Galveston Bay Area Chapter - Texas Master Naturalists February 2019

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February 7

Snakes of Southeast Texas

By

Greg Hall
Habitat and Stewardship Coordinator
Coastal Heritage Preserve

At
Extension Office*

President's Corner by George Kyame

Greetings fellow naturalists.

Happy New Year to you all. I hope everyone has settled into 2019 happily and healthily. I am still excited about the excellent 2018 that our chapter had. Here are some (mostly complete, with final tallies rolling in) numbers for your general information and Galveston Bay Area Chapter pride.

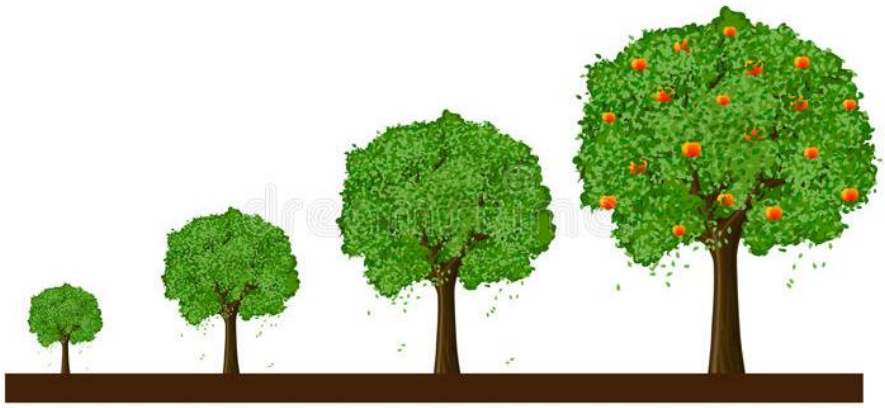
As of December 31st, we collectively submitted over 41,000 volunteer service hours! Also reported, are over 3,875 Advanced Training hours. And as usual, our outreach and educational impacts on the community, both youth and adult, are off the charts. The 2018 reported outreach is over 25,200 people. Thank you and congratulations for all the dedicated hard work and participation.

Thank you once more to our 2018 Treasures of the Bay. Your recognition is well deserved; by going way above and beyond, you made us all very proud Master Naturalists.

Another "little" tidbit...joining Tom Solomon in our chapter's 20,000 hours of volunteer service rarefied air is Jim Duron! Please do not hesitate to share your congrats with him. Wow.

And finally, our Spring Training class has been organized and will commence on February 21st at Armand Bayou Nature Center. Welcome future Master Naturalists! See you soon in the classroom and at all of our outdoor learning adventures.

"The one who plants trees knowing that they will never sit in their shade, has at least started to understand the meaning of life". - Rabindranath Tagore



Wetland Wanderings: A Natural Solution to Climate Change by Lana Berkowitz

This year's World Wetlands Day (Feb. 2) focuses on the role of wetlands as a solution to climate change.

At worldwetlandsday.org, there are materials such as posters, handouts and graphics to download and share with students and others. There is also a PowerPoint presentation.

Although the information may be familiar to many master naturalists, here are some notes from the presentation.

• Global greenhouse gas (GHG) emissions due to human activities have grown since preindustrial times. Annual emissions of carbon dioxide, the most significant GHG, grew by about 80 percent between 1970 and 2004.The principal reasons: fossil fuel use and changes in land use, including an increase in agriculture and ranch lands, water diversion from dams and infrastructure development.

• Human wellbeing is at risk as temperatures rise. From 1880 to 2012, the average global temperature increased by 0.85 degrees Celsius. As oceans warm, snow and ice melts and sea levels rise. From 1901 to 2010, the global average sea level rose by 19 centimeters.

• Extreme weather is intensifying. Rain/drought patterns are shifting. The frequency of worldwide disaster has doubled in 35 years. Ninety percent of these disasters are water-related, mainly flooding and water scarcity.

• Coastal wetlands, such as salt marshes, mangroves, sea grass beds and coral reefs, act like shock absorbers to reduce the intensity of waves, storm surges and tsunamis.

• Inland wetlands, such as flood plains, rivers, lakes and swamps function like sponges to absorb and store excess rainfall to reduce floods.

• Peatlands, mangroves and sea grasses are the most effective carbon sinks on Earth. They keep tons of carbon out of the atmosphere. Yet when they are drained they emit vast amounts of carbon. Peatlands cover 3 percent of the planet's land mass yet store approximately 30 percent of all land-based carbon, twice the amount of all the world's forest combined.

• In addition to mitigating the impact of climate change, wetlands protect sources of our drinking water, support a tapestry of biodiversity upon which we all depend, enable agriculture and aquaculture to produce food and provide a multitude of recreation, tourism and cultural opportunities.

• The Paris Agreement seeks to limit the increase in global average temperature this century to below 2 degrees Celsius. Countries are encouraged to integrate climate change measures into national policies and improve education and awareness.

• How to help: include wetlands in policies that address climate change, develop financing sources for wetlands conservation, restore wetlands that have been degraded or destroyed, educate others and ensure remaining wetlands are used wisely.


Photo by Kelley Morris

In other news

We miss Marissa and her delicious pies. The Wetland Restoration Team said goodbye to our longtime leader Marissa Llosa in December. After 18 years of dealing with grants, contracts and volunteers, Marissa has taken a job as an environmental specialist with the Texas Department of Transportation.

The team will continue working at Sheldon Lake State Park under the guidance of interns, Rosemary Kline and Andy Rydzak (at right in the photo), through the spring to complete planting of the park's Phase 5.

The team's next project site will be Pintail Marsh in Anahuac National Wildlife Refuge.

Prairie Ponderings: Happy New Year, Prairie Enthusiasts! by Diane Humes

Mark your calendars for June 2 - 5, 2019, because the North American Prairie Conference (NAPC) 2019 is coming to our coastal tallgrass prairie! This is an excellent gathering for anyone who lives, works, and plays on a prairie - or who would like to learn more about it. NAPC is usually held very far away - think Iowa, Illinois, Wisconsin, Nebraska, or Manitoba. But, not this time.

Hosted by the Environmental Institute of Houston-UHCL, and sponsored by the Coastal Prairie Partnership, The Nature Conservancy, Katy Prairie Conservancy, and Native Prairie Association of Texas, NAPC 2019 will focus on prairies and watersheds and feature our wonderful prairies. You may expect excellent speakers, provocative topics, and great field trips (possibly to familiar places; think about volunteering your knowledgeable self!) Registration opens February 1, 2019, so bookmark the site: northamericanprairie.org and prepare to sign up. If you miss this opportunity in our own backyard, you really will be sorry.

As we know, perennial grasslands - prairies - are the former habitat for most of the continental U.S. Prairies supported millions of bison, prairie chickens, meadowlarks, prairie dogs, ground squirrels, and compass plants. Since European settlement, most of this land, >99.9%, has been appropriated for other uses and its former denizens have been out of luck. Just take a cross-country flight and look out the window at all the roads, towns, farms, factories, and businesses. How much prairie do you see?

Prairies are famous for their biological diversity. The primary producers - the prairie plants converting sunshine into food - evolved with deep roots, tolerant of fire, drought, and grazing, but with many diverse forms. The prairie State of Illinois, with a large variety of prairie types, lists 851 native prairie plant species. A prairie of 10 acres or more in size might hold a local diversity of 100 - 120 of these species. Most prairies, however, are less than 10 acres.

Prairies are known for their vast expanses, their big skies. How large are our local prairies? Armand Bayou Nature Center manages 645 acres of its 900 acres of prairie. The Nash Prairie is 400 acres and Texas City Prairie Preserve (TCPP) is 2,303 acres of prairie and marsh, both managed by The Nature Conservancy. Also nearby, the Lawther Deer Park Prairie, managed by the Native Prairie Association of Texas is about 20 acres in size. The Nash Prairie lists >300 plant species, while the Lawther Deer Park Prairie has 325 plant species, 42 of which are invasive, non-natives. These, and all the smaller patches of prairie still around, contain the seed source for all prairie restoration.

Aldo Leopold, father of prairie restoration, famously said, “The last word in ignorance is the man who says of an animal or plant, "What good is it?" If the land mechanism as a whole is good, then every part is good, whether we understand it or not. If the biota, in the course of aeons, has built something we like but do not understand, then who but a fool would discard seemingly useless parts? To keep every cog and wheel is the first precaution of intelligent tinkering.”

People are saving prairies by keeping the last cogs. They are private landowners preserving intact prairie patches using conservation easements and farmers and ranchers taking advantage of government incentives for land preservation or state parks, national parks, and environmental organizations. Prairies are being restored by you and me - prairie enthusiasts - people passionately working to preserve and restore prairies. See you at NAPC 2019.

Coastal Corner: Teaming with Students by Maureen Nolan-Wilde

Four students faced the challenge of thick mud, voracious mosquitoes, head-high vegetation, and other obstacles to help conduct plant surveys on islands in West Galveston Bay as part of a new course offered by Texas A&M University at Galveston.

Master naturalists and Audubon Texas members worked with students, taught by Dr. Steve Alexander, to document plant communities on two nesting islands with a broad range of plant populations.

An introductory workshop outlined the reasons for carrying out the work, the overall transect process, and how to carry out the work safely (including the need to wear snake chaps!). The day ended with hands-on practice.

The students joined members of the chapter's NICK (Nesting Island Clean-up by Kayak) team on Marker 52 and North Deer Islands.

For students, the three-credit course was an introduction to life as a field biologist, while also allowing them to experience the beauty and diversity of the islands. For the NICK team members, it was a great way to teach and share our work with future stewards. NICK members praised the students' can-do attitudes and the fact that they were always able to get the job done with a smile.

As one NICK team member stated, "They are outstanding young students; our future is in their bright and capable hands!"

Golden-cheeked Warbler 2019 by Diane Humes

If you are like me, your bird books are old, relatively speaking. So, you will be surprised to learn that the genus of wood warblers, *Dendroica*, has recently been merged with *Setophaga*, the new name for most warbler species, due to research discovering great genetic similarities. This becomes important for master naturalists, because the 2019 re-certification pin is an image of the golden-cheeked warbler, *Setophaga chrysoparia*, a beautiful, and highly endangered bird, living in Central America most of the year, but migrating to the Texas Hill Country each year to breed. This is our bird - the only species breeding exclusively in Texas.

Like most warblers, the golden-cheeked is small, about 5" in length. Males and females are colored similarly, although males are brighter. Both have clean white underparts, black streaks on backs and flanks, and bright yellow cheeks, with a black stripe running through the eye.

Image courtesy of Audubon.org

As with other neotropical forest birds, golden-cheeked warblers live and forage in mixed flocks, in both their summer and winter ranges. They eat insects and spiders, gleaning caterpillars, spiders, and beetles from leaves or sallying from a perch to catch a meal on the wing. Their predators mostly consist of snakes and corvids - crows and jays.

Much more is known about this warbler's breeding history in Texas than about the rest of its life history. Birds fly to the Ashe juniper/mixed forests of Texas in March, with males arriving about 5 days earlier than the females in order to stake their territories. Males vigorously defend their territory and sing a distinctive song during much of the breeding season. Females are mostly quiet - building the cup-shaped nest made from the shedding bark of mature juniper trees, bound together with spider webs, and, in April, incubating 3- 4 eggs. Golden-cheeks require juniper bark for nest construction, although they may build the nest in another tree.

The creamy-white eggs hatch 12 days after laying. Both parents care for the hatchlings, which fledge in another 8 or 9 days. The young birds hang around the territory with their parents for at least 4 weeks more. Male singing declines after the young hatch, although you may still hear his song in June. Birds return to their wintering grounds by mid-August. So, if you want to see these birds, you must be fairly quick about it in the spring.

Greek words to know:
seto = moth
phaga = eating
chryso = gold
pharia = cheek
dendro = tree

Golden-cheeked warblers can be found in many Texas state parks, including: the Colorado Bend State Park (SP), Dinosaur Valley SP, Garner SP, Guadalupe River SP, Honey Creek State Natural Area (SNA), Hill Country SNA, Kerr Management Area, Longhorn Cavern SNA, Lost Maples SNA, Meridian SP, Pedernales Falls SP, and Possum Kingdom SP. Also, many parks around Austin host nesting golden-cheeked warblers; see the Travis County Audubon Society, travisaudubon.org.

The most important threats to this species' survival come from nest parasitism by brown-headed cowbirds and habitat loss. Golden-cheeked warblers were placed on the Endangered Species List in 1990 in a dramatic bid to save them from certain extinction. Bird numbers, estimated at 15,000 individuals in 1974, had plummeted to < 4,600 by 1990.

Texans had begun clearing juniper trees for pasture in 1948; 20 years later, an estimated 50 percent of all juniper habitat was gone. The city of Austin continued to expand, sometimes without control. Ten years later, city officials learned of the illegal clearing of hundreds of acres of the densest remaining forest and sought help to prevent further destruction. The USFWS used an emergency rule to list golden-cheeked warblers on the Endangered Species Act to save them from certain loss due to imminent habitat destruction, undoubtedly earning the undying wrath of all land speculators and developers.

Although Partners in Flight estimates global population numbers today are around 21,000 golden-cheeked warblers and a 2015 survey found 716 singing males within a 39-acre site in Texas, developers still crave their habitat and chafe at any restrictions placed upon it. Trees in their wintering areas are also being cut down for timber.

I'm sure that Hill Country master naturalists are working hard to protect golden-cheeked warblers. If we like it and wish to keep it, we must all continue to care for it, in our home and also help keep it safe in its other home. It is our bird.

Jim Duron – 20,000 Hours of Service by Verva Densmore

Jim Duron is perhaps the only member of the Bay Area Chapter of the Texas Master Naturalists who is known to every single member of the chapter. He gave you your service pins, recorded your service and advanced training hours, updated your reporting system and trained you in how to use it. Jim has been doing this since he became a Master Naturalist in 2008. In addition to this, which I must say would be quite enough for most folks, he volunteers at Texas Prairie Preserve, Armand Bayou Nature Center, San Jacinto Monument, The Longhorn Prairie and other locations restoring prairie habitats. You'll see him there in all kinds of weather pushing a wheelbarrow, pulling weeds, planting pots, watering, mowing, planning, leading. He does it all and he does it with an even temper and a generous attitude.

Twenty thousand hours in ten years translates to nearly 39 hours a week, 52 weeks a year. He didn't retire from his job in 2008 so much as he switched from being paid money to being paid with gratitude and accomplishment. So, next time you see Jim, let him know how much you appreciate his hard work. I know that I will. Congratulations Jim.

Photo by Scott Buckel

Treasures of the Bay Award Recipients 2018

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

The 2018 recipients who were recognized at the December chapter meeting are:

Dick Benoit Leadership Award – Sara Snell

Beth Cooper Service Award – Patty Trimingham, and
Janet Mason

Sara Snell Education Award - David Bulliner

Chapter Service Awards
Jim Duron
Lynn Wright

Making a Difference Awards
Davis Clay
Robin Kendrick Yates

Non-Profit Award - Gulf Coast Bird Observatory

Congratulations!

School Play by Anne Hecht

Action Hero Keith Mahaffey leaps across the floor like Marvel's Captain America, thundering, "Will you be an Action Hero too?" A chorus of 140 third graders shouts back, "Yes! Yes!" Thus, we achieved our mission - to challenge and motivate third graders at Galveston's Oppe Magnet Campus of Coastal Studies to not only become protectors of Galveston's beach and bay, but also to share their knowledge and passion with others.

This Galveston Beach and Bay Action Heroes event opened with Sara Snell explaining how master naturalists hope to make a difference – and have fun while we're doing it – and continued with a series of skits. With every imaginable type of trash somehow affixed to his body, Beach Trash Man (Terry Gaustad) described how trash can hurt our wildlife. Mrs. Monofilament (Mary Christian) then used a simple rubber band to demonstrate how difficult it can be for wildlife to escape from plastic pollution. Mr. Sea Turtle (Carlos Rios) engaged his audience with a lively question/response interchange on the calamities that can befall sea turtles. And more. Powerful stuff since the team only had time for two rehearsals!

The idea for Galveston Beach and Bay Action Heroes began with a group of master naturalists wondering how to increase the number of future environmental stewards produced by Galveston schools. We have already been working with these schools since 2004, but felt we could do better. Through programs like Camp Wild, we have introduced hundreds of students to environmental issues, but the group questioned how we could turn these students into Action Heroes, willing to share their knowledge and passion with others.

Photo by Carlos Rios

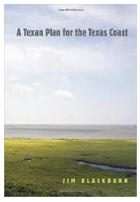
After much discussion, we decided that art would the ideal means to recruit new Action Heroes. As a result, the Oppe students will now be working with their art teachers – and using materials provided by master naturalists – to create art works that will be debuted before a large audience on January 29.

Following our success at Oppe, we'll be taking our show on the road in January, beginning with Morgan Elementary Magnet School of Science and Engineering. Ultimately, we'd like to display students' art works throughout Galveston County. If you can think of a suitable location, please contact Maureen Nolan-Wilde.

Heritage Book Study - Review of *A Texan Plan for the Texas Coast*

by Madeleine K. Barnes

It is both a pleasure and a challenge to review our current reading selection written by Jim Blackburn. Perhaps you had the opportunity to hear him talk at the February 2018 chapter meeting about the future of the Texas coast and the effects of Harvey as outlined in his latest book, *A Texan Plan for the Texas Coast.*



Jim Blackburn, an environmental lawyer, teaches environmental law and sustainable design at Rice University. He is co-director of the Severe Storm Prevention, Education and Evacuation from Disaster (SSPEED) Center at Rice and a faculty scholar at the Baker Institute. He also wrote *The Book of Texas Bays* (2004) and has many poems about different aspects of nature, some of which are included in his latest book.

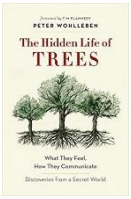
He has received numerous awards: Distinguished Alumni Laureate Award from Rice University in 2018, the Good Egg Award from the International Crane Foundation for litigation to protect the endangered whooping crane in 2015, the Barbara C. Jordan Community Advocate Award from Texas Southern University in 2007 and the Robert Eckhardt Lifetime Coastal Achievement Award from the General Land Office of the State of Texas in 1998, to name a few. He also founded the Bayou City Initiative, a Houston-based nonprofit focused on community recovery and long-term flood protection post Harvey and serves on the board of the Matagorda Bay Foundation and The Aransas Project, two organizations committed to protecting the Texas coast.

Changes in the overall weather pattern and temperatures have been substantiated and the sea level is rising. In Texas there is the joke, "just wait five minutes and the weather will change." It also has been said that we have "weird weather." Maybe that is a Texas description of what is happening that some label as climate change. Our impact upon resources, the more intense and destructive storms, and the risks to our coast require action to limit the impact to life, economy, and ecology. And yes, this does mean that actions have to be taken to address these issues – hence a plan for the coast.

In order to change our perspective, Blackburn believes that there must be an appreciation of what is at stake. He draws upon the idea that in the past we had the mindset of a small population with little impact upon limitless resources. However, our understanding has grown as the world fills up and finite resources are diminished.

The first part of the book identifies attributes of the coast - the ecology, resources, development, and the economy. Next Blackburn outlines the risks to the coast. This moves us toward developing steps to address the issues, which includes creating a market that would partner the energy and manufacturing industry with farmers and ranchers to mitigate flooding and creatively address ecological coastal damage and climate change issues.

I want to share a quote from Jim Blackburn that essentially sums up his mission for the book and I hope inspires you to read and share his tribute to the Texas coast. "By understanding and talking about money and economics as well as water, ecology, climate change, eco-play, and spirituality along with the future of the oil and gas business, carbon neutrality, and a circular economy, a path to a healthy Texas coast can be discerned as we head into the future."



On Feb. 4, we will meet to discuss pages 165-282 of *A Texan Plan for the Texas Coast*. Our next reading selection is *The Hidden Life of Trees* by Peter Wohlleben, pages 1-144 for discussion on March 4.

Heritage Book Study welcomes 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 whether you are TMN certified 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!

2019 book selections and meeting/discussion dates:

March 4 and April 1 - *The Hidden Life of Trees* by Peter Wohlleben

May 6 - *Texas Market Hunting: Stories of Waterfowl, Game Laws, and Outlaws* by R.K. Sawyer

June 10 and July 8 - *The Naturalist Theodore Roosevelt, A Lifetime of Exploration, and the Triumph of American Natural History* by Darrin Lunde

Aug. 5 and Sept. 9 - *Comache Marker Trees of Texas* by Steve Houser, Linda Pelon, and Jimmy W. Arterberry

Oct. 7 and Nov. 4 – *Half-Earth: Our Planet's Fight for Life* by Edward O. Wilson

Dec. 2 and Jan. 6 – *Water From Stone, The Story of Selah, Bamberger Ranch Preserve* by Jeffrey Greene and Margaret Bamberger

Let's talk about Raptors by Lynn Wright

If you are interested in seeing hawks, the Sylvan Beach Spring Hawk Watch is the volunteer opportunity for you.

This is the 24th year of the hawk watch at Sylvan Beach in La Porte. Dick Benoit began the hawk watch in 1996. Over the past 23 years, the average number of hawks counted over the course of the spring migration is over 18,000. That is a lot of raptors. Last year hawk watchers saw over 10,000 Mississippi Kites and a myriad of other raptors – Broad-winged Hawks, Swainson's Hawks, Swallow-tailed Kites, Bald Eagles, Cooper's Hawks, Osprey, Peregrine Falcons, Sharp-shinned Hawks, Turkey Vultures, Crested Caracaras, Northern Harriers, Red-tailed Hawks and Black Vultures.

Hawk Watch volunteers count one day a week from March through April usually from 9 or 10 am to 12 or 1 pm. We have 7 hawk watch teams, one for every day of the week.

If you are interested in joining a hawk watch team, email Lynn Wright at lynn-wright@comcast.net. You do not need any prior experience, just an interest in learning about hawks and a pair of binoculars.


Photo by Gene Fisseler

Hawk watch hours are the best volunteer hours EVER. Come to Sylvan Beach, sit next to the bay, drink coffee, and watch for raptors. It doesn't get any better than that. Check Activities page for training session information.

Big Picture: Space and Time by Diane Humes

And we thought it was a long way to Jupiter! Our solar system consists of the Sun, the inner rocky planets - Mercury, Venus, Earth, Mars - and the outer gas giants - Jupiter, Saturn, Uranus, Neptune. Thought to be the ninth planet since 1930, Pluto was kicked off the list in 2006 because it is just too different. It fit in better with the icy, ancient, mini-planets of the Kuiper Belt, thought to be relics of solar system formation.

The New Horizons spacecraft, NASA's fastest spacecraft yet, was launched from Cape Canaveral January 19, 2006 on a journey to Pluto and beyond. Equipped with 7 instruments - 4 spectrometers to measure the solar wind, ions, visible, infrared, and ultraviolet light; 1 radiometer; 1 dust counter; 1 telescopic camera - it arrived at Jupiter in February 2007, a journey slightly longer than a year.

After getting a gravity boost from Jupiter for its journey, New Horizons traveled 8 more years to reach Pluto in 2015. The spacecraft spent 6 months studying Pluto, making the closest approach on July 14, 2015, then headed out of the solar system to the Kuiper Belt. After another 3.5 years, on January 1, 2019 New Horizons reached 2014 MU69, a Kuiper Belt Object dubbed Ultima Thule, flawlessly performed a close flyby and sent back pictures of a reddish, snowman shape - the farthest object ever seen in our solar system!


Photo courtesy of NASA

This spacecraft has been flying for 13 years, traveling 4 billion miles, while receiving no maintenance and only remote communications from Earth, and may continue collecting data in the outer reaches of the solar system for years to come. Do we have enough congratulations to heap on the teams of scientists and engineers who have made this possible?

New Horizons sent back tantalizing close-ups of Pluto and its 5 moons. To learn the latest from Ultima Thule, plan to attend the Cosmic Explorations Series public lecture at the Lunar & Planetary Institute (LPI) on March 7, 2019. Dr. Carly Howett from the Southwest Research Institute will speak about the New Horizons mission. The

LPI is located at 3600 Bay Area Blvd; the lecture will begin at 7:30pm, followed by a reception.

So far, all the spacecraft and remote sensing data from planets, moons, and asteroids indicates a universe filled with water, which is assumed essential for life. Ultimately, we are searching for other life in the universe.

Humans are fascinated by life - what it is, how it formed, who we are. For instance, one man, Robert Marsham (1708-1797), was interested in the natural world from an early age in his home in Stratton Strawless, Norfolk County, in the east of England. He was a landowner and farmer on the manor owned by his family for 500 years. He noticed and recorded details of weather and temperature changes and their effects on his crops.

Marsham was a naturalist, now called the father of phenology - the study of periodic plant and animal life cycle events. Marsham formulated 27 signs of spring, such as first blooms of certain flower species, first sightings of specific butterflies or swallows, bud burst dates, and first song of a cuckoo heard, which he meticulously recorded beginning in 1736 and continued recording until his death. Such studies were popular in Marsham's day, as is journaling for master naturalists.

But, Marsham's family continued the practice for 5 generations - until 1958 - compiling the world's oldest and most complete set of such measurements. Neither he nor his family could have imagined how important their records could be for today's climate change studies.

Robert Marsham planned and also planted for the future - perhaps 2 million trees during his lifetime. His other legacy is the Great Cedar, planted in 1747, remaining and towering over all other trees in Stratton Strawless.


Photo courtesy of Wikipedia Commons

One hundred years before Marsham's birth, Galileo built his first telescope and began studying the solar system, discovering the moons of Jupiter, and realizing that the Earth was not, in fact, the center of the universe. In the short 400 years since, humans have been set on the quest for life and meaning in the universe. We have traveled four billion miles from Earth, and keep on going. What a journey through space and time!

2019 Board of Directors

2019 Board of Directors	
Elected	
President	George Kyame
Vice President	Cindy Liening
Treasurer	Lynn Wright
Secretary	Susette Mahaffey

Appointed	
Service Director	Jo Monday
Training Director	Ellen Gerloff
Membership Director	Patty Trimingham
New Class Director	Janet Mason
Training Class Rep.	Robin Kendrick-Yates
Training Class Rep.	Mike Petitt
Sponsor	Julie Massey

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


Photo by Lynn Wright

Guppies from Julie

What a Party!

I hope you had the pleasure of joining us for the 2018 End of Year Celebration at Walter Hall Park in League City last December. What a night!

The 2018 class put on a great show. Beautiful gyotaku (fish print) decorations were illuminated by hand painted bottles and vases. In addition, all members of the 2018 class certified in 2018, the same year as their training class. Whoop! What a team!

The *Treasures of the Bay Award* winners were recognized and we celebrated Jim Duron's leadership as Membership Chair. Congratulations to all of you for a terrific 2018!

Matagorda Bay Oyster Reef Restoration

On a beautiful December morning, several members of our chapter traveled to Palacios to help install a new oyster reef in Matagorda Bay. Volunteer placed several hundred bags of oyster shell in three locations to create the reef. The reef is located off the Palacios Coastal Education Pavilion and will be used in future education programs.

This project was in cooperation with Texas Sea Grant, Texas A&M AgriLife Extension Service, the Gulf of Mexico Alliance and the Matagorda Bay Foundation.

2018 GBAC Master Naturalist Scholarship Awarded!

Sally Shroyer, 2018 Master Naturalist, was awarded the 2018 GBAC Scholarship! Sally is an honor's student at Stephen F. Austin University. She is studying forestry.

Photo by Joanna Mendoza

Sally wrote in her scholarship application that one of her favorite volunteer experiences was working alongside Texas Parks & Wildlife Department at the Baytown Nurture Nature Festival. At the festival, Sally decided to challenge herself by working with kids at the "Coastal Explorations" table. Sally shared shells, skulls, fossils and more with the kids. Sally wrote, "It was beyond rewarding to teach kids about the items on display, not just to see the smiles on their faces, but in that moment I became my childhood hero. I was the Naturalist giving a lecture that would inspire future generations to get outside and cherish the ecosystems around them. As the kids left the booth (many dragged away by their parents), I could hear them asking "when can we go to the beach?"

Sally's road to the Texas Master Naturalist program was not easy. She was persistent in her goal to join our chapter and become a Texas Master Naturalist.

Congratulations Sally! We are so glad you are a Texas Master Naturalist inspiring future generations.

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

Diane Humes, Managing Editor

Madeleine K. Barnes	Lana Berkowitz
Verva Densmore	Carolyn Miles
Chuck Snyder	Jennifer Trandell

The Midden Deadline

for the next issue

February 23

If you have Advanced Training or Volunteer Opportunities, please submit information to Cindy Liening, calieni272@msn.com.

February and March Activities

ADVANCED TRAINING OPPORTUNITIES

Chapter Meeting – February 7
Snakes of Southeast Texas
Presenter – Greg Hall
6:15 Social, 7:00 Meeting, 7:30 Speaker
Extension Office*; 1 AT hour

Diurnal Raptors, Galveston Area – Monday, February 25
1 – 4pm; 3 hours AT
Location: Extension Office*
Presenters – Lynn & John Wright
Register with Emmeline Dodd txdodd@aol.com

Monarch Butterflies – Friday, March 1
9:30am – noon; 2.5 hours AT; limit 35 attendees
Location: Extension Office*
Presenters – Chris Anastas & Candice Annen
Register with Emmeline Dodd txdodd@aol.com

Ecology Still Matters – Part 3 – Saturday, March 30
9:30 – noon; 2.5 hours AT
Location: Extension Office*
Presenters – Dr. Cindy Howard
Register with Emmeline Dodd txdodd@aol.com

Ongoing
Galveston Island State Park
10am at the Welcome Center
Every Saturday- Beach Explorations
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: Elsie Smith (409) 392-7003
See Pg. 7 for meeting dates and books.

STEWARDSHIP OPPORTUNITIES

Ongoing Activities:
Mondays – Galveston Island State Park, Contact: Chatt Smith chattsmith@gmail.com

Tuesdays –
- Sheldon Lake State Park, Contact: Tom Solomon crandtr@sbcglobal.net
- Texas City Prairie Preserve, Contact: Jim Duron wishkad@yahoo.com
- Environmental Institute of Houston at UHCL, Contact: Wendy Reistle reistle@uhcl.edu

Wednesdays – Wetland Restoration Team, Contact: Marissa Llosa mllosa@tamu.edu

Thursdays –
- Stormwater Wetland Team, every Thursday, 9am - noon. Contact: Mary Carol Edwards mary.edwards@agnet.tamu.edu
- San Jacinto State Park, Contact: Jim Duron wishkad@yahoo.com

Fridays – Prairie Friday, ABNC, 8:30 – 11:30am, Contact: Chatt Smith chattsmith@gmail.com

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 - Lots of work to do and we can use your help developing a speakers bureau; responding to requests for exhibit booths, fieldtrip guides and presenters, planning Camp Wild and 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, check calendar

Committee Meetings
Advanced Training – Third Monday, 10-noon
Education/Outreach – Third Tuesday, 1-3pm
Stewardship – Meets quarterly
Communication – Meets quarterly, check calendar
Midden Team – Monday February 25, 9-noon

TEXAS A&M AGRILIFE EXTENSION

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