



# Naturalist Notes

## President's Note

Hello Gulf Coast Members,

I hope everyone has found a way to stay comfortable in our July heat! I am glad to see that so many are still entering volunteer hours.

Our July 11th chapter meeting was an awards meeting.

There were 6 members who became Certified Texas Master Naturalists for the first time.

Congratulations to

Bruce Johnson

Melinda Kincaid

Matthew Pacheco

Richard Solberg

David Strong

Sarah Wiesbrock

on achieving your first certification ! Several of them achieved their 2019 re-cert too.

We also acknowledged 22 2019 re-certifications and several impressive milestone achievements.

I look forward to seeing you out and about!

Julia Trimble, President

Texas Master Naturalist - Gulf Coast Chapter

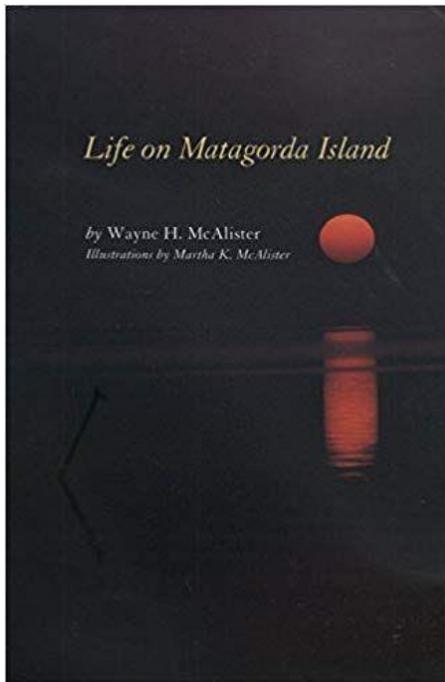
[julia.trimble@txgcmn.org](mailto:julia.trimble@txgcmn.org)

**Editor's Note:** This issue features several articles on prairies, as a result of the 2019 North American Prairie Conference held in Houston in June. Two book reviews for end of summer reading suggestions.



## Upcoming Outreach Opportunities

- **Schlumberger - Heath Safety & Environment Day 2019 August 15, 2019, 11:00 AM - 3:00 PM** at Schlumberger Completions Houston Product Center, 7030 Ardmore St., Houston, Texas 77054 (Bob Romero, TJ Butler, Irmi Wilcockson)
- **Creation Care Fest/Environmental Extravaganza Saturday, Aug. 24, 2019, 10:00 AM – 3:30 PM** at Faith Lutheran Church, 4600 Bellaire Blvd., Houston, TX 77401 (Virginia Livingston, Irmi Wilcockson)
- **Native Plant Society of Texas Houston Chapter Wildscapes Workshop Saturday, Sept, 21, 2019; 8:00 AM – 3:30 PM** at the Anderson-Clarke Center at Rice University (Bob Romero)



## Book Review

### Life on Matagorda Island

Wayne and Martha McAlister; 2004 Texas A&M University Press  
Available from Houston Public Library and Harris County Public Library

This Texas naturalist account of Matagorda Island never gets old. Although the work is a focused description of one of Texas most diverse barrier islands, the McAlisters give the reader the tools to examine and learn from their surroundings wherever they are. The story is an accumulation of notes from the years the McAlisters spent on the island in the mid to late 1990's. Wayne McAlister would be the U.S. Fish and Wildlife Service interpretive agent for visiting university students and coastal scientists.

The living conditions were spartan at best. Heat, salt marsh mosquitoes and other things that stick and bite were ever present. Never daunted, always in awe of the abundant life on the island, the McAlisters collected specimens, made detailed drawings and guided countless students across the dunes and island prairies. Looking SW from Port O'Connor, TX, across Espiritu Santo Bay, Matagorda Island is a 38-mile long barrier island in the southernmost part of Calhoun County. It was the traditional homeland of the Karankawa Indians. Matagorda, the name for a county, bay and a town is roughly translated as fat grass or rough brush. Mr. McAlister frequently described their need to be self reliant, conserving provisions and staying in good health all the while escorting inquisitive visitors to broaden their biological and geological horizons. Martha McAlister drew all the illustrations. You can picture her, notebook in the field, making quick and accurate sketches of shells, beetles and things that bob around in the marsh.

Whatever I thought I knew about smooth cordgrass of salt marsh (*Spartina alterniflora*), the McAlisters peeled the onion, making it exciting how cordgrass extracts nutrients from the back bay muck and detritus, takes in salty water in such a way to filter out the salt. The author would often set out sunken bucket traps to capture anything that crawled, scurried or slithered in the underbrush. It was one of these traps that the McAlisters discovered great land crabs (*Cardisoma guanhumii*) making their home on the island.

Tropical storms, drought, red tide and the occasional emergencies may all be deterrents to spending more than a few weeks on the island. The McAlisters stayed on for six years on a strip of windblown landscape devoid of condos, spring break, and Harley bike rallies. This book is a companion piece to Matagorda Island: A Naturalist's Guide and Aransas: A Naturalist's Guide, both by the McAlisters. Whether you're hiking through a dry creek bed in Seminole Canyon or canoeing the Neches River in East Texas you'll appreciate what you can learn by shedding premonitions and just watching the next critter cross your path on its own determined journey.

Chris Arceneaux



## Organism of the Month

### Rattlesnake Master (*Eryngium yuccifolium*)

Looking like a cross between a yucca and a thistle, Rattlesnake Master is actually in the carrot family (*Apiaceae*). This perennial is a native of the tall grass prairie, found in central and eastern North America. The root was used medicinally by Native Americans and early European settlers. Native Americans wove the stiff leaves into cordage, which was turned into everyday items such as bags, baskets, and shoes.

The leaves are stiff, long and narrow with regularly spaced bristles or spikes along the edges. The plant has a central taproot surrounded by thick, fleshy roots. The small greenish-white flowers are born in dense, ball shaped clusters resembling thistle heads. Although the leaves are around 4 feet tall, the flower stalk can rise up to 6 feet. The flowers attract bees, butterflies, and wasps. Mature rattlesnake master can be divided to propagate it. It also self seeds.

Rattlesnake Master is part of the Katy Prairie Conservancy's 9 Natives program, and seeds and plants are available from a variety of suppliers.

Sources:

[https://www.wildflower.org/plants/result.php?id\\_plant=ERYU](https://www.wildflower.org/plants/result.php?id_plant=ERYU)  
<https://www.facebook.com/arnaturalheritage/posts/rattlesnake-master-eryngium-yuccifolium-is-a-tall-native-plant-with-silvery-gree/10154115857111033/>

picture credit Alisa Kline (top), Irmi Willcockson (bottom)

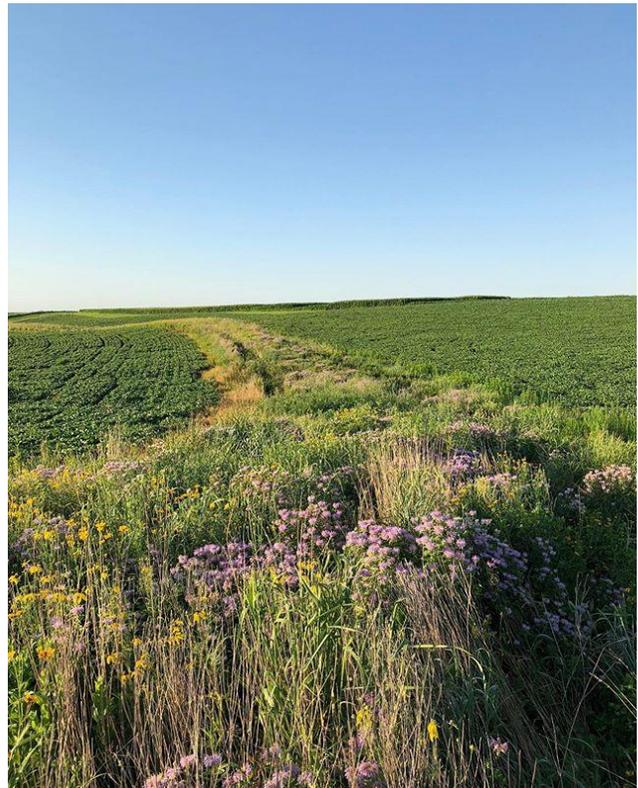


## 2019 North American Prairie Conference

Several attendees wrote about their experience at the conference.

### **In-field Prairie Plantings as a Means to Increase Native Plant Diversity in an Agricultural Landscape** Speaker: Lydia English

Scientific Trials of Row-Crops Integrated with Prairie Strips (STRIPS) integrates prairie habitat into working agricultural fields, and benefits soil, water and biodiversity. Planted along contours and at field edges, species include grasses, forbs, legumes and sedges. Strip width varies, and is based on the amount of run-off they will handle, with the goal of treating all of the runoff for a crop field. Results have been dramatic. Converting just 10% of a crop field to prairie strips has been shown to reduce soil and nitrogen loss due to run-off by 90% and 85% respectively. At the same time, prairie strips increase native plant, bird and pollinator populations. Monitoring vegetation over time shows that grass populations appear stable while forb species decline. This information is helpful in continuing to expand and improve the STRIPS program. More details can be found at: [www.prairiestrips.org](http://www.prairiestrips.org).



credit prairiestrips.org

### **Upstairs-Downstairs: How Belowground Microbes Alter Plant Traits and Plant-Insect Interactions Aboveground**

Speaker: Hannah Locke, PhD student at UH

What happens when a plant is nibbled by an insect? It calls for help! Complex communication exists between a plant and its mycorrhizal community. Using *Solidago altissima* (Tall Goldenrod) and the fall armyworm, Hannah has found that plants with arbuscular mycorrhizae fungi (AMF) grow and recover more quickly from herbivory than those in sterile soil without AMF. In another set of experiments, she found that plants provided with multiple species of AMF produce up to 11,000 more seeds than those in sterile soil. By seeking to understand the role of mycorrhizae in plant growth and reproduction, she hopes to help land managers and restoration efforts better support native plant and insect populations. More information can be found at: <https://www.uh.edu/nsm/biology-biochemistry/graduate/student-accomplishments/profiles/hannah-locke/index.php>.

Mary Spolyar



**Establishing a Native Coastal Prairie Bioswale to Assess Runoff Reduction**

Speaker: Stephen Benigno, Harris County Flood Control District

HCFCF recently tested the use of bioswales to reduce runoff and improve water quality. In early 2018 they created two bioswales using native prairie plants and a third bioswale using conventional turf grasses as a control. The backslope swales are long and narrow (14' by 500'), run parallel to the bayou, and are connected to the bayou at intervals. Sites were prepared by disking to remove grass and weeds, treating with glyphosate, then broadcasting with seeds and planting with plugs. No mulch, compost or engineered soils were introduced. The grass to forb ratio was 60%/40%. Grasses

such as Switchgrass, Eastern Gamagrass and Gulf Cordgrass that tolerate periodic/seasonal flooding were planted in the inner, deepest part of the swale. Grasses on the outer rows include Gulf Muhly, Virginia Wildrye, Little Bluestem and Splitbeard Bluestem. Forbs include Texas Bluebonnet, Blanket Flower, Partridge Pea, Rattlesnake Master, Illinois Bundleflower and Plains Coreopsis. The swales have been favorably received by nearby residents. To date the test results have been encouraging and larger scale implementations are being considered.

Houston Audubon's Natives Nursery, where I volunteer, was a source for the live plants in this project. Last week, instead of working in the nursery, we went to visit the two test sites. They look great! They're in full bloom and buzzing with a wide variety of pollinators.

Mary Spolyar

This (prairie) is the original landscape. This is your old growth forest, your coral reef.

Attwater Prairie Chicken Wildlife Refuge Manager on July tour

**June Errata**

OOM - Marsh cord grass is *Spartina alterniflora* (Thanks Jenn Drummond)  
 Gulf Coast Master Naturalist Far Afield -  
 Maps were omitted from the article, contact Julie d'Ablaing if you would like to see them.

Here is the one thing I really remember from my pollinator talk. Bees are vegetarian wasps! The evolutionary divergence between bees and wasps took place when bees became vegetarian and wasps remained the carnivorous predators they always were. I think, in this regard, most of the carnivorous behavior of wasps takes place in the larval stage.

On a tour once, someone asked me what's the point of wasps. After I tried to gently point out that creatures do not have a purpose beyond their own existence, I realized that I had no idea whether wasps contributed anything at all to the general good. I did some research and found that without wasps, we would be hip-deep in caterpillars! Most wasps lay their eggs either on caterpillars or in the same holes as bees and other insects. The wasp larvae's first meal is the larval insect.

I had never heard it put so succinctly before. Wasps carnivores. Bees vegetarians.

Not sure how useful this is, but it fascinated me.

Alisa Kline



left to right: Fuscatus-group Paper Wasp, Yellow-legged Mud-dauber Wasp (*Sceliphron caementarium*), Southern Carpenter Bee (*Xylocopa micans*), Red-marked Pachodynerus Mason Wasp (*Pachodynerus erynnis*) credit Irmi Willcockson



## Gardening Safety

- Wear safety goggles, sturdy shoes, and long pants, especially if you are using power tools.
- Use insect repellent with DEET and sun screen
- Wear gloves to lower your risk for cuts and skin irritation.
- Make sure your tetanus/diphtheria (Td) vaccination is up to date. Recommended every 10 years for adults.
- Hydrate

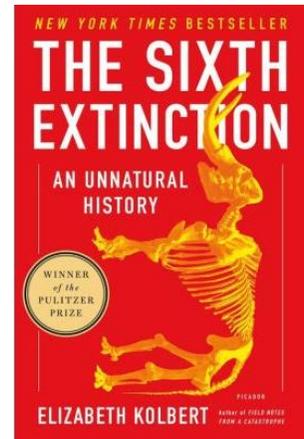
Source: CDC

## Book Review

**The Sixth Extinction – An Unnatural History** By Elizabeth Kolbert

Picador, Henry Holt and Company, New York, 2014, 319 pp.

This book is a seriously good read as the fact that it won the Pulitzer Prize indicates. It contextualizes this moment in the human history of human thought as well as this moment in evolution. The idea of extinction was not an idea in currency until the French scientist, Georges Cuvier, published his research. Subsequent work in Geology has shown that there have been 5 major extinctions: the End-Ordovician, Late Devonian, End-Permian, Late Triassic and End-Cretaceous. Jean-Baptiste Lamarck, Charles Darwin and Alfred Russel Wallace gave us the idea of evolution, which completes the picture of what we need to know to understand the current situation.



This is not light reading as the author writes in the prologue: “If extinction is a morbid topic, mass extinction is, well, massively so” (p. 3). This news about many species around the globe going extinct or in danger of extinction is “disruptive information”, to which humans are documentably resistant. And “At the point where the anomaly becomes simply too glaring, a crisis ensues—what psychologists dubbed the ‘My God!’ reaction” (p. 93). So this book is about us facing a huge “paradigm shift”. It is called the Anthropocene (Chapter V “Welcome to the Anthropocene”), a geologic epoch that will leave behind “a global stratigraphic signature” that will “...be legible millions of years from now” (p. 109). “No creature has ever altered life on the planet...” in the ways humans have with the result that it will become “...known as the Sixth Extinction” (p. 3).

“The story of the Sixth Extinction...comes in 13 chapters.... (The Sixth Extinction, The Mastodon’s Molars, The Original Penguin, The Luck of the Ammonites, Welcome to the Anthropocene, The Sea around Us, Dropping Acid, The Forest and the Trees, Islands on Dry Land, The New Pangea, The Rhino Gets an Ultrasound, The Madness Gene, The Thing with Feathers) The creatures in the early chapters are already gone.... The second part of the book takes place very much in the present....” A lot of information is presented in these chapters in a readable, relatable, almost compassionate way. The facts and trends are staggering with a few rays of hope (the successes of the Act for the Preservation of Seabirds in Great Britain, the banning of DDT and the Endangered Species Act in this country and the efforts to save the California Condor and the Whooping Crane – pp. 262-263). In the closing paragraph, the author writes: “Right now, in the amazing moment that counts to us as the present, we are deciding, without quite meaning to, which evolutionary pathways will remain open and which will be forever closed. No creature has ever managed this, and it will, unfortunately, be our most enduring legacy” (pp. 268-269).

Because this book captures the biggest “information disruption” of our time, it bears rereading and discussing. It can also be taken as a call to action: “Certainly humans can be destructive and shortsighted; they can also be forward thinking and altruistic” (p. 261).

Bob Romero



Allen Brymer, KPC's Conservation Stewardship Manager, Texas Master Naturalist Gulf Coast Chapter member, former HNPAT board member, former NPSOT-H member and former volunteer at and employee of the Houston Arboretum and Nature Center, died at his home on Wednesday evening, July 3, 2019. Allen had been ill during the last year and had been hoping for a full recovery. Sadly this did not occur.

There is currently no information regarding a memorial service or an event to celebrate his life.

"I am so sorry to hear about Allen. He was a singular and brilliant man who I always enjoyed talking to and learning from. We were in the same training class and his presentation on dog vomit slime mold was a classic. If you were not there, you missed something truly amazing.

Allen could be a challenging sort of guy, but really really worth getting past that. Everyone who knew Allen knew some form of that.... If that part of him put you off, you missed an incredible mind. The thing I will miss most is that I will never run into him somewhere and have him tell me the most amazing things about the natural world. I had no idea how ubiquitous hackberry seeds are in archeology. That's the last amazing thing he told me and I know there's a future blog post there for sure. He knew so many things. I wish he had been a writer. I want to know more of what he knew."

Alisa Kline