



Photo by Diane Humes

Table of Contents

Wetland Wanderings	2
Camp Wild 2014	3
It's Not Easy Being Green	4
Kayak Trip to Miller Lake	5
Picture Worth a Thousand Words	6
Trawling on Galveston Bay	7
Turtle Patrol Lessons	8
Heritage Book Study - Review	8
Amazing Encounter on Turtle Watch	10
Guppies from Julie	11
Activities List	12

President's Corner by Maureen Nolan-Wilde, President 2014

Thank you for another season of volunteerism that has made a difference in our community. Since June, our members have partnered with the Friends of Galveston Island State Park to provide a week of fun and education for local children at Camp Wild. We have patrolled Galveston beaches and Surfside to help protect endangered sea turtles and we also offered a rich and diverse curriculum to our youth through the Junior Naturalist program. These efforts were in addition to our continued stewardship at Sheldon Lake, TCPP, Armand Bayou and more.

Just the other day, I met with representatives of other local non-profit organizations. They asked if I knew how important Master Naturalists are to their success - we provide the volunteers that make their events happen.

At our June meeting, we awarded our second \$1,000 college scholarship to Regina Rottmann. Since 2012, she has accumulated over 1,000 hours of service and plans to attend college starting this fall while still continuing her volunteer work. We also welcomed Beth Cooper and Cindy Croft as our 2014 class representatives to the Board. Our thanks go out to Class of 2013 representatives, Rhonda Marshall and Ange Busceme, for their service.

Beth and Cindy are joining a Board that is currently facing a challenge. How can our growing organization take advantage of technology so that we can better communicate with our members while, at the same time, retaining our original character? Hopefully we can come up with answers that meet everyone's needs!

Oh yes, and don't forget to mark your calendars for the annual TMN Meeting to be held October 24-26 at Mo Ranch in Hunt, TX. The state meeting is a great way to meet others and expand your horizons.

For me, it is back to the turtle barn, GISP and the hope that 2015 will be the year I find a turtle while on patrol. Oh by the way, Chatt, Verva, Mike, and Alan have already found theirs.

Go out and enjoy; find your passion. Nature is calling!

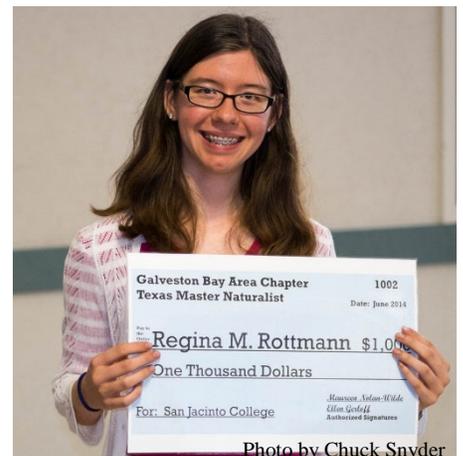


Photo by Chuck Snyder

Next Chapter Meeting

August 7th

American Oystercatcher Stewardship in Texas

By

Dr. Susan Heath
Amanda Anderson

At Carbide Park

Wetland Wanderings: Spiderlilies and *Silphium*: Summer Seed Collection by Diane Humes

Summer has arrived in the wetlands and it is hot! However, there has been rain and the wetlands are looking good. The Wetland Restoration Team has been potting up a fresh crop of spiderlily seeds and has got quite a collection growing in the ponds.



Photo by Jeff McMillan

Spiderlilies are native to Texas, Louisiana, Arkansas, Mississippi, Alabama, and Oklahoma and commonly found in ditches and along stream banks and other wet places. Growing from bulbs that may be as much as one foot underground, spiderlilies poke their heads above ground in early spring. Flowers are white, elegant, and unusual, petals and sepals are alike and connected by a "cup" appearing like a spider web. Leaves are strap-like, 6 - 30 inches long and about 1 inch wide.

Our native spiderlily, *Hymenocallis liriosme* Raf. Shinners, described in 1817 by Constantine Rafinesque, an eccentric genius who traveled America, collecting and naming thousands of plants, animals, and fossils (see Midden, June 2012), is primarily known for its beauty. We intend to plant our spider lilies at Sheldon Lake SP and Exploration Green as soon as we can; the WRT likes beautiful wetlands!

Another project is a stormwater treatment wetland on Kost Road in Alvin, Texas. This 15-acre site will be excavated to construct a large pond to hold floodwaters; after all, Alvin does hold the national record of 43" for a

24-hour rainfall during Tropical Storm Claudette! The Kost Road site is prairie-soon-to-be-wetland, containing pocket gophers and an interesting array of plants - several species of milkweed, coneflowers, and *Silphium* - probably Roughstem rosinweed, *Silphium radula* - that we discovered on a recent seed-collecting expedition.

Rosinweed, *Silphium*, is an American prairie genus with about 20 species; five species live in Texas, all found infrequently to rarely. Plants of the true prairie, with taproots 15 feet deep, they are now found only in remnants. After finding it on site in Alvin, I noted a few more plants along the road on the way home - but only on those rural roads, out of the way, slightly unkempt places where the ditches and shoulders were not mowed. Note to self and anyone else: we should collect more seed!

Aldo Leopold eagerly watched for a small patch of Compassplant, *Silphium laciniatum*, growing in a Wisconsin country cemetery near "The Shack". He knew it for a relic of the 1840 prairie, probably the only remaining *Silphium* in that part of the county, and knew its fate the day he saw that a road crew had mowed it. He said, "What a thousand acres of *Silphiums* looked like when they tickled the bellies of the buffalo is a question never again to be answered, and perhaps not even asked."



Photo by Diane Humes

The perennial favorite Wetland Plant ID Class is being planned for Wednesdays in August. Stay tuned for dates and times of this educational opportunity - when you might rather be inside!

Camp Wild 2014 by Tawy Muehe

Camp Wild is one of those events that cause volunteers and organizers anxiety before it starts and some stress while in progress. But once it begins, seeing the excitement of kids and listening to their comments is priceless.



Photo by Julie Massey

We had a very successful Camp Wild event during the week of June 9th - 13th, 2014. We registered 67 students, but with no shows and gaining a few new students, we ended with a count of 59. And we had a total of 50 volunteers and Counselors-in-Training (CIT's), a seemingly large number, but each was needed for a successful week.

We added a new "F" to our Chapter logo of "Food, Fun, Fellowship" and "Flexibility". Flexibility seemed to be required to make each day work better. The pretty color-coded schedule was a bit flawed because my timing was 'a little off' as we started.

Camp Wild was set up differently this year because we divided the kids according to their age. Ellen Gerloff and Allen Jackson worked with the 1st year kids moving into 4th grade. Thank you Ellen and Allen for your patience with these kids.

Then the other extreme was David Bulliner and Nancy Saint working with kids moving into 6th grade. These were just as challenging as 1st year kids, because they thought they were too old for some of the events, but we flexed with the problem and moved on.

The kids had the following events throughout the week - team building games, journaling, bees, maps (learning to use a compass), watershed, birding 101 on the Clapper Rail Trail, prairie walk, art, kayaking, seining and Friday beach day.

Friday was a day of flexibility, because mid-morning thunderstorms seemed to be moving toward the park when all teams and volunteers were on the beach making sand castles, playing games, journaling or eating snacks. As a precaution, we had three teams load the bus, but then the clouds and lightning moved away, so we unloaded the bus. But then the clouds moved back in and we were told to get off the beach. So we moved to the Nature Learning Center where all teams gathered. There, David Bulliner told stories of his encounter with an alligator, then Root Choyce told of the 'Elissa', and the kids told different stories until the storm passed.

Thanks to the volunteers who helped with Camp Wild 2014! I extend special thanks to the following: Matthew Abernathy and Sarah from the Galveston Bay Foundation for their presentation of Oyster Gardening; Lisa Reznicek and Chad McNeil for leading Birding and Prairie Walk events; and the TPWD staff for their support in setting up and taking down tents and equipment.

Volunteers

Steve Alexander	Carey Battle	Suzanne Becker	Frank Budny
David Bulliner	Root Choyce	Beth Cooper	Cindy Croft
Becky Edmondson	Linda Erole-Musso	Cheryl Folkes	Ellen Gerloff
Dawn Hailey	Diana Harrell	John Harrell	Allen Jackson
Sandra Linton	Susan Long	Vic Madamba	Rhonda Marshall
Mel Measeles	Carolyn Miles	Jo Monday	Cliff Muehe
Tawy Muehe	Anna Santos	Sean Rogers	Nancy Saint
Lynn Smith	Sara Snell	Nathan Veatch	Beverly Williams

Counselors in Training

Miranda Cleveland	Jacob Hinton	Elissa Holton	Vaughn Linton
Lewis Linton	Danielle Rodriguez	Elia Rogers	Gabrielle Saint
Malerie Tribble	Sarah Willard	Hailey Willard	Kevin Yu

It's Not Easy Being Green by Diane Humes

Green is the color of plants - the planet's original solar collectors. Through photosynthesis plants capture 130 terrawatts of solar energy - more than six times larger than the current power consumption of human civilization. Plants produce oxygen, which people and most animals have evolved to need, and carbohydrates (despite the bad rap carbs get these days!) - around 100 - 115 thousand million metric tonnes of carbon converted into biomass each year.

Plants are the basis for life on Earth; their "green" symbolizes the environment. If you are "green", you are trying to save the planet. To fulfill the master naturalist mission, we restore prairies and wetlands, count migrating birds, and track sea turtles and have fun doing it!

"It's not easy being green", said Kermit the Frog. He was so right.



We humans of the 21st century have created a complex global consumer ecosystem of technology and the worldwide flow of goods and materials and associated advertising. The very food we eat travels around the world and across continents, somewhat reminiscent of migratory birds. Being "green" involves making a myriad of decisions - paper or plastic, repair or replace, choose a power company, hybrid or diesel or electric, how to recycle, where to buy groceries and how to eat - just to name a few.

To decipher some of the consumer complexity, *Mother Jones* considered a lifecycle analysis - an examination of all factors involved in production, from start to finish - of "adult beverages" a "green" consumer might choose. *Mother Jones* concluded that beer in kegs was most environmentally friendly - way ahead of glass bottles or aluminum cans, even when considering high rates of aluminum recycling.

Distilled spirits are energy hogs compared to beer and wine; also, most of the water in production emerges from

the still as waste. Whereas most American whiskeys are made from mixtures of rye, corn, wheat, or barley made in efficient column-style stills, single malt Scotch is made from one-grain source using the old-fashioned pot still - a "boutique" product using far more energy. American bourbons are aged in virgin-oak single-use barrels; however, most barrels are reused by other liquor makers.

Gin and vodka - sometimes made from potatoes - are mostly made from a mixture of grains and use lots of water in the distillation process. Both require more energy than other spirits; vodka is usually distilled down to 95% ethanol and diluted back up to 40%.

Rum and tequila produce copious quantities of noxious wastewater; for each liter of tequila, its production yields 11 pounds of pulp and 10 liters of acidic waste. Some tequila is now certified organic, so if that seems important, you might want to check the label.

The eternal debate with wine - California or France - has evolved. In 2007 the American Association of Wine Economists concluded that the largest environmental impact from wine was in transportation and produced a map - the Wine Line - showing which wines U.S. customers should purchase, depending on where they lived. Houston is on the French side, whereas, El Paso is on the California side of the Wine Line - environmentally speaking!



However, there are a lot more choices than that - wineries are growing all over! Australia and New Zealand, with fine wineries, feel discriminated against, in terms of shipping miles, even involving the World Trade Organization and international treaties.

Surprisingly, long distance shipping by bulk on cargo ships is very efficient - 2 to 3 times more efficient than hauling by rail, which is ten times more efficient than transport by truck. Turns out, the least energy efficient phase of any food transport is when we drive to the store to make the purchase. We would do well if we walked or rode bicycles to the store more often - good for us, too!

A lifecycle analysis takes into account a product, organization, or person's "carbon footprint" in order to quantify and compare, primarily, carbon dioxide and methane emissions. The average U.S. household's carbon footprint is about 50 tons of carbon dioxide per year, about 5 times greater than the global average. The single largest source of emissions is from driving; the single most important action to reduce your carbon footprint is driving less or switching to a more efficient vehicle. In Houston, I would imagine that each of our carbon footprints might be bringing up the national average; we do so much driving and not much to be done about it.

À propos of that, Scott Burns, *Houston Chronicle* May 14, 2014, calculated that by trading in your 20-mpg vehicle for a diesel or hybrid getting 40-mpg, you would cut your fuel consumption in half. Therefore, if you normally drove 12,000 miles annually, you would reduce your fuel consumption by 300 gallons; at \$3.67 a gallon, this would save you \$1,100 per year. A pretty "green" deal, considering that at current bank interest rates you would need a balance of \$458,750 to earn that much!

We affect our carbon footprints with the food we eat. Local and fresh is wonderful, but a vegetarian diet, even

when transported over very long distances, does far more to reduce greenhouse gas emissions. Eating chickens, fish, eggs, or vegetables even one day a week instead of red meat and dairy, reduces greenhouse gases more than buying all locally sourced food, because most greenhouse gas emissions originate in the production phases from pesticide, fertilizer, and fuel for farm and food processing equipment.

What should we do? What do we want to do? Perhaps we need to focus on our values - do what is right for all the children of all kinds for all time. Increase the good, not just try to do less bad. The natural world of our planet endlessly cycles air, water, and nutrients and keeps growing. The human world is using resources and burning carbon essential to life, and throwing it away. Our toaster does not have a lifecycle; we do! The toaster could be designed for endless material reuse, saving future humans from mining its molecules from dumps. Carbon belongs in the ground, not in the air and water.

Instead of "think global, act local", maybe it will be "think universal, act molecular". Time will tell; the future will keep happening. With good design, it might be "very easy being green".

Kayak Trip to Miller Lake by Don C. Wilkerson

On Saturday, May 17th a group of six Texas Master Naturalists followed Vic Madamba on a unique kayak trip to Miller Lake. Our adventure began beneath the I-10 bridge over the Trinity River. Water levels were relatively high due to heavy rains in Central Texas a few days earlier. This made for a moderate current, as well as some rather large logs floating down the river. From there, we paddled one-half of a mile north to Lake Pass (also known as Wallisville Turtle Creek Bayou). Staying close to the bank kept us out of the current and the trees provided shade from the morning sun.



Photo by Chuck Snyder

Once we reached the entrance to the narrow bayou, Vic gathered us together for last minute instructions. Then, one by one, we paddled in as the Trinity River disappeared behind us. Although the day started off rather windy, the heavily wooded bayou provided protection, with only a periodic cooling breeze. Conditions were ideal as we were experiencing a perfect place with perfect weather and the unusual absence of biting insects.

Cypress trees lined the banks and Spanish moss hung low, creating an almost surreal atmosphere. A wide range of bird species seemed to stay just ahead of our group as we briefly disturbed their tranquil habitat. Basking turtles and the occasional splash of a surprised fish also greeted us along the way. Just about the time it seemed that things couldn't get any more picturesque, they did. More cypress trees and moss completely enveloped the bayou. We paused along the way for a few pictures and to take in this incredible place. But our goal of reaching Miller Lake was still ahead.

After an hour or so, we began to see water hyacinth, giant salvinia and other aquatic plants in the bayou. As we got closer to the lake entrance, these invasive plants began to create a floating carpet. Some areas were so thick it was almost impassable. But our group had a

mission and we weren't turning back! Besides, we were following Vic and he kept going.

We finally reached the entrance to Miller Lake, but a significant obstacle prevented our passing. A 10-12 foot-long alligator lay outstretched across the narrow channel. After a brief discussion, Vic and Tim cautiously proceeded ahead. The big fellow yielded and we passed through single file toward the lake.



Photo by Chuck Snyder

We were now within 50 yards of Miller Lake but the water hyacinth and salvinia were thicker than ever. For a moment, I had visions of Humphrey Bogart pulling the African Queen through the reeds. That thought quickly vanished as I recalled our recent encounter with the alligator. Somehow our group managed to get through the impenetrable mat of vegetation and we entered the lake.

Now out of the protection of the bayou, the wind whipped across the lake at 20 mph. Along with the wind, there

was a pretty good chop on the water. No problem for a powerboat, but challenging for a kayak. We were pleased we had reached our *final* destination when Vic said - "OK, now let's paddle across the lake to that big tree." It was easily one-half of a mile across and I'm not sure any of us were too excited about making the trip. But we pressed on, each at our own pace, eventually reaching the far shore.

Once everyone made it across, we gathered for lunch and enjoyed the beauty of this undisturbed place. After eating, Vic provided an advanced training session on butterfly testing, including the release of a tested Monarch. After this brief respite, it was time to begin our journey back. With the wind behind us, our trip back was more like a sleigh ride. We traversed the dense mat of aquatic weeds blocking the bayou passage and experienced our adventure in reverse. It was equally as beautiful and our group once again took in the sights.

Over five hours after departure, we arrived back at our launch site. We had covered a little over 7.5 miles and enjoyed an incredible trip together. Although we were fatigued from a day of paddling, there was a sense of disappointment that the experience had ended. We all agreed that we looked forward to the next opportunity to explore the Galveston Bay area.

Field Notes:

Over 20 bird species were identified during the trip, with Marie Asscherick serving as the unofficial record keeper. Perhaps the most unusual sighting was several black terns that followed our group across Miller Lake.

Both water hyacinth (*Eichhornia crassipes*) and giant salvinia (*Salvinia molesta*) are non-natives, listed among the most invasive aquatic plants in Texas.

A Picture is Worth a Thousand Words by Maureen Nolan-Wilde

Thank you to everyone who entered our first GBAC-TMN photo contest. We had over 60 photos entered in June.

Congratulations to John Wright, whose picture of a roseate spoonbill flying into a marsh was voted Image of the Month for June. Highly commended were Nancy Saint (Nash Prairie) and Regina Rottmann (basket flowers at Texas City Prairie Preserve).

The great news is that if your entry did not win in the month it was entered, we are leaving it in the mix for the next month. However, this should not stop you and those who have not entered from submitting more photos for consideration.



Photo by John Wright

We're already receiving entries for July's Image of the Month - but here are some pointers from the judges:

- You are allowed to have people in your pictures! There were none whatsoever in June.
- Do a little self-editing. If you have multiple images of more or less the same subject, please pick the one you like the best.

Our judging team has met and the winners for July will be announced at our August chapter meeting

Remember, the photos that you submit may be used for education purposes, GBAC-TMN publications or other outreach efforts.

Trawling on Galveston Bay by Diane Humes

May 22, 2014 dawned beautiful, clear, warm and sunny, and 21 master naturalists boarded the *Earl L. Milan*, a teaching and research vessel, at the TAMUG dock for a morning of exploration in, about, and under the water. The 47-foot aluminum boat was built by Earl L. Milan, founder of Aramco Blinds, and donated to TAMUG.



Captain Jason and deckhand Billy motored the craft through Galveston Harbor, past retired drill rigs, in dry dock being recycled for their parts. We encountered watercraft of all descriptions, but the *Earl L. Milan* is a trawler and we wanted to see what lives under the water.

Ship biologist and grad student Tommy, deployed the gear for a grab sample at the Galveston yacht basin. The ingenious little claw, dropped in about two feet of water, was hauled back aboard with a load of mud - the ecosystem of the benthos. The upper mud was fresh and brown, followed by the black ooze of the anaerobic zone, and then the gray mud at the bottom. But mud is extremely rich in life; after filtering through a 500 μ mesh, we discovered polychaete worms, grass shrimp, and many shell fragments. The mud is also rich in bacteria, especially the sulfur-metabolizing anaerobic kinds that give wetland muds their distinctive odor.

The benthic ecosystem is fueled by a rain of detritus - in this case grass from lawns, poop of all living organisms, and anything else that falls in the water - which becomes the nutrient source for all the creatures on the bottom. They don't move very much, and must live on what comes their way!

After satisfying our curiosity about a shallow sample, Tommy unleashed the trawl in deeper waters near the ferry landing. When the trawl was hauled aboard after only about 20 minutes, we were astonished by the diversity of living creatures we had captured. There were: spot croakers, blue crab, Atlantic cutlass fish, brown, white, pink and mantis shrimp, lizardfish, flatfish, jackfish, bighead sea robins, harvestfish, a shark eye shell containing a hermit crab, redfish, sand trout, squid, bay anchovies, Atlantic croaker, and a bay whiff.

Biologist Tommy described each species for us as he also saved some of the captured critters for a study being conducted on the effects of the recent oil spill. The rest were returned overboard - took the terns and gulls only milliseconds to arrive on the scene for the feed!



The tour concluded with a look at the SS Selma, a concrete ship, local landmark, channel marker, and fishing spot. Although not intuitively obvious, concrete ships float just fine, but are difficult to repair.

We spent three really interesting and fun hours observing and learning about living things under our boat. It was truly amazing, especially for a landlubber like me, to see the sheer biomass present. The folks sponsoring our tour are working on a list of interesting classes they hope to offer for adult education. Stay tuned for details!

Turtle Patrol Lessons by Verva Densmore

We woke up at 5:30am because it was turtle-patrol day. Noooo....I just want to stay in bed today. But Mike said "it's for the turtles." Right. After 3-years we hadn't seen so much as a turtle track, much less a turtle. But off to the beach we go - very high tides, knee high sargassum and on-shore winds made us both think that if we were ever going to find a turtle, today was the day. Within 5-minutes we saw something in the sargassum that looked remarkably like a turtle. It's amazing how discombobulated one can become when they think they are trained. Who do we call? What kind of a turtle is it? Is it alive? The size seemed right for a Kemp's ridley. It was alive. First call went to South Padre Island National Seashore. Oops. Then to Lyndsay at NOAA. She was there in less than 15 minutes, but, because we had sent her a picture, already knew that what we had found was an immature green turtle.

Green turtles feed along the Galveston Coast but do not nest here. This one had come in with the sargassum where it was likely feeding and had either gotten stuck or just tired out. It was lethargic. After noting the somewhat sunken eyes of the turtle, Lyndsay said that he/she was dehydrated because of parasites or from eating the plastic that gets trapped in the sargassum. She took it back to the turtle barn for testing and some R & R. Hopefully it will be released into the ocean in a couple of months. As of this writing it is "hanging in there".



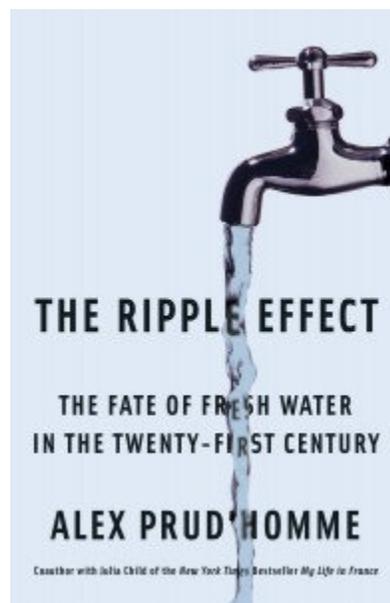
We learned a few things today. 1) Kemp's ridley have 5 scutes (bony external plates) on each outside edge of the shell while the green has 4; 2) Both are beautiful and protected and studied; 3) Sargassum is important to many of the animals of the sea and the air even if it is disgusting to tourists; 4) Getting up at 5:30am is no problem if it means saving one of these beautiful turtles.

We also learned to review our phone numbers before going out on turtle patrol, calming down if we find a turtle, and persevering in the face of frustration.

Heritage Book Study - Review of *The Ripple Effect* by Madeleine K. Barnes

Will there be enough drinking water in the future for all of us? With global warming in the news, how does this impact our finite drinking water resources? Do you need more information to understand this topic and the relationship to our food and our energy production? What about the continuing pollution to our current water supplies?

The book study group concluded the reading of Alex Prud'homme's book with a final discussion on July 7th. Prud'homme is a journalist/researcher warning of a looming water crisis: intersex fish in Chesapeake Bay, the poisoning of water wells in Wisconsin from agricultural runoff, Lake Mead's record-low waterline in Nevada, decaying dams and levees. He examines the everyday products whose use affects the quality and the supply of water, including fertilizers, antibacterial soap, and prescription drugs containing chemicals that later find their ways into water and sewage treatment systems to the detriment of the ecosystem. Are you aware that the FDA promotes the flushing of certain prescription medications into our



waste water and that our current water treatment process does not treat or remove these from our drinking water?

The book provides an analysis of the depletion of aquifers, the role of big business in the race for water (billions of dollars at stake), the demands that power generation (coal, nuclear) place on water resources, the effects of agricultural runoff on rivers, oceans and marine life, the process of wastewater treatment, global warming. What is the difference between “gray water” and “black water” and can we use them more effectively?

The book outlines the fragility of cities (due to water demand) as geographically distant as New York City and Los Angeles, the mining industry’s passion for some prime Alaska real estate, droughts and floods, dams and salmon, desalination, shrinking reservoirs and our human determination to keep doing what we’re doing until it’s too late to effect recovery. This is a good read that covers global information in addition to our own national issues and focuses attention on the current impact and the near future for all of us.



The smallest actions can have great impacts on our water supplies in terms of quality and quantity. Here is what you can do at home, or work, that really make a difference:

1. Fix leaks: a dripping faucet can waste more than 10 gallons of water a day
2. Replace old wasteful toilets, showerheads, and washers with efficient new ones
3. Recycle leftover water from your drinking glass or canteen by pouring it on plants

4. Be careful what you pour down the drain or toilet, and don't use anti-bacterial soap
5. Avoid spraying the herbicide Atrazine on your lawn
6. Plant your garden in a way that suits its environment. Water your garden at night, not during the day, when evaporation is high. Use timers, water sensors, and drip-irrigation systems. Widen tree-pits and collect rainwater. Use absorbent gravel or brick rather than impermeable concrete for patios. Don't use the hose to spray away old grass clippings.
7. Pay your water bill, which maintains key water infrastructure.
8. Support watering restrictions and the use of “gray water” (cleaned sewage) on golf courses, athletic fields, and highway medians.
9. Educate yourself, your friends, and your family about water. Urge your politicians to support water conservation and anti-pollution measures. Water tainting industries are well-entrenched, but you can vote with your wallet. Spread the word.
10. Remember: every time you use water, even for the simplest things, it sets off a *ripple effect*.

(List from the website: <http://www.alexprudhomme.com/10-steps/>)

Our next book study reading selection is *Sierra Club: 100 Years of Protecting Nature* by Tom Turner. The reading assignment is the entire book for our meeting on August 4th at 10:00 a.m. If we are able to complete our discussion at that session, our next assignment will be the first half of J. Frank Dobie's *Tales of Old Time Texas* for the meeting on September 8th at 10:00 a.m.

An Amazing Encounter on Turtle Watch by Courtney Smith Raymond

My dad, Chatt Smith, has been a part of the Galveston sea turtle patrol team for four years. Though sightings are rare, this month afforded him an amazing experience with a Kemp's ridley turtle and her eggs—the first turtle found in Galveston this year.

On Monday, June 9, Chatt got ready for turtle patrol as he does every Monday from April to mid-July as a part of the West Side 1 patrol. The team looks out for the critically endangered Kemp's ridley turtles that are native to the area, with the goal of tagging the mothers and excavating eggs to be relocated to South Padre Island, which is safer for the hatchlings. He gets up at 5:45am to make it to the island to walk Hershey Beach by 7am. June 9 was a pleasant, windy day, but not many people were around, considering the early hour. There were a few tourists and some people with metal detectors combing the beach, with whom Chatt spoke as he walked his patrol.

As Chatt doubled back from the end of the seawall, a couple—seeing his sea turtle patrol shirt—told him that a turtle had come ashore. He ran back to the 8 Mile Road area, where a Kemp's ridley turtle was digging her nest on the beach. The few beachgoers gathered around in awe. Several said that they had never seen a live sea turtle before. They helped Chatt direct cars around her so that she would be safe and undisturbed; she was parked right where all of the cars were driving across the beach.



Chatt called sea turtle biologist Lyndsey Howell (1-866-TURTLE5), which is the protocol to contact the team to tag the sea turtles and recover their eggs. Though Texas A&M Galveston grad students are usually sent to help with the effort, Dr. Kimberly Reich, the director of the TAMUG Sea Life Facility, was the only person who could come this morning.

By the time Dr. Reich arrived, the turtle had begun laying eggs. It was fascinating to watch. She dug a vault about a foot deep by taking her rear flipper and twisting it in the sand. The vault was shaped like a

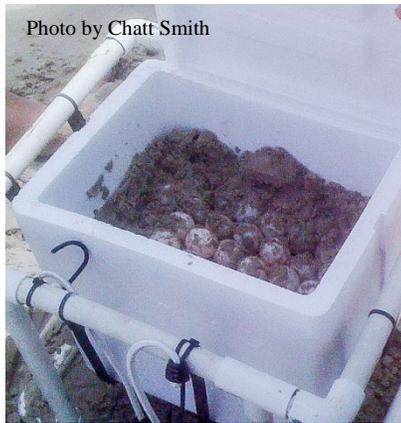
carafe; it had a narrow neck opening into a wider chamber. After the turtle dug the hole, she went into a trance-like state; her eyes closed, and she lay completely still as she laid her eggs. When she was finished, she used her flippers to cover the vault with sand, then pounded the sand pat with her flippers in a kind of dance.



Because of the lack of manpower available, Dr. Reich asked Chatt to hold the turtle while she tagged her. (It is against the law to touch or disturb a sea turtle laying eggs without the federal permit that Dr. Reich has, so Chatt did so under her direction.) As Chatt held the turtle, which was about 2 ft long and around 100 lbs, Dr. Reich placed an aluminum tag on each flipper (later, an RFID sensor was inserted in one of her flippers as well). With these tags, researchers can assess the turtles' migratory patterns, following whether they return to the same beach year after year, to determine the best way to help this endangered species flourish once more.

After tagging, Chatt assisted Dr. Reich in bringing the turtle to the Turtle Barn for a veterinary checkup. Chatt asked the couple with the metal detectors to stay and protect the nest in the meantime. They took an old pop-up frame and placed it over the nest. The turtle was released back into the Gulf later that day, once cleared by the vet.

Chatt and Dr. Reich returned to excavate the nest. They found the opening after some digging around in the sand and packed the walls of a Styrofoam container with sand to protect the eggs, as they are soft and dent easily. Chatt worked with Dr. Reich to stack all 91 eggs, which are white and slightly smaller than chicken eggs, in the container. They then filled the empty vault with sand, and Chatt's role in the mission was complete.



This is the second time Chatt has encountered a turtle in his four years on turtle patrol. The first time he returned to his patrol once the turtle nest team arrived, so he did not get the opportunity to stay with the turtle and help excavate her eggs. However,

30 minutes later he found another nest after tracing the turtle tracks. The turtle nest team recovered two that day.

Even on days and entire summers when he does not encounter any turtles, Chatt enjoys being a part of the patrol—it's great exercise, enjoyable to be outdoors on the beach, and he always sees a lot of other wildlife, including great blue herons, brown pelicans, seagulls, terns, black skimmers, sanderlings, killdeer, American oystercatcher, grackles, swallows, willets, sandpipers, dowitchers, black-bellied and semi-palmated plovers, cormorants, and many more that he is still learning. Beyond that, experiences like the one on June 9, 2014 make the wait well worth it.

Guppies from Julie

Congratulations Texas Master Naturalists! The state program received the "Texas Environmental Excellence Award - Civic/Community" from the Texas Commission on Environmental Quality at a banquet and award ceremony held in Austin in early May. Winners were chosen in nine categories from 214 nominations.

One Civic/Community finalist recognized at the ceremony was the Sheldon Lake State Park Prairie Restoration Project! Many of you volunteer with Marissa Sipocz, Texas Sea Grant, on this project too!

The Texas Environmental Excellence Awards recognizes the most innovative and effective projects that prevent pollution and preserve natural resources across the state. Texas Master Naturalists are leaders in achieving the goals of environmental excellence! Congratulations again!



TEXAS A&M
AGRI LIFE
EXTENSION

Texas A&M AgriLife Extension programs serve people of all ages regardless of socioeconomic level, race, color, sex, religion, disability, or national origin. The Texas A&M University System, U.S. Department of Agriculture, and the County Commissioners Court of Texas cooperating.

The Midden

Published by Galveston Bay Area Chapter - Texas Master Naturalists.

Texas AgriLife Extension Service
4102 B Main (FM 519) Carbide Park
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
Carolyn Miles
Chuck Snyder

Comm. Team Chair
Editor
Madeleine K. Barnes

The Midden Deadline for the next issue

September 2nd

If you have Advanced Training or Volunteer Opportunities, please submit information to Cindy Howard, howardc@uhcl.edu

August and September Activities

ADVANCED TRAINING OPPORTUNITIES

Chapter Meeting - August 7th

American Oystercatcher Stewardship in Texas
Presenter: Dr. Susan Heath and Amanda Anderson
6:30 Social, 7:00 Presentation, 8:00 business meeting
AgriLife Extension Office 1 Hour AT

Gyotaka and More - August 21st

9am -Noon, 3 hours AT
Location: Extension Office
Presenters - Julie Massey
Register with Emmeline Dodd txdodd@aol.com

Ongoing

Galveston Island State Park

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

Heritage Book Study Group

First Monday of every month. AgriLife Extension Office
10am-Noon 2 hours AT
Contact: Elsie Smith (409)945-4731
We are currently reading: (Aug.) *Sierra Club: 100 Years of Protecting Nature* by Tom Turner; (Sept.) *Tales of Old Time Texas* by J. Frank Dobie

STEWARDSHIP OPPORTUNITIES

Ongoing Activities:

Tuesdays -

- Sheldon Lakes State Park, Contact: Tom Solomon crandtr@sbcglobal.net
- Texas City Prairie Preserve, Contact: Jim Duron wishkad@yahoo.com
- Environmental Institute of Houston at UHCL, Contact : Wendy Reistle reistle@uhcl.edu

Wednesdays - Wetland Restoration Team, Contact:
Marissa Sipocz m-sipocz@tamu.edu

Thursdays -

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

Fridays - Prairie Friday, ABNC, 8:30 - 11:30am, Contact:
Dick Benoit RBenoitTEX@aol.com

EDUCATION - OUTREACH VOLUNTEER OPPORTUNITIES

Bay & Island Adventures - Volunteers teach six in-class hands-on modules on a once a month basis in Dickinson and Galveston Schools. Presenters and helpers are needed for eleven 4th and 5th grade classes. Contact: Sara Snell snellsw@verizon.net.

Education and Outreach Committee - Lots of work to do and we can use your help developing a speakers bureau; responding to requests for exhibit booths, fieldtrip guides and presenters, planning Camp Wild and Treasures of the Bay; and developing a library of education-outreach materials. Contact Stennie Meadors Stenmead@aol.com

Partner and Associate Programs - Many organizations sponsor guided walks and education programs or need volunteers to man their nature center. Go to www.gbamasternaturalist.org click on "Volunteer Opportunities," then click on "Partners, Sponsors and Associates" for the list, then click on their website for information and contact.

BOARD AND COMMITTEE MEETINGS

Board Meetings - August 5th, September 2nd
2-4 at the Extension Office

Committee Meetings

Communication - September 3rd
9-Noon at Extension office
Advanced Training - August 18th, September 15th
10-Noon at Extension office
Education/Outreach - Third Tuesday of every month. 10-11:30 at Extension office
Stewardship - Meets quarterly. Next meeting to be determined.

