

The Midden

Winter Grasses at ABNC

Galveston Bay Area Chapter - Texas Master Naturalists

December 2016

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Next Chapter Meeting

Dec. 1st

Annual Awards
Celebration
and
Officer Election

6:30 p.m.

At Carbide Park
Community Center

President's Corner by Maureen Nolan-Wilde, President 2016

This month marks the end of my three-year roller coaster ride as Chapter president. It has been fun, educational and, at times, frustrating - but so rewarding. We started a photo scrapbook of our history, entered into the social media world and welcomed back our alumni. Our group continued its work in the prairies, while others used kayaks and boats to clean up shorelines and monitor shorebirds. Our education outreach efforts reached children of all ages, while our annual photo contests have showcased the talents of our members. We transitioned to VMS, helping Jim become a video star. We adopted a road, worked with sea turtles, and so much more. Through Chapter dues and donations, we continued to give scholarships to our youth who will one day be the stewards of the community we so love. It has been a great three years and it was made possible by incredible board members, Julie and you.

In October, our chapter took the Best in the State 2016 Texas MN Project award for our work combatting plastic pollution. Our project story board showcased what we are doing: clean-ups on roads, beaches/shorelines, and colonial water bird islands; education at schools and parks; and the use of social media. The project also included Stennie Meadours' and Sandy Parker's efforts with the Plastic Pollution Partnership (P3) and John Wright's work with monofilament recycling bins. When we presented this to the judges and people who dropped by, they could not get over the work we have done and continue to do on behalf of our beloved Galveston county.

Thank you for giving me the amazing opportunity to serve as your president.

I hope to see you soon in the prairie, on the beaches or on the water. Be safe!



Photo by Chuck Snyder

Prairie Ponderings: Fall is Glorious on the Prairie by Diane Humes

Fall is a glorious time to be out on the prairie; hopefully, the sun is shining brilliantly, warming up the day from a crisp, cool morning, with a sky so blue your eyes almost hurt, but you cannot stop looking. The climax prairie grasses are in their prime - blooming, setting seed, and turning that particular russet brown denoting the presence of Little Bluestem and Big Bluestem. Notice the shades of colors in the grasses along the highway; you will easily distinguish, even at 75 mph, the difference between the pale straw color of KR bluestem planted by TxDOT and the robust brown of original prairie.

Prairie grasses are perennials with very deep roots; they have withstood drought, fire, snow, and storm for 10,000 years. The Big Five Climax grasses are: Big Bluestem (*Andropogon gerardi*), Little Bluestem (*Schyzachrium scoparium*), Yellow Indian grass (*Sorghastrum nutans*), Eastern Gamagrass (*Tripsacum dactyloides*), and Switchgrass (*Panicum virgatum*); a diverse prairie has several hundred species of grasses and forms, but these are dominant in a prairie landscape.

Grasses, as a group, evolved recently, in plant years, and are designed for wind pollination - hence the copious amounts of seasonal grass pollen. Many grasses, including the climax species, have a slightly different metabolic pathway - C4, instead of C3 - from other species. Because the C4 metabolism enables plants to metabolize efficiently at higher temperatures, greater light levels, and lower levels of water and CO₂, these plants have the advantage in high, dry, hot habitats with frequent wildfires which reduce shading by woody species. C4 grasses are the "warm season" grasses and may, therefore, be unable to compete with "cool season" grasses in a shady habitat created by absence of fire.

Warm season grasses do their best growing later in the season, after soils and rains have warmed up from the winter. Not all grasses are C4 plants; as it happens, very many weedy species, such as Vasey grass (*Panicum urvillei*), are "cool season" plants, operating on the C3 pathway. Vasey grass starts its metabolism early in the spring and takes advantage of bare patches of soil to germinate new plants before the air is barely warm. It gets a head start, and, in the absence of a fire regime, may win the "turf war" with the climax species that cannot metabolize as well in a shady habitat.



Photo by Chuck Snyder

Prairie enthusiasts are many, however, and all have been very busy caring for thousands of prairie plants and helping them to get planted on our local prairies. Dedicated and determined volunteers at Armand Bayou Nature Center successfully planted prairie grasses and forbs at the 10th Annual Prairie Pandemonium; in the weeks leading up to such pandemonium, students helped with the heavy lifting and planting - total plants installed for the season - 3,000+. Diverse prairies are under construction at San Jacinto State Park, Texas City Prairie Preserve, Galveston Island State Park, and Sheldon Lake State Park, which holds its own annual Plantathon. We also look forward to the annual winter burn season at ABNC; burn training is required and held on the first Saturday of December. To sign up, contact Mark Kramer, mark@abnc.org.

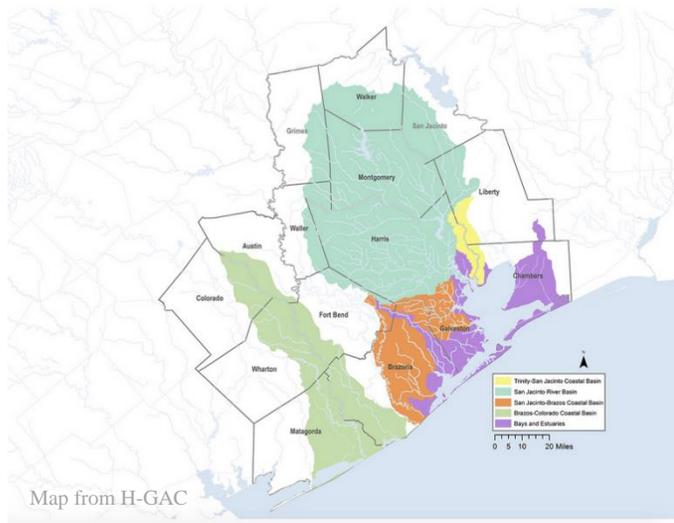
The glorious fall prairie season culminates in the Martyn Farm Harvest Festival at Armand Bayou Nature Center - a celebration of the early days of Galveston Bay, when the land was first cleared and the prairies were great places to set up a farm or a herd of cattle. Today we are more likely to see houses, schools, and shopping malls less than one percent remaining prairie. (Humans have pretty well taken over most of North America; the phrase "less than one percent remaining" has been used for fish, birds, as well as prairie habitat.) Please enjoy the prairies that remain to us!

Wetland Wanderings: How's the Water 2016? by Diane Humes

The Clean Rivers Program (CRP) of the Houston-Galveston Area Council (H-GAC) oversees most of the watersheds in its 15 county region and administers the Texas Stream Team, whose volunteer monitors collect

valuable water quality data from 123 sites in 33 watersheds. The Galveston Bay Foundation, working with H-GAC and CRP, has its own project, collecting data specific to Galveston Bay; volunteers, mostly from our

chapter, currently sample from 44 sites around Galveston Bay.



H-GAC has no legal authority, but has compiled all available water quality data collected by eight partner agencies, from 450 monitoring sites; data is all publicly available, either at h-gac.com or <http://www.galvbay.org/>. Clean Rivers Program partners meet quarterly to share information, and discuss monitoring challenges and sampling protocols. One group is the BIG - Bacterial Implementation Group - that recently met to finalize its Basin Summary Report; see: bsr2016.com.

The biggest challenge facing the Houston-Galveston area streams is bacteria in the water. Eighty percent of stream miles are considered "impaired", that is, unsafe for swimming and contact recreation, due to higher than acceptable levels of *E. coli* or *Enterococcus*. These bacteria are indicators of fecal contamination; they are easy to test for. *E. coli* is a freshwater indicator species, whereas *Enterococcus* is used in saline waters. Soap being a blessing of civilization, please wash your hands after sampling our water!

The good news: although bacteria is the most widespread and pervasive pollutant in our waters, more streams are getting better than getting worse. Also, dissolved oxygen (DO) concentrations in our streams are improving more often than worsening. Unfortunately, dissolved nutrient levels are increasing; PCB and dioxin levels remain constant.

How do you reduce the bacterial load in our streams, especially as the human population continues to grow? In White Oak Bayou bacterial concentrations have been

reduced 75% since 2007 by fixing sewer system leaks and overflows and illegal sewer connections. Sewer and stormwater infrastructure is old and will require constant maintenance and replacement; water authorities and cities need to keep up with these issues.

The most important thing individuals can do is to learn about these issues. At home, the best action is to properly dispose of fats, oils, and grease. I was shocked to learn that many people dump grease down the sink, figuring that the disposal will take care of that problem. Not so - it merely pushes it down the drain, out of the house (you hope!), down the street; eventually it plugs the pipe, to everyone's detriment. Instead, put it in a container and throw it out with the trash! Likewise, "flushable" wipes, which do not degrade like TP, can cause epic problems with your septic system or at the wastewater treatment plant; place them in the trash, if you must use them.



In a land use study from 2013, H-GAC found that streams with more wetlands or forest tended to have lower nutrient concentrations. The Wetland Restoration Team, our intrepid group currently working at Sheldon Lake State Park restoring wetlands with Marissa Sipocz, conducted the first experiment in Houston demonstrating reduction in bacterial levels in stormwater following passage through a constructed wetland along Brays Bayou. Harris County Flood Control District now includes water quality features, such as wetlands, in stormwater detention basins along Houston bayous.

As a volunteer, it is extremely gratifying to be involved in learning about such important details of our environment and having a part in, hopefully, making it better. Consider volunteering at Trash Bash, clean a beach, plant a wetland, monitor your water body - find out "how's the water".

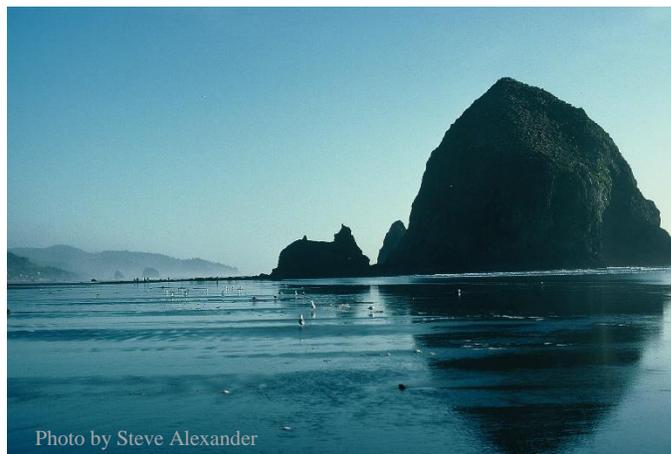
Beach Patrol: Find Your Own Winter Beach by Steve Alexander

It's now the time of year when tourists head north, surrendering local beaches to chilly air and cold water. Without their drapery of people, wintertime beaches offer a unique kind of enjoyment- a walk in uninterrupted thought along long stretches of beach, beachcombing where you are the only one around seeking treasures cast ashore by waves.

Beachcombing in winter? Why not try it. Go on a beautiful winter day with mild temperatures, blue skies, calm winds, and low water. Head to one of the east end or west end beaches on Galveston Island, some of the best and most deserted.

For the more rugged beachcomber, why not try a blustery winter day, one with numbing cold, gusty north winds and swirling black and gray-stained clouds. Few people, if any, venture out on such days, so absolute solitude is almost guaranteed.

Since winter seas are known for belching up their treasures onto the shore, this may be the best time of year for beachcombing. At this time of year, shells, sea beans, driftwood, sea glass and the rare message-in-a-bottle often form a line of riches along the shore.



But don't restrict yourself to local beaches. There are beautiful beaches to visit on South Padre Island, along the Pacific coastlines of California and Oregon, along the Atlantic coastline of Florida, and along beaches fronting the Outer Banks of North Carolina.

If you haven't experienced a winter beach, head out there soon. Because when the weather warms, the flocks of people will return.

Advanced Training Talk and Tour at Texas City Prairie Preserve by Chuck Snyder

On the morning of October 20th, a group of chapter members convened at Texas City Prairie Preserve to learn about and observe the prairie restoration work being conducted there. The weather looked ominous, with a cold front to the north pushing against heavy moisture trying to move in from the Gulf; the resultant standoff gave us comfortable temperatures with neither hot sun nor rain.



First, we heard from TCPP Director Aaron Tjelmeland and Field Supervisor Tim O'Connell, who reviewed the history of the preserve and plans for the future. Strong emphasis was given to the prairie restoration efforts that involve several hundred acres and a variety of macro and micro techniques.

Second, Tim and Jim Duron led a tour of the support facilities. Tim displayed and explained the several new pieces of equipment being used for planting prairie grasses and mitigating invasive and/or undesirable species. Jim highlighted the potting area, which is used to cultivate individual plants for planting in smaller areas; he also noted that this is an area where chapter members of all physical abilities can participate and receive volunteer hours.

Third, Aaron and Tim provided a "bucket ride" tour of the facility, emphasizing the areas that are being restored to include the most desirable native prairie species. Birders in the group were treated to a variety of flyovers, although the presence of a Peregrine Falcon likely caused many of the birds to hunker down.

Fall Hawk Watch at SLSP by Diane Humes

Sheldon Lake State Park, in addition to having acres of wetlands and prairies to restore, fishing ponds and a lake, outdoor classrooms, and exceptional wildlife, considering its proximity to downtown Houston, has an 82-foot tower - the John Jacob Observation Tower - with superb views of the surrounding countryside. Near IAH, from the top of the tower, you may easily observe the comings and goings of flocks of airplanes from the airport and observe all manner of bird life.



Photo by Diane Humes

This year, for the first time, under the direction of rangers Cullen Ondracek and Hannah Buschert, several teams of volunteers formed to observe fall migrating raptors passing by the tower on their journey south. Our chapter's team - Ron Morehead, Sandy Parker, Diane Humes - came out weekly; our day was Tuesday, during September and October.

As we know from the Spring Hawk Watch in LaPorte, raptors do not like to fly over bodies of water and will fly around Galveston Bay rather than cross over. When winds are from the north and west, birds are funneled toward the Bay and counting as they pass over can be quite exciting.

Sheldon Lake SP is situated inland and has nothing obvious to funnel migrants toward it, but the birds have to fly somewhere, so we came out to look, from a spectacular vantage point. Some days we had visitors; we were fortunate one time to be able to show an impressive flock of Wood storks to a family of visitors!

Migrants were counted, although not in spectacular numbers - 1,056 Broad-winged hawks, 445 Black vultures, 182 Turkey vultures, as well as Bald eagles, Crested caracaras, Sharp-shinned hawks, Red-tailed hawks, and Red shouldered hawks, flying past the tower in our short season. We got spectacular looks at woodland, marsh, prairie, and lake birds from the tower with our spotting scope; bring yours if you come, or borrow one from the park rangers. The data collected during this pleasant experiment is recorded with Hawk Watch International; perhaps we can try it this spring and see what flies by!

Heritage Book Study – Review of A Journey Through Texas by Madeleine K. Barnes

Have you ever wondered what it would have been like to take a journey through Texas back in 1854? What were the people like then, how did they view their life and what did it take to travel during those days? These detailed experiences and the record of the language as spoken by the people are captured in *A Journey Through Texas* by Frederick Law Olmsted. While you may recognize Olmsted as America's foremost landscape architect, this journey was before he began that career and achieved recognition. He was the son of a Hartford, Connecticut dry goods merchant who studied to become a surveyor, was a clerk at an importing house in New York, an apprentice seaman on a merchant ship bound for China and a "scientific" farmer

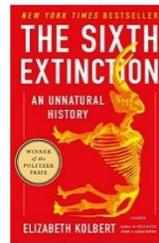


who failed to succeed with his own farm after five years. In addition, he had published a book about his travels in England and was an editor/publisher of a literary magazine. Olmsted's assignment for this journey was to write articles that would appear in the New York Times newspaper.

The twelve month trip begins in the North and Frederick Olmsted is accompanied by his brother who was a medical doctor. The two brothers zig zag down to the South using the means available, coach, river boat, and horse and mule. They circled around through the rich bottomlands near Houston/Galveston and down to South Texas before venturing into Mexico. Olmsted describes the multiethnic peoples that they encounter in the vernacular of the time. This book is considered by many

historians to be one of the best descriptions of Texas just before the Civil War. Acting as a newspaper correspondent, Olmsted interviewed planters, scouts, farmers, innkeepers, bartenders, housewives, drovers, Indians, priests, runaway slaves, and emigrants who had all traveled to Texas for a new beginning. Olmsted wrote his observations of the vast country traveling along the Old San Antonio Road through the Piney Woods and continuing through the dry prairie further west. Olmsted included statistical records such as the 1850 census, voters, crop production figures and sales records, and news and local advertisements from newspapers. His writing addresses the perils of travel and impacts of disease in the gulf area, the bland and sameness of the diet, the changing weather, and the impact of slavery. This book gives the reader an interesting and different

historical perspective about our state. It is somewhat long in detail at times, but well worth the reading time.



Our current reading selection for December 5th is the first half, pages 1-134, of *The Sixth Extinction* by Elizabeth Kolbert. Due to the January 1st holiday during the first week of the month in January, we will meet on the following Monday January 9th to discuss the second half of this selection, pages 135-269. We welcome your participation each

month for two hours on the first Monday of the month starting at 10:00a.m. at the Agrilife Extension office. We look forward to seeing you and let us know if you have read any good naturalist books lately! Happy trails!

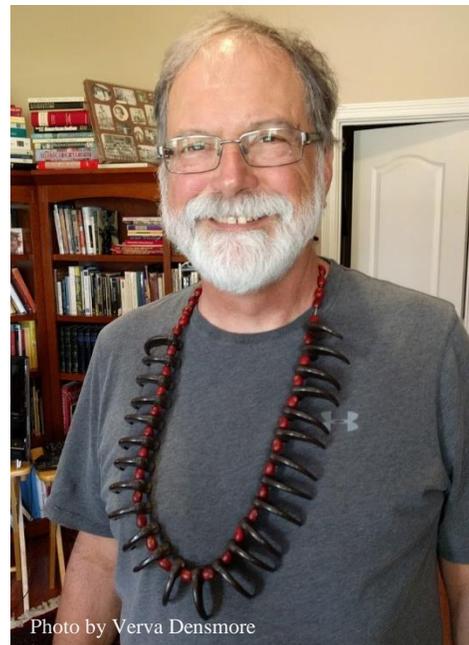
Mescal Beans: Was there a Red Bean Cult? by Mike Wehrman

In the summer of 1976, as a member of the Texas Archaeological Society, I was invited to participate in an archaeological survey of a section of the planned Interstate Highway 10. It was our job to survey Musk Hog Valley near the geographical intersection of the Trans-Pecos region and the Edwards Plateau near Iraan. Those hot, summer days had a lot of "firsts" for me. Giving me my first tepee experience, Dr. Jack Hughes of West Texas State University invited me to share his tepee during the survey. I loved listening to him talk about its fantastic design and how perfect it was for the Southern Plains Indians. Another "first" was seeing the mountain laurel tree while walking the valley looking for archaeological remains. This tree produces mescal beans - some of the most beautiful bright, red, beans that I had ever seen. Some mountain laurel trees produce yellow mescal beans, but I never saw them.

Whether they're called mescal beans, mescal, fritollitos, or coloras, they are all the same red bean, *Sophora secundiflora*. The beans are encased in a light brown hard woody pod. Their contents are very poisonous and have chemicals that not only cause hallucinations and other very unpleasant side effects, but also have deadly chemicals that arrest the respiratory system and can cause death. Not to be confused with the mescal plant from which tequila is derived, the mescal bean itself has a very hard shell; it is doubtful that deer and other animals that eat them are affected, since the beans are almost always found whole in their scat.

Yet, since at least the Archaic era about 6500 years ago, indigenous peoples apparently used them for decoration as well as for their hallucinogenic properties. When I learned that the Material Culture of the Plains, Prairies, and Plateaus Conference this summer in Canyon, Texas

included a lecture on mescal beans, I knew I had to attend.



Volney Jones, ethnobotanist, (University of Michigan) and ethnologist James H. Howard (Oklahoma State University) began the study of the mescal bean and its role in the cultures of the indigenous peoples of North America, investigating the possibility of a "Red Bean Cult." Unfortunately, both men died before finishing their investigation. However, Howard gave his research to Jim Ross, who continued the study. Mr. Ross gladly shared his knowledge with the conference attendees in Canyon.

Ross said that Howard's research found that Apaches chewed the bean's meat and got "light headed."

Comanches used the bean during the Deer Dance - they would pretend to swallow the bean and then pull it from their chest. The Omaha were known to feed the bean to sick horses. The Pawnee and Wichita were also known to use the beans ritually.



Photo from www.herbalfire.com

Ross's lecture focused on the archaeology of the rock shelters of Val Verde County along the Pecos River. Rock shelters are natural overhangs or shallow caves that form on cliff faces and steep rocky exposures. They are carved out by wind and water erosion. As early as 13,000 years ago, these lower Pecos River rock shelters were inhabited. Protected from the elements, the inhabitants' trash accrued enough to raise the shelter floors as much as 30 feet - an archaeological treasure trove of human activities over the millennia.

Ross seemed certain that mescal beans were used as hallucinogenic as well as decorative items in Pecos rock

shelters. Mescal beans - whole beans and crushed shells - are often found in many shelters and have been radiocarbon dated to around 6500 years ago. Not only were mescal beans found scattered in shelters, they were also found on clothing as an embellishment in the rock shelters. At Murrah Cave, a loincloth was discovered with mescal beans decoratively sewn onto buckskin with sinew. In a spectacular find, archaeologists at Horseshoe Ranch Cave unearthed a carefully buried buckskin bag, possibly a hunter and/or healer bag, that contained mescal beans, Mexican buckeye seeds, flint knapping tools, rabbit mandibles, fiber, sinew, buckskin pieces, and red ochre.

Ross emphasized that Jones' and Howard's research did not indicate a "Red Bean Cult." The hallucinogenic effects of mescal beans were peripheral, not central, to the purpose of the rituals. There is not enough archaeological evidence in rock shelters to indicate a cult surrounding the mescal bean. However, the role of mescal beans as hallucinogen probably meant the rock shelter inhabitants ascribed spiritual power to the beans.

It is with decoration, however, that the mescal bean continued to thrive in cultures. Even mountain men traded for the bean to embellish their grizzly claw necklaces. Today, the Southern Plains Indians still use the mescal bean to enhance their decorative clothing.

Archaeological evidence in Texas provides us with tantalizing clues and insight about the lives of those early inhabitants of our state and has much to teach us. It is with great pride that Verva Densmore and I represented our Galveston Bay Area Chapter of the Texas Master Naturalists at this conference. More articles about our experience will be forthcoming.

Thanks, Steve! by Diane Humes

Steve Alexander, Communications Team Chair since 2007, has decided to retire from this post and writing "Beach Patrol", presumably to devote more time to walking on the beaches of the world. Steve has led *The Midden* and its team with a steady hand and clear head for nine-plus years, publishing 55 issues of our award-winning journal (all archived on website and in the library). He approached all editorial decisions with good humor and calm, thoughtful demeanor, coming up with workable and grammatical solutions to all problems.

The Communications Team (Diane Humes, Carolyn Miles, Chuck Snyder, and Madeleine Barnes) wishes to extend a special thank you to Steve for his nine years of excellent work as Communication Team Chair. We will miss his steady hand at the helm, but did hear him say



Photo by Chuck Snyder

that he "might be sending in articles from time to time." After all, being able to spend more time on the beach will probably inspire him!

EDITOR'S NOTE:

The first edition of *The Midden* came out in February 2001, with the formation of our chapter. Unfortunately, it fell into the doldrums for a time, but was rescued by Steve Alexander, Carolyn Miles, and Nathan Veatch, joined by Diane Humes, for the December 2007 issue to become the award-winning journal that we all enjoy. Nathan relinquished his editorial post to Diane in August

2013, and the Communications Team soldiered on with the addition of Chuck Snyder and Madeleine Barnes.

Operating systems, color schemes, and formats, and computers have come and gone, but the mission remains one of informing and educating our chapter members and the community. The new year may bring changes to *The Midden*; happily we can report that Verva Densmore and Lana Berkowitz have joined the Team. Should you have a similar passion for this mission, please consider joining us. As we say farewell to Steve, we look forward to the future with a new Communications Team roster!

Texas Master Naturalists Convene for 17th Annual Meeting by Chuck Snyder

My, how we grow! During the weekend of October 21-23, nearly 500 Master Naturalists from more than 40 chapters statewide participated in a lively annual meeting. The setting was the La Torretta Conference Center at the southern end of Lake Conroe, and the weather was picture perfect. Nineteen members of our chapter participated: food, fun and fellowship abounded.

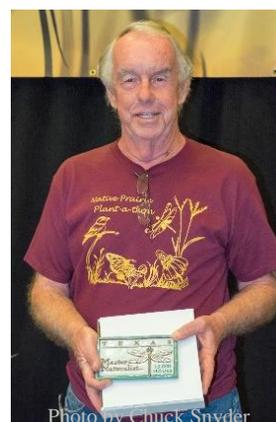
Numerous short courses and field trips were available to the members. Presenters included Master Naturalists - including our own Kari Howard and Stennie Meadours. In addition, several panel discussions provided opportunities to share information with other chapters on a variety of common subjects.

Once again, our members were recognized for outstanding service to our partners and communities:

In the Art category, Julie Massey and Suzanne Becker were awarded second place for their Octopus print.



In the photo contest, Debbie Repasz was awarded first place in the Wildlife category for her compelling photo of a young bobcat. This was Debbie's second straight year of winning the top award in wildlife photography. Chuck Snyder took home a second-place ribbon in the Master Naturalists at Work and Play category (photo on page 1).



Tom Solomon was honored for reaching the 15,000-hour volunteer service milestone, a new award that the TXMN organization instituted just in time for this meeting. Two other chapter members - Dick Benoit and Jim Duron - will also be recipients of this award. Our chapter campaigned actively to have this service level recognized, and we were thrilled to have Tom recognized for his amazing work.



Marie Asscherick recently joined the elite group of 10,000-hour volunteer service recipients and was honored at the meeting. Our other chapter members who have achieved this level are Dick Benoit, Tom Solomon, Jim Duron, and Diane Humes.

Chris Anastas, Sandy Parker, Martha Richeson, and Nancy Saint were recognized for achieving the 500-hour level of volunteer service, and Tim Long reached the 250-hour mark.

Last but not least, we were proud to receive the Exemplary Project Award - First Place for our chapter's efforts to mitigate the impacts of plastic pollution on our shorelines and in our waterways. Stennie Meadours is our project leader; the formal presentation and display were prepared by a team that included Stennie, Suzanne Becker, Sara Snell, Sandy Parker, Maureen Nolan-

Wilde, Julie Massey, Helen Mueller, and Chuck Snyder. The award included a grant of \$750 to our chapter.



In October 2017, the meeting will be held in Corpus Christi, a great location for showing off the natural wonders of coastal Texas. Hope to see many of you there!

"I cannot endure to waste anything as precious as autumn sunshine by staying in the house. So I spend almost all my daylight hours in the open air." Nathaniel Hawthorne

Final Farewell to Beth Cooper by Maureen Nolan-Wilde

In October 2016, Beth Cooper lost her battle with cancer. A member of our 2015 training class, she truly was a force of nature. In this brief time, she volunteered for over 20 different opportunities, amassing over 1,000 volunteer hours. Currently serving as our chapter board secretary, Beth served as a class representative, monitored sea turtles, and volunteered at the wildlife center. She served on the education outreach committee and recently worked with Chris Anastas to update our chapter brochure.

This last year, Beth volunteered to lead Camp Wild with her best friend and chapter member, Chris Anastas. Her determination and spirit helped make this a memorable year of adventure and discovery for the children and volunteers of 2016.

Our chapter honored Beth at a flag raising ceremony at Galveston Island State Park in late October. She is gone but will not be forgotten.



Emmeline Dodd Recognized by Armand Bayou Nature Center by Chuck Snyder

From our partner Armand Bayou Nature Center:

“Emmeline Dodd is recognized with the 2016 Armand Yramategui Conservation Award for her tireless dedication to nature as a naturalist, environmentalist, educator, advocate and leader. Nominated by the Galveston Bay Chapter of Texas Master Naturalists, Emmeline Dodd exemplifies a model conservationist as a Certified Texas Master Naturalist and an exceptional environmental educator. Emmeline’s passion to reconnect people with nature exemplifies the mission of the Armand Bayou Nature Center and the vision of Armand Yramategui.”

“Emmeline shares her knowledge of local natural resources and skills as an effective educator to teach Master Naturalists, teachers and children across the state about the uniqueness of our natural resources. She has educated hundreds of students through the Master Naturalist Program. Emmeline inspires others and cultivates a spirit of conservation. Her conservation accomplishments are evidence that one person can make a real difference in preserving nature for future generations.”



Emmeline received her award at a luncheon in her honor on October 27th attended by many of her chapter friends.

Thank you, Emmeline, for everything you do for our chapter, our partners, and the communities we serve!!

Congratulations to Jim Duron by Diane Humes

Please offer your congratulations to Jim Duron; he has just surpassed the 15,000- hour mark for volunteer service!

A member of our chapter since 2008, Jim is the numbers guy who keeps track of all our hours; he gently reminds us to submit our data, and knows when we have earned an award. How much time does it take to do this - a lot!!

Jim also counts and organizes the plants and leads the work at ABNC, TCPP, JSC, and San Jacinto SP prairies. Not unlike three-dog nights (it takes three dogs to keep you warm), Jim regularly puts in three-shirt days on the prairie i.e. he works long hours in the hot sun and doesn't stop.

No need to wonder that he has earned the 15,000-hour milestone award. Congratulations, Jim!



Happy 2017!

From the Communications Team

Guppies from Julie

Join us on Saturday, February 4, 2017, at Texas A&M Galveston for Dolphin Challenge!

“What year was the Marine Mammal Protection Act enacted?”

“What is the approximate age of the oldest oceanic crust?”

“How many gallons of water can an oyster filter in one day?”

Can you hear the clock ticking as you try to answer these questions? Let's put a buzzer in your hand and face you off with a team of enthusiastic, determined high school students! Whew! The pressure is on!

Welcome to the fast paced, fun, exciting world of National Ocean Sciences Bowl! National Ocean Sciences Bowl (NOSB) is a nationally recognized and highly acclaimed high school academic competition that provides a forum for students to test their knowledge of the marine sciences including biology, chemistry, geography, physics, geology, social sciences and technology. Texas Sea Grant sponsors the National Ocean Science Bowl competitions in Texas.

The NOSB is celebrating its 20th anniversary in 2017 and since its inception, the competition has grown to include 25 regional competition locations with 300 schools and over 2,000 students participating annually. The NOSB mission is to enrich science teaching and learning across the United States through a high-profile national competition that increases high school students' knowledge of the oceans and enhances public understanding and stewardship of the oceans.

We need you to make these competitions a success! Training will be provided!

Volunteers make NOSB ROCK! Volunteers serve as competition officials such as rules judge, moderator, scorekeeper, time keeper and runner as well as hosts. Training will be conducted in early 2017!

Plan to join us to watch some of the brightest students in the state test their knowledge of the ocean sciences!

If you have any questions, please drop me a line at jmassey@ag.tamu.edu or give me a call at 281-309-5063. More information will be provided in the near future!

The Midden

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

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@agnet.tamu.edu.

Midden Editorial Team

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Madeleine K. Barnes	Proofreading Editor
Verva Densmore	Copy Editor

The Midden Deadline for the next issue

Jan 3rd

If you have Advanced Training or Volunteer Opportunities, please submit information to Cindy Howard, howardc@uhcl.edu



Sea Grant
50 YEARS

Founded October 15, 1966

Join the celebration!

<http://seagrants.noaa.gov/50thAnniversary.aspx>

December and January Activities

ADVANCED TRAINING OPPORTUNITIES

Chapter Meeting - December 1st

Year-end Celebration

6:30 Dinner, Social Time, Elections, Awards, Fun
Carbide Park Community Center; No AT this meeting.

Whooping Cranes - Jan. 21st

1-4pm; 3 hours AT

Location: Extension Office

Presenters - Ray Kirkwood and Elizabeth Smith

Register with Emmeline Dodd txdodd@aol.com

Ongoing

Galveston Island State Park

10 am 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. AgriLife Extension Office

10am-Noon; 2 hours AT

Contact: Elsie Smith (409) 392-7003

See Pg. 5 for meeting dates and books.

STEWARDSHIP OPPORTUNITIES

Ongoing Activities:

Mondays - Galveston Island State Park, Contact: Chatt Smith chattsmith@gmail.com

Tuesdays -

- Sheldon Lakes State Park, Contact: Tom Solomon crandr@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 Sipocz m-sipocz@tamu.edu

Thursdays -

- Stormwater Wetland Team, every Thursday, 9 - 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 - First Tuesday, 2-4p.m.

Committee Meetings

Communication - Jan. 3rd, 1-4p.m.

Advanced Training - Third Monday, 10a.m.-Noon

Education/Outreach - Third Tuesday,
10 to 11:30a.m.



TEXAS A&M
AGRI LIFE
EXTENSION

Educational programs of the Texas A&M AgriLife Extension Service are open to all people without regard to race, color, sex, religion, national origin, age, disability, genetic information, or veteran status. The Texas A&M University System, U.S. Department of Agriculture, and the County Commissioners Court of Texas cooperating.