

The Midden

Bluebonnets courtesy of Agrilife

Galveston Bay Area Chapter - Texas Master Naturalists

April 2020

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President's Corner by Susette Mahaffey

The February chapter meeting was a great opportunity for members of our chapter to meet and to get to know some of the new class members for 2020. Of the 118 people we had in attendance, 15 were members of our new class and 10 were guests. I was delighted to see so many of our chapter and new class members in attendance. It was a wonderful evening of fellowship and learning.

By the time this is published, the journey of the 2020 class will be well under way. We are fortunate to have new class members who will bring their enthusiasm and knowledge to the chapter. We are also privileged to have chapter members who are dedicated to the work of the chapter and making the new class sessions a transformative experience. This committed team has been busy since last fall planning all the classes for the new members. Hats off to each of them and all their hard work! Our new members will add energy and new insights to our amazing chapter. Please plan to be at the next chapter meeting, so that you will have the opportunity to meet them!

As I talked to the members of the new class on the first day, I shared the mission of our chapter to:

- Preserve and restore our area's natural resources
- Educate others about our local ecosystems

Not only are we learners but also teachers - reaching out to educate others. I have certainly learned more about the natural resources of our area than I have been able to share. We are life-long learners, and as Texas master naturalists, we have a huge amount of new information to learn and share. Outreach is a critical part of our volunteer work and is essential to 'being the change that we hope to see'. We do not always see that change immediately or even in more than a year's time. Our work is our mission, and this quote by

Albert Schweitzer is particularly relevant to what we do and where our priorities fall.

"No ray of sunshine is ever lost but the green that it awakens takes time to sprout, and it is not always given the sower to see the harvest." - Albert Schweitzer



Photo by Helle Brown

Next Chapter Meeting

April 2

Red Wolves on Galveston Island

By

Ron Wooten

Nature Photographer and Outreach Coordinator
US Army Corps of Engineers

At
Extension Office*

Wetland Wanderings: These boots were made for sloshing by Lana Berkowitz

A master naturalist's wardrobe choices gradually evolve. Event T-shirts get a special space in the closet. When buying new clothes, you look for zippered pockets. Long-sleeved shirts with sunblock protection become welcomed gifts. Finding a good hat can become an obsession.

Then there is footwear. For tromping through the wetland, you need boots.



Knee-high rubber LaCrosse boots were my first purchase after I finished the 2013 training class. The boots were recommended by the Wetland Restoration Team leader because they have a little shaping at the ankles that keep the boots from sliding off your foot when you get stuck in the mud. The only issue was my short legs. To keep the tall boots from rubbing the back of my legs when I walk, I bend down the tops. It gives me a swashbuckler look.

A couple of years ago, I found a pair of knock-off Duck boots on sale. The lining keeps my toes toasty. I used them a lot this winter.

My water-friendly Keens were OK for working in the potting shed, but when they began to wear out, I bought ankle-high boots. They are easier to get off and cooler in the summer than the tall boots. Plus, they are simpler to clean than sneakers.

I have seen all types of boots in use. As a public service for newbies and those of us needing replacements, I did an unscientific boot survey among a few members.

Sandy Parker likes Neos: I like steel-toed, knee-high rubber boots when I'm digging with a sharp shooter or shovel, because I'm clumsy and I don't want to chop off my toes.

But for walking in muddy conditions or even out into the water, I love my Neos overshoes. They slip over your hiking boots or shoes and fasten with Velcro and straps. They are lightweight, so I take them on my travels since I bird in all kinds of environments.

I also have a shorty pair of Sperry boots that I slip on during our numerous rain-filled days on the Gulf Coast. I wear these around town so I can splash through the puddles, and my feet stay nice and dry. They are cute too, so that helps.

My advice on boots would be to buy the best pair you can afford because you'll be in them a lot and you want them to be comfortable. If you plan to do a lot of walking in the prairie, I think Neos are your best choice.

Rubber boots are more cumbersome and, in my opinion, not easy to walk in for long distances. But for planting or digging, they are great. If you can, I would have both types.

After two pairs of cheap rubber boots were trashed due to holes, Davis Clay was ready for a change: This past Christmas my daughter, who is a civil engineer in Colorado, bought me a pair of Muck brand boots, about \$130, and I love them.

I use them daily and they are comfortable, sturdy, and great for long walks in the wet prairie or wetlands. I use them birding, at EIH, Exploration Green, Armand Bayou and just about every place I go.

I also have a pair of neoprene water boots that I use when I kayak. They make our P3 Bayou Crew cleanups so much easier. I regularly get out along the banks to pick up trash, and they are wonderful for that purpose. My good leather boots hardly get any use these days. I guess if I worked in a drier habitat I'd use them, but they sit in my closet gathering dust.

George Kyame is passionate about his boots: There is no function in the field without proper footwear. Damn, don't want to sound like a commercial, but I am an advocate. Some people get stuck in mud! Others will never volunteer again after a bad experience with bad footwear! This is so important to me.

I have had five years of training and tutelage, and experience/application. Here it be. LaCrosse boots. 18 inch. Narrow-fitted ankle. Cool. 80-100 bucks. Wetland, anywhere. I plant a lot. I go through a pair in 18 months. Some folks roll for years.

Work boots, your choice, less wet application; some are waterproof, none is LaCrosse. I've seen folks in other footwear, nice work boots. Those are great in prairie work. But waterproof is something, and one's take on that is subjective.



Photo by George Kyam

I spent three and a half years in Lacrosse boots. Never took them off.

Bev Morrison's first choice was a winner: I have Hunter high-top rubber boots. I bought them with little research, and amazingly I love them and will buy them over and over as need be.

I have hiking boots, and most of the time I am sorry I wore them if it's the slightest bit muddy. Like them for hiking.

If you are getting boots, try on your first choice first thing, wear them for the rest of the time in the store, find out if you really like them. I am with people frequently who

can't wait to get their boots off. I could wear mine in a walk to Arkansas, I think!

Chris Anastas prefers neoprene: The boots I have come to love have the neoprene-type uppers. I have Magellan Outdoors Women's Field Boot, but a number of brands make similar boots. They are much lighter, cooler, and so much more comfortable on my feet than rubber boots. I can wear the neoprene boots all day with no discomfort. I have had rubber boots develop holes after just a year of use. The neoprene boots I currently own are over 4 years old and no leaks!

The only other boots I use are a pair of Neos overshoes. They are extremely lightweight and are put over the shoes you are wearing so they are easy to keep in the car, put on and take off quickly.



Photo by Lana Berkowitz

Bottom line: Check with others at your work sites about what they like about their boots and what to avoid. And remember, comfort is the key to being a well-heeled master naturalist.

Prairie Ponderings: Bison Return by Diane Humes

Travel can recharge the mind, body, and spirit. Sometimes it is the destination, but often the journey. On a recent junket to visit winter, I read in an Air Canada magazine about a new conservation bison herd near Saskatoon. They are on a shortgrass prairie of Saskatchewan and might inspire another trip – maybe this spring!

For over 40 years, archaeologist Ernie Walker of the University of Saskatchewan has been digging up dart tips, cutting tools, pottery sherds, and bison bones from a 600-acre ranch on the north side of Saskatoon. In 1992, he founded the Wanuskewin Heritage Park on the site to preserve the many artifacts. "The park had to be preserved. There were artifacts eroding out of embankments," he said.

For 6,000 years Wanuskewin has been a gathering place for indigenous people who followed the bison; it is short-listed to become a UNESCO World Heritage site. The

nearby cliffs within the park have a buffalo jump where the people hunted the bison. A medicine wheel for ceremonial purposes is also on the property. The park visitor center hosts guided tours of active excavations and will soon open its new archaeological lab to the public. Evidence of its very long history is everywhere, but the bison have been absent.

That has now changed. In January, the bison came back – the fulfillment of a dream for members of the Wahpeton Dakota Nation.

Six female bison calves from Canada's Grasslands National Park joined five more bison from South Dakota – a mature bull and four pregnant females – forming the first bison herd at Wanuskewin in 150 years!

This will be a conservation herd, not a commercial business – that is, no meat production or sport hunting.

Park managers hope to have a herd of about 50 bison in the future.

Grasslands National Park in Saskatchewan is shortgrass prairie located on the boundary with Montana. Its calves



descend from plains bison at Elk Island National Park near Edmonton, Alberta. The American bison hail from the herds at Yellowstone National Park in Wyoming. The new herd will give enhanced genetic diversity to its offspring – a good omen for the future. And consider: these bison are from groups that have been separated since they were wild!

Through the centuries, patchy areas of grasses may have developed into grasslands – including prairies – in concert with the actions of large grazing animals, such as bison, who trample, stomp, churn and wallow over vast distances during migrations. This constant disturbance is bad for trees and shrubs, but grasses just keep growing.

Now that bison and grasslands are together at Wanuskewin, will the bison change the land? Imagine spring on the prairie and baby bison. We may need to take another trip.

Coastal Corner: Our Dedication to Sea Turtles by Maureen Nolan-Wilde

Chapter members are preparing for the annual beach patrols, looking for nesting sea turtles between Bolivar and Surfside. Master naturalists have been involved in this activity for more than 15 years, following a request for help from Texas A&M at Galveston (TAMUG). Our chapter now partners with both Turtle Island Restoration Network and their sponsor, TAMUG.

In addition to walking or riding the beaches, our chapter has started a sea turtle spotting network that monitors nesting hot-spots from the seawall seven days a week. This effort serves as outreach to the community, while also helping us find nesting or stranded sea turtles.

Through a partnership with the Gulf Center for Sea Turtle Research, some members help with the collection of sea turtle eggs from nests, after which the eggs are transported to South Padre Island National Sea Shore so that they can be safely hatched and released. These members receive special training and are added to state and federal permits before they can touch the eggs.

Our service to sea turtles continues to grow: our chapter is now part of the Sea Turtle Stranding Network. Trained and permitted members respond to incidents called in to

the sea turtle hot line. They pick up, document, and transport stranded sea turtles for rehabilitation.



Photo by Carlos Rios

The dedication our chapter has demonstrated over the years has been recognized, leading to more and more opportunities for our members to support sea turtles.

State of the Bay 2020 by Diane Humes

The 11th State of the Bay Symposium, a meeting held about every five years to review goals and progress toward fulfilling the Galveston Bay Plan, convened Jan. 22-23 at the Moody Gardens (freezing cold!) Convention Center in Galveston. Over 300 stakeholders – people

living, working, and playing within the Galveston Bay Watershed, which stretches from our shores all the way up to Dallas – came to learn from each other about the issues, successes, and future needs of Galveston Bay. Several of our chapter members attended.

Galveston Bay supports enormously productive shrimp, blue crab, and oyster fisheries, plus ecotourism and hunting, while surrounded by the Houston-Galveston region – home to the Houston Medical Center, Johnson Space Center, 570 chemical plants, 10 oil refineries, three ports and the Gulf Intracoastal Waterway. Add rapid regional population growth within the watershed - 14 million people, with more on the way - and resultant massive land use changes, combined with intense regional weather events and industrial accidents; the State of the Bay meeting attendees had a lot to talk about!



Photo by Verva Densmore

What were the major topics? We are still talking about hurricanes Harvey and Imelda, which didn't do the bay's oysters any good; they are in serious decline. However, chapter member Maureen Nolan-Wilde described the benefits of the community oyster gardening project. When the subject got around to trash, Stennie Meadours spoke about the chapter's plastic prevention efforts, while Rick Becker talked about fishing line recycling. And Cindy Howard presented a poster about accumulation and excretion of tin by *Batis*, a coastal salt marsh plant, at Texas City.

Results from chemical monitoring in bay waters – most found at low levels – engendered many discussions. Subjects ranged from the PFOS (perfluoroalkyl substances) used to fight the ITC fires, to pharmaceuticals such as prednisone (pretty high levels), dissolved metals (Fe, Mn, Cu, Zn, Ni, Cd, Pb), and legacy organic pollutants, PCBs and PAHs, (polychlorinated biphenyls and polycyclic aromatic hydrocarbons, in the sediments). The last two have worked their way to the top of the food chain to be found in high levels in sharks. One attendee commented that 100 percent of Galveston Bay sediments are turned over each year by shrimp trawlers.

Water quality is a big concern for Galveston Bay; within the entire Houston-Galveston area, 42 percent of stream

miles are considered “impaired” for excess bacteria. In addition to monitoring by professional agencies, 62 Galveston Bay Foundation volunteers monitor 65 sites around the bay. Since 2011, they have collected 3,500 samples, also sampling for bacteria at 29 of these locations. Look around, you surely know a fellow water monitor! Check their results at waterdata.galvbay.org/

Invasive plant and animal species are grave threats to the Galveston Bay environment and their numbers continue to grow. To learn more about their identification and reporting, see The Quiet Invasion field guide at galvbayinvasives.org.

Whether the topic was species monitoring, restoration, or future landscapes, the objective was to learn from the past and prepare for future Galveston Bay inhabitants. Everyone's goal is ensuring clean water in the bay and bayous, free from trash, plastic, and pollutants, with space for all species, and built-in resilience from storms, while “saving the best of the rest of what's left,” opined Jamie Schubert, NOAA Marine Habitat Resource Specialist.

This will take time, energy, money, determination, persistence, partnerships, and a plan. The Galveston Bay Plan (GBP), managed by the Galveston Bay Estuary Program (GBEP), is the blueprint for the health of Galveston Bay. And, as such, it aligns with our chapter's mission.

Originally approved in 1995, the first plan has gotten an update. The second edition is approved and its online release is expected this year! Can't wait? You can view the draft at: <http://www.h-gac.com/galveston-bay-plan/2nd-edition.aspx>.



Plan to attend the next State of the Bay meeting in about 2025 and, in the meantime, keep up the good work.

Earth Day, April 22, is 50 Years Old by Diane Humes

How did Earth Day get started, anyway? Looking back to 1970 is a trip down memory lane for some of us; the 1960s had given us the Vietnam War, civil and racial unrest, free love, drugs, and "don't trust anyone over 30". Rachel Carson's book *Silent Spring* was a best-seller, warning of the dangers of DDT and other pesticides. Bald eagles, our national bird, were nearly extinct and no Brown pelicans flew over Galveston because of DDT; alligators no longer swam in our bayous, due to over-hunting. In Houston, the Champion Paper Company was filling waste pits along the San Jacinto River with dioxins, but nobody was watching. Air pollution and smog were the "smell of money".

Then came grim news of a massive oil spill near Santa Barbara, CA, which fouled beaches and killed wildlife, followed by a burning river - the Cuyahoga River in Ohio - a highly polluted river, devoid of life for decades, and this was not the first fire, either. What was going on?

Senator Gaylord Nelson from Wisconsin wished to organize a day of teach-ins - environmental education and activism - and chose April 22, 1970 for the first Earth Day. The significance of this date was a combination: warmer weather, no holidays, few conflicts with student calendars. Organizers got the word out and, with perfect weather across the country, 20 million people from all walks of life - 10 percent of the US populace! - joined in local marches, rallies, parades, protests, and "happenings".

The first Earth Day made the news everywhere, in a positive way, and made clear the importance people placed on cleaning and saving the environment. Congress passed the Clean Air Act that same year and organized the Environmental Protection Agency. During the next few years, most of the rest of major U.S. environmental legislation was written and enacted by a bi-partisan Congress: Clean Water Act, Endangered Species Act, Safe Drinking Water Act, Resource Conservation and Recovery Act, Ocean Dumping Act, and more. For his actions, Gaylord Nelson was awarded the Presidential Medal of Freedom in 1995. Earth Day kept growing.

Twenty years later, Earth Day 1990 became a global event; 200 million people in 141 countries participated. Earth Day 2000, focusing on energy, was the first to use the Internet; 5000 environmental groups in 184 countries sponsored activities.

Earth Day 2010 brought 250,000 people to the National Mall for a climate rally; on Earth Day 2016, 195 nations signed the Paris Climate Accord, thereby binding themselves to the goals of limiting global average



temperature increases to less than 2°C above pre-industrial levels, preferably limiting increases to 1.5°C.

Earth Day continues because clean water to drink, clean air to breathe, and green spaces seem to most people like basic requirements for all species! Today more than one billion people participate in Earth Day activities on April 22; it is the largest civic observance in the world.

Has it made a difference? Progress speaks for itself, but clearly much remains to be addressed.

The huge Santa Barbara oil spill in 1969 has been dwarfed by the Exxon Valdez spill in 1989 and Deepwater Horizon blowout in 2010. But, the Cuyahoga River hasn't caught fire in 50 years and now has fish swimming in its clean water. Bald eagles are off the Endangered Species list and Galveston has more Brown pelicans than we can count. Our country has some of the cleanest and safest drinking water in the world, all the bottled water we buy, notwithstanding. Manufacturers may no longer dump toxic chemicals with impunity, although we will be dealing with the industrial legacy for some time and our legislators now seem to find these regulations onerous. Our San Jacinto waste pits have been capped to curtail leaks, but await a permanent solution.

Seventy percent of all industrial CO₂ emissions accumulated in Earth's atmosphere have occurred since the first Earth Day. World population has doubled to 7.8 billion people since 1970 and all aspire to our lifestyle. Habitat loss, especially deforestation, continues unabated; humans now control 50% of the habitable surfaces of the planet. Species extinction rates are 1000 times higher than normal.

Average global temperatures have risen by 1° C since 1970 - halfway to the limit beyond which scientists warn of severe consequences. In Antarctica we have witnessed the breakup of ice shelves Larsen A in 1995, Larsen B in 2002, and Larsen C in 2017 due to this warming. The chunk of Larsen C is now a huge iceberg; its melting will raise sea levels world-wide by 4 inches.

There were actually two Earth Days.

A newspaper publisher and activist, John McConnell, suggested in 1969, at a UNESCO meeting, that a global holiday called Earth Day be held on March 21, 1970 - the vernal equinox - a day of equilibrium of day and night for all people to contemplate their shared responsibilities as environmental stewards. In 1971, U. N. Secretary-

General U Thant, proclaimed the annual observance of Earth Day on the Spring Equinox, "May there be only peaceful and cheerful Earth Days to come for our beautiful Spaceship Earth as it continues to spin and circle in frigid space with its warm and fragile cargo of animate life." Each year the Peace Bell is rung at U.N. headquarters at the precise moment of the vernal equinox.

The United Nations has changed its celebration to coincide with other Earth celebrations and now celebrates International Mother Earth Day on April 22.

So, choose a celebration. Check out www.earthday.org for 50th anniversary activities near you or to learn more. All your friends will be there.

Rosenberg Library Outreach and AT by Madeleine K. Barnes

On Saturday, February 29, several chapter members conducted an outreach and Advanced Training (AT) at the Rosenberg Library in conjunction with Galveston Reads. This event was open to the public as well as library patrons and many adults and families with young children attended. There were three exhibits - "Seashells and Sea Beans of Galveston" with touch tables, "Monarch Butterflies" with live butterfly life stage exhibits, and "Which Bird Are You?", a wingspan demo.

In addition, Cindy Howard gave a one-hour chapter-sponsored AT presentation on a "Virtual Kayak Tour of GISP Marsh and Sea Grasses". This was an excellent overview of the Galveston marshland flora and fauna.

If you are interested in learning more about outreach education service opportunities, contact Sara Snell, snellsw@verizon.net.



Photo by Maureen Nolan-Wilde

City Nature Challenge 2020: Houston by Tania Homayoun, TPW



Join Texas Parks and Wildlife, Texas Master Naturalists, the Nature Conservancy, the Houston Museum of Natural Science, Audubon Society, and many others in a

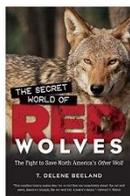
fun challenge to see which city can document the most species during April 24 - 27. (Let's beat Dallas!)

It is easy to participate by joining an event or making observations on your own using the iNaturalist app. With the iNaturalist app, you just take a picture of a plant or animal, and the community will help identify which species it is. Any observation in the greater metropolitan area of Houston will count during the four-day challenge.

You can participate by exploring the life in your backyard, in your local park, or on a field trip with your local naturalist group. You can also help with IDs for other people's observations to increase our species count, come to a bioblitz, or even hold your own event!

Heritage Book Study - Review of Review of *The Secret World of Red Wolves: The Fight to Save North America's Other Wolf* by Madeleine K. Barnes

There are many stories about the fate of endangered wildlife species and this book is one of them. What makes this one more meaningful is that the author focuses on aspects that are not often included and presents the complexity involved, mistakes made and lessons learned, in an impartial manner. Have you ever thought about what it takes to be a wildlife research biologist or of the myriad of issues involved when re-introducing an endangered species into a natural habitat?



T. DeLene Beeland, the author, has an M.S. in Interdisciplinary Ecology and is a non-fiction writer who lives in western North Carolina. She is our guide in the book as she takes us with her into the fields of brambles, brush, and tidal marshlands of the Albemarle Peninsula along with Fish and Wildlife biologists who work to protect the only known population of red wolves reintroduced into the wild. Beeland provides an in-depth scientific expose about the secretive red wolf as she writes in a very personal way, educating while also creating a connection between the reader and the recovery project and the conservation of this critically threatened species.

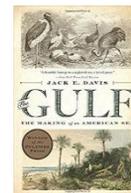
Canis rufus, the red wolf, once inhabited much of the northeastern part of the US and that range also included Texas, Louisiana, the Carolinas, Florida, and Alabama. It is a smaller wolf than the gray/grey wolf, *Canis lupus*, and was thought to be functionally extinct in the 1980s with only 17 known specimens living in zoos. Are you aware that these red wolves benefit the environment by eating non-native nutria and are more afraid of you than you are of them? It is hard to identify red wolves because coyotes are often mistaken for them and the two canids interbreed, producing hybrids that blur the lines for identification and create even more issues in the pursuit of extinction prevention for this species. However, this adaptation behavior could be a natural survival strategy to perpetuate the species. Red wolves continue to be targets for extirpation. The meaning for that word says it all - extirpation is defined as to remove or destroy totally; do away with; exterminate. Is there no room in "our" world for the red wolf?

The book is divided into three sections, the current red wolf status, the history of this apex predator, and the challenges that this species faces in its precarious future. Beeland states her hope "...that future scientists and citizens will see fit to conserve what we have left of *Canis rufus* as a living reminder of both what was and what still can be."

Another famous author/biologist that we have read reviewed this book and makes a powerful statement about it. "This excellent history makes clear the verdict that lies immediately ahead: the red wolf saved, America's triumph; the red wolf lost, America's shame." – Harvard Biologist E.O. Wilson

I hope you are more curious now to learn about *Canis rufus* and will add this book to your reading list. I could almost hear wolves howling as I read. Our April chapter meeting speaker will talk to us about the Galveston red wolf and if you would like to read more about *Canis rufus* and our local Galveston connections, take a look at the *Texas Parks and Wildlife Magazine*, December 2019 issue "Mystery Canines of Galveston Island" or at: https://tpwmagazine.com/archive/2019/dec/ed_3_wolves/

We will meet Monday, April 2 to discuss pages 178-353 of *The Gulf: The Making of the American Sea* by Jack E. Davis. On Monday, May 4, we will conclude our discussion with pages 354-530 of *The Gulf*. Join us in reading and discussing this relevant and interesting book.



We welcome your participation each month for two hours on the first Monday of the month starting at 10am at the Extension Office*. 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

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: www.gbamasternaturalist.org 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

Madeleine K. Barnes	Lana Berkowitz
Verva Densmore	Carolyn Miles
Chuck Snyder	Diane Humes, Editor

Top Ten Quiz

Galveston Bay Area Shells by Sara Snell



1. _____



2. _____



3. _____



4. _____



5. _____



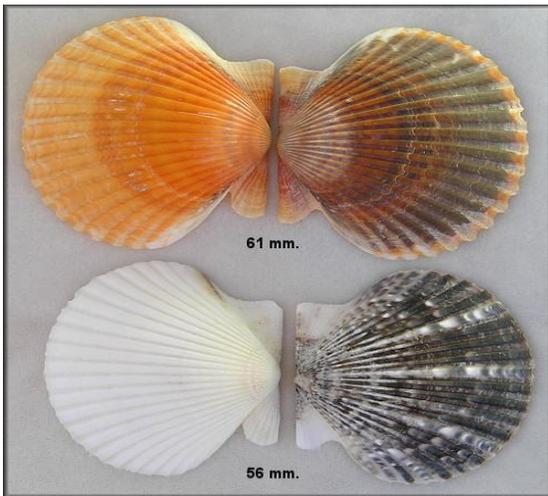
6. _____



7. _____



8. _____



9. _____



10. _____

Possible Answers

- Bay Scallop
- Blood Ark
- Channeled Duck Clam
- Common Eastern Oyster
- Coquina Clams
- Disk Dosinia
- Giant Atlantic Cockle
- Lightning Whelk
- Moon Snail
- Saw Tooth Pen Shell

The Midden Deadline
for the next issue

April 27

If you have Advanced Training or Volunteer Opportunities, please submit information to Mike Pettit, mpettit_houston1@comcast.net.

April and May Activities

ADVANCED TRAINING OPPORTUNITIES

Chapter Meeting -April 2; Red Wolves on Galveston Island

Presenters - Ron Wooten

6:15 Social, 7:00 Meeting, 7:30 Speaker

Extension Office*; 1 AT hour

Is Taxonomy Really Taxing? - Tuesday, April 21

12:30-3:30 pm; 3 hours AT

Location: Extension Office*

Presenters - Emmeline Dodd and Cindy Howard

Register with Emmeline Dodd txdodd@aol.com

Botany: Plants Are Precious - Tuesday, May 19

12:30-3:30 pm; 3 hours AT

Location: Extension Office*

Presenters - Emmeline Dodd

Register with Emmeline Dodd txdodd@aol.com

Ongoing

Galveston Island SP

10am at the Welcome Center

Every Saturday - Prairie Adventures

Every Sunday - Bay Explorations

Tours 1 to 1 ½ hours long. Bring water and family.

Heritage Book Study Group

First Monday of every month. Extension Office*

10am-noon; 2 hours AT

Contact: Madeleine Barnes 281-474-9406

See Pg. 8 for meeting dates and books.

STEWARDSHIP OPPORTUNITIES

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

EDUCATION - OUTREACH VOLUNTEER OPPORTUNITIES

Bay & Island Adventures - Volunteers teach six in-class hands-on modules on a once a month basis in Dickinson and Galveston Schools. Presenters and helpers are needed for eleven 4th and 5th grade classes. Contact: Sara Snell snellsw@verizon.net.

Education and Outreach Committee - We can use your help in supporting outreach efforts, responding to requests for exhibit booths and presenters, planning Treasures of the Bay; and developing a library of education-outreach materials. Contact Sara Snell snellsw@verizon.net.

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.

BOARD AND COMMITTEE MEETINGS

(At Extension Office* monthly unless specified)

Board Meetings - usually First Tuesday, see the chapter calendar at <https://txmn.org/gbmn/events/month/>

Committee Meetings

Advanced Training - Third Monday, 10-noon

Education/Outreach - Third Tuesday, 1-2:30pm

Communication - Meets quarterly, check calendar

Midden Team - April 27, Monday, 9-noon



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Answers to Shell Top Ten Quiz

1. Giant Atlantic Cockle
2. Blood Ark
3. Disk Dosinia
4. Common Eastern Oyster
5. Saw Tooth Pen Shell
6. Coquina Clams
7. Lightning Whelk
8. Moon Snail
9. Bay Scallop
10. Channeled Duck Clam