

The Midden

Photo by Michael Treiman

Galveston Bay Area Chapter - Texas Master Naturalists

Feb 2012

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Looking Forward and Back by Diane Humes, President 2012

Janus was the Roman god of beginnings and transitions, also gates and doors. He is a two-face god, looking both to the future and the past. The month of January is a time for looking forward and backward, as we begin the new year.

All Master Naturalist chapters must file an end of year report with the State office and its preparation always inspires reflective thinking. The Galveston Bay Area Chapter will be reporting 25,762 volunteer service hours (best year ever!) and 2,656 advanced training hours for the year 2011 with 184 active members. In addition, chapter members conducted education and outreach activities at 242 events, contributing 12,726 direct hours with the public.

These numbers represent hard work and dedication to our environment and our chapter by every single member. Many thanks to 2011 board members and everyone else. On behalf of everyone, thank you for all you do. Give yourself a pat on the back, take a deep breath, start accumulating and reporting those hours, and let's get ready to do it all over again.



At the December 2011 chapter meeting, a new slate of officers was elected:

President, Diane Humes
Vice President, Verva Densmore
Secretary, Tawy Muehe
Treasurer, Gib Larson

In 2011, we celebrated 10 years of growing and learning. As we begin 2012, we look forward to another good year. Although it seems like a gigantic balancing act sometimes - educating the public on one hand, also educating ourselves, and figuring out how best to become good stewards of our environment, and how best to run our chapter - this also sounds like a mission for a Master Naturalist, should you choose to accept it! Let's begin another 10 years of Food, Fun, and Friendship!

Next Chapter Meeting

February 2nd

Talking Trash

By

Diane Humes

At the Extension Office

Prairie Ponderings by Dick Benoit

This past year on our Coastal Tall Grass Prairies we faced a record drought, but the prairie restoration teams continued making progress at restoration. More plants were raised from seeds rather than dividing adult plants. More positive activities were developed in the area regarding prairies and the progress in the area should accelerate this year.

Armand Bayou Nature Center had almost 20 acres purged of mainly Chinese Tallow Trees as burning, mowing, and Tallow whacking continued. Almost 17,000 one-gallon plants were added to the prairie, which impacted 34 acres. The group monitoring the transects has just finished its 12th season. Modifications to the data collection was emphasized, with more emphasis on the quality of each transect. Prairie Friday continues to attract as many as 20 volunteers.



Sheldon Lake State Park has a multi-chapter volunteer group composition, but the leadership has mainly been from our chapter. With the addition of their new auger, over 7,000 one-gallon plants were added to the prairie, which impacted 14 acres. The percentage of plants grown from seed rather than from dividing rescued plants has doubled from last year.

Texas City Prairie Preserve has planted almost 4,000 one-gallon plants and increased its volunteer hours to 1,300 hours. The Nature Conservancy hired a director for TCPP late in the year and acquired Nash Prairie. They are planning to develop a plant material center at TCPP this year.

We are working at Galveston Island State Park for the third year of prairie/dune restoration. We have potted almost 5,000 plants and will continue potting and planting through this year.

The Houston Audubon project of the year at Bolivar Peninsula Prairie has been a monthly project for our chapter. The December work day was cancelled due to disturbance from wild hogs.

A personal goal you can set for this year is to plant an acre of prairie. Planting 500 plants at 9 foot centers is approximately one acre. I know some of you surpass this most months when you work, but for many of us this would be a challenge.

So keep up the good work and we will meet in the prairie.

Wetland Wanderings by Diane Humes

Wetlands are a precious resource, at the edge of land and water; we must restore, protect, and learn from them. All life depends on water. Think globally, act locally.

The Cuyahoga River caught fire in 1969. It was described as, "covered with brown oily film...with large quantities of black heavy oil floating in slicks, sometimes several inches thick...debris and trash in the slicks...dissolved oxygen seldom above a fraction of a part per million...no animal life". Inspired by visions of the burning river, Congress passed the Clean Water Act in 1972, to work toward the goal that "U.S. waters should be drinkable and swimmable". The Cuyahoga today is much improved; it now supports 44 species of fish.

In Houston, sanitary sewers never could keep up with population growth. Waters were awash with raw sewage and pollutants. In 1976 the State of Texas sued the City of Houston over its "water pollution, toxic run-off, and untreated sewage being discharged into the bayous". Ultimately, sewage treatment was upgraded and water quality is improved. But, two very important issues remain for the Houston-Galveston area: waters remain bacterially "impaired" - most streams continue to test positive for higher than acceptable amounts of *E. coli*, an indicator of contamination, and flooding persists.



Photo by Steve Upperman

The Mason Park Stormwater Treatment Wetland was an experiment to address water quality and flooding issues AND improve urban wildlife habitat. Although wastewater and stormwater have been successfully treated in constructed wetlands throughout the world, this had not been tried in the Houston area. The Mason Park wetland receives stormwater from the adjacent Pineview Triangle neighborhood through a single large culvert. Stormwater flows slowly through three wetland ponds, allowing the bacteria to contact the plants, soil microbes, and sunlight, with the opportunity to die before entering Brays Bayou.

After six years of water testing with the Texas Stream Team (formerly Texas Watch), the data shows that water

from the culvert is consistently lower in dissolved oxygen, consistently both lower and more highly variable in pH, and more variable in amounts of E. coli, with shockingly high values compared to wetland ponds and Brays Bayou. Water leaving the treatment wetland contains far less bacteria than entering, very often meeting standards for contact recreation i.e. swimming.

Does the wetland prevent flooding? The wetland has withstood three occasions of overbank flooding, including Hurricane Ike, when floodwaters rose 5 meters above normal level. Effects on the wetland were limited to deposition of sediment and trash. The wetland is a small area; by itself it may not prevent flooding, but cannot exacerbate it. Birds, fish, mammals, and reptiles frequent the ponds and the native vegetation may serve as a seed source for other locations.

In the early stages of the Mason Park Stormwater Treatment Wetland, Marissa Sipocz (Wetland Restoration Team leader, Texas Coastal Watershed Program) sought volunteers and Master Naturalists answered the call. Thus was begun the Wetland Restoration Team, (mostly) Master Naturalists who collected, propagated, and planted native wetland vegetation at Mason Park, tested the water and mentored student groups. The Team scope has expanded to restoring wetlands in the entire Houston metro region - currently working at Sheldon Lake State Park. If it's Wednesday, it is Wetland Wednesday. Contact: Diane Humes, treimanhumes@earthlink.net for info.

James F. Bay Elementary Garden Club by Vic Madamba

Nestled between the building complexes of James F. Bay Elementary School in Seabrook is a garden designed and planned as an Outdoor Learning Center (OLC) habitat. Started this year, it now produces several varieties of vegetables and flowers to attract pollinators such as bees and butterflies, other insects, and hummingbirds.

Ms Karen Rompot headed this habitat project with assistance from the school staff, students and parents. Little did they know that the several milkweed plants that were planted there would attract the Texas state Insect, the Monarch butterfly. As if by magic, Monarch eggs and caterpillars began to appear to the amazement of the students in the Garden Club, sparking the interest in them to want to know more about Monarchs.



I met Ms Rompot earlier in the year and she asked if I could give an hour talk on Monarchs, which I gladly accepted. We decided to cover monarch tagging and the parasite that infects monarch butterflies. The presentation was held on December 12 in the science lab with 22 students, 3 teachers and 3 parent volunteers attending.

We got started after a brief introduction and several up front questions from the students: "Which one is the

female and which is the male?" "How long do they live?" "Where do they stay for the winter"?

To get started, Q-tips were cut in half, butterflies were cut out, stickers divided and gloves were given to each student. First we covered monarch tagging, demonstrated with an actual live monarch and then rushed into *Ophryocystis elektroscirrha*, or "Oe" for short, a protozoan parasite that attacks only monarchs and eventually kills its host. Time ran out, with the students wanting to learn and do more.....to be continued.

What Should a Texas Master Naturalist Know - 2012 by Diane Humes

The Mexican free-tailed bat, *Tadarida brasiliensis*, also known as the Brazilian free-tailed bat, is native to the Americas. It is a medium-sized bat, dark-brown to gray, about 9 cm long (3.5 inches) and weighing 12.3 grams - less than half an ounce. Its ears are wide, snout is short, and upper lip is wrinkled. Wings are long, narrow, and pointed, spanning 30 - 35 cm (12 -14 inches). The tail is nearly half the length of the animal and extends beyond the tail membrane; most other bats have tails enclosed by the membrane.



2012 Recertification Pin

Bats are mammals of the order Chiroptera, from the Greek meaning, "hand-wing". This is a large group of flyers encompassing 1240 species worldwide - 20 percent of all

mammals. The Chiroptera are further subdivided into "megabats" - fruit eaters and mostly tropical - and "microbats". The microbats, which are the majority of bats, include Mexican free-tailed bats. Microbats eat insects and have specialized echolocation adaptations to locate prey.

Excepting the coldest regions - the Arctic and Antarctica, plus a few isolated oceanic islands - bats occur worldwide. Of the 45 to 48 U.S. species, the Mexican free-tailed bat is the commonest species in the southwest, whereas the little brown bat, *Myotis lucifugus*, and big brown bat, *Eptesicus fuscus* are most common in the north and east.

Mexican free-tailed bats are probably the most numerous non-human mammal on Earth. Studies using thermal imaging and infrared tracking indicate the U.S. population to be about 9 million individuals and increasing. When the bats of Mexico are added to the

U.S. count, the number grows to anywhere from 10 to 100 million. Mexican free-tailed bats are not considered endangered at this time.

Mexican free-tails may live up to 18 years. Males and females roost separately except for breeding season. Females roost in large nursery colonies. Bearing a single pup in the summer, a female leaves it in a large group of young, but knows its scent and can find her own. She nurses the pup once a day until it is weaned and independent, after 4 to 7 weeks.

Mexican free-tailed bats leave their roosts at sunset and forage throughout the night for flying insects, which they catch in flight. The jets of the bat world, they fly high, fast and far - over 50 km at 3300 meters of altitude. Large flights have been seen on Doppler radar. Known to eat moths, beetles, dragonflies (!), flies, true bugs, wasps, and ants, these bats devour half their own weight in insects each night. Also great pollinators, Mexican free-tailed bats pollinate sugarcane and consume insect pests of sugarcane; therefore, they are the featured icon on the Bacardi rum label.



BACARDI

Mexican free-tails range throughout South and Central America and the western U. S. They roost in colonies near water and prefer caves; Bracken Cave near San Antonio has the largest colony in the world. They will also choose attics, abandoned buildings, and under bridges, with the right construction - expansion joints spaced 1.5 inches wide and 20 inches deep. Some bridges have been retro-fitted to these specifications to increase bat habitat.

Two famous bridge colonies in Texas are the Congress Street bridge in Austin, hosting 1.5 million bats and the Waugh Street bridge in Houston, with 250,000 bats.

Most Mexican free-tailed bats migrate south for the winter, but the Waugh Street bats remain year-round and their spectacular flights may be viewed most evenings, as long as temperatures remain above 50 degrees. (Bats don't do freezing!) Highest numbers are present in summer, when babies are in the nursery.

Millions of Mexican free-tailed bats live in Texas; it is the Texas "state flying mammal". And, it joins the Post oak leaf, Lindheimer daisy, Green tree frog, Belted kingfisher, Texas prickly pear cactus, Grass shrimp, Texas purple sage, Texas salamander, Wood duck, and Texas horned lizard as the emblem for our Texas Master Naturalist recertification pin. You can say that 2012 is the "Year of the Bat". Don't forget to turn in those hours, so you can get your cool Mexican free-tail bat pin.



Treasures of Bay Award Recipients 2011 by Julie Massey

Each year our chapter recognizes outstanding service and contributions to natural resource restoration and education efforts with the "Treasures of the Bay Awards!" Here are the 2011 recipients who were recognized at the December chapter meeting.

Corporate Award

Kaneka Texas Corporation
Lyondell Basell

Nonprofit Award

Texas City Prairie Preserve
Houston Audubon Society

Chapter Service Award

Root Choyce
Verva Densmore
Debbie Howard
Sue McManamen
John Sharp
Chatt Smith
Rita Smith
Steve Upperman

Making a Difference Award

Chris Boodley
Jack Clason
Emmeline Dodd
Victoria Fogg
Gail Gawenis
Dr. John Jacob
Tamberlyn Maggiolino
Diane Olsen
Rose Anne Dudik Presley
Lynn Smith
Mary Vogas
Charriss York

Chuck Buddenhagen Memorial Education Award

Bill Ashby
Jamie Ashby
Tawy Muehe

Sammy Ray Researcher Award

Sally Paulissen

Congratulations to all the award winners!

New Year's Resolution by Shirley Foster

Here it is the end of the year and you don't have all the AT hours necessary. The next class is impossible for you to attend. After gnashing your teeth, you resolve to start collecting 2012 hours earlier in the year.

Your Advanced Training Committee is hard at work to assure that you have good choices in both subjects and meeting times. While the choices are never to everyone's liking, the committee attempts to find a wide range of subjects that will be useful to Chapter Members in their fields of volunteering and in expanding their

knowledge of our natural world. We also attempt to schedule weekday and Saturday classes, daytime and night sessions.

For starters, there are the bi-monthly Chapter Meetings which usually offer one hour of AT. Then, there is the Heritage Study Class at Texas City Prairie Preserve, first Monday of each month at 10 AM. In February there is a Beachcombing Workshop, March, a session on Raptors, an AV Media Seminar for those who would like to learn more about our equipment, April brings FeatherFest with

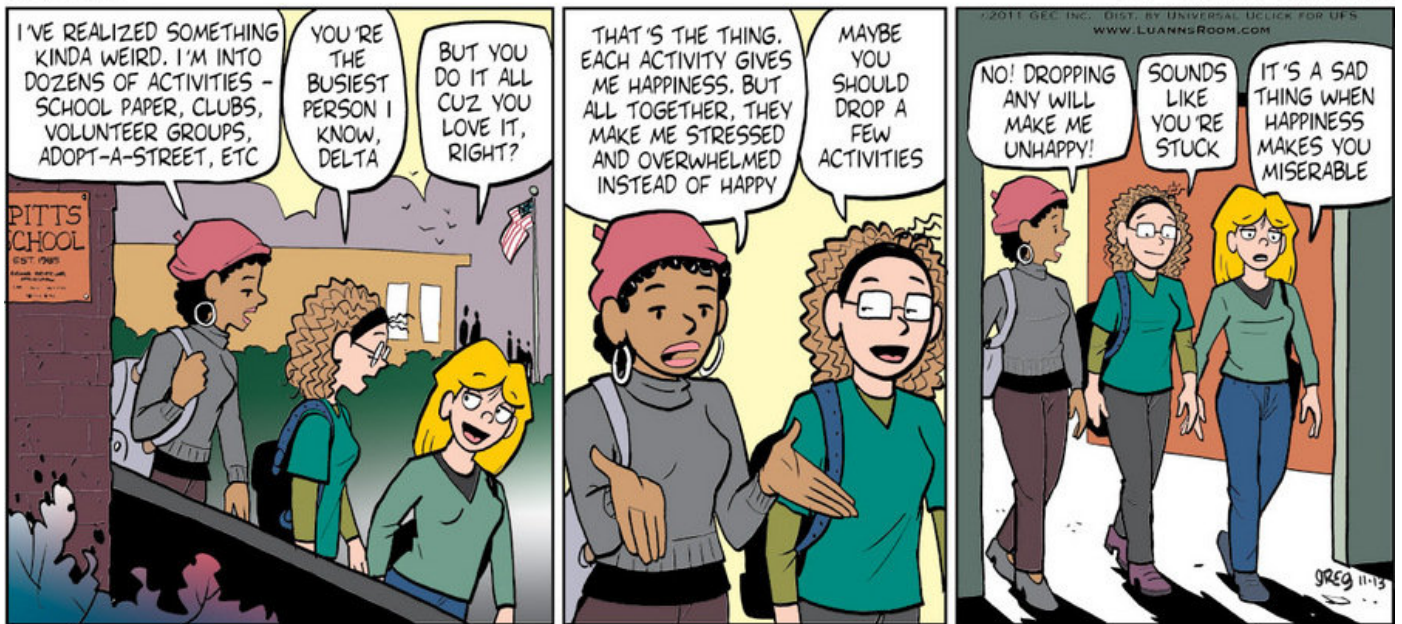
many field trips and classes and at the end of the month a workshop at Galveston Island State Park on bayside plants and animals.

Many more sessions are planned—some repeats and some brand new. Be sure to read your Midden, watch for Alan’s e-mails and check the website frequently. We want all of you to take advantage of the wonderful opportunities offered. Before you know it your **eight hours AT** are all recorded and you are looking for new subjects to explore.

Humor

LUANN

BY GREG EVANS



Does this sound like anyone you know? The Communications Team can relate! How about you?

Happy 2012!

Guppies from Julie

2012 is off and running! Master Naturalists are digging, planting, testing water, exploring and getting ready for the Spring Class!

You can help to make the spring class a huge success! Plan to be a training class volunteer - mentor a new class member, bring potluck or breakfast goodies, introduce speakers, set up equipment and much more!

You'll have fun meeting the new class members, learning and volunteering!

The Spring 2012 Class begins on Thursday, February 16, 2012 at Armand Bayou Nature Center! Volunteer now by contacting Sara Snell at 281-309-0276 or snellsw@verizon.net.

Master Naturalists, Dolphin Challenge and Sea Aggies! Saturday, March 3, 2012!

On March 3, 2012, Dolphin Challenge will be held at Texas A&M University - Galveston and **WE NEED YOU!** Dolphin Challenge is the regional competition for National Ocean Sciences Bowl (NOSB).

NOSB is an academic competition that tests high school students' knowledge of the marine sciences including biology, chemistry, physics and geology. Students will come from across the state to participate in this competition! The winners will advance to the national finals to be held in Washington, D.C.!

Volunteers are needed for all aspects of the competition from timekeeper to serving as judges - training will be provided!

Save Saturday, March 3, 2012, for Dolphin Challenge! If you would like to volunteer, please contact Julie at jmassey@ag.tamu.edu or 281-309-5063.

See you on the marsh or in the prairies! Julie

Midden

by Galveston Bay Area
Master Naturalists.
Executive
Director
State Park

or to suggest content for
the Midden contact Nathan Veatch at 281-480-
nveatch@swbell.net.

Editorial Team

Chair
Editor

Deadline April Issue

March 5th

Training or Volunteer
Information to Diane
nes@earthlink.net



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February and March Activities

ADVANCED TRAINING OPPORTUNITIES

Chapter Meeting - February 2nd
 Presenter: Diane Humes will cover Talking Trash
 6:30 Social, 7:00 Presentation, 8:00 business meeting
 Extension Office 1 Hour AT

Biology of Beachcombing - February 11th
 9 am - Noon 3 Hours AT
 Classroom 1 GCEC - Carbide Park
 Sea beans, shells, and flotsam and jetsam
 Presenters-Bill Ashby and Nathan Veatch
 Register with Emmeline Dodd txdodd@aol.com

Raptor Workshop March 5th
 7-8:30 pm 1.5 Hours AT
 GCEC - Carbide Park
 Hawk Migration is coming
 Presenter - Dick Benoit
 Register with Emmeline Dodd txdodd@aol.com

AV Media Workshop March 28th
 9:30am-12:30pm 3 Hours AT
 GCEC - Carbide Park
 Learn how to use AV equipment
 Register with Emmeline Dodd txdodd@aol.com

Ongoing

Galveston Island State Park
 Beginning in mid-March. 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. Texas City Prairie Preserve
 10am-Noon 2 hours AT
 Contact: Elsie Smith (409)945-4731
 We are currently reading: *Matagorda Island: A Naturalist Guide* by Wayne and Martha McAlister

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

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

Fridays - Prairie Friday, ABNC, 9 - Noon. 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 Sara Snell snellsw@verizon.net.

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 - January 31st, March 6th
 2-4 at the Extension Office

Committee Meetings

Communication - March 6th
 9-Noon at Extension office
 Advanced Training - February 13th, March 19th
 10-Noon at Extension office
 Education/Outreach - No meetings scheduled.
 Stewardship - Meets quarterly
 Next meeting in April
 Training Class - February 8th
 11am-1pm at Extension office