

# The Midden

Crimsoneyed Rosemallow by Lyman Brown

Galveston Bay Area Chapter - Texas Master Naturalists

August 2015

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## President's Corner by Maureen Nolan-Wilde, President 2015

At a recent outreach event, one of the participants raised a hand and asked for an explanation of what it means to be a Master Naturalist. How do you convey in a minute or two the work our chapter does in the prairie, beach and bay, working with schools, and species-monitoring? It is never easy for me to limit my response, because I am always amazed at what we accomplish and, on top of that, the fun and fellowship we enjoy while serving the community. Moreover, non-profit agencies highly respect us as people who deliver; thus, we are much sought after for their projects.

Thank you to everyone who participated in Camp Wild. It was another successful year of fun and education for the participants and volunteers. Special thanks to the planning team whose work and dedication made this another year of memories.

Training for the Volunteer Management System (VMS) started in July and, by now, some of you are entering your hours into the system. The behind-the-scenes team has done an amazing job and special thanks go out to Jim Duron for his dedication and leadership in this effort.

We awarded our 2015 \$1,000 college scholarship to Vaughn Linton. He has been involved with our chapter as a camper at Camp Wild, as a youth counselor, and then as an assistant with kayaking and water activities. Vaughn plans to attend University of Texas - Dallas.



## Next Chapter Meeting

August 6<sup>th</sup>

Flower Garden Banks  
NMS: From Tried and True  
to Cutting Edge

By

Shelley Dupuy  
NOAA Flower Garden  
Banks National Marine  
Sanctuary

At Carbide Park

The annual state conference is coming up in October and I hope that you are making plans to attend. I am looking forward to seeing you on the beach, at the bay, in the prairie or in the classroom.

Be the change you wish to see in the world!

## Prairie Ponderings: The Last Transect of Spring

by Diane Humes

The Prairie Friday group at Armand Bayou Nature Center, subset of the “Prairie Liberation Army”, conducts annual surveys of the spring and fall prairie vegetation at a series of transect lines - the upstanding white pairs of poles scattered about ABNC. This has been going on since 2000 by various team volunteers. It is a chore that we feel obligated to complete, but often a wonderful opportunity to go out into the prairie and really see how it’s doing.

This year’s abundant rains have slowed our investigations somewhat and we have gotten good use of our boots, but the prairie is loving the rain! Coneflowers are blooming, while Rattlesnake master, Indian plantain, and Gama grass are looming over us. Wetland *Sagittarias* are happily blooming where we haven’t noticed them in awhile and the frog chorus is ecstatic nearly everywhere.

The transects have been completed and the last ones were a special treat from our usual format. Instead of broiling hot sun, chiggers, and dewberries (been there, done that!), we had a bit of shade from the sun and moderate temperatures. Lots of water remained on the ground and an especially deep and open area had become a pond for black-necked stilts, snowy egrets, AND roseate spoonbills.

As we watched these birds, in surprise and wonder at this rare sight, up popped a family of coyotes. The three gangling pups with their huge floppy ears were especially curious and never really retreated all that far from us as we went about our jobs. One tuneful puppy even serenaded us with his duet with the train horn! We never imagined, when we set out that Friday morning, what the natural world would show us!



Photo by Jay Cross

Over the years as a Master Naturalist, I have realized that most of us have two main motivations: saving something for future generations, and an intense curiosity and drive to learn about our environment. And, we enjoy being outside. So, go outside with an open mind; you never know what awaits.

## Wetland Wanderings: Conservation with Surgical Precision

by Diane Humes

As reported in the October 2013 *Midden*, the first watershed restoration project in the nation was undertaken in the Coon Valley Watershed of Wisconsin in 1933 - the brainchild of naturalist Aldo Leopold. The conservation methods developed during this project proved very successful in saving the soil, restoring farmland productivity, and creating wildlife habitat. However, Wisconsin’s 1,598 watersheds still have issues; farm runoff pollution entering creeks has been causing algal blooms more frequently, despite years of voluntary control measures.

The latest thinking is that rather than a one-size fits all approach, perhaps, conservation measures wielded with

surgical precision would be more effective. Wisconsin is a farming state; its population is barely larger than the Houston-Galveston metro area. It has over 10,000 dairy farms and a million and a quarter cows. Studies have suggested that only ten percent of farms may be causing pollution problems, so the idea was to find out which farms were causing problems and exactly where on each farm, then try to find a solution and see whether it worked.

In a controlled experiment using two paired watersheds draining into the Pecatonica River, researchers determined to concentrate on reducing excess phosphorus in the water. Deciding to experiment with

the Pleasant Valley Watershed, they traced the phosphorus runoff to just 10 of the 62 farms. Finding the



solutions and getting the farmers to agree to them, of course, was the fun part, but between 2010 and 2012, nine out of the ten farmers agreed to the suggested changes - converting 2,100 acres of cropland to no-till farming and using only the right amount of fertilizer indicated by soil sampling, installing 8 barnyard runoff

systems, fencing to keep livestock out of 4 miles of streams, and adding 14 cattle crossings, paid for by the USDA's Natural Resources Conservation Services.

Although it will take time to confirm results with hard data from the Pleasant Valley Watershed and the control stream, farmers noticed results immediately. Said farmer Scott Jelle, "The day after the fences went up, the creek was so much clearer. It was an immediate good feeling."

This is not to say that all past measures - restoring wetlands, setting aside land from cultivation, or adding buffer zones along streams - have been useless. Certainly not. A lot of nutrient runoff occurs during heavy rains and other extreme weather events, which are becoming more frequent with climate change. Wetlands, cover crops, stream buffers - every tool in the toolkit will be important.

The Pleasant Valley Watershed is about 1200 miles from the Gulf of Mexico. Every bit of excess nutrient that does not run off a farm field in Wisconsin, is that much less contributing to the Dead Zone at the mouth of the Mississippi River. We all have a stake in the success of these efforts!

## Beach Patrol: Recent Observations by Steve Alexander

I've heard it said the beach never looks the same from one visit to another. And so it seems! Beachfront changes due to recent weather events certainly support that idea.

Recent heavy rains dumped large amounts of water on Galveston Island, water that naturally runs downhill. On the beach, large amounts of rainwater swiftly ran downhill to the Gulf, gouging out deep, and in some cases, wide ruts in the sand.

Following heavy rains, Tropical Storm Bill reared its head in the Gulf, eventually making a mid-Texas landfall. Bill unleashed a barrage of heavy surf against Galveston's beaches, with waves cutting deeply into the sand, erasing coppice mounds and accompanying vegetation.

Bill didn't spare the newly constructed dune at the west end of the seawall. It suffered a big hit as well. Bill's waves licked into that freshly built wall of sand, leaving deep tongue-like gouges along its entire length.

And on another subject, sea turtle patrols are ongoing this summer, and while nest numbers aren't what they once were, they're still being found on Galveston Island. A case in point: Bobette Brasfield recently discovered

sea turtle tracks on one of her beach patrols, tracks traceable to a nest containing well over 100 eggs. What a thrill!



A final note: here it is July and still no massive amounts of seaweed on the beachfront like we have seen the last couple of years. I have no idea why that is, but I will try to find out and when I do, I'll pass it on.

## Volunteer Management System – VMS Update by Jim Duron

Looks like all systems are GO for using the VMS!

Activity on the new Volunteer Management System (VMS) continues to charge forward and training has begun. On July 1<sup>st</sup>, members started logging hours into VMS following training. The old saying of “Out with the old and in with the New” could never be more appropriate.

The final steps started with a request to report hours for the first half of the year. The response to the June 30 deadline was absolutely fantastic; 159 members answered the call and reported their hours. The total number hours reported for one month was over 11000, exceeding the previous record total for one month by 3500! (Keep up the good work!)

Behind the scenes, the implementation team has been extremely busy getting the system ready. User Id's and passwords for all chapter members have been created and all volunteer hours prior to July 1 have been sent to the State for input in the system at a later date. Beth Cooper will be distributing the User Id's and passwords.

There are two levels of training on VMS so you can choose the one that works best for you; one of these is hands-on, with instructor-led sessions held at Carbide. The other is computer-based training, where a video will help you get started and use the system. The video is posted on the Chapter website on the Report Your Hours

page, where you can also find the link to the VMS portal to report your hours.

Training started on July 17<sup>th</sup> and you can find the list of remaining training dates on the Chapter website on the calendar and in emails from Alan Wilde. For questions or to sign up for a training session contact Beth Cooper, VMS Training Coordinator, [bcooper156@comcast.net](mailto:bcooper156@comcast.net) or at 281-743-9753.

We also had an overwhelming response for volunteers to help those Chapter members who may need help in logging their hours; they can't wait to get started.

If, after the training, you find that you have problems with the system or you have access problems, this group is ready to help you enter your hours. Please call or e-mail Beth Cooper if you fall into that category. We already have a list of folks who do not have computer access and they will be assisted by this group.

Many individuals worked long hours preparing VMS. A special thanks goes out to the team - Julie Massey, Helen Mueller, Maureen Nolan-Wilde, Chuck Snyder, Jo Monday, Beth Cooper and Jim Duron - for working all aspects of the implementation effort. Special thanks to Don Wilkerson for creating and enhancing the VMS training video.

## Camp Wild 2015 by Tawy and Cliff Muehe

Camp Wild 2015 is one of those events that causes anxiety before it starts and some stress during the event. But once it begins, the expressions and excitement of the kids coming to Camp Wild for the first, second, or third time, are priceless; the volunteers and organizers know why they, too, keep coming back.

Camp Wild 2015 planning began in October when a group of volunteers from Camp Wild 2014 formed the Camp Wild Committee. We began talking about what went well and what we needed to change and improve; we continued this discussion until Camp Wild began on June 8<sup>th</sup>, 2015. The first thing on the agenda was to form a curriculum committee, which had the task of deciding which subjects would be taught and finding the instructors. Committee members Kari Howard, Suzanne Becker, Beth Cooper, Root Choyce, David Bulliner, Rhonda Marshall, Jo Monday, Carolyn Miles, Cindy Croft and Mary Vogas discussed ways to bring diversity to Camp Wild and new ways to teach about the

environment, bringing enthusiasm to the students for this year and in the future.



In February, we offered early applications to all 2014 Camp Wild students. In April, we opened enrollment to all the Galveston students advancing to the 4<sup>th</sup>, 5<sup>th</sup> and 6<sup>th</sup> grades. In total, we had 50 excited students attending, all anxious to learn.

***Galveston Bay Area Chapter - TMN members are the greatest volunteers and Camp Wild would not be able to continue without them. Their experience and enthusiasm are awesome and they always show our motto 'FOOD, FUN, FELLOWSHIP, AND FLEXIBILITY' whenever they are called upon for service.***

Camp Wild is always looking for volunteers and instructors to help in the planning and execution of this event. There are plenty of opportunities to serve without participating in the event in June. Camp Wild 2016 committee will be meeting in October. If you are interested in volunteering next year or enrolling your grandchildren, please ask a Camp Wild volunteer about their experiences.



Thanks again to the Friends of Galveston Island State Park (FoGISP) for financial support, to Galveston Bay Area Chapter - TMN for the volunteers, and Galveston Island State Park - TPWD for sponsorship and manpower support of setup and cleanup of the event.

## The Stars at Night by Diane Humes

*Twinkle, twinkle, little star, how I wonder what you are!  
Up above the world so high, like a diamond in the sky.*

Children today learn the nursery rhyme from 1806, but most of them have no idea what a sky full of stars looks like. According to the International Astronomical Union, 99% of people in the European Union and the United States live with "light pollution", where artificial lights brighten the night skies to a much greater extent than the stars, planets, and moon. More than half of us can no longer see the Milky Way with our naked eyes; out of the 2500 - 3000 stars that should be visible, on a good night around here, most people would be glad to see 25.

What is going on? Did someone turn on the universal dimmer switch?

During a power outage, you might notice that the stars were, in fact, still there. Depending on where you are, dark, starry skies are being masked by the glow from artificial lights. That bright halo seen for miles at night, indicating a town, is sky glow, produced when light is scattered by water droplets or particles in the air. Light trespass occurs when light from a floodlight or streetlight spills onto an adjacent property, such as when your neighbor's security light also lights up your yard. When a light shines horizontally, it creates glare. Keeping the lights on all night in an empty office building is an example of overillumination.

During our lifetimes, the number of people living everywhere in the world has increased and the use of

electric lights with them. Most of the lighting is bad - careless - thoughtless - designed mostly for brightness, but not necessarily effectiveness, and definitely not for preserving darkness.

Light straying into the sky is considered light pollution and skies are ranked by astronomers on the Bortle Scale (developed by John Bortle in 1988) from 1 to 9, darkest to lightest. In the darkest Class 1 skies, the Scorpius and Sagittarius regions of the Milky Way - looking at our galaxy's center - cast obvious shadows! Could you imagine it? Under a Class 9 sky - inner city - while reading a newspaper outside at night, your eyes would be able to see only the moon, the Pleiades, bright planets, bright star clusters - nothing dimmer than magnitude 4 objects.

Yet, darkness is important. Many nocturnal animals - birds, bats, moths - are confused by bright lights. Artificial nighttime lighting can disrupt animals' hormone levels, mating and feeding habits - even buck antler size and, perhaps, horned lizard behavior, as well as human circadian rhythms and serotonin levels. Baby sea turtles have been known to walk toward bright lights on shore, rather than heading for the ocean. "We are just now understanding the nocturnality of many creatures," says Chad Moore, Night Sky Program manager with the National Park Service. "Not protecting the night will destroy the habitat of many animals." Excess light costs money and glare creates safety issues.

So, what is being done to preserve darkness over Texas? Our state is trying to preserve its dark skies. New state-funded projects require fully shielded lighting - check out the sleek-looking shielded lights along the new stretches of I-10 heading west from town! In the seven counties surrounding the McDonald Observatory, municipalities have enacted lighting ordinances designed to protect dark skies. After much hard work, the City of Dripping Springs has been designated a Dark Sky Community by the International Dark-Sky Association (IDA). Big Bend National Park, Enchanted Rock State Park, and Copper Breaks State Park have earned the Gold Tier rating for Dark Sky Places in Texas.



Enchanted Rock, Photo by TPWD

And, TPWD is assessing and retrofitting its artificial lighting in State Parks, saving darkness and money. Fourteen state parks have really dark skies on the Bortle Scale: Big Bend State Ranch Park (Class 1); Balmorhea State Park, Barton Warnock Visitor Center, Caprock Canyons State Park & Trailway, Copper Breaks State Park, Davis Mountains and Indian Lodge state parks,

Devil's Sinkhole State Natural Area, Devils River State Natural Area, Kickapoo Cavern State Park, Seminole Canyon State Park & Historic Site (Class 2); and Colorado Bend State Park, Enchanted Rock State Natural Area, Lost Maples State Natural Area, South Llano River State Park (Class 3). Volunteers are helping with assessments for all 95 parks - this could be a master naturalist project!

The Houston metro population is currently 6,490,180; total state population is 26,956,958 - both are growing. Light pollution, a human population-caused problem, will increase everywhere as the population increases (see: geohive.com). Assuming we ever saw dark skies as children, we may be the last generation to have done so. Future Texans may not understand what they are missing.

What can you do to help? You can study the IDA lighting guidelines (see: darksky.org) and make sure your house lights only shine where you need and want them to go and, maybe, encourage your neighbors to do the same. Most lighting could probably use some help in the efficiency and darkness-promotion departments; consider retrofits.

Summer happens to be a very good time to go outside and look at the sky. Between July 17 and August 24, the Perseid meteor shower regularly puts on a bright display; peak time is predicted for August 9 - 13, with the new moon on August 14. Maybe you need to visit a Dark Sky Place - maybe a Texas State Park - where you can find really dark skies. Take the kids and grandkids to discover the beauty of a really dark night during a Star Walk at Copper Breaks, or attend a Star Party at Enchanted Rock. After all, "the stars at night are big and bright, deep in the heart of Texas".

**Bortle Scale**



## Monarch Butterfly AT by Lisa Belcher

In 1995, the Monarch Butterfly was designated as Texas' state insect. Unfortunately, this beautiful insect has seen its numbers drastically decline in recent years. During Vic Madamba's Monarch presentation, chapter members were educated on the life cycle of the Monarch, its migration route, and overwintering habitat.

One aspect of the Monarch's decline is due to the deadly OE, *Ophryocystis elektroscirha*, a protozoan parasite that only infects Monarch and Queen butterflies. OE is one of the main reasons the Monarch population numbers have plummeted. Although research continues, as of date there is no clear path to eradicating or controlling this parasite.

Vic demonstrated how he tests Monarch butterflies for the OE, using clear tape that is rubbed on the underside of a butterfly's abdomen. The tape is then placed on a card with the butterfly's information including sex, size, and date and then sent to the University of Georgia's lab for microscopic analysis.

Once swabbed, the Monarch is measured and tagged. Tags are applied to the butterfly's wings, and do not in any way hinder the butterfly's flight. The data, sent to the University of Kansas, helps researchers learn more on

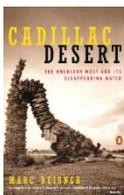
the Monarch's timing and pace of migration, as well as the size of the overwintering population. This catch and release program also gives us an idea of mortality during the Monarch's migration.



With the Monarch population on a decline, it is very close to being placed on the endangered species list. This is directly due to the loss of habitat and the OE parasite. For more information on what you can do to help the Monarch: Parasite Sampling: email [monarch@uga.edu](mailto:monarch@uga.edu) Monarch Tagging Kits and information: [www.MonarchWatch.org](http://www.MonarchWatch.org) and [www.JourneyNorth.org](http://www.JourneyNorth.org)

## Heritage Book Study – Review of *Cadillac Desert* by Madeleine K. Barnes

What have you read lately that you really connected with to the point that you wanted to write a letter to the editor about? Some of the book study participants wanted to share some of the emotions that they felt while reading *Cadillac Desert the American West and Its Disappearing Water* by Marc Reisner, the book selection we have just finished.



These emotional responses included: feeling indignant, angry, humor, amazed, appalled, depressed, and concerned. In reading this very serious historical account of the land, the people, their needs, their perspectives, and the actions taken, this author exposes the irony underneath the story of how the science was misconstrued or totally ignored to suit the situation.

How does this affect us now during the current drought situation in California and beyond? Some of the water policy decisions made then continue to contribute to our growing national financial deficit. Marc Reisner was considered to be an environmentalist and writer. This book was a finalist for the National Book Critics Circle

Award in 1986 and it was later made into a documentary film series premiering on PBS and winning a Columbia University/Peabody Award. Given that the book is a definitive look at water resources in the West at that time, it shows the direct connections between the decisions made in the past and the impacts on the present sources and supplies of water along with the need to make hard choices for the future that will affect all of us.

Changing our focus from U.S. water resources to Texas grassland habitats, we are currently reading the first section of 195 pages of *Grass* by Joe C. Truett to be discussed on July 6<sup>th</sup> with the last half of the book read for discussion on Aug. 3<sup>rd</sup>.



We welcome your participation each month for two hours on the first Monday of the month starting at 10:00a.m. at the Agrilife Extension office. If the first Monday is a holiday, then we meet the following Monday as is the case in September when we will meet on the 14th. We look forward to seeing you!

## Non-Taxing Taxonomy by Frank Budny

On Saturday, April 26, chapter members had the opportunity to learn about the fundamentals of taxonomy from Nathan Veatch and Diane Humes. People attending the workshop learned about the pitfalls of using common names and the value of scientific nomenclature. They also learned how to create scientific names and how dichotomous keys are created and used.

Nathan began with an exercise demonstrating the basics of scientific binomial naming. Binomial names consist of genus and species and are usually Latin or occasionally ancient Greek. Latin is used because it is a dead language, so the meaning of the words will not change. We were instructed to Latinize our names by writing our genus name (last name) first on a card and add an "us" at the end if male, or an "a" if female. The species (first name) followed, also ending in an "us" or "a". Under the rules for scientific names, the genus, which is usually a noun, is capitalized. The species, which is usually an adjective, is lower case. Scientific names are underlined or italicized.

We then participated in an exercise to create a dichotomous key for identifying members of the "shoe kingdom". A dichotomous key is a tool where a series of two descriptive choices leads to an identification of the species. Each of us submitted a shoe to be classified and they were all put in a pile. As a group we created descriptive categories into which each shoe could be placed. For example, a shoe could have laces or no laces. It could further be classified as heel or no heel, and so on until all the shoes were classified. The categories had to be observable and dichotomous (yes/no). Ellen Gerloff documented each category on a flip chart creating the shoe kingdom key.

To check the validity of our key, Jim Vogas, an innocent bystander who did not participate in this activity, was drafted. Jim was able to pull shoes from the pile, identify them following the series of descriptive characteristics in the key and it was returned to its rightful owner.

To reinforce our understanding and its application in the natural world, each person was given a bag of ten different seashells common to Galveston beaches. Nathan had created a simple key specific to these shells. Following the pairs of observable descriptions in the key, we were able to "key out" a shell and find its proper scientific name and common names associated with it.



Photo by Chuck Snyder

Finally, Diane Humes made a brief presentation on plant taxonomy as a lead-in to the future workshop dealing with the subject. She talked about plant families and specially the derivation of their scientific names. She brought Latin to life by showing that the genus and species names are indeed descriptive. For example, the milkweed that we all know and love belongs to the genus *Asclepias*. It was named after Asclepius, the Greek god of healing, because of the many folk-medicinal uses for milkweed plants. There are more than 100 species of milkweed plants and the species names are likewise descriptive. They are typically adjectives that modify the noun just as they do in English. The scientific name for tropical milkweed is *Asclepias curassavica*. Curassavica means "from curacao". Butterfly weed is *Asclepias tuberosa*. Tuberosa means "woody root stock". It's interesting to contemplate what the original classifiers were seeing as they assigned scientific names to the flora and fauna of the world.

Understanding taxonomy and scientific naming is a skill all master naturalists should have. Nathan and Diane showed that indeed taxonomy can be non-taxing.

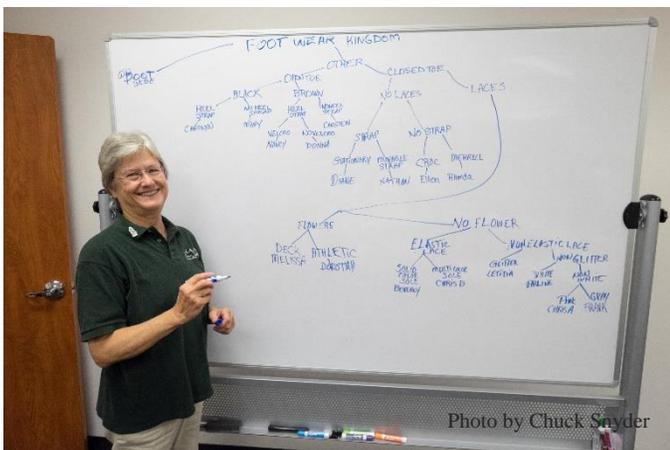


Photo by Chuck Snyder

## Plants Are Precious by Diane Humes

Emmeline Dodd, GBAC Master Naturalist and retired professor at College of the Mainland, usually presents "Plants Are Precious" to each year's spring training class. Due to a schedule change this year, she instead gave her expert botany lecture for part two of the AT Taxonomy Trilogy.

observation skills proved that most of us are blind to vegetation, selectively more in-tune to animals or man-made objects than plants. Hopefully, we have learned the error of our ways from Emmeline, since plants are vital to survival on Earth, contributing food and oxygen for us and most other animals, to name just two contributions.



Photo by Chuck Snyder

On May 14, an enthusiastic group of 40 chapter members, listened raptly to Emmeline's thorough treatment of Botany 101. An initial test of our



Photo by Chuck Snyder

Members of the Plant Kingdom exist on two sides of a basic divide: the monocots and dicots. Understanding the features on each side of this split is basic to plant identification. So, we learned the differences in root structure, flower parts, vascular tissue anatomy, and leaf venation between these two groups.

We studied the parts of a flower, leaf arrangements, perennials, annuals, fruits, seeds, nodes, and root systems and had the opportunity to inspect plant specimens exhibiting the concepts discussed. Of course, these details are just the beginning to learning about the extraordinary wonder of the plant world. We had to agree that plants are indeed precious to all of us and we will try not to overlook them in the future.

## Plant Taxonomy by Mary Vogus

Forty plant-loving naturalists attended the Plant Taxonomy AT held June 18 at the Extension Office taught by Diane Humes. This is the third workshop in the botany series. This workshop enlightened all the participants on the system of classifying plants.

Diane has a major in both botany and zoology and a Masters in Biology. Her expertise on plants shone through in this class. Diane started the class by giving us a background in Latin grammar to help us understand the binomial names of plants.



Photo by Chuck Snyder

Linnaeus started classifying plants back in 1735. Today, there are about 375,000 species of plants, with more being identified all the time. Most plants are angiosperms, flowering plants. Before the development of genetics and biochemistry, angiosperms were classified based on morphology, especially that of the flower. In 2009, taxonomists updated plant phylogeny, trying to leave long-standing orders and families intact, but not always succeeding.

pistil. Angiosperms are divided into two groups, monocots and dicots, having different flower parts, leaves, vascular tissue, root pattern and the embryo in the seed. The basal angiosperms are the flowering plants that diverged from the lineage leading to most flowering plants; they do not fit well into either the dicots or monocots.

Of 180 vascular plant families in Texas, we learned the 10 largest. These top ten families compose about half of the plants in Texas. So if we can learn those, we will be off to a good start! The *Poaceae* (grasses) is the largest monocot family and the *Asteraceae* (DYC = damn yellow composites) is the largest dicot family in Texas. If you did not attend this workshop, this list can be found in *The Midden*, December 2008 issue.

Diane brought many plant books to share with us. Most guidebooks are organized on the color of the flower. She talked a little about plant keys, including keys that let you select multiple characteristics simultaneously. A helpful reference is *Plant Identification Terminology: An Illustrated Glossary* by James G. Harris and Melinda Woolf Harris. This book is excellent. It contains lots of definitions and pictures. Also a good web site that has a lot of interesting things on plants is [calflora.net](http://calflora.net).

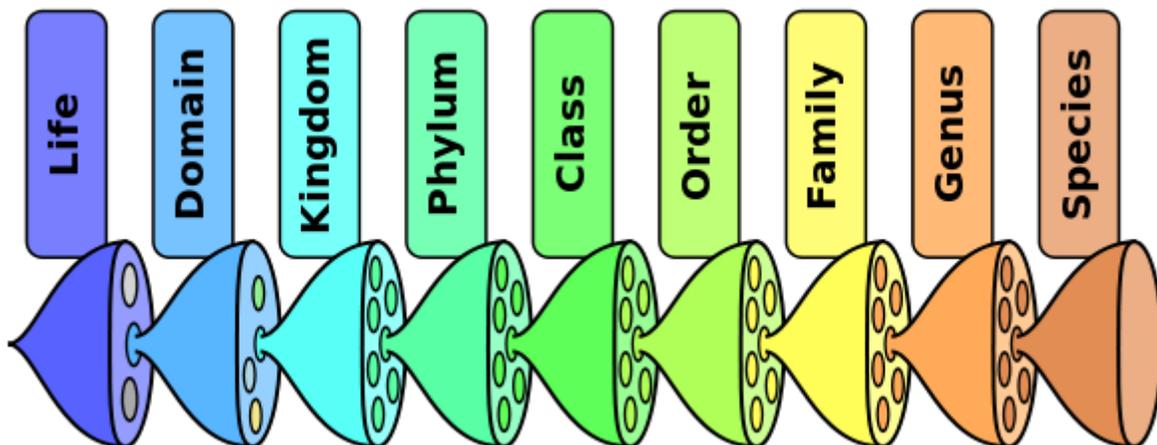
Also, if you are interested in milkweeds in our area, look on-line at *The Midden*, October 2011 for an article written by Diane Humes on Top 10 Galveston Bay Area Milkweeds.

At the end of the class, we were invited to look at specimens from the different plant families using hand lenses. If you missed this class, you missed an excellent educational workshop.



Plant classification is heavily dependent on the flower, which is the most reliable characteristic. Flowers in the same family are very similar. All flower parts are arranged in four rings in the same order from the outside of the flower to the inside: sepals, petals, stamens, and

### Taxonomic Rank by Wikipedia



## Guppies from Julie

June is great for summer camps for kids and Texas Master Naturalists really know how to show kids a great time!

Camp Wild was a hit again this year! You planned and plotted all year to have the best camp ever! There was seining, art, squid, kayaks, art, shells, insects and the list goes on! I asked one first time Camp Wild kid what he thought of camp. He looked up at me very seriously and in a quiet voice said, "I haven't had this much fun in a long time." I had to smile thinking of all of your efforts to make a boy reply so sincerely about Camp Wild.

Two weeks after Camp Wild, many of you volunteered with 4-H "Maritime in District 9 Leadership Lab" held at Texas A&M Galveston. Over 100 4-H kids and leaders experienced coastal resources . . . thanks to you! You led beach & bay walks, taught about sea turtles and birds, helped with dissections and fish printing and coral reef mapping in the pool! Of course, you did all this while battling mosquitoes, heat and a blazing sun!

One 4-Her at Galveston Island State park said to our president, Maureen. . . "Texas Master Naturalists have been everywhere this week helping to teach us and make sure we have fun! Can you tell me who are those Texas Master Naturalists?"

Trey Goodman, park superintendent of Galveston Island State Park, described you best in a note to Camp Wild volunteers. . .

*"Some of you know me but many of you don't. However, even though we may have never met, I will bet you dollars to donuts I know a lot about you.*

*For instance, I know you are concerned about the future of this world we live in. I say that because you took a whole week out of your life to give children a wonderful educational experience in the outdoors. That tells me you care about our future and the future of these children who will ultimately decide are important to them based on the experiences they are exposed to. Hopefully someone in your group caught the idea that they could grow up and be a wildlife biologist or an oceanographer or some other beneficial profession related to the outdoors. If they did, that's your fault!*

*I would also say that you are a selfless person who enjoys helping people. I would think you would have to be to withstand the high heat and humidity that we had last week and still keep a smile on your face even as your makeup was melting into your shoes.*

*I am certain that even though you may not think so, you love children. Who else would go through countless*

*hours of meetings and training just to come out and socialize with a bunch of inquisitive, talkative 9 and 10 year olds? You, that's who, You may grumble about the wild child in Walmart tearing up aisle seven but you also know that deep down in there somewhere is a child with a good heart yearning for someone to pay them some attention. You did that!*

*And there is one more thing I am certain of... You are Crazy! You are crazy for putting yourself in this position. And this world needs more crazy people like you. Thank you so much for what you did for these kids this week. Thank you for what you did for this park. And most especially, thank you for making the world just a tiny bit better than it was when you showed up for camp on Monday. I am very humbled that you chose to take on this task in our park. You are awesome."*

I certainly agree with Trey. You are awesome!

## The Midden

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Comments? Suggestions? Want to join the team?  
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### 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 Sept. 3<sup>rd</sup>

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

## August and September Activities

### ADVANCED TRAINING OPPORTUNITIES

#### Chapter Meeting - August 6<sup>th</sup>

Flower Garden Banks NMS: From Tried and True to Cutting Edge

Presenter: Shelley Dupuy with NOAA Flower Garden Banks National Marine Sanctuary

6:30 Social, 7:00 Presentation, 8:00 business meeting  
AgriLife Extension Office 1 Hour AT

Only ongoing AT until October/November.

#### 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 the month. AgriLife Extension Office  
(Due to Labor Day we will meet Sept 14<sup>th</sup>)

10am-Noon 2 hours AT

Contact: Elsie Smith (409)945-4731

We are currently reading *Grass* by Joe C. Truett

### 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 -

- Stormwater Wetland Team, every Thursday, 9 - Noon. Contact: Mary Carol Edwards [mary.edwards@agnet.tamu.edu](mailto:mary.edwards@agnet.tamu.edu)
- 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 - Aug. 4, Sept. 1

2-4p.m. at the Extension Office

#### Committee Meetings

Communication - Sept. 4

1-4p.m. at Extension office

Advanced Training - Aug. 17, Sept 21

10-Noon at Extension office

Education/Outreach - third Tuesday of the month

10 to 11:30a.m. at Extension office.

Stewardship - Meets quarterly. Next meeting to be determined



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