

The Midden

Goat's Foot Morning Glory on the Seawall by Diane Humes

Galveston Bay Area Chapter - Texas Master Naturalists

June 2013

Table of Contents

Prairie Ponderings	2
Wetland Wanderings	2
FoGISP Orientation	3
Galveston Harbor Tour	3
Dune Plants Advance Training	4
Insect Collection AT	5
Where Have all the Prairies Gone?	5
Ghost Crabs 101	7
Guppies from Julie	8

Our Chapter is Busy! by Sara Snell, President 2013

April started off in a whirlwind of activity with many of our Master Naturalists volunteering with Galveston's Featherfest, serving as either planning committee members, registrars, booth support personnel, speakers, speaker liaisons, or wherever else needed.

In addition to the routine chapter meetings, Master Naturalist training classes have been held each Thursday the past two months. Training classes do not happen magically, but take considerable planning to ensure success. Thanks to all of you who have made coffee and morning snacks available, gotten materials ready, planned field trips, met equipment needs, and procured gifts and lunches for speakers.

The following list includes activities where our chapter members have had the opportunity to either learn or volunteer:

- School field trips at Galveston Island State Park (GISP), started in March, will continue through May
- Daily hawk monitoring
- Weekly bird monitoring at Texas City Prairie Preserve
- Camp Wild preparation
- Weekly prairie restoration efforts all around Galveston Bay
- Weekend beach and bay discovery at GISP
- Wonderful AT opportunities
- Interesting book studies

And the list goes on! The above are activities known to me, but I know many of you are involved in other activities as well. So if any of you are thinking that not much is going on with the chapter, think again. A lot is happening and there is MORE TO COME!



Next Chapter Meeting

June 6th

Mitchell Ridge Indian Burial
Ground on Galveston
Island

By

Stephen Garrett
TPWD Archeology
Laboratory

Prairie Ponderings by Dick Benoit

Sunday I watched as they sang "God Bless America" during the seventh inning stretch of a Houston Astros game. The phrase "from the mountains to the prairies" caused me to pause and silently pose these two questions: what is the charge we have as stewards in restoring and preserving these prairies; and is there a land ethic that calls us to preserve and restore prairies in our area or do we let nature take its course and allow development and invasive species to change our prairies forever?

Two days earlier, I watched the documentary "The Dust Bowl", and it was evident that, in addition to drought,

poor farming practices on the prairies was a main contributing factor in the loss of so much soil. Only when farmers changed their methods did the land begin to heal.

When looking at our chapter today, even though by year's end we will have restored local prairies with more than 200,000 one-gallon plants, the progress seems insignificant. But we should not despair, because there is merit in the idea of restoration and preservation and there is hope that future generations will take up the task of restoring and preserving a piece of our national heritage, the coastal tall grass prairie.

Wetland Wanderings by Diane Humes

The Wetland Restoration Team (WRT), under the leadership of Marissa Sipocz, has planted 10 acres of restored wetland (Phase 1) at Sheldon Lake State Park and is currently working hard planting another 126 acres (Phases 2 & 3), with a projected additional 57.2 acres (Phase 4). But, the WRT was born in 2000, learned its trade, got its start and honed its skills at Mason Park on Brays Bayou in Houston, TX. This was the first big project. The Team collected, cultivated about 30 species chosen for their wildlife values, resilience, and likely presence along the bayou before disturbance - planting over 10,000 plants in a year!



The purpose of the Mason Park wetland was to clean neighborhood stormwater and increase native habitat, while helping to reduce flooding. Constructed as part of Project Brays, a gigantic flood control project, this series of three ponds, filtering stormwater and releasing it eventually back into Brays Bayou, was an experiment to

see whether such a concept, used successfully elsewhere, could work here.

And work it does! This award-winning wetland greatly reduces the bacterial load of the stormwater, as shown by the data from six years of volunteer water monitoring. This is important for our area because most of our bayous are considered "impaired" for bacteria. The wetland has survived several high-water storm events, including Hurricane Ike, which swirled 15 feet of water over its head. Native plants thrive in their new habitat - non-native "volunteers" - weeds, if you will - get knocked back by storms. Birds and bayou creatures call the wetland home, especially those that can swim.

Beautification was a consideration; showy flowering plants were part of the mix - cannas, powdery thalia, southern blue flag iris, spider lily, swamp lily, pickerel weed and water lilies. No less beautiful, but often overlooked (they should not be!) were various sagittaria species, rushes and spikerushes, maidencane, cutgrass and prairie grasses. Originally planted as tiny sprigs, these plants have filled in and are VERY beautiful right now.

The WRT moved on to other projects; water monitoring ceased in 2010. With no eyes on Mason Park, trees moved in, particularly willows, and made themselves at home in our wetland. Mary Edwards, with the Texas Coastal Watershed Program, thought it was time for an eradication and on April 13, 2013, Master Naturalists, the Parks Board, HCFCD, and Greenmark Environmental answered the call. Just as we do at Armand Bayou Nature Center, we cut down the trees and applied herbicide to make sure they stayed dead. Actually, the boys did the heavy work; the girls sprayed herbicide! The wetland thanks all sixteen people that came out to help:

Mary, Doris, Melissa, Diane, Harrie and Clayton, Juvenal and Fernando, David, and 7 community service workers (sorry, names unknown). The next order of business will be to eradicate the world's worst weed, water hyacinth, currently filling the first pond, but that is a job for another day. (Hopefully, the most recent storm washed all the hyacinth out, not spread it around more.) Meantime, enjoy!

The WRT meets every Wetland Wednesday. Join the Team to help and learn more about wetlands, wetland plants, have fun and see restoration in action. Contact: Marissa Sipocz, m-sipocz@tamu.edu, or Cullen Ondracek, Cullen.Ondracek@ag.tamu.edu.

FoGISP Orientation by Nathan Veatch

On March 9, 2013, thirty-two Master Naturalists attended the Friends of Galveston Island State Park (FoGISP) volunteer orientation workshop at the parks Nature Center. Many were returning volunteers but a few were members of the present master naturalist class.



The Rangers who work with the volunteers were introduced and explained the new state registration process that eventually will save a lot of time.

Frank Bowser shared important and requested information regarding the hiking trails, the A/V equipment in the Nature Center and wind and solar energy.

Bill and Jamie Ashby did a superb job introducing the Galveston watershed map and demonstrating how volunteers can use the sand table as a teaching tool.

Thanks to Cliff Muehe, president of the FoGISP board, everyone enjoyed a Subway lunch.

After lunch, some nature center guides took a tour of the park with Asst. Park Manager, Ranger Hans Haglund. The beach and bay guides met to revise the beach and bay walk tours under the leadership of Maureen Nolan-Wilde. Lynn Wright recorded the proceedings.

Our chapter has truly made a difference at Galveston Island State Park. Our members volunteer in the Nature Center, lead beach and bay walks, fieldtrips, assist with dune restoration and serve on the board of FoGISP.

Galveston Harbor Tour by Frank Budny

On a cool, sunny day in March, Master Naturalists and their guests boarded the *Seagull II* for a science and history tour of Galveston Harbor. Sid Steffens, a marine biologist, led the tour, providing commentary on the birds and marine animals and on the history of the harbor.

As we left the dock, Sid talked about the activities along the harbor such as shipping, drilling rig fabrication and repair, fishing, shrimping, and tourism. Several Coast Guard gunboats, apparently engaged in a training exercise, briefly escorted us.

We cruised over to the shrimp boat docks popularly known as the mosquito fleet because, from a distance, the boat's outriggers with nets attached look like flying



insects. This area attracts many sea birds because this is where fishermen and shrimpers offload their catch. We viewed brown pelicans, white pelicans, cormorants, egrets, herons, and of course, laughing gulls.



We continued east toward the Ship Channel, where we spotted and watched several groups of dolphins frolicking in the water. One pair was engaged in amorous dolphin activity and didn't seem to mind us watching.

The captain then took us over to the remains of the concrete ship *Selma*. The ship was intentionally scuttled east of Pelican Island in the 1920s. It continues to deteriorate, but provides a good habitat for fish and birds. The ship has been home to a pair of oystercatchers for several years. I don't know if it's the same pair, but I remember seeing two oystercatchers on past trips to the ship even before hurricane Ike.

We turned around at the *Selma* and headed back into the harbor. In the area between Galveston and Pelican Island, the crew let out the trawl and we dragged for about 15 minutes. The net was pulled up and the catch was sorted into specimen pans. Another marine biologist identified and discussed the various marine organisms collected.

We were impressed by the number and variety of marine animals caught in the net. There were several species of fish including flatfish, croakers, anchovies and sheepshead. We identified five species of shrimp including white, brown, pink, snapping, and mantis. The net also contained a large number of small blue crabs.

It was a nice day to be out on the water and everyone returned to the dock with a better understanding of Galveston Harbor and the creatures that live there.

Dune Plants Advanced Training by Nathan Veatch

Dr. Steve Alexander conducted two workshops at Galveston Island State Park on April 27th and May 4th for a total of thirty-six Master Naturalists. Steve has focused our chapter members on the ecology of the Texas shore, with a focus on plants, which has found a welcome audience.

As a sequel to his Estuarine Smorgasbord of April 2012, Steve focused on dune plants this year. He introduced the twelve most common dune plants, by dividing the upper beach into three zones: the coppice dune, the dune face, and the dune tops. Steve introduced the plants that colonize, anchor and stabilize the dunes that help protect the shore from storm waves and prevent washouts, which cause the loss of sand from the beach.

The class had an opportunity to view the plants on the beach as Steve pointed out the key features for identifying them.

Plant presses were available to those who wished to press plants on the May 4th presentation thanks to Mel Measeles and Dick Benoit. This workshop was a special opportunity for members of the 2013 master naturalist class, thanks to Steve. Usually, these workshops are already filled by current members.



The highlight of the April 27th workshop was the capture of a ghost crab on the upper beach to the delight of all the participants. Many photos were taken and may be seen on the FoGISP Facebook page.

Insect Collection and Native Bees AT by Madeleine K. Barnes

On Tuesday, April 31, a group of aspiring insect collectors participated in learning about the methods and equipment used for preserving, labeling, and displaying insect specimens.



This AT, presented by TPWD Invertebrate Biologist Michael D. Warriner, was held at the Texas City Prairie Preserve, where there were several insect collections on display for comparison. Everyone contributed in the sweep netting of various insects and learned the step-by-step process of insect collection. Participants were encouraged to use their gained knowledge to help contribute to the insect collections at either the Galveston County Extension Office or Galveston Island State Park.

This was a “two for one” AT, since Mr. Warriner also gave an abbreviated presentation on the native bees he is studying. Bee identification facts he gave include the following: bees have 2 large eyes, 3 ocelli (small eyes on the top of the head that only detect light), 2 long elbowed antennae on the head, and 2 pairs of wings.

Did you know that there are 700 species of native bees in Texas with 90% of these being solitary? The male bees do not collect or carry pollen, so if you see any bees actively collecting pollen, they are all female. Amazingly, native bees are hardwired to recognize and be attracted to plants that are historically indigenous to their geographic area, so they may not visit or pollinate introduced plant species.

A few species are eusocial, like the bumblebee, living in large colonies consisting of a queen and her worker daughters. The nine species of yellow and black bumblebees found in Texas nest in the ground or in areas of heavy thatch. Bumblebees appear to be declining in numbers across our continent due to many factors.



If you would like to learn more about native bees, or get involved in the TPWD bumblebee monitoring project, check out these websites: www.txnativebees.com; www.txbumblebees.com; www.discoverlife.com.

Where Have All the Prairies Gone? by Diane Humes

Grasslands have a worldwide distribution based on climate and rainfall, fire and grazing - existing in the sweet spot warmer than tundra, wetter and cooler than a desert, and too dry for trees to be happy. Globally, grasslands are the largest terrestrial biome, encompassing 46 million square kilometers (17.8 million square miles) of the Earth's surface. In North America,

grasslands are called prairies and extend from Canada to Texas and Kansas to Illinois, through the middle of the continent, roughly 3.5 million square kilometers (1.4 million square miles).

From the French word for “woodland meadow”, prairies were (and are) home to great diversity of grasses and

forbs - the habitat which supported mind-numbingly large herds of bison and pronghorn antelope, birds, prairie dogs, black-footed ferrets, jack rabbits, butterflies and insects beyond counting. Actually three prairie types are recognized: tallgrass, mixed-grass, and short grass, based on height of the dominant grass species, existing in a general gradient from east to west following rainfall and temperature.



Our local prairie is the coastal tallgrass prairie, which receives heat and rainfall in abundance, and grades into marsh and wetland, formerly covering about 6 million acres of the Texas Gulf Coast. Most of the prairie was lost before we knew it; by 1937, 93 percent was gone; today less than 1 percent remains in relatively pristine condition. Where did the prairie go? We have not lost the land - well, perhaps we did, to subsidence; most of the prairie was converted to other uses - homes, businesses, factories, farms, ranches. Losing the prairie equals lost biodiversity; an intact prairie ranks significantly higher in biodiversity than crops, lawns or businesses.

The same thing has happened wherever there was a prairie, especially tallgrass prairie. Between the 1870s and 1920s wildfires were controlled, the bison were killed and cultivation began. The best land was taken; nearly all the tallgrass prairie was replaced by a monoculture of corn - a warm season grass, like those it displaced. In mixed grass prairies the dominant grass is now wheat, a cool season grass. Only land that is utterly unsuited for crops has been left in native grass. Nowhere is there more than about 1% of the original grassland remaining.

Says Candace Savage, in *Prairie, A Natural History*, "Over the last two hundred years, human beings have hit the prairies with the force of a major geological crisis, triggering not only extinctions and extirpations - of plains wolves, plains grizzlies, plains elk, plains bighorn sheep, free-ranging bison - but also dramatic shifts in vegetation...There is scarcely a patch of ground where

we have not left our footprints...In the Southern Short Grasslands...29 percent of the ecoregion is under cultivation. The surviving native prairie in the region is now devoted to livestock or converted to ranchettes, on the advancing front of urbanization."

"In the mixed grasslands...the percentage of land...under cultivation rises from 15 percent...to over 99 percent. And in the tall grasslands, with their relatively generous climate and deep, black earth, as much as 99.9 percent of the native grasses have been plowed to make way for agriculture. Largely as a result of this destruction of natural habitat, some 464 prairie species have declined to such rarity that their long-term survival is in question...Of this total, 328 species, or 71 percent, are unique organisms found exclusively, or almost exclusively, on the Great Plains grasslands."

"These trends are deeply troubling, and we could easily get lost in the dark. To find our way forward we will have to be sure-footed, willing and able to move quickly from sorrow to hope, from past to present, from celebrating wildness to accepting and honoring our own accident-prone presence. We will need to see both the splendor of the life that has faded away and the abundance that still extends across the whole wide world of the prairie in every direction. For however diminished, the Great Plains are blooming and buzzing and wriggling and squirming with wildlife wherever we look. In the Northern Mixed Grasslands ecoregion, for example - where as much as three-quarters of the natural habitat has been lost to the plow - there are currently no fewer than 13 amphibians, 18 reptiles, 72 mammals, at least 160 butterflies, 222 birds, and 1,595 species of grasses, sedges, and wildflowers. This gives the region a total "species richness index"...of 2,095, much higher than many areas that are typically thought of as biodiversity hotspots. (...rainforests of northern California...richness index...1,710...Everglades...1,855.)"





"On the Southern Short Grasslands...where significant areas of natural grasslands remain intact as grazing land, the picture is brighter yet, with 17 species of amphibians, 61 reptiles, 86 mammals, 230 butterflies, 245 birds, and an astonishing 2,359 species of grasses and non-woody

plants, for a richness index of 3,011. Far from being a sacrifice on the altar of progress that we can dismiss from our thoughts, the prairies are still very much alive and worth caring about."

Prairies are poster children for habitat loss and fragmentation - the main causes of loss of biodiversity. The complexities of prairie species interactions are not fully understood by anyone but, as Aldo Leopold 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."* So, grasshuggers of the world unite; there is work to do!

Candace Savage. *Prairie: A Natural History*, Greystone Books, 2004 or 2011.

Ghost Crabs 101 by Jamie Ashby, Lynn Wright and Maureen Nolan-Wilde

A highlight of our Galveston Island State Park beach walks is when we tell the story of one of the most elusive creatures on the beach, the ghost crab. The ghost crab is adapted to the harsh environment of the beachfront, with the hot sun beating down, predators always lurking nearby, and human traffic constantly moving about.



A ghost crab, since it is the same color as sand, is difficult to see, hence the common name. The scientific name of the ghost crab is *Ocypode*. "Ocy" means fast and "pode" means foot, hence "fast-footed". Just try to

catch one and you'll see that they deserve the name! Ghost crabs use all eight legs at low speed, but use only six legs at higher speeds, and only four legs at highest speeds.

The opening of a ghost crab burrow (its hole) indicates the size of the crab. Did you ever wonder how deep their holes go? They can be up to 3 to 4 feet deep in order to reach damp sand. If you tried to dig up a ghost crab, it probably wouldn't work as they always have an escape burrow nearby.

Ghost crabs are predators and eat small creatures that live just under the sand at the water's edge, including coquina clams, mole crabs, and ghost shrimp. They are also sifters, meaning that they use their claws to scoop up sand particles and sift through them for tiny bits of decayed matter. Ghost crabs thrive anywhere human trash accumulates on the beach.

Ghost crabs are active during the months of March through November. The best time to see them is early morning and evening. There is nothing quite as fun as coming to the beach with a flashlight and seeing these creatures scurrying about looking for food and adventure.

Many photos of ghost crabs were taken and may be seen on the FoGISP Facebook page.

Guppies from Julie

Each year the Master Naturalist training class is amazing! The chapter rallies to put our best show on for the newbies.

Mentors are key to making new class members feel "at home" in our chapter. Mentors call, make lunches, give rides and become friends with their mentees.

The mentor program was developed after member, Bob Sobotik, attended a state Master Naturalist Conference and learned how other chapters were incorporating mentors into class trainings. Since then, mentors have helped make our chapter great!

After Bob moved, Gib Larson and Chatt Smith have served as leaders for the mentor program.

The 2013 class mentors are Martha Melcher, Bill Ashby, Tom Betros, Mattie Smith, Root Choyce, Barbara Brunson, Cindy Howard, Madeleine Barnes, Scott Buckel, MelMeaseles, Marie Asscherick, Odie Asscherick, Ellen Hufft, Jeanette Adam, Ellen Gerloff, Brenda Gonzales and Chatt Smith.

Many thanks to all of you who have volunteered as mentors. I love seeing the new friendships formed by our terrific mentors and class members. Thank You!

Bay Day at Kemah Boardwalk - June 1, 2013!

Join us for fun-filled day at Bay Day on June 1! The Galveston Bay Area Chapter and Texas Sea Grant will have a booth at the festival and we need you! Our booth will focus on fishing line recycling and ways to reduce non-point source pollution!



To volunteer for a 3 hour shift of fun and surprises, please contact Julie Massey at jmassey@ag.tamu.edu or 281-309-5063!



The Midden

Published by Galveston Bay Area Chapter - Texas Master Naturalists.

Texas AgriLife Extension Service
4102 B Main (FM 519) Carbine Park
La Marque, Texas 77568

For comments on this issue or to suggest content for future issues, please contact Nathan Veatch by e-mail at nveatch@swbell.net.

Midden Editorial Team

Steve Alexander
Nathan Veatch
Diane Humes
Carolyn Miles

Comm. Team Chair
Editor
Madeleine K. Barnes

The Midden Deadline for the next issue

June 30th

If you have Advanced Training or Volunteer Opportunities, please submit information to Maureen Nolan-Wilde, mnwtki@comcast.net.

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.

June and July Activities

ADVANCED TRAINING OPPORTUNITIES

Chapter Meeting - June 6th

Mitchell Ridge Indian Burial Ground on Galveston Island
Presenter: Stephen Garrett, TPWD Archeology Laboratory
6:30 Social, 7:00 Presentation, 8:00 business meeting
AgriLife Extension Office 1 Hour AT

Greenfire Film Screening - July 8th

10am-1pm 3 hours AT including pot luck lunch
AgriLife Extension Office
Film on the life & essays of Aldo Leopold. Discussion of both film & book *A Sand County Almanac* to follow.
Presenters - Heritage Book Study Group
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)945-4731
We are currently reading: *Sand County Almanac* by Aldo Leopold

STEWARDSHIP OPPORTUNITIES

Ongoing Activities:

Tuesdays -

- Sheldon Lakes 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 Sipocz m-sipocz@tamu.edu

Thursdays -

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

Fridays - Prairie Friday, ABNC, 8:30 - 11:30am, Contact: Dick Benoit 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.

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

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 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 - June 4th, July 2nd, July 29th
2-4 at the Extension Office

Committee Meetings

Communication - July 1st
9-Noon at Extension office
Advanced Training - June 17th, no July meeting
10-Noon at Extension office
Education/Outreach - Meets as needed. None currently scheduled.
Stewardship - Meets quarterly. Next meeting to be determine

