the plants you put in the ground are feeding someone. If they are not, rip them out and put in new ones.

If you want an example of what the insect activity in your yard should look like, wander by any weedy lot and watch. If you can't even beat a weedy lot, you should be embarrassed.

The fact that I acquired and let flourish almost completely useless plants for months lets you know that the job isn't easy. By the way, the plant persists on the preserve because something very interesting happened and that will be the subject of next week's post.

For now, look for cultivars. **And avoid them.** You know something is a cultivar because in addition to the italicized latin names for the *Genera* and the *species*, there will be another word, probably in quotes and probably sounding like marketing. Avoid anything with a marketing word. It is not guaranteed to be useless, but it might be.

A good way to make sure you are buying plants that were built by and for insects is to buy plants from nurseries that grow out wild-collected seed. Master naturalists collect seeds from vestigial prairies so as to conserve the plants that were made the old-fashioned way. Those seeds are propagated by Native American Seed. You can buy seeds from them.

Nurseries that specialize in growing plants from wild-collected seeds include The Houston Audobon Natives nursery and Morning Star Prairie Plants.

That fragrant mistflower that started blooming a few weeks ago is so full of magic, I cannot believe. That's what genuine, pollinator-bred plants can do. It is never without butterflies and bees. With a few plants such as this to anchor a preserve, you could even dare to indulge in a few showy ornamentals. But when people ask how you get so many bees and butterflies, don't you dare point to those show-pony cultivars!

Alisa Kline

Excerpt from <https://buffalobayou.org/blog/lets-save-the-world/>



## Google Lens: How did a snake become a lizard?

Google Play, App Store, on your Photos

I was enjoying a round of disc golf (think frisbees) with my nephew Jon and his 2-year-old son Grayson in an Orlando park over the holidays when we came upon a small snake making its way across our path. As I quickly got out my phone, Jon secured the snake behind the head, held it up and asked his son to check it out. I went to the Google Lens app on my phone and took a picture of the snake. (Especially with snakes, I like to know what I am dealing with). To our surprise, it was not a snake at all but a Slender Glass Lizard. Using several pictures taken with more accuracy and completeness, especially around the lizard's head, the app identified the lizard every time.

How did we get from a snake to a lizard? **Google Lens**, a free app that comes standard on most apple and android smart phones, was the ticket. The app uses the phone's camera and image recognition technology developed by Google to complete a visual analysis of your picture, displaying suggestions to the user.

It is instantaneous, assuming you have connectivity (it may not help you much in the "middle of nowhere"). What the app displays is its best guesses at what is in the photo. The clearer, more complete the photo, the better the results. The caveat is that Google Lens cannot be used as a definitive answer. It does get you closer and can confirm your thinking, and can be immensely educational, be it a plant, a bird, a tree, a mammal, an insect.

Google Lens has been around since 2017. If you cannot find the app under the BIG G, then you can download it from the app store. The tool helps you understand the world around you, using just your camera or a photo. And it builds our credibility as Master Naturalists when we share this awesome tool.



To access Google Lens:

1. Click the BIG G app
2. Click on the Google LENS icon
3. This brings up the camera, ready for you to find your subject and explore!

Sometimes, you really NEED to know what you are keeping company with, think "venomous snake" or "poison ivy". Use Google Lens to explore the world around you.

Jane Wood



## Member Profile – Chatt Smith

Chatt Smith particulars: Born Boston, raised New Orleans, LSU grad in Chemical Engineering, wife, 2 daughters, 5 grandchildren. Transferred into GCTMN in spring 2020.

Being outside has always been best. Boy scouts, family vacations to mountains and oceans, and a highlight of 2 weeks in Colorado backpacking with a friend. They made their own backpacks to make it happen.

Now retired, he steps out nearly every morning in support of our environment. He is attracted to projects that put him outside, is physically active and protects the planet. Having others to engage with at the same time is a bonus.

He is active at ABNC, GISP, TCCP, Sheldon, San Jacinto, Exploration Green, Sylvan Rodriguez, Coastal Prairie, and has done project work at Houston Botanic Garden, Baytown parks, EIH at UHCL and many others. He has planted too numerous to count prairie plants and trees. He has led portions of planting events like Prairie Pandemonium, Prairie Plant a thon, has built multiple greenhouses, assisted in building a shade house, assembled heavy duty tables for BayTown, fixed irrigation systems, and in general is a great guy to have on a project.

His devotion to TMN is only half of his current life efforts. Chatt is an active Disaster first responder with the American Red Cross. He assists with floods, hurricanes, explosions etc. He prefers to help people directly, avoiding requests to take on desk work.

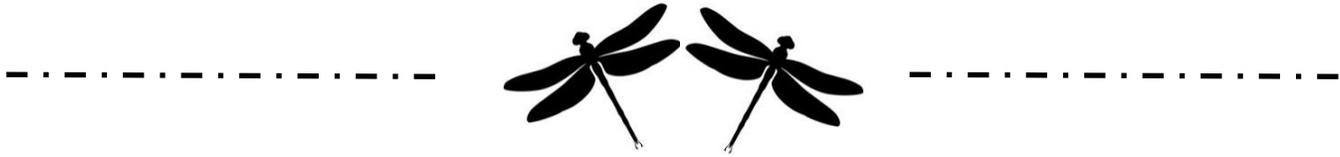
If you haven't met Chatt yet, go outside where there is work to be done, and you will!

Bev Morrison

|                                                                                                                                                                          |                                                                                                                                                                             |                                                                                                                                                                                            |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <br><b>Find Opportunities</b><br>Look for ways to serve on a one-time or regular basis. | <br><b>View My Schedule</b><br>See the shifts where I have signed up.                      | <br><b>Report my Service</b><br>Submit volunteer hours.                                                   |
| <br><b>View My Log Book</b><br>View my volunteer transaction history.                   | <br><b>My Placements</b><br>View opportunities I have applied for that have been approved. | <br><b>My Referrals</b><br>View opportunities I have applied for that are pending approval and placement. |
| <hr/>                                                                                                                                                                    |                                                                                                                                                                             |                                                                                                                                                                                            |
| <a href="#">Edit My Profile</a>                                                                                                                                          | <a href="#">Log out</a>                                                                                                                                                     |                                                                                                                                                                                            |

## Moved? Changed phone number? Email? – Update Your Profile

Log into the Hours Reporting Site, then click on Edit Profile on the Home screen. There are multiple pages to your profile. Click Save when you are done.





## Gulf Coast Birding

Learn to identify birds throughout the Texas Gulf Coast region in this introduction to birding with master naturalist and birding expert Glenn Olsen. A world-renowned area for birding, the Texas Gulf Coast is home to a great number and variety of beautiful birds. The roseate spoonbill, the yellow-crowned night heron, the American avocet, the scissor-tailed flycatcher and the peregrine falcon are just a few examples of birds that can be found either in Houston or within a short drive. Learn about principles of bird identification; migrant, resident and wintering birds; prime locations and times to bird-watch in our region; habitat needs of birds; and steps you can take to support birds in our region.

CO-SPONSORS: The Gulf Coast Bird Observatory; Houston Audubon Society; Texas Master Naturalists, Gulf Coast Chapter



**Glenn Olsen** has taught for the Houston Audubon Society and formerly served as its vice president of education. He has also provided nature education for the Garden Club of Houston, the Katy Prairie Conservancy, the Master Naturalist Program and various nature organizations. Mr. Olsen leads birding and nature tours in the U.S. and Central and South America to explore temperate and tropical ecosystems. He also periodically contributes articles to the Houston Chronicle. Mr. Olsen has completed the Master Gardener program, the Master Naturalist Program and is past president of the Native Plant Society of Texas.



|          |                                                                       |
|----------|-----------------------------------------------------------------------|
| SCHEDULE | Feb. 22–April 5, 2021 (no class March 15)<br>Six Mondays, 2–3:30 p.m. |
| FEE      | \$210                                                                 |
| CEUs     | 0.9                                                                   |
| FORMAT   | Online: Synchronous                                                   |

[REGISTER NOW](#)

To register or browse all available courses, visit us at [glasscock.rice.edu/community](https://glasscock.rice.edu/community).