

# The Midden

Photo by Diane Humes

Galveston Bay Area Chapter - Texas Master Naturalists

December 2014

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## Next Chapter Meeting

December 4<sup>th</sup>

6:30pm

Annual Awards  
Celebration  
and  
Officer Election

**At Carbide Park**

## President's Corner by Maureen Nolan-Wilde, President 2014

What an incredible year 2014 has been! Our chapter now has over 200 members and our volunteer hours are on course to surpass our banner year of 2013. At the TXMN State Conference, *The Midden*, our Scenic Photography, and the Junior Naturalist project were each recognized as best in the state by our peers. Our work in the prairies, wetlands, beach, bay and classrooms continues to grow and surpass our accomplishments of the past.

During 2014, we grew our image database and launched an updated website. Our 2014 training class is out in the community and making an impact. Over the past year, we have had many members reaching volunteer hour milestones and in October, we celebrated with Sara Snell as she reached 5,000 hours of service. Sara's hours alone constitute 2 ½ years of full-time employment or \$117,000 to our Galveston Bay area community.

I want to thank our board members and Julie for their efforts this year and recognize them for their work behind the scenes to keep our chapter running smoothly. In parting, I would like to share a comment made by one of our partners; I believe this says it all:

"Some angels come not clad in clean, beautiful white gowns and glowing halos but rather in old, floppy hats and dirty, black mud boots. I call them volunteers and to those of us who depend on them, they are as beautiful as any angelic apparition could be. So to me, the dirtier the volunteers from the Galveston Bay Area Chapter of Texas

Master Naturalists get, the better looking they become!" - Trey Goodman, Galveston Island State Park, Park Superintendent

Looking forward to a great 2015 - be safe, enjoy, and don't forget, nature is calling!



## Prairie Ponderings by Dick Benoit

Congratulations to *The Midden* staff for their award!

As the year is drawing to an end, we look at the prairie restoration by our chapter. Since 2000, the prairie team, working at a variety of sites, has planted almost a quarter of a million one-gallon plants in the prairies, many of them grown from seeds collected in the area and nurtured, watered, bumped up, and cared for until ready to plant in the prairie. This undertaking is one of the fine efforts towards fulfilling the challenges of stewardship we are asked to fulfill as our mission.



Photo by Diane Humes

Our longest and most intensive work has been at Armand Bayou Nature Center Prairie. Since 2000, we have worked under the leadership of Mark Kramer and staff, Tom Solomon, Jim Duron, Chatt Smith, with many other dedicated volunteers to plant about 100,000 prairie

plants. Since 2006, we have worked at Sheldon Lake State Park with park staff and a host of volunteers, from our chapter and the Gulf Coast Master Naturalists, to plant about 70,000 plants. At Texas City Prairie Preserve, led by staff and, currently, Jim Duron, we have planted over 30,000 plants in the prairie. But in the past few years, it has become more a seed production facility, mainly planting native grasses and forbs for seed production.

Since Hurricane Ike in 2008, we have worked at Galveston Island State Park, restoring about 30,000 dune - prairie plants, under the supervision of Andy Sipocz and staff, with aid from the Friends of Galveston Island State Park. Our most recent project has been work at San Jacinto State Park. During the past three years, about 15,000 plants have been placed in the prairie under the leadership of Tom Solomon and Jim Duron.

Our restoration efforts also have included, since 1999, spring and fall monitoring of about 35 transects at Armand Bayou Nature Center's prairies. We drop a  $\frac{1}{4}$  meter quadrant 20 times between two poles spaced about 100 feet apart and identify the plants inside the quadrant. This allows us to determine the plant changes over time. This past fall we accomplished this task with the aid of Diane Humes, Laura Bradley, Gail Gawenis, Jay Cross, Nancy Saint, Beth Frohme, Rachel Johnson, and Sheila Williams.

## Wetland Wanderings - Another World's Worst Weed by Diane Humes

I recently traveled to Morocco to attend the Meteoritical Society 2014 meeting in Casablanca and was fortunate to be able to tour in and around the city - to see beaches on the Atlantic coast and inland farms with their lush crops and beautiful horses. We also headed east, where the land gets higher and drier, crossed the Atlas Mountains to the Sahara Desert, and traveled back in time.

In this rocky, arid land, people live along the rivers, which may only flow intermittently, with aqueducts and wells to provide water. They build their houses above the floodplains and plant their crops along the river course. Roads are few - our bus driver managed to navigate and it was "interesting" in places - travel is by foot or donkey and the occasional dromedary. Most work seemed to be done by hand in traditional ways; women tended the crops and men went out with the sheep and goats; I observed women washing clothes in the river in several villages.



Among the crops I recognized a plant - *Arundo donax*, Giant reed or Giant cane. It grew wild along the water courses, did not grow on dry slopes, but was definitely

cultivated at most of the habitations. I observed it growing in enclosures near houses, people cutting it, stacks of it drying, and loads of it carried by donkeys. It was a valuable material; I saw benches, tables, roadside shelters, fences, and roofs made with it; we also looked up in several hotels to find that our ceiling was built from *A. donax*, probably the same as in Spanish "cañizo" roofs made for centuries of woven reed rectangles. In addition, *Arundo donax* is the reed source for woodwind instruments: clarinets, saxophones, oboes, bassoons, and bagpipes AND flutes (before silver ones) and pan pipes.



My interest was piqued. *Arundo donax* is a tall, perennial member of the grass family, native to Asia and probably the Mediterranean, Africa, and Saudi Arabia. Resembling bamboo and common reed, *Phragmites*, on steroids, it forms dense stands, usually 8 meters tall or taller, with rhizomatous mats extending 1 meter deep into the soil. It flowers in summer, in long, feathery plumes (40 - 60 cm), but seeds are usually sterile. Stems are strong, hollow, flexible and durable, 2 - 3 cm in diameter, growing straight and unbranched in the first growing

season. Giant reed is good for erosion control, an excellent building material - especially in a land with few other options - and resists herbivory from insects, sheep, goats, donkeys, because of silica and alkaloids in leaves and stems.

With these many good qualities, it is no wonder that *Arundo donax* has been cultivated for thousands of years and introduced around the world, including California in the early 1800's for use in roof-making and erosion control. Widely planted since then as an ornamental and in ditches for erosion control, it has spread across southern states from coast to coast, as far north as Missouri. It is useful in phytoremediation as it readily takes up arsenic, cadmium, and lead - mostly in the rhizomes - with no toxic effects, which is perfect, since nothing will eat it. Biomass to energy companies are now looking at it as the new wonder crop; as a fast-growing perennial, it produces four times the energy of switchgrass.

However, a good Wetland Team member would say that *Arundo donax* was one of the world's worst weeds. It is one of the fastest growing terrestrial plants in the world - 10 cm per day - and its deep rhizomes and vegetative growth make it extremely difficult to remove. It provides no food or habitat for any wildlife and has incredibly invasive habits where it is not native. Giant reed is unwanted in lots of places: listed as a noxious weed in Texas, an exotic plant pest in California, an invasive weed in Hawaii, and as an invasive, exotic pest in Tennessee. Eradication attempts have cost California \$70 million.

This is a plant to learn about - two weeks in Morocco taught me a lot, but I cannot claim expertise; wetlanders would urge caution before introducing it as a miracle plant. We are a lot wetter than the places from which it came and we already know it has gotten out of control. As we say about a wetland plant, "If you spit on it, it will grow".

## Beach Patrol - Rewards of the Winter Beach by Steve Alexander

The beachfront was deserted. No beachgoers lining the shore in a long row of chairs and umbrellas. No children building sandcastles surrounded by moats. No swimmers jumping waves in the surf.

What could explain the empty beach on a sunny, wind-free island day? Perhaps an oil spill, a red tide event, or an invasion of jellyfish?

No, the explanation was much simpler than that: winter. It's the time of year when tourists head north, surrendering our beaches to the chilly air and cold water.

Without the usual drapery of people, Galveston beaches during wintertime offer a different kind of enjoyment. Imagine walking long stretches of beach in uninterrupted thought, or beachcombing when you are the only one around seeking the treasures cast ashore by waves.

While tourists abandon our beaches in winter, why should we, the locals?

Along the Texas coast, beautiful winter days aren't unusual. Mild temperatures, blue skies, calm winds, and low water levels offer a great opportunity to get out and

walk a winter beach. East end or west end beaches are some of the best and most deserted beach locations on the island.

Your walk should be easier too, since winter storm waves remove much of the loose sand that piles up on the beach during summer. On beautiful days, the inviting weather may attract a few others, but if you're lucky, you might have the beach to yourself as it stretches into the distance.



Photo by Alan Wilde

For the rugged adventurer, Galveston hasn't forgotten you. You'll have your pick of blustery winter days, 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.

For those who welcome the challenge of walking during bone-chilling, raging winds and pounding surf, you'll experience first-hand the fierce forces of nature that belly-punch the shoreline, thereby defining the nature and habits of its creatures. To survive, organisms of the shore cover up or retreat, just as a fighter would to survive another round.

Ghost crabs retreat to the safety of their deep burrows in the dunes, while the ubiquitous coquina clams, mole crabs and ghost shrimp of the swash zone cover up, digging downward to surround themselves in protective sand. Other shore creatures, such as the mobile blue crabs and speckled crabs, retreat offshore to seek the shelter of deeper water.

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

Whatever your preference, the wintery water's edge offers a wide assortment to choose from. And with few other beachcombers vying for treasures, you can bet your picks will be the best the sea has to offer.

If you haven't experienced the rewards of the winter beach, head out there. And do it soon, because the northern flocks of beach-loving folk will soon return. *(Previously published in The Daily News)*

## Inside and Outside the Fence by Diane Humes

About 9:30 in the morning of October 15, one of those days that is a gift - brilliant clear sky, cool temperatures, bright sunshine - while outside my house, I saw sparkling white and silver streamers against the blue sky, floating in the breeze. They were ballooning spiders! Grabbing my binoculars to see better, they were everywhere. This fall phenomenon means spiders are migrating - floating off treetops carried by gossamer web strands, hopefully to land in a good spot.

I would have written this in my journal, if I were keeping one. What an extraordinary sight! Some of the best phenology records - seasonal plant and animal life cycles - come from private journals. In England, Robert Marsham began meticulously recording of signs of spring at Stratton Strawless, Norfolk, in 1736, a practice continued by his family until 1958. This 222 year-old record is the first and longest of its kind in the world and gives straightforward evidence of changes in climate and natural history in that particular corner of the world.

At our October chapter meeting, Dr. Allan Treiman, geologist and planetary scientist, described the science behind many of the measurements of Earth's climate and how this data points to the conclusion that Earth is rapidly warming and it is caused by human activities. Most of us are not climate scientists. If we studied science at all, our knowledge may be out of date. Many outside voices assail us on this subject, with about as many motives as words. What to do?

Our democracy is predicated on the notion that ordinary people can make up their own minds and decide what is best - and so we can. I don't think anything can surpass direct observation using your own senses, so - see for yourself - keep a journal - ask questions - study up on the science - figure out for yourself. You're a master naturalist: you can do it and you'll like it.

## Living on the Edge by Norma Rubin

Two buzzwords that we hear frequently are “resilience” and “sustainability.” They were key to the theme of a conference on coastal resilience that I attended recently, sponsored by the Galveston Historical Foundation’s Center for Coastal Heritage and the University of Texas Medical Branch’s Center in Environmental Toxicology. The subtitle was “Living on the Edge, Strategies for Building and Preserving Coastal Communities.” This conference aimed to confirm the connectedness of our environment with our cultural heritage; in their words, the “natural” with the “built” environment. The two days of talks were subdivided into these four sessions: The Resilient City, The Resilient Community, The Resilient Gulf Coast, and The Resilient Building. At first glance one might wonder how relevant some of this would be to Master Naturalists - but much of it was directly related to our interests in climate change and rising sea level and our dedication to shoreline and prairie preservation, water quality, and the sustainable use of public open spaces.



In the first session, Tom Murphy of the Urban Land Institute gave an inspiring review of how, as mayor of Pittsburgh, he spearheaded the revitalization of the city during the “disaster” of the demise of the steel industry. Pittsburgh was once a city in decline, in a highly polluted environment, with a population that dropped by half due to the closing of the steel mills, but it moved on to become a city listed now as one of the most desirable places to live. Murphy’s public/private partnerships led to the creation of more than 25 miles of riverfront trails and urban green space where abandoned steel mills once stood. And, polluted rivers are now clean and accessible for recreation and are a striking example of Pittsburgh’s environmental transformation. Their new convention center is the largest certified green building in the US. Murphy’s background interested me - he served in the Peace Corp in Paraguay in the ‘70s and has degrees in biology and chemistry and a masters in urban studies. His was truly a motivational talk!

Our own John Jacob of TAMU Sea Grant spoke in the second session on “Resilience and the Nature of Place.” The building out of our cities in unsustainable ways, as urban sprawl, has destroyed thousands of miles of once

vast prairies, farmland, and forests. He is concerned about the destruction of what little we have left of these. “Place” should not be in a subdivision composed of huge houses on large lots on discrete serpentine streets where neighbors hardly interact because they back into and out of garages. Rather, his image of a sustainable resilient community builds upward, but not too high, and residents meet outdoors in common public green spaces or local cafes, for example, and they use automobiles much less frequently. It is the antithesis of urban sprawl.

The third session related more to the science of resilience with talks on coastal hazard mitigation strategies and sea level rise along the Gulf Coast. I was anxious to hear John Anderson from Rice, who updated us on his studies on Gulf Coast sea level rise. He predicts that very soon Follett’s Island, just across San Luis Pass from Galveston Island, will be totally under water. Hummmm - what does that mean for Highway 3005 going south . . . ? Two other notable speakers in this session were Sam Brody, TAMU Institute for Sustainable Coastal Communities, and Jim Blackburn, environmental attorney *par excellence*, representing, with Drs. Anderson and Brody, Severe Storm Prediction, Education, and Evacuation from Disasters (SSPEED). Brody emphasized how flood-prone our region is; in fact, the Gulf Coast is one of the most susceptible areas in our country. Loss of property and livelihood will reoccur unless we begin to build in less vulnerable areas, not in the floodplain. Jim Blackburn’s environmental contributions need much more space to describe than I have here. I just wish he had been afforded more time to impart some of his wealth of knowledge to us.



The final session included topics on engineering buildings that will be sustainable through the challenges of coastline living and working in this time of more violent

storms, subsidence, and rising sea levels. The speaker of greatest interest to me, however, was Kris Benson, from NOAA, whose topic was "Implications of Gulf Coast Dynamics for Coastline Building Strategies." Kris reminded the audience that the rate of rise in sea level at Galveston is increasing every year, and at a faster rate than ever before. Kris showed a series of slides that I have seen before, which are quite impressive and would

frighten us all, as they should, because they graphically show the Island as it will steadily become inundated over a period of years.

All of the speakers at this well-organized conference were truly outstanding, and many are noted authorities in their fields. Now, we should heed their words into a more sustainable and resilient future.

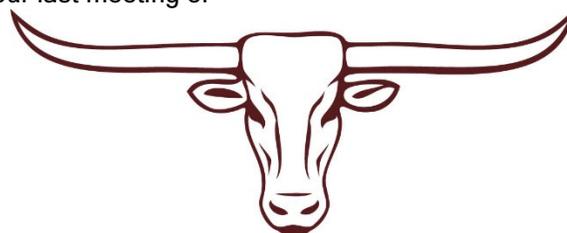
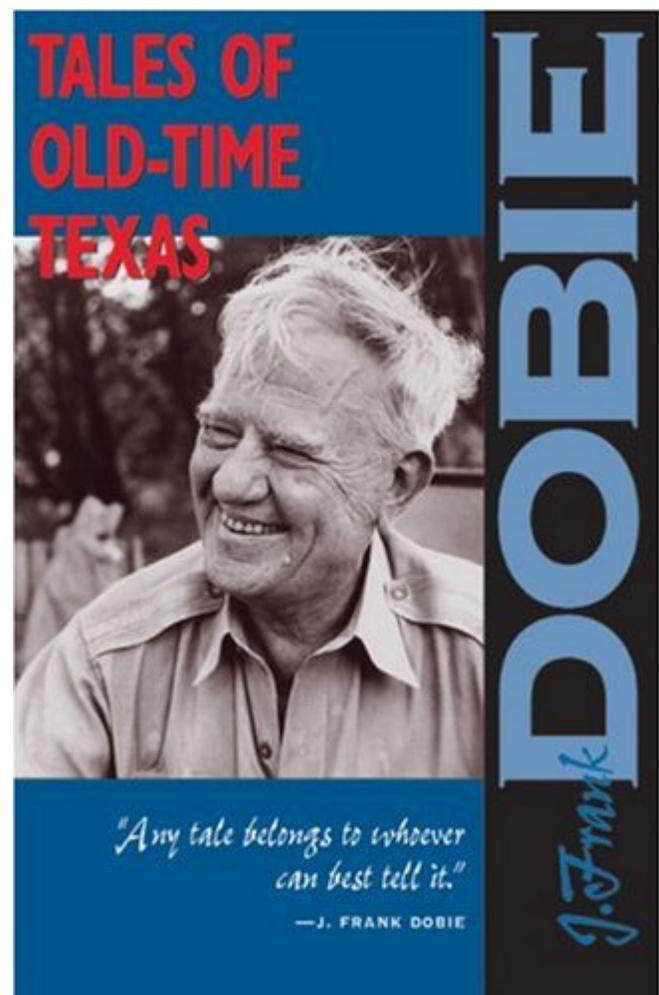
## Heritage Book Study - Review of *Tales of Old-Time Texas* by Madeleine K. Barnes

J. Frank Dobie is the author of this book and is described as the Southwest's master storyteller. That being said, it does not speak to his magical ability to convey the reader via written word back in time to see the action as though they are there alongside the characters, experiencing those events as they happen. He uses the vernacular of Texas to weave his tales in this collection of twenty-eight stories with larger than life characters and history. Some of the classic tales include different accounts of Jim Bowie's knife, the legend of the Texas bluebonnet, the wild woman of Navidad, the planter who gambled away his wife on a high stakes game, and Colonel Abercrombie's mole.

Where did Dobie get his historical accounts from to develop his tales? He became a member and longtime (21 years) secretary of the Texas Folklore Society, building it into a professional organization and beginning a publication program that led to his later books and articles. His motivation was to share the legacy of Texas culture and traditions with others. These tales describe the early settlers, with their strengths, weaknesses, and perspective that enabled them to endure and survive. The wild country terrain, changing weather, animals, insects and vegetation are all woven into the stories, giving details about the natural history of Texas. Some of my favorite tales detail massive honey formations in the caves near Austin, a unique friendship between a farmer/soldier and a rattlesnake, and weather that changed so fast that the rear end of a galloping horse became frozen while trying to outrun a "norther". These are amazing tales that add flavor to the record of Texas history, the land and the people.

Our current reading selection is *Anthill* by E.O. Wilson. We read the first 190 pages for the November 3rd meeting. The next reading assignment is the second half of the book (191 - 378 pages) for our last meeting of

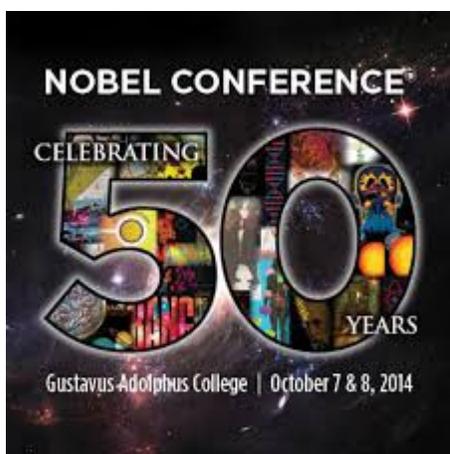
2014 on December 1st at 10:00 a.m. This fictional novel has some plot twists that make for a good read and discussion. Hope to see you then!



## Nobel 50: Where Have We Come From and Where Might We Go? by Diane Humes

Gustavus Adolphus College, in St. Peter, Minnesota is a Swedish Lutheran liberal arts college on a hilltop above the Minnesota River valley, and happens to be where “number one son” received his bachelor’s degree in computer science. It seems we have not yet spent enough money there; in October Allan and I attended their annual Nobel Conference.

The germ of the concept for the Nobel Conference began in 1964, with the inauguration of Gustavus’ new Nobel Science Building, named for Alfred Nobel. The audacious planning committee hosted 26 American Nobel laureates for a glorious celebration during which the idea was born for an annual event, subsequently approved by the Nobel Foundation in Sweden. Always stimulating and sometimes controversial, open to the public and now attended by 6000+ “lifelong learners”, the Nobel Conference features lively discussions of timely and prescient topics of science, philosophy, and ethics by as many of the best minds and Nobel laureates possible.



I think Gusties, Gustavus students and family, must be “closet master naturalists”; everyone there seems quite familiar with the “food, fun, and friendship” parts! Ask Julie about the fantastic talks we attended at Nobel 48 in 2012 - “Our Global Oceans”. I don’t have perfect attendance, but I didn’t want to miss this one: Nobel 50, “Where Does Science Go From Here?”.

Considering the past and looking to the future from the perspective of 50 years of Nobel Conferences, the speakers focused on four themes: **Science and Society** - Steven Chu, 1997 physics laureate and Sir Harry Kroto, 1996 chemistry laureate; **Evolution & Ecology** - Sean Carroll, evolutionary developmental biologist, Svante Paabo, evolutionary geneticist, and Gary Ernst, petrologist and geochemist; **Physical Sciences** - Steven Weinberg, 1979 physics laureate and Harry Gray, chemist; **Medicine & Genetics** Jennifer L. West,

biomedical engineering, Antonio Damasio, cognitive neuroscientist, Patricia Smith Churchland, neurophilosopher, with Freeman Dyson, theoretical physicist and mathematician, to sum it all up.

What was our world like 50 years ago? It was a time of change and tumult: Hurricane Carla roared ashore in 1961, causing great damage; young Dan Rather reported the storm from the Galveston seawall - a first for television and his big break. President Kennedy was assassinated in November 1963; Martin Luther King received the Nobel Peace Prize in 1964, but was assassinated in 1968, as was Robert Kennedy. NASA’s Mercury program ended in 1963, but projects Gemini and Apollo to send men to the moon captured everyone’s attention. The Beatles were causing a sensation.

In 1964, George Bush ran for the Senate. The Houston Colt .45s baseball team moved into the new Astrodome, while the Houston Oilers moved to Rice Stadium; the second span of the Galveston causeway bridge opened. Houston’s population was under one million; U.S. population was around 180 million; world population was about 3.25 billion. It was a time of great growth - the highest rate of worldwide population growth seen before or since - and the popularization of the notion of Zero Population Growth.

Freeman Dyson described the four scientific revolutions of the past 60 years: Space, Genetics, Nuclear Technology, and Computers. The world celebrated the International Geophysical Year (IGY) from July 1957 through 1958 and learned about electromagnetic radiation in the Van Allen Belt, mid-ocean ridges - a confirmation of plate tectonics, and polar ice. For IGY, both the U.S. and Russia planned satellite launches; Russia launched Sputnik 1 first and the shocked U.S. hurled itself forward to be first on the moon. A time of great discoveries, the first laser was built in 1961; Watson and Crick received the Nobel Prize in 1962 for the structure of DNA; physicists detected a radiation signature from the Big Bang; Texas Instruments demonstrated the first integrated circuits. We did, in fact, land on the moon first on July 20, 1969.

The incredible scientific discoveries we heard about at the conference were unimaginable 50 years ago: sequencing the human and Neanderthal genomes, and tracking single changes within the genetic code to decipher evolutionary progression written in our genes. Svante Paabo may soon be able to go back 400,000 years and sequence DNA from the first known humans - see EXACTLY what changes led to the humans that are us. Jennifer West’s medical nanotechnology is beginning

to sound like 1960's Star Trek, building 3-D scaffolding for tissues and nano-targeting of therapies. Reports from the natural world are much less thrilling; wildlife population numbers are one-half what they were in 1970 - the year the Beatles split up, but, Sean Carroll said that correlation is not causation! The human population, on the other hand, has doubled; world human population is over 7 billion, U.S. population nearly doubled, and Houston and Galveston populations more than doubled - is correlation causation? People are consuming ("overdrafting", according to Gary Ernst) the world's resources - freshwater, rare earths and metals, air, land, trees, wildlife and fish - 50% more than nature can withstand.

Interestingly, the rate of population growth has dropped steadily and is projected to go nearly to zero by 2100. However, the increase per year in numbers of people is still rising - actually plateauing from 2007 - 2014 (as we speak?), such that the world population will increase by 2100 to almost 11 billion, but the numbers of new people each year will decrease every year from now on. Unless something unforeseen happens.

Asked about the future of climate change, Steven Chu reminded us that, in 1964, the U.S. Surgeon General issued the first warning of the health risk from cigarette smoking, and that warning was followed by 40 years of obfuscation and litigation by tobacco companies. Medical science now clearly shows that smoking even half a pack a day leads to a 25-fold increase in the chances of lung cancer, as well as a two- to four-fold increased risk of stroke and heart disease. Chu said that the same tactics of delay and confusion, often by the same people, are being used to fight the science of global warming - this time by the petrochemical companies and their proxies. Just as there is a time lag between smoking and onset of illness, lower population growth rates and population numbers, there is a lag time for clearing the atmosphere of greenhouse gases. Levels of atmospheric carbon dioxide are the highest in 800,000 years and increasing, since the Industrial Revolution; although the effects cannot be completely known, carbon levels are predicted to take 1000 years to reverse.

**We do not inherit the earth from our ancestors, but borrow it from our children.**

We must reduce fossil fuel consumption because there is not an unlimited supply (VERY LONG time lag to make more!) and we must stop climate change. When planning for the future we should take the very long view - 20,000 years or 1000 generations of people, say some - when contemplating sustainability. General Dwight D. Eisenhower famously said, "Plans are worthless, but planning is everything." I'm sure he meant to look at all possible contingencies!

Very smart people around the world are planning and currently making wind and solar power both sustainable and cheap. Whole countries - Spain and Ireland - already produce 25% of their power from wind and solar and could be producing 50% within 10 or 15 years AND so could we! We can do this. Sheik Zaki Yamani, Saudi Arabian oil minister said, "The Stone Age did not end for lack of stone, and the Oil Age will end long before the world runs out of oil."

We need to be able to store energy for later use and for transportation. Enough sunlight falls on the earth in one hour to power all the energy needs of our planet for a year. Using the tools at hand, sunlight, seawater, nitrogen, and carbon dioxide, we could produce hydrogen fuel from seawater. When we do, we will no longer need fossil fuels - no more buying oil from foreign countries, no more greenhouse gases; we will have a sustainable fuel, renewed every day by the sun. To make this happen, the search is on for available, cheap, and efficient catalysts, in fact, Harry Gray will enlist anyone (students, especially, but he would take master naturalists!) in his "solar army" to assist this search. See: [thesolararmy.org](http://thesolararmy.org).



The speakers at the Nobel Conference described cutting-edge research, creating an exciting atmosphere. They spoke thoughtfully about "our crisis" - climate change and the overuse of resources. Although it is tempting to feel hopeless and to despair of the future, these top minds believe that we can find alternatives. And, after all, failure is not an option; there is nowhere else to go!

What should a master naturalist do? Well, keep on doing what we do. We are part of a world army; spread the message; grow the army; foster joy and creativity among the children, for they are the world's future. (View archived Nobel talks back to 2005: <https://gustavus.edu/events/nobelconference/archive/>)

## Report from the State Meeting 2014 by Diane Humes

This year's meeting was held at Mo Ranch in Hunt, Texas under perfect blue skies and gorgeous fall weather, attended by 390 representatives from 38 of the 44 chapters. About a dozen of us from the Galveston Area made the trek and came home tired, but happy. We had opportunities to attend inspiring AT classes, hear the latest news from the state and other chapters, or sit in the sun/shade. Food was good and the Hill Country was our little spot of paradise.

Our chapter made itself proud by winning several awards. John Wright's photo of a roseate spoonbill in flight won the photo contest and *The Midden* placed first among all newsletters! Then Stennie Meadours took first honors for chapter project with her display of her Junior Master Naturalist program at Westbrook Intermediate. Lynn Smith and Maureen Nolan-Wilde received their 1,000 hour milestone awards and Sara Snell took top honors with her 5,000 hour milestone award. Congratulations all around for so many achievements!

John Wright's winning photo.



Michelle Haggerty, our fearless leader, announced a few statistics from 2013: 8,852 Texas master naturalists in all chapters obtained 46,267 advanced training hours and spent 349,240 hours doing volunteer service. We conducted projects or in some way impacted 7,538 acres and developed 72.1 miles of trails. Also, we conducted 5,302 outreach events and had direct contact with 280,840 individuals. The worth of all our efforts, for 2013, is calculated at \$7.88 million. In other words, they couldn't have done it without us! Congratulations and thanks to all of us!

### Stennie Meadours and her Junior Master Naturalists



Front page of the winning Midden.

**The Midden**  
Galveston Bay Area Chapter - Texas Master Naturalists August 2014

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Camp Wild 2014 3	Just the other day, I met with representatives of other local non-profit organizations. They asked if I knew how important Master Naturalists are to their success - we provide the volunteers that make their events happen.
It's Not Easy Being Green 4	At our June meeting, we awarded our second \$1,000 college scholarship to Regina Rottmann. Since 2012, she has accumulated over 1,000 hours of service and plans to attend college starting this fall while still continuing her volunteer work. We also welcomed Beth Cooper and Cindy Croft as our 2014 class representatives to the Board. Our thanks go out to Class of 2013 representatives, Rhonda Marshall and Ange Busceme, for their service.
Kayak Trip to Miller Lake 5	Both Beth and Cindy are joining a Board that is currently facing a challenge. How can our growing organization take advantage of technology so that we can better communicate with our members while, at the same time, retaining our original character? Hopefully we can come up with answers that meet everyone's needs!
Picture Worth a Thousand Words 6	Oh yes, and don't forget to mark your calendars for the annual TMN Meeting to be held October 24-26 at Mo Ranch in Hunt, TX. The state meeting is a great way to meet others and expand your horizons.
Trawling on Galveston Bay 7	For me, it is back to the turtle barn, GISP and the hope that 2015 will be the year I find a turtle while on patrol. Oh by the way, Chait, Verwa, Mike, and Alan have already found theirs.
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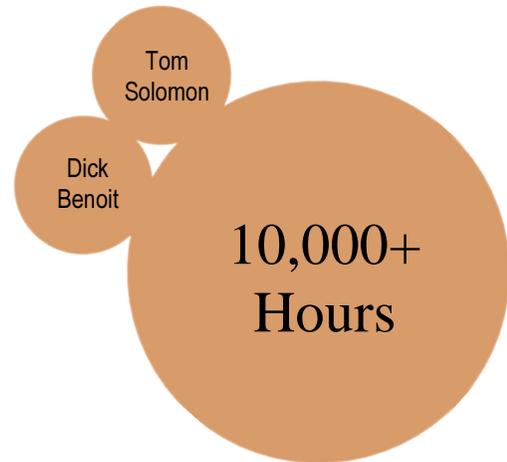
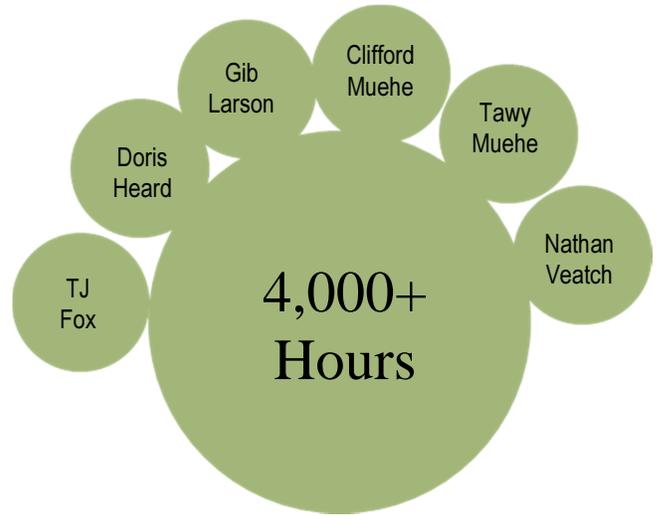
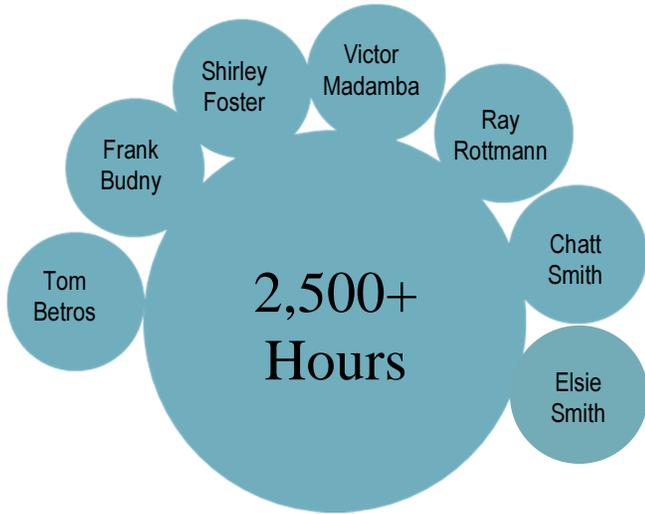
**Next Chapter Meeting**  
August 7<sup>th</sup>  
American Oystercatcher Stewardship in Texas  
By  
Dr. Susan Heath  
Amanda Anderson  
At Carlsbad Park

Regina M. Rottmann, \$1,000 College Scholarship Recipient  
Photo by Chuck Snyder

Be the change you wish to see in the world

Thus ended the 15th Annual Statewide Meeting and Advanced Training. Keep up the good work; we'll see you next year.

**We are Amazing!!** by Carolyn Miles



## Guppies from Julie

What do elephants, paint chips, popcorn, canoes, rocks and water have to do with each other in Texas? Well, they all were a part of the 2014 State Texas Master Naturalist Conference at the Mo Ranch. The conference is a great way to learn, get new ideas and make new Master Naturalist friends from across the state! This year 390 people attended the conference! If you have never been to the State Master Naturalist Conference, add it to your list for October 2015! (Location to be announced).

**Save the Date - February 28, 2015**

Dolphin Challenge returns to Texas A&M Galveston on February 28, 2015! Dolphin Challenge is the regional competition for the National Ocean Sciences Bowl (NOSB).

The NOSB is a nationally recognized and highly acclaimed high school academic competition that provides a forum for talented students to test their knowledge of the marine sciences including biology, chemistry, physics, and geology. The NOSB was created in 1998. 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.

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 January and February 2015!

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](mailto:jmassey@ag.tamu.edu) or give me a call at 281-309-5063. More information will be provided in the near future!

Thank you so much for all you do to make the Texas Master Naturalist Program such a success here at home and across the state!



## The Midden

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Comments? Suggestions? Want to join the team? Contact: Diane Humes by email at [treimanhumes@earthlink.net](mailto:treimanhumes@earthlink.net).

### Midden Editorial Team

Steve Alexander	Comm. Team Chair
Diane Humes	Editor
Carolyn Miles	Production Editor
Chuck Snyder	Photo Editor
Madeleine K. Barnes	Proofreading Editor

## The Midden Deadline for the next issue

### January 5<sup>th</sup>

If you have Advanced Training or Volunteer Opportunities, please submit information to Cindy Howard, [howardc@uhcl.edu](mailto:howardc@uhcl.edu)

TEXAS A&M  
AGRI LIFE  
EXTENSION

Texas A&M AgriLife Extension programs serve people of all ages regardless of socioeconomic level, race, color, sex, religion, disability, or national origin. The Texas A&M University System, U.S. Department of Agriculture, and the County Commissioners Court of Texas cooperating.

## December and January Month Activities

### ADVANCED TRAINING OPPORTUNITIES

**Chapter Meeting** - December 4<sup>th</sup>  
Annual Awards Celebration  
6:30 Social, 7:00 Presentation, 8:00 business meeting  
AgriLife Extension Office

**GBAC Campout** - January 30 - February 1  
Up to 6 hours AT  
Location: Galveston Island State Park  
Presenters - Various  
Register by January 10<sup>th</sup> with Tawy Muehe  
[tawymuehe@earthlink.net](mailto:tawymuehe@earthlink.net)

**Ongoing**  
Galveston Island State Park  
10 am at the Welcome Center (Begin again in Feb.)  
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)945-4731  
Currently reading: *AntHill* by E. O. Wilson

### STEWARDSHIP OPPORTUNITIES

#### Ongoing Activities:

##### Tuesdays -

- Sheldon Lakes State Park, Contact: Tom Solomon  
[crandtr@sbcglobal.net](mailto:crandtr@sbcglobal.net)
- Texas City Prairie Preserve, Contact: Jim Duron  
[wishkad@yahoo.com](mailto:wishkad@yahoo.com)
- Environmental Institute of Houston at UHCL,  
Contact : Wendy Reistle [reistle@uhcl.edu](mailto:reistle@uhcl.edu)

Wednesdays - Wetland Restoration Team, Contact:  
Marissa Sipocz [m-sipocz@tamu.edu](mailto:m-sipocz@tamu.edu)

##### Thursdays -

- Horseshoe Marsh Prairie, third Thursday of each month, 9 - Noon. Contact: Tom Solomon  
[crandtr@sbcglobal.net](mailto:crandtr@sbcglobal.net)
- San Jacinto State Park, Contact: Tom Solomon  
[crandtr@sbcglobal.net](mailto:crandtr@sbcglobal.net)

Fridays - Prairie Friday, ABNC, 8:30 - 11:30am, Contact:  
Dick Benoit [RBenoitTEX@aol.com](mailto:RBenoitTEX@aol.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](mailto: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 Stennie Meadors [Stenmead@aol.com](mailto:Stenmead@aol.com)

Partner and Associate Programs - Many organizations sponsor guided walks and education programs or need volunteers to man their nature center. Go to [www.gbamasternaturalist.org](http://www.gbamasternaturalist.org) click on "Volunteer Opportunities," then click on "Partners, Sponsors and Associates" for the list, then click on their website for information and contact.

### BOARD AND COMMITTEE MEETINGS

**Board Meetings** - Dec 2<sup>nd</sup>, January decided to be decided after elections: 2-4 at the Extension Office

#### Committee Meetings

Communication - January 5<sup>th</sup>  
9-Noon at Extension office  
Advanced Training - Jan. 19<sup>th</sup>  
10-Noon at Extension office  
Education/Outreach - Dec. 15, Jan 20  
10-11:30 at Extension office  
Stewardship - Meets quarterly. Next meeting to be determined.

