

# The Midden



Blue dasher by Diane Humes

Galveston Bay Area Chapter - Texas Master Naturalists

October 2017

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## President's Corner by George Kyame, President 2017

Greetings Fellow Master Naturalists,

I may have given the state of our Chapter, and said, Hi Ho. I instead, change my message.

As we all know, this terrible storm, Harvey, came on land on the central coast, causing much destruction and damage. In short days, it brought bands of devastating rain and water to countless regions.

We all have to come together to bring help and comfort. So far, we have and I expect that the wave of assistance shall continue. I won't stop until I hear the last okay. Some of us did not fare well. Some of us dodged the aftereffects. Let us get together to get to normal - I've just seen it happen!

My thoughts go out to all of you. This has been a minor call to arms situation, of which we answered. As of this writing, I want to say, that I hope to be part of a giant collaboration where we all serve our neighbors and environment. We have always said so.

Let's do it, your friend, in these strong times,

George.

## Next Chapter Meeting

October 5<sup>th</sup>

American Eel Monitoring

By

Stephen Curtis  
River Studies Program  
Texas Parks & Wildlife

TBA



## Wetland Wanderings: Bucket barn adventures by Lana Berkowitz

This was going to be a post about what you find in a well-equipped supply shed for wetlands restoration work, but it turned into a “what’s wrong with people” piece thanks to thieves and vandals.

In July we found the lone window into the Wetland Restoration Team’s bucket barn at Sheldon Lake State Park & Environmental Learning Center busted. It looked like rocks from the new grow-out beds had been thrown through the window, and the door was damaged but the lock had held. A small toolbox reachable through the broken window was missing. Rangers also found fire extinguishers from ATVs in the nearby parking shed thrown in the grass near a parking lot. Later rangers discovered two push mowers were missing. Perhaps the work of destructive kids, we speculated.

The break-in prompted the wetland team to finally clean the bucket barn. A couple of months earlier someone had called the shed an OSHA accident waiting to happen - the limited floor space had become an obstacle course.



So three of us set about sweeping up broken glass and restoring order to our domain, which is about 12-by-12 feet. Our finds included a bucket of dirt, an electric glove and boot warmer that didn’t work, a single black boot, some nasty gloves, a box of pasture sticks donated as door prizes for a field days event, a couple of geckos and four pencil-eraser size white eggs that we relocated under the edge of the shed.

Three dustpans were uncovered; we kept one and sent the others to the main building. We found paint cans leftover from last year when the staff wanted us to change the color from cream to Texas state park brown. We handed those cans over to the rangers. We collected two bags of trash and a bag of recyclables such as cups and boxes.

At the end, our orderly space held about 25 buckets, hence the name of our barn. The containers we use to haul sprigs and other material are called muck buckets when you find them at equestrian outlets. Boots also take up a lot of the space. There are 10 plastic storage boxes filled with waders and boots sizes 5-14 for volunteers and students. Plus we have a bucket of washable gloves.

Our inventory also includes:

- Dibbles, round-point shovels and sharpshooter shovels
- Soil knives and a couple of trowels
- Various cans of insect repellent, WD-40, 3-in-One oil and tree-marking paint
- Rakes, clippers and pruning saws
- A couple of small, metal folding tables for onsite sprigging
- Sprayers for spot treatments
- Five-gallon buckets, a couple that can double as stools, and recycled kitty litter buckets for collecting seeds
- Measuring tape and frames for transects
- Roll of orange plastic safety barrier fence and small roll of chicken wire fencing
- Small marking flags and stakes
- Hatchet and machetes for cutting through brush and thick areas
- Box of rags and roll of trash bags
- Blue tarp and pop-up shelter
- Small container of nuts and bolts with a few hand tools such as screwdrivers.
- Long-handled brushes for cleaning boots and buckets.
- Spare tires for the ATV

A week after our cleaning spree, the bucket barn was broken into again. What’s wrong with people?

This time the invaders ripped off the bottom half of the wooden door and turned on an outdoor faucet, which flooded the area. It seems nothing was taken. However the supplies have been relocated to other buildings at the park while repairs are made. In response, security is being stepped up and cameras are being discussed.

I think the neighborhood watch is falling down on the job. Maybe we should have a conference with the locals. An alligator patrol could be a good deterrent. Why don’t the copperheads take shifts circling the bucket barn? The raptors’ aerial campaign is obviously failing. And where are those territorial wasps? It’s time for a good sting operation.

## Prairie Ponderings: Finding Meteorites by Diane Humes

Meteors that streak across the night sky are known as “shooting stars” and the brighter ones as “fireballs”, but are called meteorites once they have crashed-landed on Earth. These black-crusted, sometimes rounded, heavy rocks are of great interest to scientists for the information they may carry about our solar system and universe. Considering the difficulty of doing field work in outer space, it is excellent when the rocks come to us for free. Of course, meteors do not always give advance warning or land in easily accessible places, but when scientists examined their options for locating meteorite falls, the wide open expanses of U.S. prairies seemed like a logical place to try to track them.

Scientists from the Smithsonian Astrophysical Observatory constructed a network of cameras, called, variously, the Prairie Camera Network and Prairie Meteorite Network, at 16 stations from South Dakota to Oklahoma, Illinois to Nebraska. Operating between 1964 and 1975, they photographed the skies nightly, hoping to track and recover fallen rocks from space.

Most meteors burn up in the atmosphere leaving no trace. Occasionally, some asteroid material is large enough to survive, rocks fall, and sometimes, if we know where to look, are found. In the U.S. over the 208 years from 1807 - 2016, 170 recorded witnessed “falls” occurred, as opposed to “finds”.

The Prairie Camera Network recorded hundreds of fireballs streaking across the sky, but only once in the U.S. was a meteorite found on the ground, at the fall site calculated for a prominent fireball outside Lost City, Oklahoma. The fireball crossed the sky for nine seconds at 8:14pm on January 3, 1970 and citizens heard its sonic boom. Prairie Network cameras recorded its path from four locations - two in Oklahoma and two in Kansas, allowing scientists to very accurately determine its location of impact near Lost City.

Lost City had about 9” of snow on the ground, delaying search efforts. As soon as roads were passable, investigators found the first of two stones recovered from this meteorite, although they later admitted that a canine searcher had found the meteorite first, judging by the paw prints and “yellow snow”. Scientists calculated from the meteor’s path that it had had an elliptical orbit looping from around Venus’ orbit out to the asteroid belt.

The Lost City meteorite is only one of three to have been photographed by early camera networks and recovered.

Texas has a lot of wide open prairie spaces; good places to find meteorites. In fact, 17 falls have been witnessed in our state since 1903. One of the most recent happened on the morning of Feb. 15, 2009 at Ash Creek, Texas.

The fireball happened to streak across the Texas morning sky during the Austin Marathon, and was caught by camera crews filming the race.



Photo by Chip Clark, Smithsonian Institution

Scientists looking at the footage determined that the fall should be near Waco and headed in that direction. However, NASA scientist, Marc Fries, (our Linda Welzenbach-Fries’ husband) and his brother Jeffrey Fries, USAF meteorologist, searching Doppler radar records, observed a descending “cloud” near the town of West. “This was the first meteorite fall observed using weather radars at the time of the fall,” Marc stated, “and the first where radar was used to help retrieve meteorites.” The West, TX meteorite fall turned into a well-publicized event with substantial participation by the general public, and hundreds of meteorites recovered.

Residents of West noticed loud detonations overhead, a fireball and smoke trail, and a rain of stones. As with the Lost City meteorite, the first stone may have been recovered by a dog, a border collie named Hopper who brought home a 70.5 gram stone. In all, hunters recovered ~ 300 stones - 11.7 kg total weight - from what was labeled the Ash Creek meteorite fall. Doppler radar data has been matched up with kettles of migrating hawks, warblers, and insects, but this was a first for meteorite hunters!

The Prairie Camera Network operated for 10 years. NASA now operates an All-sky Fireball Network of 15 specialized cameras for viewing the whole night sky overhead. With overlapping fields of view, a fireball can be viewed by multiple cameras. This will allow calculations of the fireball’s height and speed to both find it, should it hit Earth, and determine its orbit. If you become interested, visit the NASA website, <https://fireballs.ndc.nasa.gov/>, to view nightly data from these cameras. The American Meteor Society also operates a free website where people can report seeing meteors ([www.amsmeteors.org](http://www.amsmeteors.org)), and maintains a database of meteors seen worldwide. You, too, can track a meteor, from the comfort of your home!

But, viewing is best with dark skies and big vistas found on our unspoiled prairies.

## Beach Patrol: Spat is where it's at by Maureen Nolan-Wilde

Who knew gardening could be so much fun? Just ask the chapter members taking part in the Galveston Bay Foundation (GBF) head-start oyster gardening program for volunteers.



Photo by Maureen Nolan-Wilde

The chapter's oyster gardeners have waterfront homes in Bayou Vista and Tiki Island and each was given five mesh bags full of recycled oyster shells.

When oysters reproduce, they spawn tiny larvae that float along until they find an appropriate habitat to settle

on. When the larvae permanently attach to a surface, they are known as spat.

When GBF announced that the area's oyster population had begun releasing larvae, participants suspended the bags from their docks to attract passing spat.

At the Wildes' house, we take our bags out of the water once a week, rinse them with fresh water (the bags pick up a lot of sediment and, potentially, predators), check for the presence of spat and document our findings. This spat check has been a bit of an adventure, particularly since we didn't really know what to expect! Immediately we began to find porcelain and stone crabs, shrimp and other aquatic goodies hanging out in the bags. Then, in week 4, we had our first spat sightings and became official oyster foster parents. Since then, other sites also have started to see spat.

Participants share weekly findings and pictures on our Facebook pages and, as a result, get questions about spat and the head-start program from people throughout the country. Some have even contacted GBF to join the program. We were surprised by the high level of interest.

Our oyster shells and spat will be collected later in the year to be spread on restored reefs (hopefully close to our homes) to enhance local oyster populations.

## It's Hard to Pick a Favorite Butterfly by Lana Berkowitz

Listening to Wallace Ward talk about butterflies, you quickly discover that he has many favorites.

At his Houston presentation hosted by the Native Prairies Association of Texas-Houston and Coastal Prairie Partnership, I took note when an image of the Southern Dogface flashed onscreen and Wallace said it is his favorite.

A few photos later, the enthusiastic member of Butterfly Enthusiasts of Southeast Texas (BEST) said Blues are his favorite.

By the end of his 90-minute presentation on approximately 25 butterflies, his list of favorites had grown to include Crescents, Southern Skipperlings and Gulf Fritillaries.

Afterward I emailed Wallace to get him to expand on his favorites. Here are his comments:

**Southern Dogface:** "I like Sulphurs generally because of their beauty and form and the Southern Dogface (*Zerene*

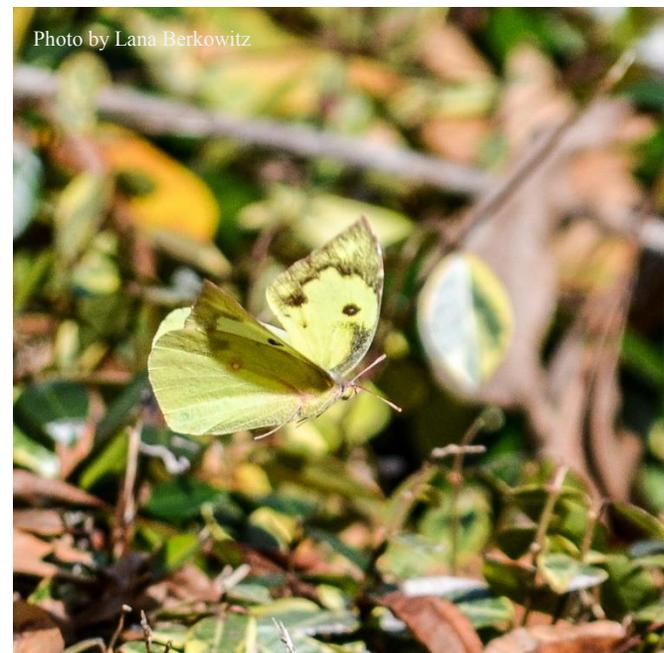


Photo by Lana Berkowitz

*cesonia*) in particular for the cartoon-style dog face on the inner wings. There has been a long-standing debate over whether every single feature of an organism evolved to confer an advantage; so perhaps the dog face might deter a bird. Who knows?"

**Blues:** "Blues are my favorites of all time because of their diminutive size, complex patterns on the outer wings, and beauty of form and pattern."

Springtime in late March in Alexandria, Va., my home for many years, was marked by the bloom of henbit, a wildflower in the mint family, and the appearance of the Eastern-tailed Blue (*Cupido comyntas*) nectaring at its flowers, a favorite memory of mine."

Not alone in his enthusiasm for Blues, Ward told me that "Vladimir Nabokov upon arriving in the U.S. in the 1940s found employment at the American Museum of Natural History in New York curating the butterfly collection before he launched his literary career (which included *Lolita*). He published prescient papers on the migration of separate pulses of Blues from Asia into South America. See *Nabokov's Blues*, a book detailing his work. A more recent book, *Fine Lines*, shows his careful work of 70 years ago is now proved up by DNA analysis of the Blue species he studied."

**Crescents:** "I like Crescents since their orange and black inner-wing color patterns are very complex and beautiful. The Texan Crescent (*Anthanassa texana*) was chosen as the BEST mascot because it is, well, Texan by common name. It patrols the outer-loop trail of the West 11th Street Park, a wilderness park of over 20 acres just west of the Houston Heights, looking for mates, where I encounter it on walks. The Pearl Crescent (*Phyciodes tharos*) is another local beauty, and the Phaon Crescent (*Phyciodes phaon*) is often found where its host plant, frogfruit (*Phyla nodiflora*), is abundant."

**Southern Skipperling:** "The Southern Skipperling (*Copaeodes minima*) is a very pretty and tiny grass skipper, using grass as its caterpillar host plant, and abounds along grassy bayou banks at times. Several held still for me to photograph along White Oak Bayou in

July 2007. We saw hundreds of them during the BEST Houston NABA Butterfly Count in 2005 along Braes Bayou, but unfortunately Harris County Flood Control continues to widen the bayou and scrape away host plants and eggs of this butterfly."

**Gulf Fritillary:** "The Gulf Fritillary (*Agraulis vanilla*) is the first butterfly I learned to identify, so I have a special liking for it. It is a big, beautiful butterfly, and I have seen it flying as far away as Atlanta."

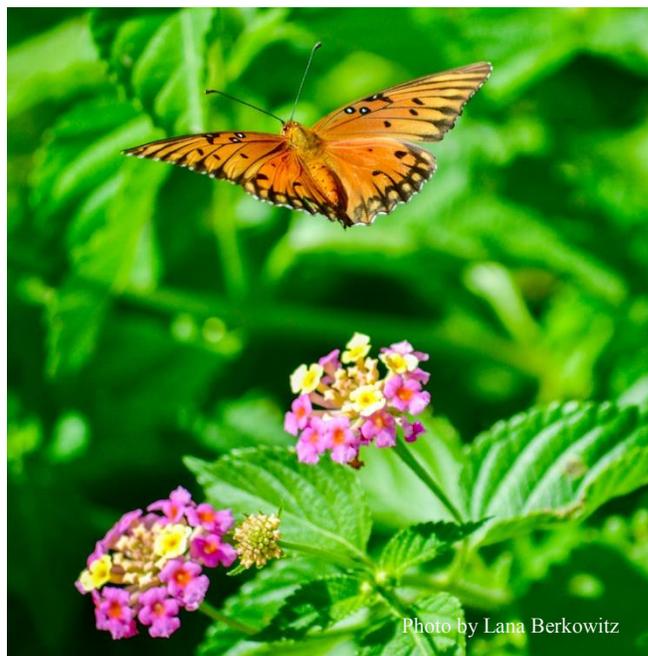


Photo by Lana Berkowitz

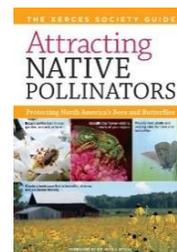
Wallace, who is a Katy Prairie Conservancy board member and president of Native Plant Society of Texas, notes that the BEST website [www.naba.org/chapters/nababest/](http://www.naba.org/chapters/nababest/) has an excellent list of butterfly nectar and host plants for this area, and beginners are welcome to participate in BEST butterfly counts.

And here's a reminder: Cut back tropical milkweed (*Asclepias curassavica*) Oct. 1 to February to encourage Monarch migration and discourage disease.

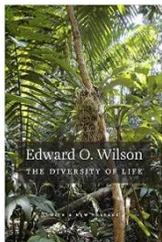
## Heritage Book Study - Review of *Attracting Native Pollinators* by Madeleine K. Barnes

On Monday, August 7, 2017, the book study met for its final discussion of *Attracting Native Pollinators* by the Xerces Society. This gathering was an Advanced Training opportunity, open also to master gardeners, and became a wonderful forum for 25 people from both groups to interact and share information. Master naturalists Vic Madamba, Mel Measeles, and Martha Richeson led the Pollinator Panel discussion with presentations that engendered opportunities for many

questions and answers. Members from both groups provided delicious refreshments. Thanks to everyone who helped with set up, presentations, communications, and refreshments making this such a successful event. Woohoo!



Thanks to Chuck Snyder, we now have the list of naturalist books read by the Heritage Book Study on the GBAC website. On the GBAC home page, you go to the Membership tab and move the cursor down to Advanced Training line and click on the Heritage Book Study group - Past Selections option and view the list.



We began reading our newest selection, *The Diversity of Life* by E.O. Wilson, for September and continue for the next two months. On October 2, we will discuss

pages 118 - 234 and on November 6, pages 235 - 351. The final book selection for this year is *The Life History of a Texas Birdwatcher: Connie Hagar of Rockport* by Karen Harden McCracken, which we will read and discuss in December 2017 & January 2018.

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

## Those Pesky Lovebugs by Diane Humes

The Great American Eclipse of 2017 on August 21 promised to be the event of a lifetime - it was for Allan and me! We left our house Saturday morning, bright and early, to be in position in Carbondale, Illinois for the Monday event, staying with friends within the band of totality.

Our first road trip in a while, but on familiar roads, we often traveled to Texarkana and then across Arkansas, driving to Michigan. However, this time, we began meeting lovebugs on the windshield - thousands, millions, maybe billions of lovebugs. We stopped and cleaned the windshield, but in 20 miles, nobody would have known it! The bugs were pinging the front of the car like hail - a veritable asteroid storm of insects. Same story on the way home; we could barely see to drive across Texas.



Photo courtesy of Wikipedia

So, what gives? We saw no lovebugs in Arkansas, Missouri, or Illinois; why is Texas so special?

Upon returning home (just in time for Hurricane Harvey), I looked up lovebugs. They are actually flies - not bugs - in

the family Bibionidae, often called March flies. Worldwide there are about 200 species of bibionids, but in the U.S. we have two. *Plecia americana* is a native species, living from Mexico to North Carolina. It frequents woodland habitats in small numbers, and emerges to mate only in the spring, and is not attracted to automobiles. This is not the nuisance species.

Our travel encounter was with *Plecia nearctica*, an invader from Central America. First reported in Louisiana in 1911, this species was commonly found in Texas and Louisiana by 1940 when it was described from Galveston by entomologist D.E. Hardy. Since then, it has increased in numbers and range along the Gulf Coast from Texas

to Florida and also to Georgia, North and South Carolina, and Arkansas - just not yet in the part we drove through. Could it have arrived through the Port of New Orleans? Perhaps, in a load of Bahia grass sod from as far as Costa Rica?

Males and females copulate for long periods of time and are commonly seen flying joined, hence their name, lovebugs. Researchers say it may take up to 12.5 hours for complete sperm transfer during lovebug mating. Adults are small, mostly black, but red at the top of the thorax, immediately behind the head. Females are noticeably larger than males. Members of this species are attracted to automobile exhaust, vibrations, and hot engines and are often seen swarming along highways and busy intersections. They fly low to the ground, so are doubly vulnerable in traffic.

Lovebugs are most known, and detested, by motorists, for their swarming flights of incredibly huge numbers of individuals. Their spattered bodies on your car definitely impede visibility, clog your radiator, and can mess up your paint job. Mating flights happen two times during the year - April to May, and August to September, meaning two generations are born each year. Flights occur when it's hot and sunny - temperatures above 28° C or 82° F and usually between 10am and 4pm.

*Plecia nearctica* begins its life by hatching from a clutch of eggs usually found in a pasture or other grassy area, such as along a roadway. Larvae are slate-gray, with a spiky appearance. They require adequate soil moisture and favorable soil temperatures. Harmless, they feed on decomposing vegetation, recycling the leaf litter; this stage is the largest portion of the life cycle. When developed enough, larvae burrow into the soil to pupate for seven - nine days, emerging as adults.

Males emerge first and hover above the grass, waiting for the females. Females emerge and crawl up blades of grass, then take flight through the male swarm above them and are quickly captured by males. Although adult

lovebugs have been seen feeding on nectar flowers, the main adult activity is mating, which they do once or twice before dying. Adults live four or five days maximum, so have no time to waste in producing the next generation. Females lay 200 - 300 eggs and the cycle continues.

Even with mass slaughter on the highways, lovebug populations have grown and their range has increased by about 20 miles per year. It could be that cars and trucks are enabling their spread; after all, they do not all manage to die on your windshield. I might have unknowingly contributed to the introduction of lovebugs to Arkansas!

One factor possibly contributing to increased lovebug numbers across the South may be fire suppression;

increased leaf litter provides larval lovebug habitat. In addition, clearing land for pasture and cattle is just what lovebugs like. I'll just note that we drove through the Piney Woods, but saw far more cleared land than forests.

Our lovebugs have no known predators, although a few species of soil fungi may kill them. Insecticides are ineffective against them. To avoid lovebugs during their nuptial flights, perhaps we should have driven to Arkansas at night when lovebugs don't fly or rescheduled the eclipse.

They say, "it's an ill wind that blows nobody any good" and learning about *Plecia nearctica* was quite instructive. But, conjuring up a hurricane just to wash the dirtiest little white car in the county? Really?

## Editor's Notes by Diane Humes

Amanda Campbell, group reservations manager at the Omni Hotel in Corpus Christi, site of the 2017 TMN Annual Meeting, reports that the Omni weathered Hurricane Harvey very well, suffering mostly soggy carpets, and that the city is recovering from minor storm damages. Neighboring communities of Rockport, Port Aransas, Refugio, and Bayside suffered extensive damage from Harvey, but at the Omni Hotel in Corpus Christi they are eagerly awaiting the arrival of master naturalists October 20 - 22. Don't forget: LAST DAY of registration is September 29. You can register at <https://txmn.org/2017-annual-meeting/>.

Thankfully our headquarters remained high and dry during the storm! The Galveston County Extension Office is serving as a storm shelter, as we speak, so verify meeting locations for the time being.

As we help each other get back to normal, let us give thought to what can be done to prevent the damages we have just witnessed from happening again.

### *The Midden*

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

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*The Midden* is posted on the GBAC-TMN chapter website: [www.gbamasternaturalist.org](http://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](mailto:julie.massey@agnet.tamu.edu).

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TEXAS  
MASTER NATURALIST™  
*18th Annual Meeting*  
OCTOBER 20-22, 2017  
OMNI CORPUS CHRISTI HOTEL

## October and November Activities

### ADVANCED TRAINING OPPORTUNITIES

**Chapter Meeting** - October 5; American Eel Monitoring Presenters - Stephen Curtis, River Studies Program, Texas Parks & Wildlife  
6:30pm Social, 7pm Meeting, 7:30pm Speaker  
AgriLife Extension Office; 1 AT hours

#### Ongoing

Galveston Island State Park  
10am at the Welcome Center  
Every Saturday- Beach Explorations  
Every Sunday- Bay Explorations  
Tours 1 to 1 ½ hours long. Bring water and family.

#### Heritage Book Study Group

First Monday of every month. AgriLife Extension Office  
10am-Noon; 2 hours AT  
Contact: Elsie Smith (409) 392-7003  
See Pg. 9 for meeting dates and books.

### STEWARDSHIP OPPORTUNITIES

#### Ongoing Activities:

Mondays - Galveston Island State Park, Contact: Chatt Smith [chattsmith@gmail.com](mailto:chattsmith@gmail.com)

#### 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 Llosa [mllosa@tamu.edu](mailto:mllosa@tamu.edu)

#### Thursdays -

- Stormwater Wetland Team, every Thursday, 9am - Noon. Contact: Mary Carol Edwards [mary.edwards@agnet.tamu.edu](mailto:mary.edwards@agnet.tamu.edu)
- San Jacinto State Park, Contact: Jim Duron [wishkad@yahoo.com](mailto:wishkad@yahoo.com)

Fridays - Prairie Friday, ABNC, 8:30 - 11:30am, Contact: Chatt Smith [chattsmith@gmail.com](mailto: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](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 Sara Snell [snellsw@verizon.net](mailto: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, 2-4pm

#### Committee Meetings

Communication - October 30, Monday, 9-Noon  
Advanced Training - Third Monday, 10-Noon  
Education/Outreach - Third Tuesday, 10 to 11:30am  
Stewardship - Meets quarterly



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.

### *The Midden Deadline*

for the next issue

**October 29**

If you have Advanced Training or Volunteer Opportunities, please submit information to Tim Long, [tikibloke@yahoo.com](mailto:tikibloke@yahoo.com)

