

The Midden

Sugar cane plume grass greets the dawn by John Egan

Galveston Bay Area Chapter - Texas Master Naturalists

February 2022

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President's Corner by Pam House

As I review the end of my first year as your chapter president, I am still amazed by the route that took me from my first meeting of my training class in February 2020, to my arrival here. From a youthful desire to be a marine biologist, to majoring in psychology in college, to a law degree and several years as a trial lawyer, to running a marine equipment and software company with my husband, to a joyful retirement; my personal life journey was brought to master naturalists via the Amazon river thanks to Dr. Cindy Howard and friends Helle Brown and Arline Laughter. But as I have learned to know many of you better, I now think you all have traveled unique roads to meet in this place. The synergy of our diverse backgrounds and interests has made the chapter strong and vibrant.

The chapter has been forging new trails ever since it was formed. The 20th anniversary celebrations reviewed the wonderful accomplishments of those years and celebrated the many individuals who made them possible. For the past couple of years, we have continued that tradition of blazing new paths and have made the challenges of a pandemic an opportunity to actually expand our AT presentations, to use Zoom in ways that both cut down our carbon footprint and opened accessibility to those whose travel to in-person events would have been limited by their abilities or the time demands, and to rethink and reshape many of our activities. The costs of the pandemic have been high, but it is consoling to think that we responded to the restrictions in a way that actually expanded our values.

Perhaps one of the most frustrating parts of the continuing uncertainty of the COVID crisis is that plans for events remain uncertain even after they have been announced. Your patience and understanding have been in high demand. Our hope is to include more in-person events as the concerns for all of our health allow, but it is unclear at this time how soon that will be.

As I write, we plan to return to holding Chapter Chats via Zoom on the first Thursday evening of January and continue them on the months when we do not hold chapter meetings. Our first chapter meeting of the year will be on February 3 via Zoom. Our 2022 training class members will begin their classes in February with the largest class we have welcomed in quite a while. Dolphin Challenge is on. Camp Wild planning is underway. New projects at Bayside Park and with Beach Heroes are in development. Hawk Watch is coming up. Just taking a look at all of the volunteer opportunities at <https://txmn.org/gbmn/recurring-volunteer-opportunities/> reinforces the pride and amazement I feel about what we all do and accomplish.

I have no doubt that 2022 will be wonderful. Thank you all for your contributions of time, labor, and joy that will make that possible.

Next Chapter Meeting

February 3

Lights in the Daytime Sky:
Remember to Look Up!

By

Allan Treiman

Principal Scientist, Lunar &
Planetary Institute

Via Zoom

Women in Nature: Florence Merriam Bailey by Meade LeBlanc

It is uncertain when feathers were first used to decorate women's hats, but the practice was widespread in the Victorian era, both in Europe and in America. By the late 1880s, one could observe dozens of species, in the form of feathers, heads, or entire carcasses, on the heads of the fashionable women of New York.

As a young woman, Florence Merriam was outraged by the practice, and, while a student at Smith College in 1885, started a local chapter of the Audubon Society to teach fellow students to appreciate birds in their natural habitat. "The birds must be protected; we must persuade the girls not to wear feathers in their hats," she wrote in 1889 in *Bird-Lore*, an illustrated magazine published by the National Audubon Society. "We won't say too much about the hats," she wrote in *Bird-Lore*. "We'll take the girls afield and let them get acquainted with the birds. Then of inborn necessity, they will wear feathers never more."

She published *Birds Through An Opera-Glass* in 1890 at the age of 26. It was considered the first American bird field guide. Her approach, studying birds in their natural habitat rather than shooting them and studying them later, led to the modern practice of bird-watching.

Born in 1863 in New York to wealthy parents, Florence came from a family that encouraged the children to explore the great outdoors around the family estate, called Homewood. Her father, Clinton Levi Merriam, a U.S. Congressman, was very interested in scientific endeavors and corresponded with John Muir. Her older brother, C. Hart Merriam, became a noted naturalist and a founding member of the National Geographic Society.

Florence traveled west after college, likely because she had tuberculosis, a disease for which most doctors could only prescribe a change in climate. There, she traveled in California, Utah, and Arizona, and wrote several more bird field guides for beginners. "Four things only are necessary – a scrupulous conscience, unlimited patience, a notebook, and an opera-glass. The notebook enables one to put down the points which the opera-glass has brought within sight, and by means of which the bird may be found in the key; patience leads to trained ears and eyes, and conscience prevents hasty conclusions and doubtful records." Florence Merriam, *Birds of Village and Field* (1898).

By 1899, her health improved, and she moved to Washington DC to live with her brother. There, she spent time teaching bird classes and organizing chapters of the Women's National Science Club and the National Audubon Society.

Her brother introduced her to his friend and colleague, Vernon Bailey, who studied mammalogy. The two wed, and soon began exploring and documenting the natural world. Their first trip west was to Texas, exploring from Corpus Christi to Brownsville, for 17 days. They camped in tents, in spring and summer, for nearly 40 years together, returning to Washington DC each fall. They explored California, Texas, Arizona, New Mexico, the Pacific Northwest, and the Dakotas.



Photo courtesy of American Heritage Center, University of Wyoming

Florence's writing became more scientific over time. In 1902, she published the *Handbook of Birds of the Western United States*, a complement to Frank Chapman's *Handbook of Birds of Eastern North America* (1895). She drew on her own field work, as well as the best available published work and illustrations. She included descriptions of nesting and feeding behaviors and vocalizations.

All told, she wrote 10 books and published numerous articles in *The Auk*, *Bird-Lore*, and *Audubon*. A small, gray mountain chickadee native to Southern California was named in her honor in 1908. Note: Mrs. Bailey's chickadee, living in the western U.S. and Canada, is now (*Poecile gambeli baileyae*.)

Florence Merriam Bailey died of heart failure in Washington on Sept. 22, 1948 at the age of 85. In 1992, a mountain in the southern Oregon Cascade Range was named Mount Bailey, in honor of Florence and Vernon Bailey. The American Ornithological Society announced the new Florence Merriam Bailey Publication Award in 2021, to recognize an outstanding article published within the preceding two calendar years by an early career member in one of the society's journals.

Similarly, the New Mexico Ornithological Society has instituted the F.M. Bailey Lifetime Achievement Award, to recognize individuals who have made a significant

lifetime contribution to New Mexico's ornithological knowledge or promotion of the value of birds in the state.

"No woman and very few men had ever known so much about all the birds of the United States," Marcia Bonta

wrote in *Women in the Field: America's Pioneering Women Naturalists*. "And none had tried as hard as Florence to teach everyone – man, woman and child – about the joys of watching birds and the beauty of the natural world."

Wood Storks on the Bayou by Diane Humes

How many wood storks did you say you saw?

Wood storks (*Mycteria americana*) are seldom seen in Texas. On the hawk watch we count them flying overhead - usually four or five every few years - and, as we say, "OMG equals 1000 birds." So, when the folks on the Armand Bayou Nature Center pontoon boat found 650 wood storks filling the trees and sky in Horsepen Bayou on September 19, 2021, they were thrilled and impressed, so say the least.



Photo by Andrew Hamst

Named by Linnaeus, wood storks are American freshwater wetland birds, with a large population residing in South and Central America, north to Mexico. The North American population lives and breeds in Georgia, South Carolina and Florida. Probably, wood storks spread throughout the southern U.S. after the Pleistocene, but today these birds are uncommon, concentrated in the Everglades, which may once have supported 15,000 nesting pairs.

Wood storks certainly have bred in our part of Texas in the past; The *Texas Breeding Bird Atlas* documents nesting wood storks in Chambers, Jefferson and Harris counties, but not in the past 60 years. It has been hard times for wetlands species, but things may be looking better for wood storks. This species is considered threatened, upgraded from endangered in 2014, thanks to 30 years of habitat management by the U.S. Fish and Wildlife Service.

Wood storks are large wading birds, mostly white with dark featherless heads and large, heavy, dark, decurved bills. Standing over 3 feet tall on dark legs, they have a five-foot wingspan. They forage in shallow water for fish and crabs, reflexively snapping their bill shut after touching a fish.

Wood storks are strong fliers and may go 50+ miles from the nest in search of food; like hawks, they take advantage of thermals. Always a pleasure to see them fly over, wood storks can be identified in flight by their black secondary feathers and tail, extended necks and trailing feet. They roost and nest in large colonies and fly in flocks. Wood storks are the only storks breeding in the U.S.

Nesting times are variable; birds may breed any time from November to August, triggered by the food supply, which is dependent on water levels. Flooding increases the fish and crab supply, while low water levels concentrate it, and this is what initiates breeding. Birds construct large stick nests in the upper branches of bald cypress (*Taxodium*) or mangrove trees, growing in swamps or on islands, respectively.

Most often a wood stork pair raises two chicks in a season. Chicks grow quickly and require a lot of food; in a bad year, when the food supply is insufficient, pairs may not even attempt nesting.

Storks do not migrate but tend to wander northward after the breeding season is complete. So, those in Florida may travel up the eastern seaboard, while those in Mexico have been known to wander into Texas and Louisiana and up the Mississippi River Valley. This year it happened that, from September 12 - 18, Hurricane Nicholas flounced up the Gulf Coast from the Yucatan, possibly bringing along the wood stork reconnaissance air force.

Perhaps they liked what they found and will return.



Can I Recycle This? Clarifies Often-Murky Recycling Rules by The Green Team



Despite being dedicated recyclers, reducers and reusers, many of us still struggle with knowing exactly what qualifies as a recyclable product, while others of us wonder whether the contents of the bin we've so meticulously filled actually get recycled. *Can I Recycle This?: A Guide to Better Recycling and How to Reduce Single-Use Plastics* aims to clarify recycling misconceptions and offers tips on how to ensure your diligent sorting doesn't go to waste - or the landfill.

Written by Jennie Romer and published by Penguin Books in 2021, *Can I Recycle This?* is a must-read for anyone who wants to get recycling "right." Romer, a former legal associate with the Surfrider Foundation's Plastic Pollution Initiative, was appointed EPA's Deputy Assistant Administrator for Pollution Prevention in October.

Romer first explains how she structured her manual and how to use it. She then jumps into an introduction into the recycling system, followed by details about different recycling programs and machinery, the various "chasing arrows" symbols, detailed information about recycling individual items, the moral dilemmas of shipping our waste elsewhere and the state of our oceans, current and future policies on pollution and how they become law, and tips on what we can do individually to reduce our waste footprint. Littered throughout the book are colorful, hand-drawn illustrations by Christie Young, who offers some humor to offset the confusion of the recycling game.

At times, this book can be depressing because Romer clearly explains what does NOT get recycled and why, and the list is long. However, knowing what the recycling symbols mean, the mechanics of the recycling process, and why certain items get rejected in that process can help us, as master naturalists, make educated purchases and hopefully lead to a more efficient recycling experience in our community.

Members of the Green Team have read the book and offer their insights and "aha" moments in the following paragraphs.

Introduction to the recycling system

As this book was published in 2021, guidelines for environmental action seemed to change daily. But even so, the "Introduction to the Recycling System" erases many erroneous "aspirational" ideas I had about what might happen to my theoretically recyclable discards.
- Peggy Carrol

Romer discusses the pros and cons of bagging recyclables and gives tips on what's acceptable and why. I had not given that much thought until the pandemic changed recycling habits in my community and home. When the COVID pandemic hit in 2020, AmeriWaste, who collects garbage and recycling for the city of Taylor Lake Village, required that ALL recyclables be bagged in the 35-gallon wheeled carts provided by the company. A notice on the TLV website, under the "Recycling" heading, states: "Until Further notice ALL ITEMS MUST BE BAGGED."

When called, Meghan at AmeriWaste confirmed that recycling that is bagged in black and probably white bags goes to the landfill because people sometimes will use their recycling cart as an "extra" garbage bin, and the AmeriWaste workers don't have time to open the bags to inspect the contents. Despite Romer's statement that Waste Management will NOT recycle ANY BAGGED items, Meghan said AmeriWaste will recycle items in transparent bags placed in the recycling carts. A few minutes' research online should inform you of any updates in recycling protocol in your community. - Emily Morris

Other Waste Processing and Disposal

I had no idea before reading this that recycling facilities that make money from processing recyclable materials would actually oppose beverage-container deposit laws. I wonder what return on investment recycling facilities actually experience. - Peggy Carrol

One of the biggest "aha" moments for me was that the process of anaerobic digestion is being used to blend food waste to create a bioslurry. The bioslurry is fed into a digester to break down the food waste. At some facilities biogas is being collected and fed into existing gas pipelines. - Sandy Parker

After reading about municipal composting programs in Romer's book, I was curious to see whether we have a similar program in the Houston/Galveston area. I was pleased to discover that the City of Houston began a pilot program in October 2021 to encourage composting, with three drop-off facilities in the Houston area. The results of the program, which ended in late November, can be found at [Houston Composting link](#) or by scanning the QR code. - Emily Morris



Individual Items: Can I Recycle This?

The term "wishcycling" refers to the act of putting an item in the recycling bin that cannot be recycled. If you know an item cannot be recycled, don't put it in the bin. What for sure CANNOT be recycled: tiny pieces of plastic,

plastic film (like carryout bags), polystyrene foam, multi-layer packaging (like juice pouches), packing peanuts, paper napkins, to name a few. - Peggy Carrol



Plastics are of particular concern to the Green Team, as they are to many other Master Naturalists. Romer gives details about the seven different types of plastic resins, how they are produced and used, whether they can be recycled, which are the most valuable, and why. For example, Romer tells us that “material with a higher molecular weight (bottles and jugs) is more valuable.” She also explains that “PET thermoforms,” which are of lower value, cannot easily be “recycled into bottles, but

they can be recycled into carpet.” Clamshells for to-go foods often fall into this category.

We all know about polystyrene, but I was surprised to find that polystyrene (PS) is not only fluffed into rigid foam plastic, but it also is used to make clear plastic food and drink containers. Both are bad. “PS has virtually no chance of being recycled,” Romer says. Another thing I learned is that clear plastic PS clamshells (bad) can look identical to clear plastic PET clamshells (better). Unless you inspect each of your clear plastic food containers, you may be attempting to recycle a nonrecyclable.

- Emily Morris

A few Take Homes About Recycling

- Leave bottle caps on plastic bottles for recycling.
- DON'T flatten plastic bottles but DO flatten boxes.
- When recycling soup cans, put the clean lid back in the clean can.
- Put steel beer bottle caps into a steel can with the lid partially on, loosely close the lid; that way the bottle cap won't slip through the machinery in the recycling process.

Reflection

This book is so chock full of usable information that the Green Team had to lightly touch on some of Romer's points. As master naturalists, most of us want to do the right thing when it comes to managing our waste, whether it's recycling, composting, or repurposing. Can we eliminate waste from our lives entirely? A glance back in history and at Diane Humes' December *The Midden* article tell us “no,” but if we are informed, thoughtful and diligent, we can reduce much of the waste that ends up in ever-growing pits and ever-fouled waters around the globe. Nor can we do it alone, but as master naturalists, we can share our knowledge with others and, little by little, “be the change we want to see.”

(Image used by permission from Penguin Random House.)

Injured Bird Response Team's 5th Anniversary by Lana Berkowitz

The night heron nestlings that had fallen from their nest didn't want to be rescued, Stennie Meadours remembers.

Stennie and Davis Clay were responding to call to the Galveston Bay Injured Bird Response Team about baby birds that had dropped from trees in the middle of a boulevard with a street on each side.

Grounded babies usually die from starvation or predation. However these fledglings were much more capable than they appeared, Stennie said.

“They looked like little dinosaurs when they puffed up and their spiky feathers stood straight up. They spread their wings, stretched their necks out as far as they could, and opened their mouths as wide as could be and gave out a loud hissing sounds!” Stennie said.

“Davis and I chased these tricky, speedy birds that evaded our best moves for quite a while. Laughing all the way, we were finally able to ‘rescue’ them.”

They were taken to the Wildlife Center of Texas (WCT) for rehab and release. They were healthy and just needed food and time, Stennie said.

The team has accumulated many memories and milestones during the past five years, but there is more work to do, Stennie said.

Developing a group devoted to bird rescue began in 2015. That year a larger than usual pelican hatch coupled with a late flounder run made it difficult for the young birds to find food, Stennie said. The starving pelicans became weak and many tried to steal fish off fishermen’s hooks. More than 400 pelicans were delivered to the WCT that year.

It was also noted that the reporting of injured birds had increased on the Bolivar Facebook page. “This indicated that a lot of people cared about birds and there were a lot of birds that needed care,” Stennie said.

Additionally, Josh Henderson, supervisor of Galveston Police Department Animal Services, said his department could use help transporting birds rescued in their jurisdiction to rehabilitation facilities.

Stennie asked her buddy, Sandy Parker, to become her partner in establishing a bird rescue system. They met with Sharon Schmaltz, then director of the WCT, who helped them prepare for the first injured bird response training session in January 2017.

“The training was held at the Crystal Beach Fire Station on a Sunday afternoon. Seventy people showed up! We knew then, we could make it happen!” Stennie said.

The system has evolved with the team doing fewer rescues and focusing more on coordination and transportation. In addition to Galveston shelters, the team works with rescue groups in League City and Dickinson to transport injured birds to the WCT.

The team has divided Galveston County into three areas for coordination. Davis works the mainland, Stennie handles Galveston and Bolivar, and Maureen Nolan-Wilde, Alan Wilde, Lynn Wright and John Wright handle Tiki Island.

A 24-hour contact number (646-585-0490) that routes calls to a gmail address has been established. Public interest has amazed Stennie. “A delightful surprise is how many people are willing to go out of their way to care for birds,” Stennie said. “I look at all the re-nesting and bird rescue advice we give as education outreach as

we are giving people a resource and advice they would not have otherwise.”

Calls also can reveal migration patterns, she said. For example, least bitterns and purple gallinules calls usually come in April.

Patty Trimmingham coordinates the call monitors. Calls are logged and the outcomes are recorded. Monthly reports are organized by Cindy Liening.

About 20 Galveston Bay Area chapter members contribute their time, skill and gasoline to the project. “The transporters that continue to drive into Houston to take the birds to professional care are my heroes in this effort,” Stennie said.



The team transported 688 birds to the WCT in 2021. Mammals and amphibians have hitched rides. “Our rule of thumb is, if an injured bird is being transported, anything else can ride along. We have had rabbits, squirrels, mice, nutria and turtles accompany birds to the WCT.”

The team’s busy season begins in March and begins to slow in August. The slowest months are December and January.

“From March to May injured and exhausted migrants and early nesters make up the bulk of the calls. Migrants are exhausted and land where ever they can and take cover, under cars, at doorways and in yards,” Stennie said.

“From May to August most calls are about nestlings falling out of the nest or fledglings on the ground along with calls about injured laughing gulls and brown pelicans,” Stennie said.

Most of the injuries are wing-related or the bird is weak and not able to fly. Entanglement accounts for probably 10 to 15 percent.

The most unusual species that the team rescued was a white-crowned pigeon, a first-ever seen on the U.S. mainland, and a red-footed booby, Stennie said. Both were found on Galveston Island. The white-crowned pigeon was taken to the Florida Keys where there are a few. The red-footed booby survived for almost a year in rehab with excellent care, but, sadly, did not make it.

Releases can be special. Stennie got the honor of releasing a red-tailed hawk (pictured) and a magnificent frigatebird.

However not every rescue ends happily. WCT estimates that 35 percent to 50 percent of the injured birds are released after rehab.

And shortly after its formation, the team was involved in the aftermath of a devastating bird strike. In spring 2017 after a night of heavy rain and strong north winds, 400 small birds were found dead around Galveston's tallest building in the morning. The lights in the building attracted the disoriented birds causing them to crash to their deaths.

"This event made news all around the world. Friends saw it reported in Paris!" Stennie said.

Houston Audubon, Galveston PD Animal Services and other bird conservation organizations met with the building's owner to work out a solution. Now the building lights are turned off every night during spring and fall migration months.

"Without the existence of GBIBRT, this event may have gone unnoticed and the lights on this building still on year-round," Stennie said.

As the team celebrates its fifth anniversary, Stennie would like to see some tweaking of the system and the training of five or six new coordinators.

"Davis and I have been the only coordinators for the last three years – every day of our lives. If this effort is to continue longer term, we need to train more coordinators so there is more depth to the team," she said.



If you are interested in joining the Galveston Bay Injured Bird Response Team, contact Stennie at stenmead@aol.com.

2022 Board of Directors

There have been changes to the Board since the election in December.

Maureen Nolan-Wilde stepped down as Communications Director. Her position will be filled by Meade LeBlanc, who had been elected Secretary. Cynthia Hughes has been appointed to fill the Secretary position.

Two new appointed positions were added this year:

- State Chapter Representative
- Diversity & Inclusion

The full chapter organization chart and a list of the committee chairs can be found at <http://txmn.org/gbmn/board-of-directors/>.

| Elected | |
|----------------|----------------|
| President | Pam House |
| Vice President | Tyler Coleman |
| Treasurer | Cindy Liening |
| Secretary | Cynthia Hughes |

| Appointed | |
|-------------------------|-------------------------------|
| Service Director | Jo Monday |
| Training Director | Ellen Gerloff and Mike Petitt |
| Membership Director | Patty Trimmingham |
| New Class Director | Janet Mason |
| Communications Director | Meade LeBlanc |
| Training Class Rep. | Walter Meyer |
| Training Class Rep. | Leann Criswell |
| Sponsor | Julie Massey |
| Past President | <open> |
| State Chapter Rep. | Tyler Coleman |
| Diversity & Inclusion | Mohammed Nasrullah |



Fourteen Places We Love at ABNC by Rebekah Gano

February 14th, Valentine's Day, is coming, and it's time to share your love of nature! Armand Bayou Nature Center holds a special place in many of our hearts. It is a great place to volunteer, hike, go birding and just take in the splendor of nature. Staff, volunteers, and visitors at the nature center have shared many of their favorite places. Some are popular and easy to locate. Others are more hidden or might take some extra walking to reach. Here are the top 14 places (in no particular order) to visit at Armand Bayou Nature Center:

1. Boardwalk pond
2. Prairie platform
3. Bison platform
4. Boathouse pier (with its view of Armand Bayou)
5. Seining site, near the boathouse
6. Animal exhibit area in the interpretive building (especially a favorite of children)
7. Ecotone (See the note at the end of this article.)
8. Place where the Ladybird Short Loop opens into the prairie
9. Farmhouse porch
10. May's Pond (Take the trail along the right side to a secluded outlook.)
11. Armand Bayou (from a kayak or pontoon boat)
12. Bayou over-look off the Ladybird Trail
13. Children's garden
14. Bird blind by the interpretive building (A barred owl often perches way up high.)

Each of these locations has a special beauty and allows us to feel connected to nature and even other times. Elisa O'Neal writes: "My favorite place is the eco-tone. I like to walk out to it from the Ladybird Trail or view it from afar at the prairie platform. Whenever I do, I like to go back in time when most of Houston was pristine prairie intersecting with unaltered bayous with ribbons of green forest running along their banks. I think about how we

wouldn't have seen so much of the water's surface because there would have been so much more tidal marsh grass growing where the water met the land. I imagine that in the skies I would see hundreds of birds flying above, and herds of bison would be grazing below. When I think about all of that, I realize that we must continue to be vigilant in our care of this special place. There might be less of what once was, but the intersection of the three ecosystems is still here and it needs to be preserved for future generations."



Photo by Larry Brasfield

As master naturalists, we often are consumed with planting, weeding, watering, teaching, and making repairs when we visit natural places. These are ways we show our love of nature and strive to preserve it for people yet to come. Many people at ABNC expressed thanks for the master naturalists who volunteer there. This month, wherever you find yourself volunteering, these grateful people hope you will also take time to breathe in the fresh air, observe the changes in nature, and perhaps wander off to one of their favorite locations just to enjoy the view.

2022 Re-Certification Pin: Texas Lightning Whelk by Diane Humes

It's official. The Texas Lightning Whelk, (*Busycon perversum pulleyi*), is our 2022 re-certification pin. "Busycon" is a Greek word meaning "large fig", while "perversum" is Latin and refers to the unusual left-hand or counter clockwise coiling of the shell - uncommon in mollusks; "pulleyi" honors Dr. T.E. Pulley, Texas naturalist and teacher.

One of the largest shells found on Texas beaches, it is easy to identify because of its opening on the left side, as observed by you when holding it up. With a distinctively Texas distribution from Breton Sound, Louisiana to the

coast of northern Mexico, this one will be near and dear to our hearts and, because we live near the beach, we will cherish every shell and egg-case we find.



The lightning whelk is a gastropod - "stomach-foot" - a carnivore subsisting on clams and pretty much whatever else it can find. It lives most of its life buried in bay bottom sediments, preferably near seagrass beds, and near clams and oyster beds. When searching for food, the long slender end of the whelk's shell could be observed poking up from the sea bottom. When it finds a clam, it uses its muscular foot and the lip of its shell to pry or chip open its prey's shell, then uses its rasping radula to consume the prey's soft body parts. The whelk has an operculum - think "trap door" - attached to its foot and closes up inside its shell after feeding. It is nearly impossible to force open the operculum of a living whelk.

The lightning whelk's beautiful shell is made from calcium carbonate and grows with the animal throughout its life. Shells usually reach about 8 inches in length after 20 years, although some have reached 16 inches! When the animal dies, its shell may become home for a hermit crab or collected by a beachcomber. Should you find a live whelk on the beach, please help it return to the water.

Lightning whelks mate during the cooler autumn months and the female lays her eggs in early spring. She constructs a tough string of 50 to 175 connected disc-shaped capsules, which she anchors to the ocean floor. Each of the quarter-sized capsules may contain 200 eggs, which hatch and mature through all their larval stages inside the capsules. In late spring, the young emerge in their shells as miniature lightning whelks.

Egg cases often wash up on the beach; keep your eyes open for them while on Turtle Patrol!

Lightning whelk populations have fallen because of the collecting of live animals, so the Texas Parks and Wildlife Department has placed various restrictions on harvesting live marine animals from Texas coastal waters. At the very least, you must have a current Texas fishing license with a saltwater fishing stamp.

The Texas Lightning Whelk, our newest pin, was designated the State Shell of Texas in 1987. Wear it with pride!

Treasures of the Bay Recipients 2021

Each year our chapter recognizes outstanding service and contributions to natural resource restoration and education efforts with the "Treasures of the Bay Awards."

The recipients recognized at the December chapter meeting are:

Dick Benoit Leadership Award - Jim Duron

Sara Snell Education Award - Diane Humes

Sammy Ray Researcher Award - Gulf Center for Sea Turtle Research TXMN Volunteer Team

Beth Cooper Service Award

Mohammed Nasrullah
Meade LeBlanc

Non-Profit Award

Exploration Green Conservancy
Galveston Island Nature Tourism Council

Chapter Service Awards

Dorothy Hogg
Pam House
Patty Trimmingham
Susette Mahaffey
Mike Pettit
GBAC TMN Bookstore
GBAC Zoom Team

Making a Difference Awards

Scott Buckel
Sandy Parker
Deborah Repasz
Martha Richeson

Heritage Book Study - Review of *Prairie Time* by Madeleine K. Barnes



It has been some time since the book study has had the opportunity to read a book about the prairie and the amazing grasses and forbs found there. While this book is about the Blackland prairie to our north, it shares many of the plants and grasses that we find here. At its peak, this prairie encompassed twelve-million acres near San Antonio northward to the

Red River. Today less than 1/10th of 1% still exists in small remnants.

Matt White, the author, an avid birder and author of *The Birds of Northeast Texas*, teaches American History at Paris Junior College and studies and grows prairie plants on his land near Campbell. He received the 2007 Carroll Abbott Memorial Award, presented by the Native Plant

Society of Texas for *Prairie Time*. He uses his knowledge of birds to illustrate the importance of the prairies for the birds and for other wildlife and the need for prairie preservation through stewardship.

Prairies everywhere face peril due to row cropping agriculture, overgrazing, suburban development, and roadways, along with a lack of understanding and appreciation of the land's value when left "fallow" or in this case natural. Others might see it as "neglected" because to them it would appear unused, untilled, and undeveloped to meet "our" needs. The Blackland Prairie is a prime example that the very soil, the black earth, is derived from environmental elements that include the native grasses and plants that formed deposits over long periods of time, producing the rich soil deposits, giving tall grasses and wildflowers both nourishment and anchor in the strong winds and extremes of weather.

In the Afterword, White writes of the successes in prairie conservation that have occurred in Texas but identifies that this is a continuing challenge for all who cherish the prairies. White's purpose for *Prairie Time* is highlighted in his closing statement. "Hopefully, it will continue to be a force for prairie conservation in Texas." It was such a pleasure to read a book written by a naturalist, historian, and poet, whose enthusiasm and passion for the prairie resonate within the pages. It is as though you are with him as he searches along the country roads for these hidden gems and describes their hidden beauty, land use history and ownership, and the importance of these disappearing fragile tracts for our environment and for us. I hope you add this one to your reading list for 2022 so you can share some "Prairie Time".

The book study participants did a great job last year, thanks to everyone, and have completed the book selections for this year. The 2022 reading selections with meeting dates are:

January 3 - *Braiding Sweetgrass: Indigenous Wisdom, Scientific Knowledge, and the Teachings of Plants* by Robin Wall Kimmerer, (3 months reading)

February 7 - Continuation of *Braiding Sweetgrass: Indigenous Wisdom, Scientific Knowledge, and the Teachings of Plants* by Robin Wall Kimmerer

March 7 - Continuation of *Braiding Sweetgrass: Indigenous Wisdom, Scientific Knowledge, and the Teachings of Plants* by Robin Wall Kimmerer

April 4 - *Eager: The Surprising, Secret Life of Beavers and Why They Matter* by Ben Goldfarb, (2 months reading)

May 2 - Continuation of *Eager: The Surprising, Secret Life of Beavers and Why They Matter* by Ben Goldfarb

June 13* - *The Genius of Birds* by Jennifer Ackerman, (2 months reading)

July 11* - Continuation of *The Genius of Birds* by Jennifer Ackerman

Aug. 1 - *Nature Underfoot: Living with Beetles, Crabgrass, Fruit flies, and Other Tiny Life Around Us* by John Hainze, (2 months reading)

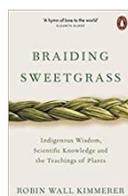
Sept. 12* - Continuation of *Nature Underfoot: Living with Beetles, Crabgrass, Fruit flies, and Other Tiny Life Around Us* by John Hainze

October 3 - *Alligators of Texas* by Louise Hayes, (1 month reading)

November 7 - *The Man Who Planted Trees: A Story of Lost Groves, the Science of Trees, and a Plan to Save the Planet* by Jim Robbins, (2 months reading)

December 5 - Continuation of *The Man Who Planted Trees: A Story of Lost Groves, the Science of Trees, and a Plan to Save the Planet* by Jim Robbins

The annotation of an *asterisk from above is as follows: 1) for June 13th, allows participants the opportunity to volunteer for the Camp Wild activity, 2) for July 11th and September 12th, the dates have been moved to the second Monday due to holidays during the week of the first Monday of the month.



Our next Zoom AT will be held on February 7 to continue our discussion of *Braiding Sweetgrass: Indigenous Wisdom, Scientific Knowledge, and the Teachings of Plants* by Robin Wall Kimmerer, pages 141-276. On Monday, March 7, we will close our discussion of this book by discussing pages 277-408. If you want to join us for either or both of these AT opportunities, please contact Madeleine Barnes at Mad2Btmn@aol.com to be added to the list for additional information and to receive the Zoom link and password.

We welcome your participation each month for two hours on the first Monday of the month starting at 10am for these AT meetings. Please note that we welcome anyone to participate whether you are TMN certified, recertified, or just want to remain a chapter member. We look forward to seeing you and let us know if you have read any good naturalist books lately. Happy trails!

The Midden Deadline

February 27

February and March Activities

ADVANCED TRAINING OPPORTUNITIES

Chapter Meeting - Feb 3; Lights in the Daytime Sky:
Remember to Look Up!

Presenter - Allan Treiman

6pm Social, 6:30pm Meeting, 7pm Speaker

Via Zoom; 1 AT hour

Learn About Purple Martins

Thursday, January 27; 2-3:30pm via Zoom

Presenter - Matt Fendley

Diurnal Raptors of the Galveston Bay Area

Monday, February 21; 2-3:30pm via Zoom

Presenter - Lynn and John Wright

Ongoing

Heritage Book Study Group

First Monday of every month via Zoom

10am-noon; 2 hours AT

Contact: Madeleine Barnes 281-474-9406

See Pg. 9 for meeting dates and books.

STEWARDSHIP OPPORTUNITIES

For a complete list of stewardship activities, see our chapter website, <https://txmn.org/gbmn/what-we-do/>.

EDUCATION - OUTREACH OPPORTUNITIES

For a complete list of education - outreach activities see our chapter website, <https://txmn.org/gbmn/what-we-do/>.

Partner and Associate Programs - Many organizations sponsor guided walks and education programs or need volunteers to staff their nature center. Go to <http://txmn.org/gbmn/partners/> for the list, then click on the link to the organization's website.

CHAPTER INFORMATION AND RESOURCES

Calendar - <https://txmn.org/gbmn/events/month/> Includes meetings, AT and volunteer activities

Board - <https://txmn.org/gbmn/board-of-directors/>
Contact information for the Board of Directors. **Board Meetings** - usually first Tuesday of each month (via Zoom), verify on the calendar

Committees - <https://txmn.org/gbmn/board-of-directors/>
Contact information for the Committee Chairs

Volunteer Service - <https://txmn.org/gbmn/volunteer-service/> Volunteer Opportunities

Advanced Training - <https://txmn.org/gbmn/advanced-training/>

Midden Archives - <https://txmn.org/gbmn/> Go to The Midden on the top menu.

Facebook - <https://www.facebook.com/gbactmn>



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The Midden

Published bimonthly by the Galveston Bay Area Chapter - Texas Master Naturalists. The purpose of *The Midden* is to inform, communicate and educate chapter members and the community. If you have an article that contributes this purpose or want to join the team, please contact Diane Humes, treimanhumes@gmail.com.

Texas AgriLife Extension Service
4102 B Main (FM 519) Carbide Park
La Marque, TX 77568

The Midden is posted on the GBAC-TMN chapter website: <https://txmn.org/gbmn/> two weeks prior to chapter meetings. Archived issues also on chapter website. If you prefer to receive *The Midden* in hard copy and are not currently receiving it, please contact: Julie Massey, julie.massey@ag.tamu.edu.

Midden Team

Diane Humes, Editor

| | |
|---------------------|----------------|
| Madeleine K. Barnes | Lana Berkowitz |
| Verva Densmore | Sheron Evans |
| Rebekah Gano | Meade LeBlanc |
| Carolyn Miles | Chuck Snyder |