Camp Wild Kayak Race by Chuck Snyder

Galveston Bay Area Chapter - Texas Master Naturalists August 2023

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A Flight Plan: Conservation Needs through the Eyes of our Feathered Friends

By

Lisa Gonzalez

Vice President and Executive Director, Audubon Texas

In person and via Zoom

President's Corner by Pam House

The edge effect refers to the unique conditions and interactions that occur at the boundaries where distinct ecosystems meet. These edges are often characterized by increased biodiversity. Hence, the incredible variety of life in our area where coastal prairies, wetland forest, marsh, beach, and ocean come together. This richness of species is demonstrated in myriad ways, such as our area's showing in the annual iNaturalist City Nature Challenge. In 2023, the Houston-Galveston area reported 3707 separate species – the highest number of any area in the United States.

These positive effects occur where ecosystems naturally meet. The gradual change in habitat supports different species at the borders of the ecosystems, while the species supported by the heart of the ecosystem remain healthy. If there is an induced edge – usually as the result of human intervention causing abrupt changes in habitat borders – the edge effect can be negative. It can lead to less biodiversity as the edges grow and begin to completely absorb the original ecosystems.

As I begin to look toward the end of my last term as president of the chapter, I am hoping that the edge effect for the next transition in leadership will be of the beneficial kind. Although according to the operating documents each officer and each director on the board could be new each year, we have learned that a gradual change allows for fresh perspectives from new leaders and the retention of the wisdom and institutional memories of those who remain. The transition in leadership of the AT committee was smoothed by the period that Mike Petitt shadowed Ellen Gerloff prior to actual change. Membership is following that same model with Tracy Walpole poised to take over Patty Trimingham's role. Those changes in leadership have provided a template for healthy evolution of the chapter.

We are pretty good as a chapter at welcoming new members. The mentorship program for new classes is such a great success at integrating new folks into our community. It is equally important that we continue to recognize the achievements, contributions, and talents of our legacy members.

As I write this, over 220 members have contributed to the chapter's total of over 25,000 volunteer hours logged for 2023. Recognition of each volunteer's hours is an important validation of their value to our chapter ecosystems. But it is also important to the health of the chapter that we do all we can to reap the benefits of the experience and knowledge of those who are less able to volunteer.

Please join me at the next chapter meeting on August 3. The hybrid format allows you to join either via zoom or in person. We continue to work to make both experiences rewarding. Hybrid meetings demonstrate another sort of edge effect: joining old and new. In any format, it is always a time filled with celebration and joy.

Women in Nature: Herma Albertson by Meade LeBlanc

Sometimes it takes a multi-tasker to succeed as a naturalist. Herma Albertson found this out at Yellowstone National Park in 1926, when she applied for a job after receiving a BS. in Botany. She recalled that, “Mr. Albright had said that if I was willing to work as a naturalist but not have the rating of a naturalist nor the title of naturalist, live at the Old Faithful cabins and be a pillow puncher for my room and board, as there was no place for a woman to live other than that, and work for the Government in the afternoon, they would like to try me out. And that’s what I did.” In the mornings, she worked as a maid (pillow puncher) at the park, and then had afternoons to work as a naturalist.

Herma was born in 1896 in Iowa. Her family moved to southern Idaho when she was in the eighth grade. After high school, she became an elementary school teacher for a few years, before attending college and earning her botany degree at the University of Idaho. After college she began teaching at the University of Idaho. It was during this period that she first began working as a seasonal employee at Yellowstone. No doubt drawing from her teaching experience, she shared her wide knowledge of botany and natural history, giving guided talks and lectures, sometimes drawing crowds of hundreds of listeners. Herma also helped design the first nature trail to Old Faithful.

After her first year as a seasonal employee, the park found other accommodations for her, in the “puphouse”, an old Army cabin. She no longer needed to work as a maid in the park for her room and board. Herma returned each summer to work as a seasonal employee, but she was not granted National Park Service (NPS) employee status. She was not allowed to wear the standard uniform, but instead wore the breeches, shirt, tie, and boots prescribed for temporary rangers. In 1928, a new employee category was created, temporary park ranger-naturalist, and she was finally hired.

In 1931, she passed the Civil Service exam for naturalists, and achieved the highest test score in the country that year. That led to her appointment to the position of junior park naturalist. She became the first permanent woman naturalist in the NPS. A June 30, 1931, newspaper article noted, “Wearing the uniform, of which she was distinctly proud, created quite a stir among some women visitors at the park.” Albertson is quoted, “Women often sympathized with me or pitied me, though why they should always mystified me.”

In 1929, Herma married George Baggley, the park’s chief ranger. She continued to work as a naturalist until she resigned her position “to become a full-time homemaker” in 1933. Like so many other women who married NPS employees, she continued to offer her expertise and service, but she no longer got paid for it.


Photo courtesy of Wikipedia

She authored over 20 articles for NPS publications, and in 1936 co-authored, with Walter B. McDougal, *Plants of Yellowstone National Park*. A 1937 notice about the book said, "The great variety of wildflowers in this park is one of its chief charms, this is an illustrated account of them." *Plants of Yellowstone* is still in print. Herma is also credited with identifying the rubber boa snake.

She was instrumental in improving living conditions for park employees and their families, arguing that provision of improved housing and other benefits would help the park recruit better-qualified staff. She also encouraged the employment of more women in the NPS.

She and her husband retired to Boise in 1968, where she died in 1981. Her legacy lives on, for students with a passion for the natural sciences. The University of Idaho offers a scholarship in her name, the Herma Albertson Baggley Scholarship for undergraduates majoring in biological sciences. Colorado State University’s George F. and Herma A. Baggley Graduate Scholarship supports those pursuing careers in forestry, wildlife and natural resources

Sense of Place: Taking a Closer Look for Critters by Rebekah Gano

In the April 2023 Midden, Diane Humes wrote about her yard and its place in nature: a habitat for all sorts of insects and migrating birds, along with some full-time resident birds. I began to wonder: what's special about my yard? What story does it tell?

At first glance, most yards in the suburban Houston area are not remarkable. When I moved in, my yard featured the usual provisions of St. Augustine grass and two live oak trees, along with a few shrubs and flowers. Like most of my suburban neighbors, I see the usual suburban wildlife, such as mockingbirds, blue jays, squirrels, anoles, gulf coast toads, and of course, fire ants. It often requires taking a closer look to realize that many other types of wildlife call my yard home.

Time spent watering and trimming plants reveals busy pollinators like bumblebees, butterflies, hummingbird moths, and hummingbirds themselves. I look for holes in plants and discover a variety of caterpillars and beetles. Spiny-shelled orb weavers, my favorite backyard spiders, occasionally show themselves, and roly-polies scurry in damp places. Mostly, I am happy to see the arthropods; in fact, I have planted much of the vegetation just for insects.

Earlier this year, I planted dill in hopes of attracting swallowtail butterflies and watching their caterpillars grow up. I saw a few butterflies but never found any caterpillars, likely due to the highly attentive wasps that comb the plants in my yard for young larvae. I discovered instead that ladybugs were using the plants. I was able to watch the ladybug lifecycle and was thrilled to see adult ladybugs emerging from their pupas before the dill succumbed to the heat.

On the other hand, there are other critters that I don't want to host in my yard. For instance, one summer I found invasive flatworms near my leaking rain barrel. The hammerhead flatworms dove into the ground once they realized they had been spotted and could not be extracted. Thankfully, since the leak was fixed, the hammerheads have not reappeared. Hopefully, they cannibalized themselves or simply dried up as they are known to do.

Certainly, there are times when wildlife is in a place you wish it wasn't. A few years ago, I had trouble unwinding the hose and discovered leaves stuffed into the hose box. I removed the leaves, supposing a squirrel was trying to make a cozy winter shelter. Yet another day, when the hose would not unwind, I opened the hose box lid. Instead of finding only leaves, I found a mother possum, nestled with three small bundles. She didn't even lift her head, just bared her teeth. I closed the lid and chose a bucket instead of the hose.

Later that day, I carefully lifted the lid again to show my children what was inside, and the mother showed her teeth but otherwise didn't seem upset that a family of humans was viewing her opossum family. After that, we checked on the opossums every few days, and the mother got so used to us that she would usually just open one eye and then continue sleeping. As the babies grew, they would take turns looking at us and practice baring their teeth, but they also were much more interested in snuggling and sleeping. Finally, the day came when we looked in the hose box and the family was gone. After a few days of no return, I put the hose box away in the garage for the winter; I wanted to be able to unroll the hose come spring!

Thinking of spring reminds me of rustling bushes and turtles. I wonder how often I have gone up and down the driveway and not noticed the shelled creatures scouting for places to lay eggs. Given their tendency to go slowly and hide when anyone comes near, it's a wonder that we notice. We have yet to find any hatchlings, but the mother turtles are always a joy to see.

Sometimes it is amazing to me that nature thrives in the suburbs, and I feel fortunate to have a yard with human play-space and gardens with vegetables and fruits growing alongside native plants and flowers. I will keep watching closely to see what fascinating critters show up next, and I look forward to hearing what kinds of wildlife are showing up in other master naturalists' yards as we share our Sense of Place.

Meet the Thunderbirders by Mary Dobberstine

Eowyn Johnson (Fall Class of 2022) is not new to community volunteering. Awarded a lifetime membership to the PTA from Clear Lake City Elementary (CLCE) for her efforts on the campus improvement committee, maintaining the school marquee for over five years and for answering the call to support when called upon, Eowyn is also an avid birder and visits area hot spots during spring migration and throughout the year with her family. During a trip to High Island last year with her youngest son and his friend, she got the idea to start an after-school birding club. Her idea quickly became reality - approved by the CLCE principal and supported by a teacher sponsor!

The Thunderbirders Club was born with 11 fourth and fifth grade students who met once a week every Monday for 45 minutes. Eowyn inspired these future birders with lessons:

- How to be a good birder (tied to the character traits/values taught at CLCE)
- Field marks and bird identification
- To recognize and identify area resident birds
- How to use Merlin and field guides
- Hazards that birds face during migration and otherwise
- Importance of native plants and how to attract birds
- Birding using all our senses (not just sight)
- How to use binoculars

All Thunderbirders were able to use their own pair of binoculars, thanks to a generous donation from the Clear Lake City Buddies. Club members practiced their new skills during walks along Exploration Green pathways and on field trips, including their own October Big Day. Additionally, club members worked on a few arts and crafts projects, even learning to make their own suet. By the end of the year, students could easily identify resident birds.


Photo by Jenny Dudley

To mark the end of the program, Eowyn created and awarded all club members their first birding patch. For her amazing gift of time and talent, Eowyn was named the CLCE Volunteer of the Year; she attended the CCISD Volunteer and Partnership breakfast on May 5. Eowyn lights up when she talks about the Thunderbirders and making memories with her son and the students.

Eowyn firmly believes the most important way to help our natural world is to educate the next generation and help foster a love of the environment. She plans on continuing the Thunderbird Club and is hard at work to help establish three new birding clubs in CCISD in the next school year. Currently, she has already connected other Chapter members with teacher sponsors at area elementary schools to get these fledgling clubs started.

Connections: Armand - Allende - Bennu by Diane Humes

"…The Big Bang theory is based on the fact that the universe is expanding right now. And if you rewind the tape, the universe appears to be shrinking. If you rewind the tape far enough, eventually the universe must be just one singular point. Or so the theory goes. But what if the universe has not always been expanding? What if it's pulsating, and one pulse takes trillions of years, and right now the universe is inhaling, and before that, trillions of years ago, it was exhaling?" Oliver Gaspirtz

The Big Bang Theory, as popularized by television, explains the formation of the universe from "its hot, dense state" about 13.8 billion years ago and the subsequent expansion of space leading to formation of all matter - stars, planets, our solar system (about 4.5 billion years ago) and, ultimately, us and the world as we know it.

Many details remain to be discovered about the early universe, but physicists and astronomers observing with the Hubble and James Webb Space Telescopes, ground-based telescopes, sophisticated space missions to solar system objects (and beyond) plus complicated calculations have yielded glimpses of galaxies older and closer to the origin of the universe than anyone had hoped. To learn even more, missions are underway to return samples from asteroids, comets, and planets to Earth.

As master naturalists, we are more connected to such exciting discoveries than we might imagine, especially living now and here along the Texas Gulf Coast.

A field trip to anywhere in space is a difficult task and, currently, except for the Moon, a one-way ticket, as you might think. But sometimes the samples come to you.

Meteorites - the solid bits that fall to Earth from “shooting stars” or meteors - originate from asteroids or comets, and, occasionally, chunks blasted off other planets within our solar system. Most of them break into fragments which burn up while streaking through the atmosphere or splash in the oceans, but not all.

Differing somewhat in composition from Earth rocks - usually stony, iron, or stony-iron - they have a tell-tale black fusion crust and are most easily found in deserts - especially Africa and Australia - or on glaciers. NASA sends a team to Antarctica every year to search for “black rocks on the snow.”

What do rocks from space have to do with us? First, they may have journeyed through the solar system for millions of years before intersecting with our planet’s orbit; we could learn a lot about the early solar system from them. And, if we want to protect our planet and space missions, we need to learn how to deal with space debris. Also, most of us are probably here, in this place because of the economic engine of Clear Lake’s space and petrochemical industries.

In the 1960's, with development of the former West Ranch into both the Manned Spacecraft Center - now Johnson Space Center - and petrochemical industries, people came for jobs and Houston's growth was rapid. Its original 9 square mile footprint on Buffalo Bayou expanded to today’s gigantic conglomeration of outer suburban communities, world-class institutions, restaurants, and roads - all still growing. The Houston Museum of Natural Science, established 1909, finally began moving into its current location at Hermann Park by building the Burke Baker Planetarium, which opened in 1964 with a state-of-the-art Spitz Space Transit Planetarium.

Armand Yramategui, for whom Armand Bayou Nature Center was created and named, became Curator of the Burke Baker Planetarium in 1965 and enthusiastically promoted learning about natural history and space. As the nation and world avidly followed the Mercury, Gemini and Apollo missions, NASA prepared to land humans on the moon in 1969. Astronauts would return lunar samples to the Lunar Receiving Lab. Everyone was eager to learn about space!

So, what could be more exciting than to have a fireball streak across Texas, New Mexico and northern Mexico raining thousands of rocks upon Pueblito de Allende, Chihuahua, Mexico on February 8, 1969 - just months before the first lunar landing?

Elbert A. King, NASA Curator Lunar Receiving Lab, recorded that he, “…was the first scientist at the site and recovered several fragments of the meteorite. It was necessary that these be returned to Houston very quickly for the measurement of short-lived radioactivities. However, Armand contacted me for information about the fall and I suggested that he visit the area and try to collect more fragments. Armand readily picked up this task and very successfully collected fragments of the meteorite on two trips to the area. This resulted in the acquisition for the museum of a unique collection of fragments of a rare type of meteorite totaling hundreds of pounds. This effort was typical of Armand’s dedication to the museum and of his effectiveness in attaining museum and scientific objectives.”

Apparently, Armand collected up to 800 pounds of meteorite for the museum, but not without consequences. The *Houston Post* reported in June 1969 that Armand had recently purchased a new van because his old van was wrecked in February when he was hit from the rear while hauling a load of meteorites back from Mexico. “Luckily none of the meteorites were broken, but my truck was ruined,” he said.

Armand was murdered January 27, 1970 while searching for a comet; he may not have known "his" meteorite's importance.

Meteorite hunters collected 2 tons of Allende meteorite, including one enormous stone weighing 242 pounds, now at the Smithsonian National Museum of Natural

History in the National Meteorite Collection. As if one was not enough, on September 28,1969 another meteorite, Murchison, fell in Australia which yielded 220 pounds of rock. Both Murchison and Allende are carbonaceous chondrites, similar, but not identical and believed to come from asteroids. They are rare stony meteorites that contain calcium/aluminum inclusions, which indicate they are older than our solar system - pre-dating the formation of the Sun!

While the Apollo missions collectively brought home 842 pounds of lunar rock, these two meteorites delivered 4,620 pounds. When the universe sends rocks, maybe we should pick them up!

Scientists have sent two missions to primitive near-Earth asteroids, hoping to learn more about the early solar system. Japan's Hayabusa2 mission to Ryugu has already returned; its payload is less than 80 milligrams, but, in March, revealed presence of the amino acid uracil - building block of RNA!!

Mark your calendars for September 24 and the arrival home of spacecraft OSIRIS-REx to drop off samples collected from the asteroid Bennu. Surely, it will be on the news when the payload lands in the Utah desert. The spacecraft, launched in 2016, mapped and probed Bennu from December 3, 2018 until May 10, 2021, when it made its final departure, and has been traveling back to Earth since. Keep your fingers crossed for a safe landing.

Before the spacecraft arrives, we all have an excellent opportunity to witness the wonders of the annual Perseid meteor shower, which will peak on August 13. If the weather cooperates, it should be a good show - possibly 90 - 100 meteors an hour - and the Moon will not be a bother. Find a good view to the north and get comfortable. These are remnants of the Comet Swift-Tuttle and only appear to radiate from the constellation Perseus which is, honestly, not that distinctive. Look below the "W" of Cassiopeia. Plan to go out and enjoy the show; cometary debris is unlikely to produce actual falling stones.

It will be a pleasant time to ponder all our connections to the universe and those who have studied it.

"When we try to pick out anything by itself, we find it hitched to everything else in the universe." John Muir

Member Spotlight: Chris Anastas by Meade LeBlanc

Chris completed her master naturalist training in 2015 and credits Dick Benoit with getting her involved with the chapter when they met at a planting event at Galveston Island State Park.

She has gone on to volunteer with many activities, including Camp Wild, Feather Fest, Hawk Watch, Turtle Patrol, Dolphin Challenge, education outreach, Zoom team, and others. Chis has volunteered at restoration projects at Texas City, Bayside Regional Park, Sheldon Lake State Park and Armand Bayou Nature Center.

Chris is not a newcomer to nature. As a child, she spent a lot of time outdoors in her hometown of East Greenbush, New York. While working full time, she participated in activities including Earthwatch expeditions to Mexico and humpback whale projects in Hawaii.

Chris is passionate about monarch butterflies and has conducted numerous training sessions on monarchs and milkweed, growing milkweed and giving away numerous plants to other butterfly enthusiasts. She is also involved in several citizen science projects, such as the University of Michigan's M3 Monarch Migration Study.

When asked about one of her fondest memories, Chris spoke of her trip on the Amazon, with Helle Brown, Sara Snell, Verva Densmore, Ellen Gerloff, Jo Monday, Diane Humes, Cindy Howard and others. In fact, in addition to the satisfaction she gets from having a positive impact on the environment, she treasures the close friends she has made in the chapter.

Invasive Lizards in our Area – Part 1 by Madeleine K. Barnes

Sometimes very familiar creatures, right outside your door, are invasive, even when they have seemed to belong for a long time. They exist outside and even inside our houses, apartments and buildings.

One of these newer invasive species is the brown anole (*Anolis sagrei),* which is a brown or gray lizard, sometimes black, 5-9 inches in length with males weighing 8 grams, twice as much as females. Females are lighter in color with a dark diamond-back or scalloped pattern on their backs. Like most lizards, they have four legs, a long tail, a prehensile tongue for catching prey, and are ectothermic (cold-blooded or thermo-regulating).


Photo courtesy of University of Florida

Brown anoles have yellowish spots, triangles, or lines down the dorsal side, and shorter heads than native green anoles (*Anolis carolinensis)*. When males are courting or defending their territory, they flash their dewlap, the brightly colored red or orange skin of their throat or neck. This colored skin is normally collapsed, hidden from view and rarely exhibited in females.

Native to the Bahamas and Cuba and called Cuban brown anoles, they have been able to spread along the southeastern U.S. due to available food sources and, mainly, their habitat adaptability - a key characteristic of successful invasive species. First documented in Florida in the 1880's, they have been collected in Houston since1987 - relative newcomers, you could say. This expansion has been aided by the pet trade, accidental vehicle transport and via transportation of lizard eggs on live plants.

As was found in Hawaii, brown anoles could be transmitting invasive parasites or bacteria fatal to native lizards; they have certainly displaced our green anoles, which now have much-reduced population levels.

Brown anoles reproduce during the summer. Adult females lay one egg at a time each week. Each egg hatches after 4 weeks; hatchlings are wholly independent and mature in less than a year. They eat insects, worms, snails, slugs, along with green anole eggs, among others. They can live up to 5 years in the wild.

The common house gecko (*Hemidactylus frenatus*) is another invasive lizard. Grayish, pinkish, or light brown to beige with greenish iridescence and white undersides, common house geckos sometimes appear semi-transparent. Between 2.9 and 5.9 inches long, males are larger than females. They have uniform scales, but with distinctive enlarged scales along the back and arranged in bands on the tail. Nocturnal, they have vertical pupils, bulging lidless eyes, and sensitivity to the dark. With enlarged claws and adhesive toe pads, geckos can climb walls and ceilings. They communicate with a series of distinct communication calls or chirps and by using pheromones.


Photo courtesy of Wikimedia Commons

The mating courtship for this gecko includes the male doing snout touches to the female and then biting and holding her by the neck. Within 3-4 weeks the females lay two round hard-shelled eggs that are partially attached to a solid surface. These hard-shelled eggs, unlike most reptile eggs, are resistant to moisture loss and can survive long distance travel. It is possible to see the eggs developing through the female body wall. After mating, the female may retain or hold the sperm for up to 12 months which allows her to continue producing eggs - another successful adaptation of this species! Mating and reproduction occur throughout the year in tropical environments and becomes seasonal given cooler conditions.

The common house gecko is very adapted to preying on insects and spiders along building walls near artificial lighting. It eats other juvenile geckos and skinks and will eat sugar-based products and nectar. It tends to be more aggressive and territorial than native geckos. Seemingly more tolerant of cohabitation near other species, it out-

competes our native geckos. This species, native to Southeast Asia, has established populations in at least 87 locations worldwide on all continents except Antarctica.

Currently there are not any management strategies to address either of these two very successful invasive species. Watch for *Invasive Lizards, Part* 2 in the next *The Midden* issue.

City Nature Challenge 2023 Results by Scott Buckel

The City Nature Challenge, centered around the use of iNaturalist app, allows nature enthusiasts to gather nature observations from around the world, in a friendly bio-blitz style competition. In its seventh year, many, including myself, have begun looking forward to participating every spring, every year.

This year, worldwide, over 66,000 people made over 1.9 million observations over the four-day time period. In our Houston-Galveston area 1519 observers posted 42,228 observations of 3660 different species, which were reviewed by 1325 folks who helped identify the observations. All in all, this was a great effort made by local naturalists and nature enthusiasts. This year for the first time, we included the Flower Garden Banks in the challenge; maybe next year there will be people targeting the Banks to really increase our number of species seen!

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. **Houston-Galveston finished with 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 5th in the world for the number of observations made during the event and, once again, Dallas-Fort Worth had more observations than the Houston Galveston area. Jaime Gonzalez of The Nature Conservancy uses this data to show how biodiverse the area is and uses the data to protect and promote nature in our urban area.

One of the statistics that I look at is the number of participants: in Houston Galveston, we were 6th in the world, **and** we lead the total number of participants in Texas. I think this statistic shows how important events like this are to demonstrate the biodiversity around us. I am hoping that, in the future, we can get as many participants as areas like San Francisco.

Jaime and his cadre of admins collected much data this year and, on the Houston-Galveston results website, highlighted the participants that helped make this event a success. Many of the highlighted people, which lead the number of observations and the number of identifications, were members of various different Master Naturalist Chapters in the area.

If you want to see the actual numbers and results you can go to: https://www.inaturalist.org/projects/city-nature-challenge-2023.

If you want to see the Texas centric results, you can go to https://www.inaturalist.org/projects/texas-city-nature-challenge-2023-cities.

The results from Houston-Galveston are posted here: https://www.inaturalist.org/projects/city-nature-challenge-2023-houston-galveston.

I know I'm looking forward to the event next year to see what will be seen. Next year at the City Nature Challenge!

Camp Wild: Connecting the Next Generation to Wildlife and Wild Places by Marisa Gonzalez and Skyler Nix

As Community-engaged Interns with Texas Sea Grant, our summer has been a fulfilling journey in discovering the true meaning of extension work. Based from the Galveston County AgriLife Extension Office, we have immersed ourselves in the many community outreach and education programs around the Galveston Bay area. The first week of our internship was quite a gateway to our summer as we explored and connected young students with the beautiful Galveston Island State Park at Camp Wild.

Camp Wild is a free, week-long program organized by Friends of Galveston Island State Park and the Galveston Bay Texas Master Naturalists. Targeting underprivileged elementary students, the program aims to foster curiosity, knowledge, and appreciation for the natural world with engaged participants. Across the park's campsite and diverse range of habitats, campers got to kayak, fish, swim, take nature walks, shoot archery, create art, and many other activities with emphasis on environmental stewardship. Many campers experienced the beach, park, and activities for the first time at Camp Wild.

One of the memorable segments was the *Bay Discovery* through the coastal salt marsh. Though not inherently

captivating to most, marshland holds immense ecological value and many interesting species. Park Ranger Taylor guided campers through the salt marsh, teaching them about the ecology and geography of this unique habitat. Moving slowly and observantly, campers first explored the exposed mudflats scattered with tiny burrows. Master Naturalists shared about the Fiddler Crabs' territorial fighting nature as campers excitedly watched the small crustaceans peep in-and-out of their holes. Continuing on, campers learned about the salty Pickleweed, picking and taste-testing it themselves. Once reaching the shore, we interns taught campers how to seine in the shallow water of the bay. Slowly carrying the large net through the water and back to shore, we caught many crabs, shrimp, jellyfish-like ctenophores, and many other fish - even some small pufferfish. After collecting and identifying the specimens in small observation tanks, campers carefully released them back into the water. The *Bay Discovery* proved testament to the power of simply looking beneath the surface.

Back at the campsite, we led the *Cephalopods* section with Master Naturalists and our mentor Julie Massey, Distinguished Extension Agent. This class of mollusks represents octopus, squid, and cuttlefish. Campers started off examining shells and bones from various mollusks and cephalopods. They then stretched a 45' rope arm-to-arm, demonstrating the size of the elusive Giant Squid whose eyes are the size of a basketball. This species is a relative of the common Shortfin Squid that campers were able to explore up close through guided dissections. For many campers, these seemingly unearthly creatures were rather disturbing at first, but proved to ultimately intrigue the interest of many. Campers carefully dissected the squid, learning about the external and internal anatomy that makes these animals unique and how these remarkable adaptations contribute to the squid's survival in the ocean. Furthermore, we assisted campers in finding and removing the ink sac and pen, a long quill-like internal structure that serves as the “backbone” of this invertebrate. They were then able to draw and write their names on paper using these special squid components. It was inspiring to see many campers' initial reactions and resulting interest in these super bizarre creatures.

Another engaging activity we led with Master Naturalists that captivated the campers' imagination was fish printing, also known as *Gyotaku*. This traditional Japanese art form involves creating prints of fish by applying ink or paint directly onto the fish and then pressing paper or fabric on it to capture the fish’s size and the intricate details of its features. The campers first learned about which anatomy of a fish to capture before choosing paints and realistic rubber fish replicas. After applying colorful paints, campers pressed shirts as well as other pieces of fabric. Each print became a unique work of art reflecting the individuality of the fish and the creativity of the young campers.

Though we interns were primarily engaged with these segments, campers experienced a week full of exciting activities around the park and campsite with even some interesting guests from the Marine Mammal Stranding Network and Sky King Falconry. These hands-on activities and experiences provided campers with valuable insights into the diversity of marine life and the interconnectedness of our shared ecosystems. By participating in Camp Wild, campers developed a deeper understanding of marine and coastal biology that fostered a sense of appreciation and respect for wildlife and wild places.

As Community-engaged Interns, it was rewarding to witness the enthusiasm and excitement of the campers as they explored Galveston Island State Park. Our experience at Camp Wild has reinforced the importance of extension work in creating meaningful connections between community and the environment. By providing opportunities for powerful, hands-on learning and engagement, programs like Camp Wild empower our youth to take interest and initiative as stewards of our natural world.

***The Midden* Deadline**
for the next issue

August 28

Owls in my Front Yard by Diane Humes

Beware the Ides of March, Julius Caesar, Act 1, Scene 2, William Shakespeare

The Ides of March is remembered as the day of Julius Caesar's assassination on March 15, 44 B.C., as foretold by William Shakespeare's soothsayer. March 15, 2023 will forever have a new connotation in my mind; I looked out and beheld an Eastern Screech-Owl standing in the opening of my front yard owl box!

We have two owl boxes in our sweetgum trees; the first attracted bees - nice but not what we had in mind. The second owl box, a different design recommended by Doris Heard, has been up for probably 3 years with no results, until now. Thank you, Doris; the owl made a home in your box until May 23, making this an exciting spring, to say the least.

Eastern Screech-Owls *(Megascops asio*) are small birds - robin-sized - about 6-10 inches from head to tail, wingspan about 20 inches, weighing less than half a pound. They come in two color morphs, red or grey; our adult birds were both red. They are typical owls in the family Strigidae; meaning, they have large heads, short tails, cryptic plumage, ear tufts and round facial discs around their yellow eyes. They roost and nest in tree cavities, choosing deciduous trees over pines. Their wings are large, rounded, broad and long, adapted for silent flight. Females are larger than males, but otherwise similar.

Texas Parks and Wildlife (TPWD) calls these the most strictly nocturnal owls in North America. Therefore, they are more often heard than seen. Most active in the first few hours after dusk when they hunt, their prey consists of creatures smaller than they are - larger insects, smaller rodents, small snakes and lizards, amphibians and small birds or bats - which they locate by sight or sound. Screech-Owls watch and wait from their perch and may catch prey in flight, but usually swoop down to the ground for the kill.

The Western Screech-Owl (*Megascops kennicottii*) is closely related and nearly indistinguishable from the grey-phase of the Eastern Screech-Owl. These species' ranges overlap at the Pecos River, where they are best told apart by their vocalizations, "which are markedly different," according to TPWD. Few species prey on these owls, except Great-Horned Owls, but they may be mobbed and harassed by small birds who object to their presence.

Screech-owls breed in late winter or early spring. The male finds a proper cavity; if the female approves, she moves in. Nests are several meters off the ground. Dad guards the nest and brings food for Mom; she lays four to five white eggs which hatch after 26 days of incubation. Both parents vigorously tend and defend the nestlings and the young fledge after four weeks.

The chicks need Mom and Dad's care for several more weeks. They are good climbers and gradually improve their flying abilities. Mom and Dad molt in July, so the babies will have to grow up by then. Barring unforeseen circumstances, the breeding pair mates for life and may return to the nest site in future years, while the young disperse. So, we may see the owls again next year!

We kept watch on our owls with binoculars and spotting scope; the nest box was easily visible from the living room. Throughout March and April, we would see one owl periodically standing in the nest box opening for a few minutes during the day. It would pop out at dusk, fly down the street or around the corner of the house. It also flew straight down to the lawn, caught something in the grass and returned to the box. We never saw two owls together. I heard calls a few times and Allan saw a second bird one evening - it was a darker red-brown. We kept watching through March and April and hoped we might see babies.

On May 2, "our owl", the lighter one, began spending big chunks of time - nearly the entire day - in the nest box entrance. I wondered how hot and crowded it might be inside! On May 15, instead of the adult owl, there was a light-colored, fuzzy baby owl in the doorway of the nest box! Two days later I was sure there were 2 babies and wondered about a third, which was confirmed on May 18! Three baby owls!


Photo by Jason Miles

The following day was Friday, May 19. Mom and Dad were both feeding the babies at dusk. I watched as one parent fed the two sitting at the box entrance and then one at a time they flew out of the box. Mom returned and

fed the third chick, and it also flew out. They all landed on a limb about 3 feet away. I was very proud of them all and kept watching.

The fluffy babies were light gray and white and quite hard to see against the white-gray sweet gum bark or silhouetted against the sky; Mom showed up much more easily with her red color. Even so, the leaves were now fully out on the tree. On Saturday they moved up higher in the tree; Mom stayed very close to the babies, while Dad roosted nearby and well-hidden in the magnolia tree.

We noticed a magnificent male cardinal who began visiting the sweetgum each evening, landing on the same branch near the owl box, making his presence known before the owl parent flew out to forage. Carolina Chickadees chattered around the family one evening and Blue Jays were also heard nearby. But, on Monday evening, May 22, the Northern Mockingbirds raised an almighty ruckus in the front yard about 8:30pm and I saw one owl parent fly off across the street into my neighbor's large trees.

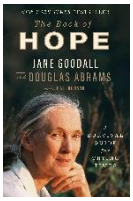
Tuesday morning, I could not find our owl family and our yard was very quiet. I kept scanning and finally found the clump of babies very high in our sweetgum tree. In the spotting scope, to my amazement, I could see a fourth chick! Mom was nearby and a squirrel stretched out on top of the nest box. The whole family was gone by the next day - probably not far, but I cannot see them. The other birds are now quiet. With 800 homes in the neighborhood with at least 2000 large trees, I'm betting they found another spot.

Frederick Gehlback published his studies of Eastern Screech-Owls in rural and suburban settings near his home in Austin in *The Eastern Screech Owl*. He showed that screech-owls prosper in suburbia because predators are fewer, food is more plentiful, trees are closer together and water more abundant than in rural areas. The birds are not bothered much by humans or their cats; humans may not even know they are sharing with owls. The biggest problems for birds may be removal of older, cavity-filled trees. Gehlback states that females remain in the nest and with the chicks; males roost near the family, perhaps in a dense, shaded tree such as my magnolia. Both parents feed the offspring and are likely to return next year, especially since this year was successful!!

Good luck, little owls - hope to see you back next year.

Heritage Book Study - Review of *The Book of Hope* by Cheryl Barajas

It's 100 degrees outside and I am contemplating my chore list. It's a long list that can wait. The best thing to do on a day like today is sit back with a good book and a tall glass of ice water!



Currently I am reading *The Book of Hope* by Jane Goodall and Douglas Abrams and cannot put it down. What a great and uplifting book to read when you start to think that we truly are destroying this planet.

What is hope? Do hope and purpose keep us young? Why is the human intellect one of the reasons for hope?

Jane believes that hope is what enables us to keep going in the face of adversity. Hope is quite different from wishing or fantasizing. While both involve thinking about the future, only hope sparks us to take action toward the hoped for goal. Hmmm – food for thought.

Do you know the difference between a naturalist and a scientist? The naturalist looks for the wonder of nature and learns from nature as he/she tries to understand it. A scientist is more focused on facts and the desire to quantify.

As a naturalist, you need to have empathy and intuition and love. Of course, naturalists can also be scientists.

Jane continues to discuss her four reasons for hope:

Reason 1 – The amazing human intellect

Reason 2 – The resilience of nature

Reason 3 – The power of young people

Reason 4 – The indomitable human spirit

What an amazing woman. At 90 years of age, she is still traveling all over the world spreading her message of hope and healing for our planet. What will we be doing at 90?

We are discussing this book on July 10th and August 7th at 1pm. In September, we will start discussing *The Secret World of Weather* by Tristan Gooley.

So put down your lists of things you need to do and pick up a good book!

Happy Reading!

August and September Activities

ADVANCED TRAINING OPPORTUNITIES

Chapter Meeting – August 3; A Flight Plan: Conservation Needs through the Eyes of our Feathered Friends
Presenter: Lisa Gonzalez, Audubon Texas
6pm Social, 6:30pm Meeting, 7pm Speaker
At Extension Office* and via Zoom; 1 hour AT

Hummingbirds
Wednesday, August 9 at 6pm via Zoom; 1 hour AT
Presenter: Martin Hagne, GCBO

Tracking Sea Turtles of the Gulf of Mexico
Monday, September 25 at 2pm via Zoom; 1.25 hours AT
Presenter: Chris Marshall, TAMU Galveston

Ongoing

Heritage Book Study Group
First Monday of every month via Zoom
2 hours AT
Contact: Cheryl Barajas cherylbarajas9@gmail.com
See Pg. 11 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

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.

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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: Julie Massey, julie.massey@ag.tamu.edu.

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*Extension Office = Texas A&M AgriLife Extension Service – Galveston County Office (Carbide Park)