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**President's Corner** by Gene Fisseler

We never stop learning, right? Sadly, we never stop forgetting either. I estimate that I remember 90% of what I learned in grade school. I can still spell all those words, read all those books, and perform basic math functions. On the other hand, I might remember half of what I learned in junior high. Algebra. Maybe some biology. And I can still diagram a sentence. But much less of my high school learning has stayed with me. Trig and analytic geometry? Are you kidding? Two years of Latin and all I can only remember is "*Gallia est omnis divisa in partes tres.*" College? Forget about it.

The good news is we never stop learning new things. New things to forget, that is. Following is some new stuff I've learned so far this year that y'all might find interesting.

- An adult osprey can carry up to 90% of its body weight. At the upper end, an osprey may weigh five pounds which means it can carry something weighing 4½ pounds. For comparison, the American Bald Eagle can carry not quite half its body weight. A flight of stairs with my phone in hand wears me out.
- Grasses were the last major group of plants to evolve (in the Cretaceous Period, for those taking notes). The leaves of these new grasses grew from the base, and they grew continuously. Hence, we have to mow the lawn every week. This gave grasses an evolutionary advantage over trees and shrubs because grasses recover more quickly from a prolonged drought, fire, and overgrazing.
- Twice - *two distinct times* - in its history, the Earth has completely frozen over. Snowball Earth, they call it. The planet's surface became entirely frozen, with no surface water, fresh or saline, exposed to the atmosphere. Ok, this one is a theory...still a theory I just learned about.
- The oxygen content of our atmosphere (21% today) reached a maximum of 35% some 300 million years ago, which likely contributed to the super-sized dragonflies, millipedes, and scorpions that lived then. Who knew?
- The American Bald Eagle eye is as large as a human eye. But the eagle's vision is so precise that it can see prey two miles distant. I can't read the next exit sign on the Gulf Freeway.
- If I spread my arms wide to represent the history of Earth, the fingertips of my left hand represent its formation, the beginning of geologic time. And on my right hand, I can erase the entirety of human history with a single stroke of a fingernail file.
- Opossums are resistant to as many as 80 bites by venomous snakes, including the Eastern and Western Diamondback Rattlesnakes and Copperheads. At some point, opossums apparently evolved two proteins that protect it against snake venom. At this time, I'd like to take a moment of silence to remember that brave marsupial who subjected itself to 81 snakebites for the sake of science.

**Next Chapter Meeting**

October 3

Making a SPLASh: Bird Conservationists Addressing Plastic Pollution

By

Chloe Dannenfels  
American Bird Conservancy

At Extension Office\* and via Zoom

## Women in Nature: Marjory Stoneman Douglas by Meade LeBlanc

You are never too old to make a difference. Marjory Stoneman Douglas is proof of that. After a successful career as a journalist, author, and women's suffrage advocate, she turned her attention to championing the protection of the Florida Everglades when she was 79. She worked tirelessly for its preservation and restoration for the remaining 29 years of her life.

Marjory was born in Minneapolis, Minnesota in 1890. Her early childhood was tumultuous: her parents divorced when she was six and her mother moved with her to Massachusetts, where she was raised by the extended family. She was a voracious reader and writer from an early age, and was a straight A student at Wellesley College, earning a degree in English. After a brief marriage to Kenneth Douglas, who turned out to be a con artist, Marjory moved to Miami at age 25 and was reunited with her father Frank Stoneman in 1915.

Frank was the publisher of the *Miami Herald* and gave Marjory a job as a journalist. Frank had made a name for himself writing editorials that opposed Governor Napoleon Bonaparte Broward's plan to drain the Everglades. This did not make his newspaper popular, but it did provide a good forum for Marjory to learn about pressing environmental issues. Marjory was assigned to write the society column, and was expected to write about parties, gossip and subjects as diverse as "flowers and sunsets and tree planting," wrote her biographer, Jack E. Davis. She soon began to weave environmental concerns into her columns, along with stories about suffrage, poverty, civil rights, and urban planning.

In 1923, she left the newspaper and began a career as a freelance writer. Over the course of the next 70 years, she published over 100 works of short fiction. The Florida Everglades frequently served as a backdrop for her stories, in which the protagonists were independent, quirky women or underdogs who encountered social or natural injustices. One story included the true tale of a game warden who was murdered by poachers, and another addressed the killing of Everglades wading birds for their feathers. She also wrote several novels and works of non-fiction.

Marjory was approached to contribute to the *Rivers of America* series, by writing about the Miami River, in the early 1940s. As she began researching the book, she became more interested in writing about the Florida Everglades. Marjory spent five years learning about the history and ecology of the area. *The Everglades: River of Grass* was published in 1947, the same year as the formal opening of Everglades National Park. It sold out of its first printing in a month, eventually going through numerous printings with sales exceeding 500,000 copies.

The book's first line, "There are no other Everglades in the world", has been called the most famous passage ever written about the Everglades.



Photo courtesy of National Park Service

The book galvanized people to protect the Everglades and has been compared to Rachel Carson's 1962 exposé of the harmful effects of DDT, *Silent Spring*. Marjory characterized the Everglades as an ecosystem surrounding a river worthy of protection, inescapably connected to South Florida's people and cultures.

By the 1960s, though, the Everglades were in imminent danger of disappearing forever because of gross mismanagement due to real estate and agricultural development. In 1969—at the age of 79—Douglas founded Friends of the Everglades to protest the construction of a jetport in the Big Cypress portion of the Everglades. She justified her involvement saying, "It is a woman's business to be interested in the environment. It's an extended form of housekeeping." She toured the state, speaking against the airport project and increasing membership in the Friends of the Everglades organization. The jetport's backers called her a "damn butterfly chaser". After three years, President Richard Nixon canceled funding for the project due to the efforts of many Everglades watchdog groups.

Marjory continued her activism and focused on other projects to conserve or restore the Everglades. She opposed sugarcane growers, who she claimed were pumping water tainted with chemicals, human waste, and garbage into Lake Okeechobee, thereby polluting the

fresh water source for the Miami metropolitan area. She also spoke about the damage the Army Corps of Engineers was doing to the Everglades by diverting the natural flow of water.

In 1973, Marjory was described by John Rothchild, a member of the Friends of the Everglades, as she attended a meeting addressing conservation of the Everglades: "Mrs. Douglas was half the size of her fellow speakers and she wore huge dark glasses, which along with the huge floppy hat made her look like Scarlett O'Hara as played by Igor Stravinsky. When she spoke, everybody stopped slapping mosquitoes and more or less came to order. She reminded us all of our responsibility to nature and I don't remember what else. Her voice had the sobering effect of a one-room schoolmarm's. The tone itself seemed to tame the rowdiest of the local stone crabbers, plus the developers, and the lawyers on both sides. I wonder if it didn't also intimidate the mosquitoes ... The request for a Corps of Engineers permit was eventually turned down. This was no surprise to those of us who'd heard her speak."

She continued to write, even as her eyesight was failing, and became a sought-after speaker about conservation issues. Marjory lived long enough to see the results of her efforts. In her lifetime, the Everglades went from a wilderness on the brink of irreparable development, to a National Park, a Wetland of International Significance, an International Biosphere Preserve, and a legislatively

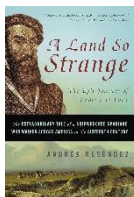
designated wilderness area. In 1996, Florida voters passed a constitutional amendment that held polluters primarily responsible for cleaning up the Everglades. Florida and federal governments have authorized multimillion-dollar projects to restore and expand the Everglades.

In 1993, when she was 103, Marjory was awarded the Presidential Medal of Freedom by President Bill Clinton. The citation for the medal read, "Marjory Stoneman Douglas personifies passionate commitment. Her crusade to preserve and restore the Everglades has enhanced our Nation's respect for our precious environment, reminding all of us of nature's delicate balance. Grateful Americans honor the 'Grandmother of the Glades' by following her splendid example in safeguarding America's beauty and splendor for generations to come."

Marjory died at the age of 108 on May 14, 1998. John Rothchild, who helped write her autobiography, said that her death was the only thing that could "shut her up" and then added, "The silence is terrible." Her ashes were scattered in the 1,300,000-acre Marjory Stoneman Douglas Wilderness Area in Everglades National Park, which was named for her in 1997. Her Coconut Grove house and property is owned by the State of Florida and maintained by the Florida Park Service as a lasting memorial to the remarkable "woman who saved the Everglades."

## Heritage Book Study by Cheryl Barajas

Here we are - already October; hopefully, fall and cooler weather are around the corner.



Thanks to Hurricane Beryl our July meeting was canceled. So, everything has been pushed back a month. For our October 7 meeting we will begin a discussion on *A Land so Strange: The Epic Journey of Cabeza de Vaca* by Andres Resendez. In 1528, a group of men set out from Spain to colonize Florida, but the expedition went horribly wrong. Of the 300 men who started on the journey, only four survived. We will learn how they endured and how many years they spent searching for their way back home!

In addition to our monthly book discussions, the group is also in the process of choosing next year's book selections. If you are interested in exploring our options or have any suggestions, please contact Cheryl at [cherylbarajas9@gmail.com](mailto:cherylbarajas9@gmail.com)

The Heritage Book Study is always looking for new members. If you love reading and would like to be a

participant, we meet on the first Monday of the month at 1pm. Always Zoom.

### *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](mailto:treimanhumes@gmail.com).

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*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 the extension office at 281-534-3413.

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## City Nature Challenge 2024 Results by Scott Buckel

The City Nature Challenge is becoming an event that many, including myself, look forward to each and every year. This event is centered around the use of iNaturalist app and web site, to gather nature observations from around the world. This year over 83,000 people recorded 2.4 million observations during the four-day time period. Participants in the Houston-Galveston area posted 43,890 observations of 4113 different species with 1551 observers and 1402 folks that helped identify the observations. All in all, this was a great effort made by local naturalists and nature enthusiasts. This year was the first time we included the Flower Garden Banks in the challenge, but unfortunately the boat trip out to the banks had to be canceled due to the weather. Maybe next year there will be people targeting the Banks with good weather to really increase our number of species seen! This year San Antonio stepped up with 65,067 observations! Houston-Galveston led Texas with the number of species observed

As with any big event, there are many ways to look at the data gathered, and my bias is likely the same as many chapter members'. The Houston-Galveston area results indicated the most species observed in North America, which really demonstrates that we live in a very biodiverse area, with many species in our urban area. Houston-Galveston also finished seventh in the New World for the number of observations made during the event. However, once again, Dallas-Fort Worth had more

observations than the Houston-Galveston area, but, as noted above, San Antonio really jumped in with the most Texas observations. Many of us use this data to show how biodiverse our area is to help protect and promote nature in our urban areas.

This year the iNaturalist folks had to split the worldwide project into two parts, the Old World and the New World. One of the statistics I look at is the number of participants and the Houston-Galveston area was eighth in the New World with the highest total number of participants in Texas. I look at this statistic to show how important events like this are to demonstrating the biodiversity around us. I am hoping that, in the future, we can get as many participants as areas like San Francisco.

If you want to see the actual numbers and results you can go to: <https://www.inaturalist.org/projects/city-nature-challenge-2024-north-and-south-america> and if you want to see the Texas centric results you can go to <https://www.inaturalist.org/projects/texas-city-nature-challenge-2024-cities>. The results from Houston-Galveston are posted here <https://www.inaturalist.org/projects/city-nature-challenge-2024-houston-galveston>

I know I'm looking forward to the event next year to see what will be seen.

## Let's Learn Plants: American Elms by Diane Humes

Two American elm trees lived in my neighborhood. The first, a spreading giant, beautified our park and provided lots of shade for many years; it was removed by the HOA a few years ago. As with old trees and old fences, Hurricane Beryl's winds recently destroyed our last remaining American elm tree. An ugly old specimen bearing one very large branch, leaning precariously, as if tired of standing sentinel along NASA Road 1, its roots held strong during the storm, but the branch twisted and broke. It might have been planted in the 1960s but could have been much older.

Elms belong to their own family, the Ulmaceae, of the genus *Ulmus* with about 35 species, five of which are native to Texas. These tall deciduous and semi-deciduous trees grow throughout the Northern Hemisphere in the temperate and tropical mountain regions of America and Eurasia; a few species also live south of the equator in Indonesia. All *Ulmus* species are wind pollinated. Flowers have both male and female parts, with no petals. Leaves are alternate and most commonly have doubly serrate margins, asymmetric at



the base and pointed at the tip. Fruits are round wind-dispersed samaras, green with chlorophyll to photosynthesize even before leaves emerge in seedlings. All species tolerate wide ranges of soils and

pH levels, but usually prefer good drainage. Since the 19th century, elms have been planted around the world as ornamental trees, gracing streets, gardens and parks - just think about how many towns have an "Elm Street".

American elms, (*Ulmus americana*), described and named by Linnaeus in 1753 in his *Species Plantarum*, are native to the eastern half of North America from Nova Scotia to Manitoba and Florida to central Texas. Incredibly hardy, these large deciduous trees are capable of withstanding extreme cold temperatures and grow in a variety of forest habitats - bottomlands, stream banks, swampy ground, hillsides and uplands. Members of this species live several hundred years and may attain trunk diameters of more than 4 feet. They have wide umbrella-shaped canopies and stand over 100 feet tall. With deep tap roots, American elms are strong soil stabilizers.

American elms leaf out and bloom in the spring. Their inconspicuous flowers produce copious numbers of winged seeds - samaras - which, if not eaten by rodents, mammals, birds or squirrels, will disperse on the wind to a new location and sprout. Trees mature quickly; by age 15 a tree could be producing seeds and continue for another 300 years! With a copious quantity of wind-blown seeds, American elm seedlings can quickly invade a prairie or abandoned field.

Important to wildlife, American elms are larval host plants for butterflies: Mourning Cloak, Question Mark butterfly, Painted Lady butterfly, Comma butterfly and the Columbia Silkworm.

American elms provided food or shelter for hundreds of varied beetles and insects, but two bark beetles - the small European elm bark beetle, *Scolytus multistriatus*, and our native elm bark beetle, *Hylurgopinus rufipes* - became vectors for Dutch elm disease, a fungal infection which threatened American elms with extinction. When infected bark beetles dug chambers in the wood for their egg-laying, they introduced the fungal spores into the tree's water-conducting cells.

Infection is caused by three species of *Ophiostoma* fungus: *O. ulmi*, *O. novo-ulmi*, and *O. himal-ulmi*. Researchers believe that *O. ulmi* entered Europe from Asia during World War I, followed by introduction to the U.S. in 1930 from a load of logs shipped from the Netherlands. The infection quickly spread, despite strong efforts at control. After World War II a second, more deadly species, *O. novo-ulmi*, caused more losses in the U.S. and Europe. A third species, *O. himal-ulmi*, discovered in 1993 is endemic in the Himalayas.

Dutch elm disease causes sudden wilting and yellowing of affected leaves, followed by death of branches and the whole tree. Young, rapidly growing trees may die in one to two months, while older trees may take two years or

more to succumb. I remember when my grandparents were forced to remove all the American elms from their yard in the 1960s; everyone feared these beloved trees faced total extinction and at least 80 million American elms were lost because of Dutch elm disease.



Total control of the disease has proved elusive. Only about one in 100,000 American elms has innate resistance to the fungus. A few Asian elm species are resistant, and these have been successfully hybridized with American elms, although even these cultivars lack total resistance to the disease.

Fortunately, American elm trees naturally occur widely scattered through the forest - never in large groves - and this habit may have been their best defense. Geographical isolation has its plusses; American elms still live in Central Park, surrounded by urbanity and, apparently, safe from beetles carrying fungal spores. Elms in Australia remain unaffected by Dutch elm disease, as well as those in the Canadian provinces of Alberta and British Columbia. And American elms live on here and there, in Texas and beyond.

In addition to geographical isolation, American elms have incredibly hard, dense wood which resisted sawing until

the advent of modern equipment, making them commercially undesirable for logging. These may be the two most important factors contributing to this species' survival and why two big American elms lived in my suburban neighborhood.

Foresters maintain a tree registry - a list of the largest trees of each species in every state. The list requires constant updating, as trees grow and die, while new ones get discovered. The present National Champion American elm lives in Baltimore, MD. Measured in 2016, it is a whopper at 260 inches in circumference and 112 feet high. With a crown spread of 84.42 feet, the tree probably began growing in 1693!

Texas' champion American elm, measured in 2017, lives in Grayson County, north of Dallas, and sports an amazing circumference of 232 inches, height of 75 feet,

and crown spread of 116 feet. It might have started growing in 1728! However, a challenger for the title, reported on June 24, 2024 growing in a family's front yard in Jacksonville, TX, may replace the incumbent in the 2025 registry update. This new-found American elm sports a circumference of 256 inches, height of 80 feet and crown spread of 110 feet.

Harris County keeps its own tree list, and county foresters claim the largest American elm growing in the 8000 block of Tidwell - the closest road trip so far! A list like this is quite difficult to keep current and I'm sure the foresters could use your help. Anyone may nominate a large tree candidate for the list.

Thankfully, American elms are still with us, often hiding in plain sight. Please pay attention to the birds AND the trees when you go exploring!

## VMS Reminder by Tracy Walpole

Here are a few friendly reminders regarding entering your hours:

- Enter your hours within 45 days of service.
- Log the AT portion of the chapter meetings as AT: Special Chapter Meetings and the business portion of the meeting and helping set up/take down as Chapter meeting - Non-AT, sub category Chapter Meeting.
- At the end of a presentation, the AT director usually states the AT opportunity and the hours to log.
- If you are going to the TMN annual meeting, please use the opportunity AT: TMN Annual Meeting for any

classes that are eligible for AT (some say "not eligible for AT"). Put the name of the class in the description. If you volunteer at the meeting, put those hours to TMN Annual Meeting - Service

- Opportunities are listed on GBAC calendar events.
- A list of opportunities can be found on our website (Report Your Hours). Here is the link: <http://txmn.org/gbmn/files/2024/05/Revised-Opportunity-list-2024-May13.pdf>

If you do not know what opportunity to use contact [volunteerservicedirector@gbactmn.org](mailto:volunteerservicedirector@gbactmn.org) or if you have VMS questions, please email [membership@gbactmn.org](mailto:membership@gbactmn.org)

## Top 10 Quiz: Texas Invasives by Madeleine K. Barnes

Match the invasive species brief description below with the photo on the next page:

- \_\_\_ Aquatic species able to self-fertilize and release up to 2,000 juveniles per day, and more than 100,000 in a lifetime by outproducing the native species.
- \_\_\_ Dense strands can raise water pH and temperature and lower dissolved oxygen, and it can promote mosquito habitat.
- \_\_\_ Lives in large colonies and can produce both painful sting and bite. Known to reduce ground-nesting populations of rodents and birds.
- \_\_\_ Competes with wildlife species for food and damages habitat, rooting, trampling, and

contaminating water sources, destabilizing wetland areas, destroying forestry plantings and damaging trees. Over 1.5 million found in Texas.

- \_\_\_ Results in a greater density of highly sensitive aggressive and defensive colonies that can out-compete other similar species and cover greater distances while pollinating.
- \_\_\_ Thrives in slightly acidic, high nutrient, warm, slow-moving freshwater and produces dense mats that shade out native species and decaying leaves can reduce dissolved oxygen levels in the water.
- \_\_\_ Has denuded hundreds of thousands of acres of marshlands and floodplains along the Gulf Coast and efforts to regenerate destroyed regions have been futile due to decimated replanted vegetation.



- H. \_\_\_ Caused alarming declines in fish, birds, and native mussels by over-absorbing phytoplankton, an essential food source for many aquatic species. Its high rate of filtration also leads to increased sunlight penetration, raising water temperatures and the depth at which that light penetrates the water negatively affecting habitat.
- I. \_\_\_ Considered to be aggressive, reaching up to a foot in length and one pound in weight, feeding on

- native shrimp and crab, and can carry diseases that native species may not have the immune system to fight.
- J. \_\_\_ Species that feed mainly on plankton and can cause enormous damage to native species because this is a vital source of nutrition for native larval fish and native mussels.

(Answers on the last page of *The Midden*.)

Answer Choices

Asian Carp (3 species)



Bighead Carp



Black Carp



Silver Carp



Black Tiger Shrimp or Tiger Prawn



Africanized Honey Bees



Giant Salvinia



Hydrilla



Feral Pigs



Red Imported Fire Ants



Asian Clam



Zebra Mussels



Nutria

## October and November Activities

### ADVANCED TRAINING OPPORTUNITIES

**Chapter Meeting** - Oct. 3; Making a SPLASH: Bird Conservationists Addressing Plastic Pollution  
Presenter: Chloe Dannenfelser  
6pm Social, 6:30pm Meeting, 7pm Speaker  
At Extension Office\* and via Zoom; 1 hour AT

#### Taxonomy

Thursday, November 14 (Details to be determined)  
Presenter: Diane Humes

#### Ongoing

##### Heritage Book Study Group

First Monday of every month via Zoom  
2 hours AT

Contact: Cheryl Barajas [cherylbarajas9@gmail.com](mailto:cherylbarajas9@gmail.com)  
See Pg. 6 for meeting dates and books.

### STEWARDSHIP OPPORTUNITIES

#### Give Back Together: Texas City Dike Clean-Up Event

Saturday, October 5 at 9am-noon at the dike  
Questions: Mary Dobberstine at  
[vicepresident@gbactmn.org](mailto:vicepresident@gbactmn.org)

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 Deadline for the next issue

**October 28**

### Top 10 Quiz Answers - NO PEEKING!!

A = Asian Clam, B = Hydrilla, C = Red Imported Fire Ants, D = Feral Pigs, E = Africanized Honey Bees, F = Giant Salvina, G = Nutria, H = Zebra Mussels, I = Black Tiger Shrimp, J = Asian Carp

### End of Year Business

The chapter Nominating Committee, chaired by Pam House, will soon be seeking officers for 2025. Please consider how you may want to serve.

The Treasures of the Bay nomination process also starts soon. These awards are extended to teams and individuals from our chapter and outside organizations that further our mission of education and stewardship of the Galveston Bay environment. Consider making a nomination.