

The Midden

Photo by Steve Upperman

Galveston Bay Area Chapter - Texas Master Naturalists

August 2012

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Summer is Here

by Diane Humes, President 2012

Just when you thought you couldn't get any busier, school let out and a lot of our members REALLY got going with the Treasures of the Bay workshop and Camp Wild. Both were greatly successful; congratulations and many thanks to everyone for your dedication and hard work.

Many thanks, also, to Root Choyce, Tamberlyn Maggiolino, and Chatt Smith, Class of 2011 members finishing a term on our chapter's Board of Directors. Continuing the tradition, please welcome new board members from the Class of 2012: Martha Melcher, Cip Romero, and Cindy Howard.

Mark your calendars for October 26, 27, 28, when the Master Naturalist State Meeting will be held at Camp Allen in Navasota, TX. Although details will be announced later, the usual procedure is to arrive Friday afternoon for activities and classes, attend workshops all day Saturday, finish up Sunday morning and head for home after lunch. The State Meeting is a great place to earn AT and volunteer hours and to meet your fellow Master Naturalists from around Texas, learn from each other, and be inspired. Let's see how many of us can go this year!

I have just completed my final Sea Turtle Patrol - yeah! The beach is a great place for thinking and picking up trash. Trash consists of many items, but a LOT is plastic water bottles. So I pose the question: Which is most disturbing, a) a disposable plastic bottle on the beach that could have been recycled and will not decompose for at least 1000 years, b) that the bottle and contents probably cost \$2.00 for plain tap water, c) the bottle was still full, or d) a bottle that had turtle bites? I didn't find any turtles - just questions.

Next Chapter Meeting

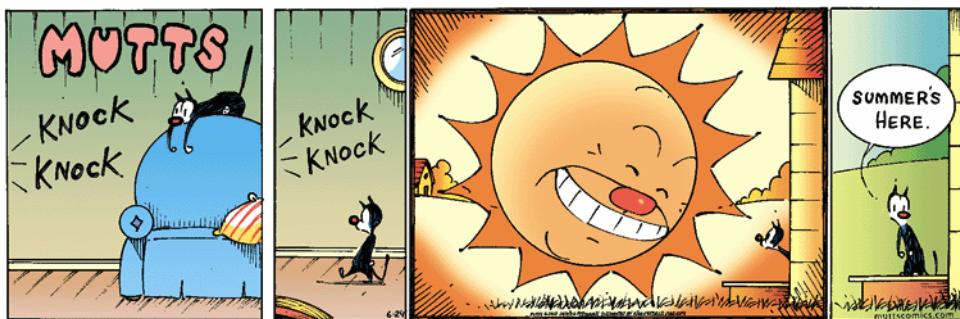
August 2nd

Birds of Texas Coast

By

Scott Buckel
Chapter Member

At Carbide Park



Be the change you wish to see in the world!

Prairie Ponderings by Dick Benoit

At the summer doldrums, our thoughts do not turn to the baking hot prairies, but much is happening in these local remnants.



If you have not heard of The College Park Prairie, an amazing 52-acre remnant found in Deer Park, named after an adjacent elementary school, and has been found to contain almost 260 species of plants.

It also has an array of wildlife that includes pocket gophers, unusual and often elegant insects, grassland birds including Henslow's, Le Conte's and Grasshopper Sparrows, and nesting Eastern Meadowlarks and Loggerhead Shrikes.

There is an attempt underway to save this parcel of land from urban housing development. Search for *College Park Prairie* on the internet and there is an introductory video with a brief story.

Also a larger group, Coastal Prairie Partnership, is planning its fourth annual prairie conference in Kingsville, Texas from December 6 - 9, 2012. Contact CPP for more details.

Prairie Stewardship is ongoing:

- Mondays - Galveston Island State Park Prairie Restoration, every other Monday 9 until noon, contact Dick Benoit, RBenoit@comcast.net
- Tuesdays- Sheldon Lake State Park Restoration 9 AM until noon, contact Tom Solomon , crandtr@sbcglobal.net
- Tuesdays - Texas City Prairie Preserve Restoration, 9 AM until noon, contact Jim Duron, wishkad@yahoo.com
- Fridays - Armand Bayou Nature Center, 9 AM until noon, Contact Tom Solomon. crandtr@sbcglobal.net

Shake the summer time blues and with the cooler temperatures on their way, help restore our most endangered ecosystem, our Coastal Prairies.

Wetland Wanderings by Diane Humes

The "dog days of summer", the hottest days of the year, are named for the rising of the Dog Star, Sirius, just before the Sun on August mornings. Ancient Egyptians thought that "seriously bright" Sirius must be augmenting the heat of the Sun. The Wetland Restoration Team (WRT) thinks the "dog days" are a good time to return to the classroom. To stay cool, Team Leaders, Marissa Sipocz and Mary Edwards, will hold the annual Wetland Plant ID classes at Sheldon Lake SP every Wednesday in August, from 9 am - 12 noon. You may register with Marissa Sipocz, m-sipocz@tamu.edu by July 25. Class fee is \$20. Class schedule is as follows:

Wednesday, August 1, 2012 - Intro to wetlands and restoration projects. Meet Marissa Sipocz, Mary Edwards and Team members.

Wednesday, August 8, 2012 - Class 1 - Sagittaria and associated plants.

Wednesday, August 15, 2012 - Class 2 - Sedges and associated plants.

Wednesday, August 22, 2012 - Class 3 - Wetland grasses and associated plants.

Wednesday, August 29, 2012 - Class 4 - Rushes and associated other plants



Andy Sipocz teaches a thorough introduction to the plant groups most often used in WRT plantings in Classes 1 - 4, including use of dichotomous keys and some botanical terminology. Scientific terms and names are very precise, especially botanical ones. Plants often have many common names, and multiple plants may have the same names. So, the Wetland Team learns scientific names.

Botanical language is frequently thought to be intimidating, mainly because it is based on Latin, but you cannot be defeated by it - "illegitimi non carborundum". An example of how simple it can be is the genus, *Sagittaria*, also called Arrowheads. Their leaves resemble arrowheads or spear points. The word, *sagitta*,

in Latin, means "arrow". *Sagittaria* means "belonging to an arrow".

The arrowhead plant that is easiest to remember and identify, and one of the prettiest, is *Sagittaria longiloba*, meaning, "long-lobed arrowhead", whose leaves have exceedingly long lobes. It grows in shallow fresh water, has a triangular stem, prefers organic soils to mineral soils. It is native to our freshwater wetlands and tallgrass wet prairies and is called by the names: Narrow-leaf arrowhead, longlobe arrowhead, flecha de agua and duck potato. At least three other arrowheads are also called duck potato. Save trouble - learn the scientific name.

Testing 1, 2, 3: Can You Hear Me Now? by Vic Madamba

If you can't, then you missed the outstanding Media Equipment Workshop presented May 16, 2012 at the Extension building by Mel Measles. The two-hour advanced training workshop covered the integrated audio and video system built into the new building.

Mel also covered procedures for checking out audio/video kits, setup and operations. After Mel's presentation, the sixteen attendees were paired into teams and were given time to setup their media kits, which included a computer, projector and all the associated parts.

Sounds of excitement boiled over throughout the hands-on practical and only refreshments provided by the refreshment committee cooled down the workshop.

Those completing the media workshop are now ready to give a presentation on your favorite subject like perhaps "Bugs and Insects". Even if something goes wrong during their presentation, not to worry. There's always someone

attending like Sara to help out, or if all else fails, call Julie.



Camp Wild 2012 by Tawy Muehe

We had another 'GREAT YEAR' at Camp Wild 2012. We had 45 kids, 9 Jr. Team Leaders and Team Leaders - Allen Jackson, Ellen Gerloff, Sandra Linton, Cindy Marza, Mary Jean Hayden, Pauline Hayden, Mary Lou Kelso, Chatt Smith, Root Choyce, Beverly Williams, David Bulliner and Larry Brasfield.

Camp began each day with a flag ceremony, then teams split up to experience many different events throughout the week. The kids were able to participate in water events such as kayaking, fishing and crabbing, seining, and free beach. Water Events Team was led by Nathan Veatch, Steve Alexander, Frank Budny, Frank Bowser,



Bill Ashby, Vic Madamba, Mel Measeles, Scott Miles, Alex Hayden, Vaughn Linton, Sara Snell, and Bobette Brasfield. George Regmund, from ABNC, presented 'Reptiles', where the kids were able to see and touch snakes. Carolyn Miles, a lady of many talents, helped as an Assistant Team Leader and taught about Birds and Prairies. Rita Smith, Martha Melcher and helper Charlene Jacob taught the campers how to make fish prints. Vic Madamba, a man of many talents, not only helped with kayaking, but also talked with the kids about insects (Emmeline 'bugs') and he did a great job. Julie Massey and Nathan Veatch presented squid-dissection; the kids would start with gloves because they didn't want to touch the squid and then relaxed and took off the gloves and were excited to see what they found in the squid. But when Julie brought out the shark and the fish, the kids gathered around to listen. Mel Measeles talked to them about the owl pellets. Lynn Smith described the shells that can be found on the beaches in Galveston.

But, the most important event of each day was the great snacks and lunches provided by Lynn Smith, Chris Boodley and helper Joan Tucker. And the 'go-for guy' is Cliff Muehe, who kept all the loose ends together and organizer is Tawy Muehe.

Thank you volunteers from the GBAC-TMN, teachers and helpers for sharing your knowledge to teach students about the world around them. I do appreciate your time and effort in making Camp Wild a success. Thank you Friends of Galveston Island State Park (FoGISP) for sponsoring Camp Wild and the Galveston Island State Park staff for providing a nice place and support for the event.

Mark your calendar - See you Next Year!
Camp Wild 2013 is June 10 - 14, 2013 at the GISP-Nature Center.

Treasures of the Bay by Sara Snell

Well, we had another fun-filled, feet-wet, and hands-on experiential adventure for 18 area teachers - all of them our **Treasures of the Bay**.



Needless to say, this type of workshop would not have been possible without an army of volunteers to make it happen. There were approximately 25-30 volunteers helping teach, providing food, greeting, taking pictures, cooking, and supporting the class. THANK YOU to all of you!

Through the week, teachers were able to make a mini-watershed, seed balls, and fish-prints, and to take back to their classroom materials, posters and ideas. The week was stimulating for the teachers and for us with the glue of food, fun and friendship.

We had an unexpected visitor our first day - a Pirate - sharing with the teachers what it was like on Galveston Bay during "the early days" and what has transpired on Galveston Bay and the Gulf since those days in the 1800's. What a surprise when our own Julie stepped out in pirate garb to tell the story!!

Some comments from our first day were:

"I have been able to think of great extensions for my students starting with the presentations"
"Each section was wonderful but the make and take is AWESOME!!!"
"Hard to answer. Everything planned was excellent! Each part brought its own (pirate's) treasure."



The second day was exploration of the Texas City Dike and an overview of the amazing bit of green space in Texas City amidst the background of flares and chemical plants.



Some comments we received:

"The ideas are hatching in my head as I thought of ways to immediately incorporate all of today's activities into my classes. All valuable & doable."

"All activities were informative, interesting, and relevant - lots of good classroom ideas."

Of course the day at the beach and bay along with the visit to the Turtle Barn were also favorites - with requests

for more in depth learning about these ecosystems. When asked for comments or suggestions, we received:

"Great pacing and activities." "More time!!"
"I loved it." "Awesome!"

Friday was Julie's day with Fish Identification, along with fish printing, and Nathan's Squid Dissection. A fantastic shrimp boil followed by super cooks Cliff and Tawy Muehe.

Comments from the wrap-up session were again very positive:

"Everything was great!"

"Wonderful!"

"Everything was fantastic! This has been the most enjoyable experience in learning I've ever had. Thank you so much for the opportunity."

So another successful **Treasures of the Bay Teachers' Workshop**, with suggestions and thoughts for our upcoming educator outreach programs.

I hope more of you will join us when we start the planning for the Fall workshops for educators - and of course next summer will again provide another fun opportunity to spark the love of our ecosystems within the hearts of our local teachers.

Hawks of the South by Diane Humes

In the spring of the year, Galveston Bay Area Master Naturalists gather in LaPorte, TX to monitor the annual migration of hawks to their northern breeding grounds from central and South America. The second most numerous bird we see, with sometimes spectacular flights(!), is the Mississippi Kite.



Photo by Leo Symmank

Frank M. Chapman described Mississippi Kite migration in Corpus Christi, probably around 1890:

"This species was first observed April 24, when nine individuals were seen flying northward. The following day we crossed a great flight of these birds. They could be seen to the limit of vision both to the north and south, and about twenty-five were in sight at one time. They flew northward at varying heights; some were within gunshot, while others were so far above the earth that they looked no larger than swallows."

And now it is exciting to realize that some Mississippi Kites are hanging around to breed - in my neighborhood and possibly yours - adapting to life in urban and suburban areas where we can watch them all summer, not just counting them as they zoom past.

In the family Accipitridae, Mississippi Kites are dark falcon-shaped birds, light and graceful in flight, with overall gray color as adults. They are probably the most primitive members of the family which includes kites, hawks, eagles, and Old World vultures, most closely resembling the ancestral birds from which the rest

evolved. Males and females are similar in appearance and size, with a dark spot in front of their red eyes.

Mississippi Kites winter in South America and migrate to the southern U.S. to breed, although some have successfully nested in New Hampshire in recent years.

The first Mississippi Kite known to science was found by Peter Custis, a relation of Martha Washington and a young naturalist on the Red River expedition sent by President Jefferson to explore the Louisiana territory. He shot the bird in a towering cottonwood forest near Natchitoches, LA on July 1, 1806. Custis, after carefully describing the bird, neglected to give his specimen a proper binomial name, so was not credited with its discovery. When the expedition was abruptly curtailed, Custis went home, finished his medical training to become a doctor, married and vanished from history. The bird specimen and its report languished for almost two hundred years until the 1980's, when Custis was credited at last.

In the meantime, in 1811 Alexander Wilson, considered the greatest American ornithologist before Audubon and for whom are named the Wilson's Storm-petrel, Wilson's Plover, Wilson's Phalarope, Wilson's Snipe, and Wilson's Warbler, found a Mississippi Kite near Natchez, MS and named it *Falco mississippiensis* - now named *Ictinia mississippiensis*. *Ictinia* is from a Greek word meaning "kite". Wilson wounded the first bird he shot which then impaled his palm with its razor-sharp talons while he attempted to capture it. Unable to paint for several days, he described his observations of the bird,

"The whole time he lived with me, he seemed to watch every movement I made; erecting the feathers of his hind head, and eyeing me with savage fierceness; considering me, no doubt, as the greater savage of the two."

John James Audubon called the Mississippi Kite the "Hawk of the South", noting in 1821 its preference for the edges of forests, near rivers:

"The Mississippi Kite arrives in Lower Louisiana about the middle of April, in small parties of five or six, and confines itself to the borders of deep woods, or to those near plantations, not far from the shores of the rivers, lakes, or bayous. It never moves into the interior of the country, and in this respect resembles the Falco furcatus. Plantations lately cleared, and yet covered with tall dying girted trees, placed near a creek or bayou, seem to suit it best."

Mississippi Kites roost and nest in live trees, but with dead branches for hunting perches. They were not known in dry areas of the country or prairie until the 1940's, when they began frequenting the "shelterbelts", farm woodlots and mesquite groves planted following the Dust Bowl years.

Now known to breed in seventeen states in the U.S. - AZ, KS, OK, TX, AR, LA, IL, IN, MS, AL, KY, TN, VA, NC, SC, GA, FL; most birds are in Texas (71,000) and Oklahoma (60,000), followed by Louisiana (15,000) and Kansas (15,000). Locally abundant west of the Mississippi River, since the mid-1970's Mississippi Kites have nested in many urban areas. Colonial nesters, urban groups may have hundreds to thousands of birds; groups of fifty to one hundred birds are common. In the East, birds are colonial, but less abundant and still nest primarily in old-growth forest. The entire world population of Mississippi Kites, estimated in 2004, consists of about 190,000 birds.



Mississippi Kite

Plate by Audubon

Audubon also noted that Mississippi Kite nest is "...always placed in the upper branches of the tallest trees... The nest resembles that of the dilapidated tenement of the Common American Crow, and is formed of sticks slightly put together, along with branches of Spanish moss (*Usnea*), pieces of vine bark, and dried

leaves. The eggs are two or three, almost globular, of a light greenish tint, blotched thickly over with deep chocolate-brown and black. Only one brood is raised in the season, and I think the female sits more than half the time necessary for incubation."



Mississippi Kite parents will vigorously defend their nest, particularly when young are present, which has posed problems when birds are in too close proximity to humans. Kites will dive at people; such incidents have occurred especially on golf courses. The best response is usually to wait until babies have fledged before approaching the nest tree.

Mississippi Kites are predators. Their food consists primarily of cold-blooded animals - mostly cicadas (locusts) and green anoles, which they acrobatically catch and consume in flight. Edwin James of the 1819 Long Expedition reported from Canadian, TX that,

"Several species of locust were extremely frequent here, filling the air by day with their shrill and deafening cries, and feeding with their bodies great numbers of that beautiful species of hawk, the Falco Mississippiensis of Wilson. It afforded us a constant amusement to watch the motions of this greedy devourer, in the pursuit of the locust his favorite prey. The insect being large and not very active is easily taken; the hawk then poises on the wing, suspending himself in the air, while with his talons and beak he tears in pieces and devours his prey."

Most North American cicadas are *Tibicen linnei*, an annual cicada that can produce several hundred eggs per female. There could be a LOT of cicadas for kites to eat; one estimate suggests 250,000 per 100 acres per

week and 700,000 in peak season in a riparian area of Arizona. The green or Carolina anole, *Anolis carolinensis*, is a native species, also abundant in cities and suburbs.

Mississippi Kite diet, eating mostly insects, feeding on cold-blooded animals low on the food chain, has had consequences. Unlike peregrine falcons, bald eagles, osprey and brown pelicans, Mississippi Kites were spared most of the decimating effects of DDT. Their diet also determines their life history; kites must winter in a warm climate where prey is active. And, an interesting observation from Oklahoma suggests that a relationship may exist between Mississippi Kites and ornate box turtles. Ornate box turtles eat lots of insects and forage under kite nests, picking up the dropped bits. Both species occupy the same areas - it is possible. Start looking for ornate box turtles around Mississippi Kite nests and find out.

So, the Hawk of the South (or American kite, Louisiana kite, Hovering kite, and Locust-eater), graceful and fierce, continues to fascinate after more than two hundred years. Look for them in spring and summer, on the hawk watch and overhead. Just be careful on the golf course!



...when the vernal flowers, so welcome to all, swell out their bursting leaflets, and the rich-leaved Magnolia opens its pure blossoms to the Humming-bird;--then look up, and you will see the Mississippi Kite, as he comes sailing over the scene... John James Audubon, 1821

Guppies from Julie

Summer is a terrific time of year! Sure it's hot, but then you have Camp Wild and the Treasures of the Bay Educators Workshop.

This summer twenty teachers participated in the Treasures Workshop. They had a great time learning about watersheds with Charriss York and visiting with a pirate. They braved the rain at Texas City Dike and made seed balls at the Texas City Prairie Preserve. At Galveston Island State Park, the teachers seined and explored on the beach. On Friday, squid dissection with Nathan, fish printing and a delicious shrimp boil were the highlights of the day. The educators earned 24 hours of continuing education credits and received a \$50 stipend. Many thanks to everyone who helped with the workshop. The teachers were wowed by food, fun and friendship you shared with them. Also, many thanks to the Hillcrest Foundation for providing funding for the teachers stipends.

Galveston Bay Area Chapter - you are amazing! Your commitment, dedication and joy are wonderful - just ask the Camp Wild campers and the teachers from the Treasures Workshop. The words - "This is awesome" - were said by both campers and teachers about experiences they enjoyed thanks to you.

Stay cool and have a great summer!

Fun at Camp Wild!



The Midden

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For comments on this issue or to suggest content for future issues, please contact **Nathan Veatch** at **281-480-6985** or by e-mail at nveatch@swbell.net.

Midden Editorial Team

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Nathan Veatch
Diane Humes
Carolyn Miles

Chair
Editor

The Midden Deadline for the next issue

Sept 7th

If you have Advanced Training or Volunteer Opportunities, please submit information to Verva Densmore, rhdensmore@yahoo.com.



Texas AgriLife Extension Service 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.

August and September Activities

ADVANCED TRAINING OPPORTUNITIES

Chapter Meeting - August 2nd

Presenter: Scott Buckel, Chapter Member, on Birds of Texas Coast
6:30 Social, 7:00 Presentation, 8:00 business meeting
Carbide Park 1 Hour AT

Monarch Butterfly Tagging and Oe Parasite Testing Workshop -August 10th

9:30 am - 12:30pm 3 Hours AT
Texas City Prairie Preserve
Part 1 - Tagging and reports of Monarch butterflies.
Part 2 - Testing for OE parasite
Presenters-Vic Madamba, Chapter Member
Register with Emmeline Dodd txdodd@aol.com

Skimmers and Dancers and Darners, Oh My! - September 15th

10 am - 12:30pm 2.5 Hours AT
Armand Bayou Nature Center
Program on the life history of dragonflies and damselflies
Presenters-Bob Honig
Register with Emmeline Dodd txdodd@aol.com

Insect Collections - October 5th

9 am - 1pm 4 Hours AT
Texas City Prairie Preserve
We will learn proper collecting and pinning procedures to begin an insect collection.
Presenters- Michael Warriner, TPWD Invertebrate Biologist
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. Texas City Prairie Preserve
10am-Noon 2 hours AT
Contact: Elsie Smith (409)945-4731
We are currently reading: Bats of Texas by Ammerman, Hice, Schmidly and Brown

STEWARDSHIP OPPORTUNITIES

Ongoing Activities:

Tuesdays -

- Sheldon Lakes State Park, Contact: Tom Solomon crandtr@sbcglobal.net
- Texas City Prairie Preserve, Contact: Jim Duron wishkad@yahoo.com

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

Thursdays -

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

Fridays - Prairie Friday, ABNC, 9 - Noon, Contact: Dick Benoit RBenoitTEX@aol.com

EDUCATION-OUTREACH VOLUNTEER OPPORTUNITIES

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

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

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

BOARD AND COMMITTEE MEETINGS

Board Meetings - July 31st, September 4th and 25th 2-4 at the Extension Office

Committee Meetings

Communication - September 10th
9-Noon at Extension office
Advanced Training - August 20th, September 17th
10-Noon at Extension office
Education/Outreach - Meets as needed. None currently scheduled.
Stewardship - Meets quarterly Next meeting to be determined.

Take the 40 Gallon Challenge! by Julie Massey

Do you turn off the water while you brush your teeth or run the dishwasher when it is full? Great! You are saving 10 gallons of water a day with these practices! Would you like to save up to 40 gallons a day? Then take the 40 Gallon Challenge!

40 GALLON CHALLENGE

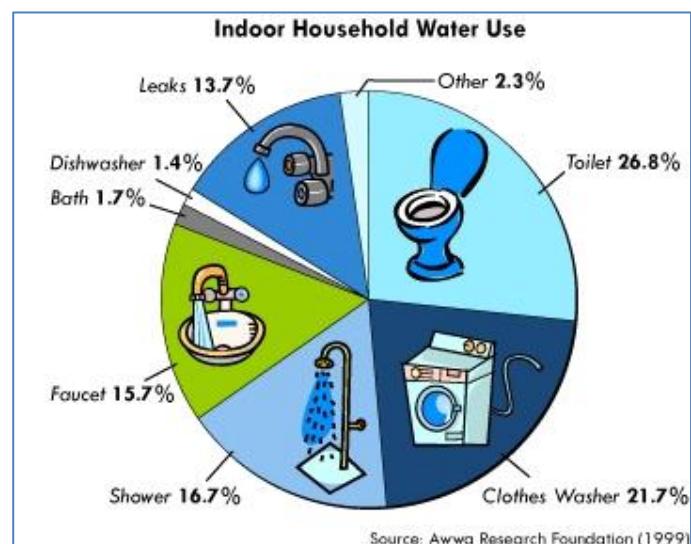
The *40 Gallon Challenge* is a call for residents and businesses to reduce our region's water use on average by 40 gallons per person, per day. The challenge began in 2011 as a voluntary campaign to increase water conservation.



The *40 Gallon Challenge* encourages people to save a minimum of 40 gallons a day by adopting *new* water-saving techniques. The pledge card outlines ideas for water-saving practices and the daily water-savings to expect. You can use the pledge to review the water-saving practices that you or your family currently puts to use. By pledging *new* practices, you will see the total daily savings expected for your household. Visit the <http://www.40gallonchallenge.org/> to make a pledge!



The *40 Gallon Challenge* provides maps and charts to see pledge activities in your state and across the United States. At the time of this writing, Texas had 565 people who had accepted the challenge. Ellis County is leading the state with 165 pledges. Galveston County has only five pledges!



Why should I conserve water?

Drought conditions, population growth and increasing water demands have put added stress on the water supply. By conserving water, these water demands and the demand for energy-intensive systems that obtain, treat and distribute water are both decreased.

Why should I pledge to save at least 40 gallons?

Reducing water usage at home not only saves this precious resource, it also helps homeowners keep more money in their wallets. Saving a minimum of 40 gallons a day for 30 days adds up to more than 1,000 gallons per month. This is an easy way to document the amount of water saved since most water providers bill in thousand-gallon increments. In other words, you should see real savings on your water bill if you follow through with your pledge and put to use the recommended water-saving practices.

Join Galveston County Extension volunteer organizations to reach our goal of 100 pledges for Galveston County by the end of summer! Please email Julie Massey at jmassey@aq.tamu.edu after you complete the 40 Gallon Challenge so we can track pledges made by Master Naturalists!

Take the 40 Gallon Challenge and make a commitment to water conservation for Texas!!