

The Midden

Basket-Flower at TCPP by Diane Humes

Galveston Bay Area Chapter - Texas Master Naturalists

August 2013

Table of Contents

Prairie Ponderings	2
Wetland Wanderings	2
Camp Wild 2013	3
Sea Turtle Excitement	4
Cicada Killers	5
"Capture the Moment" AT	6
Aldo Leopold's Legacy from the Greenfire AT	6
Thanks, Nathan!	7
Guppies from Julie	8

Kickoff of Summer by Sara Snell, President 2013

Another first for our chapter - GBAC awarded the first ever education scholarship in the amount of \$1,000 to Scott Miles. Scott has been involved with our chapter as a camper at Camp Wild, as a counselor, and then as an assistant with kayaking and water activities. He also tracked the Attwater's prairie chicken and participated in bird monitoring along with his mom, Carolyn. Please join me in congratulating and wishing him well in his educational and career endeavors.

Our chapter continues with all its on-going prairie and wetland restoration activities and our AT committee continues with its awesome education opportunities. Summer will be over in the blink of an eye and Fall will bring many exciting activities for us.

Plans are being made for the first ever GBAC camp-out at Galveston Island State Park on October 4-6. Stay tuned for details. Tawy Muehe will be coordinating a fun-filled weekend. Also as Fall begins, the TMN organization starts preparing for the State Meeting to be held in New Braunfels, October 25-27. Stay tuned for more details.

Enjoy the rest of your summer and be safe.



Photo by Barbara Rabek

Next Chapter Meeting

August 1st

Marsh Monitoring 101

By

Dr. Cindy Howard
University of Houston -
Clear Lake

At Carbide Park

Prairie Ponderings by Dick Benoit

Is there still a flicker of the Green Fire in your eyes? When you calculate the time, effort, and enthusiasm that the chapter contributes towards land restoration, it is apparent that many are aware that the wilderness that Leopold speaks of is alive in their hearts. Undoubtedly, there is less wilderness now than when Leopold wrote over sixty years ago, but the prairie remnants within our chapter's care are progressively being restored at a steady rate.

Progress at Armand Bayou Nature Center's prairie has had our attention for the past 12 years with a constant increase in work force and production. The prairie is well on its way to becoming one of our living prairie museums. Other areas, such as Sheldon Lake State Park, San Jacinto State Park, Galveston Island State Park, and Texas City Prairie Preserve are also major restoration areas of our chapter. Each site needs a variety of talent and workers, from potters and spriggers to those who do the more rigorous work of digging and planting. Only when you get a good balance of workers does the site flourish.

But through the years the spark of the Green Fire is passed from person to person, and the Land Ethic spoken about by Leopold is becoming a reality in the restoration projects of the chapter.

So, continue volunteering your time and effort at the site or sites of your choosing and writing "A Galveston

County Almanac" record of success in restoring our land to the heritage of wilderness as envisioned by Leopold and Master Naturalists in the Lone Star State.



Wetland Wanderings by Diane Humes

What We Do on the Land, We Read on the Beach

According to the EPA, a watershed is the area of land where all of the water that is under it or drains off of it goes into the same place. John Wesley Powell called watershed, "that area of land, a bounded hydrologic system, within which all living things are inextricably linked by their common water course and where, as humans settled, simple logic demanded that they become part of a community."

Watersheds come in all shapes and sizes. They cross boundaries - county, state, and national. In the continental US, there are 2,110 watersheds; including Hawaii, Alaska, and Puerto Rico, there are 2,267 watersheds. I live within the Armand Bayou Watershed; do you know your watershed?

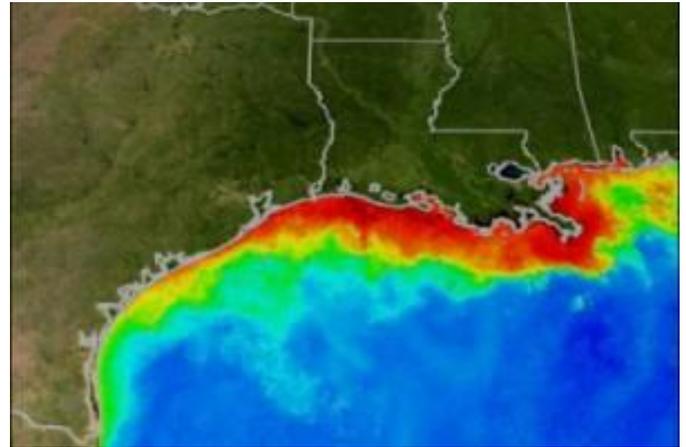
All of our local watersheds drain into Galveston Bay and into the Gulf of Mexico. Therefore, anything that is washed off our land by rain (or wind), ultimately finds its way to the Gulf - trash, pollutants, bacteria, nutrients.



The Mississippi River watershed drains half the continental U.S. Unusually heavy spring rains are causing flooding in the Midwest; nitrogen and phosphorus, from fertilizers used to grow the food we eat, are being carried to the Mississippi River and, then, to the Gulf of Mexico. These nutrients will enter the Gulf of Mexico, cause blooms of algal growth and result in dead zones this summer - areas devoid of oxygen, which most creatures need.

Dead zones are becoming common occurrences, but this year's at the mouth of the Mississippi is predicted to be a record breaker - between 7,286 and 8,561 square miles - the largest dead zone on record, possibly larger than the state of New Jersey! The 2012 dead zone in the map to the right is shown in red.

Anything that can float or dissolve in water can be carried through a watershed. In the Galveston Bay area, most bayous carry high amounts of bacteria and pollutants, especially after a good rain, although you cannot see it. But, trash is highly visible.



Gulf of Mexico dead zone in red.

If it misses the landfill, it ends up on the beach. Since trash ultimately originates on land, if we don't want to see it on the beach, we must do our best to keep it out of our waters.

Camp Wild 2013 by Tawy Muehe

Camp Wild is one of those events that causes anxiety before it starts. But once it begins and you see the excitement of the kids coming for the first time or see eyes light up when they dissect an owl pellet or catch an insect or fall 'on purpose' out of a kayak, the memories are priceless.

Camp Wild is a five-day camp that begins on the first Monday after schools let out for the summer, which this year was Monday, June 10th. Each day begins with a flag ceremony where each team participates. On the first day, kids are assigned to a team of volunteers ready to give



Photo by Barbara Rabek



Photo by Barbara Rabek

them a T-shirt, name badge, water bottle, bandana and scarf and a Gulf Coast Seashore Life Pamphlet. Then each team goes to the events assigned to them to learn about and experience the natural world around them.

The 39 kids of Camp Wild 2013 had the following events throughout the week - shells, birds and prairies, insects, owl pellets, seining, art, kayaking, fish and squid, and free beach. The 32 adult volunteers who came with a passion and desire to share their knowledge with these kids are from the Galveston Bay Area Chapter- TMN.

The food coordinators prepared the snacks and lunches each day. The snacks are carefully planned to give the kids the nutrition they need to keep energized until lunch that alternated between CiCi's Pizza, Whataburger hamburgers, fried chicken tenders, hot dogs, and watermelon. We had few complaints from the kids since they are not picky eaters.

For the first time this year, Camp Wild participants were able to visit the NOAA Sea Turtle Barn. This was a great experience for the kids because they learned about sea turtles and got to see the many loggerhead turtles at the Sea Turtle Barn. Many thanks to the volunteers at NOAA who prepared games to help the kids relate to how sea turtles live at sea.

Thanks to the volunteers who helped with Camp Wild 2013 and who helped at the NOAA Sea Turtle Barn. Special thanks to the Friends of Galveston Island State Park (FoGISP) for financially supporting this event, Texas A&M AgriLife Extension, Sea Grant and the TPWD - Galveston Island State Park staff for making Camp Wild 2013 such a **GREAT SUCCESS**.

Mark your calendars for Camp Wild 2014, June 9th - June 13th. If you have been unable to help in the past, please plan to help us next year.

See you next year!

Sea Turtle Excitement at Galveston Island State Park by Bobette Brasfield

Galveston Bay Area Master Naturalists routinely volunteer for a vast array of organizations throughout our area and sometimes these volunteer groups come together to provide a very unique learning opportunity for everyone involved.



Such was the case on Tuesday, May 21st when Nathan Veatch, Bill and Jamie Ashby, Frank Budny, Root Choyce, Jack Clason and I were leading a school field trip at Galveston Island State Park. It was then the excitement began.

That day we had approximately 90 kids and 20 adults in the park for an outdoor environmental learning event. Usually school groups visit both bay and beach sides where we discuss the unique habitats and animal communities found in the park.

As we were organizing our forces to effectively accomplish this task, we learned that another of our

Master Naturalists who volunteers on Sea Turtle Patrol, Susan Hightower, had discovered a sea turtle nest in the park. All our plans were for naught. There were sea turtle tracks and sea turtle eggs and sea turtle scientists on the beach and we wanted the kids to see them all!

Galveston Island State Park staff and sea turtle scientists from Texas A&M University at Galveston (TAMUG) made that desire a reality. All the kids, adults, and us overjoyed volunteers were allowed a chance to see the nest and eggs up close.

The state park staff maintained the integrity of the nest site before the TAMUG team arrived and they kept us informed of the status, thereby helping us organize a plan for taking all the kids over to see the eggs.

The TAMUG team and another Master Naturalist volunteer, Ellen Hufft, worked with us to explain some basic sea turtle ecology and escort the whole group, four at a time, around the nest as the eggs were being excavated.

Everyone got to see sea turtle eggs! You can't imagine how excited the kids were, probably because they could tell their group leaders were vibrating at the speed of light with excitement.

We are so thankful to the TAMUG team for their willingness to educate 100 bystanders while dealing expertly with their endangered charges.

There is no way to know how many children were inspired that day to become scientists or teachers, or to work in our parks protecting our special places, or maybe, just to be volunteers.

Cicada Killers by Diane Humes

Summer along Galveston Bay - July 4th fireworks are history, days are hot and humid and the neighborhood is kind of quiet, because lots of people are on vacation, taking advantage of that lull between swim team and school. Only master naturalists are out and about and even some of them are heading for cooler climes. The loudest sound is the buzzing of cicadas - the unofficial sound of summer.



Cicadas are among the loudest of all insects, reaching 120 decibels. Males do the “singing”, by clicking their tymbals - special abdominal membranes. Their strong muscles vibrate the tymbals rapidly and the sound resonates inside body chambers, greatly amplifying the effect. They are doing their loudest and best to attract females and do their most active noise-making during the hottest parts of the day.

Cicadas, commonly called locusts (but are NOT locusts, which are swarming grasshoppers) are most closely related to leafhoppers and spittlebugs. Most are in the genus *Tibicen*, which are the annual cicadas; periodical cicadas, having life cycles of 13 or 17 years, belong to the genus *Magicalicada*. Cicadas live underground most of their lives as nymphs, at depths between 30 cm and 2.5 m, feeding on root juices. In the final instar, nymphs tunnel to the surface, emerge and do their final molt to become adults, leaving their exoskeletons on a tree or shrub - a familiar sight.

Adult cicadas then go about the business of mating and laying eggs, which the female deposits in slits which she has made in the bark of a twig. She may lay several hundred eggs. When the eggs hatch, the nymphs drop to the ground and burrow underground. A normal *Tibicen*

life cycle may last from two to five years, if all goes well for the cicada.

However, various creatures are fond of cicadas; my cat left me a pair of them at the back door as a present. They are a favorite food of Mississippi kites (*The Midden*, August 2012), which snack on them from the treetops. But a fearsome and diabolical foe of cicadas is the Cicada killer or *Sphecius speciosus*, whom I met the other day for the first time, at the neighborhood pool, where there are trees, shrubs, and cicadas.

The Cicada killer is a huge black or brown wasp, about two inches long, with amber wings, yellow bands on the abdomen, rusty head and thorax. Like the cicadas, it spends most of its life underground, but as either larva or pupa. Adult Cicada killers emerge in summer, coinciding with emergence of cicadas, to feed, mate, and construct new nest burrows in the ground. Adults live for only two to six weeks, feed on flower nectar, but have a gruesomely interesting way of feeding their children.

Despite his sometimes aggressive behavior, the male Cicada killer has no stinger. The female, demure and sweet (?), has the stinger and the venom. After mating, the male dies, while the female constructs the nest burrow, often in loose or sandy soil in a lawn (such as at the neighborhood pool) or embankments, under sidewalks and roadsides. She tunnels into the soil for approximately ten inches, with a channel width of about half an inch. Often, the tell-tale piles of loose soil surrounding the hole are a clue to her activity. At the end of the burrow are oval chambers, large enough to hold her egg and a few cicadas.



The female Cicada killer captures a cicada in flight - probably spying her in the trees rather than by sound, because the prey is usually a female - paralyzes her with venom and flies, glides, drags her back to the nest. She provisions each cell of her chamber with cicadas, which

remain paralyzed, but alive, and lays her egg upon one before sealing the cell. Her adult life cycle is finished when she completes laying eggs.

The wasp eggs hatch in two or three days; larvae feed for about two weeks, then spin a cocoon of silk mixed with sand or soil. The pupal case is held in the center of the cell by silk strands, and the cocoons remain in the chamber through the winter. Adult Cicada killer wasps

emerge in the following summer, hopefully, for them, coinciding with emergence time for Cicadas.

Cicada killers are solitary wasps, but can occur in numbers in a lawn and will sting if molested. Their appearance is quite fierce, but they are mostly harmless to people. Considered a minor pest, they are valuable in the food chain. Consider how many cicadas there might be without Cicada killers!

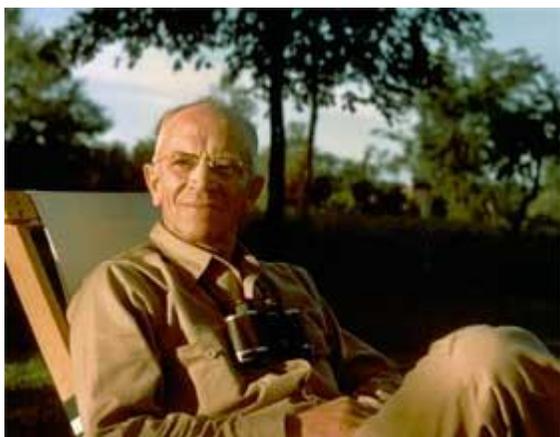
Naturalist Skills “Capture the Moment” AT by Madeleine K. Barnes

What are some of the skills that help us as naturalists? We use different field guides and keys to identify and learn about what we are experiencing and observing in nature. In order to view nature more closely, a variety of optics can be employed. A written journal recording and sketching our observations provides a reference to enhance and learn from our experiences. All of these key skills were presented in an AT on Monday, May 20th, 2013 at the AgriLife Extension office. Diane Humes introduced and reviewed various field guides, keys, and

cell apps for use, citing organization and features. Darrin Lower, from Land, Sea, & Sky, covered optic construction of spotting scopes and binoculars, providing examples for comparison. Glenn Olsen presented background and examples of journaling to sharpen observational skills, provide meaningful descriptions, and detailed sketches of nature. These skills in the use of field guides, keys, cell apps, binoculars, spotting scopes, and journaling are an integral part of a master naturalist.

Aldo Leopold's Legacy from the Greenfire AT by Madeleine K. Barnes

Who was Aldo Leopold? Why is his life and what he wrote in his journals important to master naturalists? What can I learn from this? On Monday, July 8th, 2013, a group of 54 Master Naturalists and Master Gardeners participated at the Greenfire AT movie viewing and following discussion about both the film of Aldo Leopold's life and his book, *A Sand County Almanac*.



Aldo Leopold was born January 11, 1887, in Burlington, Iowa. He worked for the U.S. Forest Service (1909-28). In 1924, the country's first national wilderness area was created at his urging. In 1933, he became the head of the nation's first game management graduate program

located at the University of Wisconsin. He also published the first textbook ever written about wildlife management. A fervent campaigner for the preservation of wildlife and wilderness areas, Leopold became director of the Audubon Society in 1935. That same year, he founded the Wilderness Society. Leopold died in Baraboo, Wisconsin, on April 21, 1948.

In 1949 a small book, *A Sand County Almanac* was published shortly after Aldo Leopold's death. One of the well-known quotes from the book which clarifies his land ethic is, "A thing is right when it tends to preserve the integrity, stability, and beauty of the biotic community. It is wrong when it tends otherwise." The concept of a trophic cascade is put forth in the chapter, "Thinking Like a Mountain", wherein Leopold realizes that killing a predator wolf carries serious implications for the rest of the ecosystem – a conclusion that found sympathetic appreciation generations later. The book was little noticed until twenty year later, during the environmental awakening of the 1970's when a paperback edition turned into a surprise best seller. Now more than 60+ years later, the book is high on the most-beloved list of environmentalists.

Leopold encouraged people to expand their vision of the world around them to include the natural world in their community as they would their neighbors. When people begin to look at plants, animals, soil, and water in that

context, they may consider them in a different way. We are connected to the world around us through the food we eat and the resources we use. Leopold asserted that each piece of land looks the way it does today because of past decisions. He suggests that any decision reflects our personal and collective values and biases. Each person will formulate decisions differently, but by thinking about the ultimate effect of your actions, you can choose the evidence you will leave behind for others. Leopold's sobering message asks us to consider how we can protect and cherish something at the same time. He warns that beyond the impacts we make when we degrade land in multiple ways, the act of admiring nature can have impacts of its own.

Leopold's own misdeeds led him to be very concerned about the impacts of those with good intentions, but incomplete information. Leopold understood that ultimately the health of land, and in turn human health, would be determined by people's values.

Leopold tells a story about a molecule called X traveling through nature. "The break came when a burr oak root nosed down a crack and began prying and sucking. In the flash of a century, the rock decayed, and X was pulled out and up into the world of living things. He helped build a flower, which became an acorn, which fattened a deer, which fed an Indian, all in a single year." Finally X ends up in a beaver, "an animal that always feeds higher than he dies. The beaver starved when his

pond dried up. X rode the carcass down the spring freshet, losing more altitude each hour than heretofore in a century. He fed a crayfish, a coon, and then an Indian, who laid him down to his last sleep in a mound on the riverbank."



Aldo Leopold has left us with a legacy and both a challenge and an opportunity to address the continuing issue of ensuring "both people and the land will prosper in the long run." If you haven't read the book, I would encourage you to find the time to do so and see nature through the vision of Aldo Leopold.

www.aldoleopold.org

www.pcdf.org/meadows/leopold.html

Thanks, Nathan! by Communication Team

After six years, 34 issues, and over 400 edited pages, Nathan Veatch is retiring as editor of *The Midden*.



The Communications Team (Diane Humes, Steve Alexander, and Carolyn Miles) wishes to extend a special

thank you to Nathan for his six years of excellent work as editor of our chapter's newsletter.

Nathan approached his job as editor with the same dedication he approaches all his tasks as a Master Naturalist. Thankfully, he will continue on in other capacities, one of which is the education coordinator at Galveston Island State Park.

Although Nathan will be missed and is, in some regards, irreplaceable, we are happy to report two other chapter members are joining the team: Madeleine Barnes and Chuck Snyder.

So as we bid farewell to Nathan, we say welcome to our new team members and our new editor, Diane Humes.

Guppies from Julie

We have a Blog!

Master Naturalist Lana Berkowitz (2013) has created a wonderful blogspot, for Master Naturalists to record experiences and photos! The blog is beautiful and inspiring! Here is the address for the blog - <http://galvbay.blogspot.com>.

Lana was inspired by the "Capture the Moment" Advanced Training in May and created the blog! Classmate Marilyn Lanser is a current contributor to the blog.

Below is a recent posting by Marilyn:

2013 has been a year filled with "first time" experiences and now writing on a blog can be added to the list. I wonder who the reader might be as I try to compose something that relates to my new experience as a newly certified Texas Master Naturalist. The program opened my eyes to all the unique aspects of living in the Galveston Bay area and the natural beauty of our flora and fauna. I've lived here all but 2 years of my 61 and it's as if I'm seeing home for the first time. Thanks for starting this blog, Lana. I'm new at blogging but will have fun posting photos and writing about the natural mystery and beauty found in our part of the Texas Gulf Coast.

To contribute to the blogspot, please contact Lana at mcberk@earthlink.net. Lana has offered to be the editor and administrator of the blog!

Scholarship Awarded!

Scott Miles received the first Galveston Bay Area Chapter scholarship! Scott has volunteered with our chapter since fourth grade - tracking birds at the Texas City Prairie Preserve, spending a week every summer at Camp Wild helping teach kayaking, seining and free beach. Scott is the son of Carolyn and Jason Miles.

Sara Snell presented the \$1000 scholarship to Scott at Camp Wild to the cheers of Master Naturalists and campers!

Scott will attend the University of Texas at Austin this fall. He plans to major in computer science.

Congratulations, Scott!

To learn more about the GBAC Scholarship, contact Chatt Smith or check out our website!



The Midden

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La Marque, Texas 77568

For comments on this issue or to suggest content for future issues, please contact Diane Humes by e-mail at treimanhumes@earthlink.net.

Midden Editorial Team

Steve Alexander
Diane Humes

Comm. Team Chair
Editor

Carolyn Miles
Chuck Snyder

Madeleine K. Barnes

The Midden Deadline for the next issue

August 25th

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



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