

The Midden

Photo by Chris LaChance

Galveston Bay Area Chapter - Texas Master Naturalists

April 2010

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Next Chapter Meeting

April 1st

Dolphins in the Gulf of Mexico

By

Michael Hunt
University of Houston
Clear Lake

Location: Carbide Park

Off to a Great Start

by Diane Humes, President 2010

Our Master Naturalist new year has gotten off to a great start, beginning with the February Chapter Meeting. About 80 members and friends heard Kelly Drinnen speak about the Flower Garden Banks National Marine Sanctuary, the northernmost coral reef in the continental United States. Kelly had wonderful pictures of the amazing sea creatures living on the reef 100 miles offshore from the Texas/Louisiana border in the Gulf of Mexico and greatly enriched our understanding of our underwater world.

On February 18, we welcomed 19 members to the first day of this year's Master Naturalist training class. Please get to know this great group of people - they have already been indoctrinated into "food, fun, and friendship." Dr. Barron Rector came for the occasion and spoke about being a naturalist - traditionally one who is "versed or devoted to natural history," especially zoology and botany. Although the early Texas naturalist/explorers saw and recorded many things, more is still to be learned by naturalists today. Dr. Rector charged us to record what we see, search for truth through observation, and always be alert to learn more about the natural environment and teach others. **We are stewards of our own environment and it is our responsibility!**

Dr. Rector spoke of change that occurs in nature; our chapter has had some board changes, but we are most fortunate to have people willing to take responsibility. Tawy Muehe has agreed to take the position of chapter Secretary, upon the resignation of Nancy Russell, Paul Shack will serve until May as Training Class representative, and Vic Madamba agreed to be the Volunteer Coordinator. Many thanks to you, and to everyone else, for your willingness to be stewards of this chapter.

See you at the April meeting, at class, in the mud, on the beach, prairie...



April and May Activities

ADVANCED TRAINING OPPORTUNITIES

Chapter Meeting - April 1, 2010

Presenter: Michael Hunt, University of Houston, will discuss Dolphins in the Gulf of Mexico
6:30 Social, 7:00 Presentation, 8:00 business meeting
1 Hour AT

Amphibian Watch - April 16, 2010

Armand Bayou Nature Center
4PM - 9PM 5 hours AT
Presenter: Texas Parks and Wildlife
Project lead: Mel Measeles

Dolphin Watching Trip - April 17, 2010

Texas A&M Galveston
Time: TBA 2 hours AT
Cost: \$10 (tentative)

Something Fishy - May 20, 2010

Extension Center
9am-Noon 3 Hours AT
Presenter: Julie Massey, Project lead: Diane Olsen

Ongoing (Starts March 20th)

Galveston Island State Park
Every Saturday- Beach Explorations
Every Sunday- Bay Explorations
10 am. Meet at the Welcome Center
Tours are 1 to 1 ½ hours long.
Prepare for sun and mosquitoes.
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:
Paddling the Wild Neches by Richard Donovan

STEWARDSHIP OPPORTUNITIES

Projects of the Year:

Prairie and Wetland Restoration Galveston Island State Park

The Project of the Year at Galveston Island State Park will conclude in May. If you can attend please contact Dick Benoit rbenoit@aol.com

Prairie and Wetland Restoration Horseshoe Marsh

The Project of the Year at Horseshoe Marsh will continue through out the year. We are restoring island habitats ravaged by Hurricane Ike. Our next work date

is April 14th. If you can attend please contact Dick Benoit rbenoit@aol.com

Ongoing Activities:

Mondays - Reitan Point, second and fourth,

Contact: Liz Gimmler gimmler@consolidated.net

Tuesdays -

- Sheldon Lakes State Park, Contact: Tom Solomon crandtr@sbcglobal.net
- Texas City Prairie Preserve, Contact: Marybeth Arnold mbarnold@aol.com

Wednesdays - Wetland Restoration Team,

Contact: Marissa Sipocz m-sipocz@tamu.edu

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 (water, Galveston Bay, wetlands, coastal prairies, birds, Gulf of Mexico) on a once a month basis in Dickinson and Galveston Schools. Presenters and helpers are needed for eleven 4th and 5th grade classes. Dickinson Contact: Sara Snell snellsw@verizon.net Galveston Contact: Mary Jean Hayden bean1219@earthlink.net

Jr. Master Naturalist Club - Volunteers guide twenty-five 5th graders of Galveston's Austin Magnet School as they conduct experiments, build models and do other activities that give them a deeper understanding of the six topics taught in the Bay & Island Adventures program. The club meets every Wednesday after school and takes six Friday fieldtrips. Contact Mary Jean Hayden bean1219@earthlink.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 Mary Jean Hayden bean1219@earthlink.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.

Prairie Ponderings by Dick Benoit



The Prairie Restoration Team has not missed a beat with prairie restoration this year. They have recycled over 15,000 one-gallon pots from a defunct nursery, initiated two new greenhouse areas at The Longhorn Project and U of H Clear Lake greenhouse, and continued work at local sites.

At **Sheldon State Park Prairie Preserve** they have worked Tuesdays and had a planting day with the Amigos where 1,500 one-gallon plants were installed. They have over 5,000 one-gallon plants ready to plant this year. Their team has about a dozen active members from a number of different chapters.

At **Armand Bayou Nature Center** the Prairie Friday Team plus the staff have completed its burn season successfully. They have over 5,000 plants ready to plant

this year and their crew has near 20 active members. Also, plans are being made to reactivate the greenhouse at the center.

At **Texas City Prairie Preserve** the Tuesday Team has been busy sprigging plants for this year with about 1,500 one-gallon pots in the nursery. They have also helped with tracking the Prairie Chickens. This crew has about 10 active members.

At **Reitan Point Prairie Preserve** the progress has been slower due to recovering from Hurricane Ike, but this team of about 10 meets the second and fourth Mondays.

At **Galveston Island State Park Prairie**, the Chapter's Project of the Year in 2009, progress has been slowed by financial considerations. Usually this team garnered up to 15 helpers in mainly potting events.

At **Brazos Bend State Park Prairie** there was another workday during the annual multi-chapter camp out where 20 participants planted 200 one-gallon plants on a blustery cold February day.

Horseshoe Marsh on the Bolivar Peninsula is our Project of the Year in conjunction with Houston Audubon. We have worked three days in the area trying to restore areas ravaged by Hurricane Ike. We have planted over 2,000 trees, shrubs and grasses in these island habitats. The crew size has varied from 8 to 30 persons.

The training class of 2010 will participate in restoration at many of these sites this spring.

Also a team met with the League City Arborist to plan to identify prairie remnants in that city to preserve and restore.



Wetland Wanderings by Diane Humes

“Know your enemy”

A quote by Sun Tze from *The Art of War*



Snow geese eating recently planted wetland plants.

A Snow Goose, *Chen caerulescens*, is a stocky, white, short-necked, large-headed bird. Its dark morph, once considered a separate species, is called the Blue Goose. In 1916, the Snow Goose was so rare as to be considered endangered and hunting of this species was banned. Now it has recovered to the point of being problematic in some areas. It nests in huge colonies on the arctic tundra, but winters in huge colonies in southern marshes and wet fields.

A good place to see a Snow Goose (until very recently) is the Phase II wetland restoration at Sheldon Lake State Park; 5000+ geese spent the winter in the new ponds. Completely herbivorous, preferring grass and grain, the Snow Geese have a bill that is a perfect tool for digging out and cutting off the tubers and roots of wetland plants. The Wetland Team can vouch for these habits; in short, the Snow Geese made a smorgasbord of the pond plantings. As much as we love critters, the WRT changed tactics and spent January until mid-February in other activities - potting, making seed balls, and mentoring school groups - hoping to outwit (outwait?) the geese. And, admittedly, it was pretty cold for wading in the water.

Spring is around the corner, however, and the geese are winging north. The Team goes out every Wednesday morning and this will be our project for the next few years. We are restoring habitat for wildlife (geese, too!) and returning the land to a semblance of its former state, so every Texan can feel what the prairie/wetland was like before the big city came to town. To help out or learn more, contact Marissa Sipocz, Team Leader, m-sipocz@tamu.edu.



Non -Taxing Taxonomy Workshop by Louise Bell

On Saturday, January 16, 2010 Master naturalists braved rain and 52 degree weather to learn more about **taxonomy**. Specifically how it came to be, why we need it, and how to understand it. It was well worth the trip to Moody Gardens to hear Nathan Veatch and Emmeline Dodd teach us the rudiments of the topic.

Giving credit to Carolus Linnaeus, the 18th century scientist who developed the system, Nathan explained that taxonomy is simply a hierarchical system for classifying and identifying organisms. Each name consists of a genus name, which is a noun, and a species name, which is an adjective. For example, *Homo sapiens* - Man wise - is the group to which we belong. These terms are unique and no other species can have this same name. The genus name is capitalized, the species name is not, and both are italicized or underlined. The species name may be based on:

- Characteristics of the organism
- Where it was found
- In honor of someone

Linnaeus simplified organism classification by ordering the species into seven major categories: Kingdom, Phylum, Class, Order, Family, Genus, and Species. Like all good teachers, Nathan gave us a mnemonic device to use for remembering the hierarchy. However, I still remember my own biology teacher's mnemonic, **Keep Plates Clean Or Family Gets Sick**.

Nathan moved us to a personal level for a classification activity. He gave us markers and a 4 x 6 card and instructed us to make a tent of the card then print our own names on it, last name first. Since the naming of organisms calls for the binomial (two names) nomenclature, we were instructed to write our genus name (last name) first and to add an "a" at the end of the name if our gender was female, or "us" if male. Because this became our genus name, it had to be capitalized. We did the same for the first name, which was written in lower case. Once again we added a letter/s to denote our gender. We were following the rule for all scientific names, first name capitalized, second name lower case. Now we had our new "scientific" names ready for an activity. We were reminded that the scientific name had to be either underlined or written in *italics*, we underlined!

Each of us then submitted a shoe to be analyzed for classification. As a group, we came up with categories into which each shoe could be placed. For example, one category might be black leather. Further analysis might be shoelaces or no laces for all of those black shoes. The categories had to be observable. Emmeline Dodd,

another biology teacher, worked a flip chart and wrote down our "new name" by the characteristic that best described each person's shoe. We went through all of the shoes until we were satisfied that all shoes were correctly placed.



To check the viability of the system, an expert was brought in to check out the veracity of the results. The expert, a biologist employed at Moody Gardens, was able to take a shoe, scrutinize the flip chart pages containing the essential characteristics, and find the person's name that was written beside the set of characteristics that most accurately described it. **FOOL PROOF!!!**

Our final check for understanding was to look carefully at a bag of Texas shells that could be divided into either snails or clams. A set of written descriptions of the observable characteristics made us look closely at each shell until we had finally matched each of the shells to its scientific name! This activity was used to practice how to "key out" a shell to arrive at its proper name.



Understanding taxonomy and deciphering scientific names is a skill that all master naturalists can use. Nathan made it easy, and it wasn't "taxing" at all!

Great Small Trees for Houston by Doris Heard

To celebrate the Garden Club of America's Centennial in 2013, The Garden Club of Houston ("GCH") has initiated the Centennial Tree Project to raise awareness of small native trees that are under-represented in our parks, public spaces and residential landscaping due to limited public knowledge and market availability. Over the next three years, GCH plans to complete demonstration plantings at four locations along Buffalo Bayou between Shepherd Drive and Sabine Street. This January, nearly two hundred trees were planted on the north bank of the bayou just east of Shepherd. Plantings will continue during the next three years at additional locations along this scenic drive towards downtown Houston. In addition to the demonstration plantings, the GCH has published a new brochure, *Great Small Trees for Houston*. The brochure, which features fourteen small native trees, is available on the GCH website at

[http://www.gchouston.org/Portals/0/MembersDocs/Small Trees brochure.pdf](http://www.gchouston.org/Portals/0/MembersDocs/Small%20Trees%20brochure.pdf).

To address the problem of public awareness, *Great Small Trees for Houston* is being distributed to trade groups, organizations, and individuals. To date, the brochure has been publicized online by the Lady Bird Johnson Wildflower Center, the Native Plant Society, Texas Gulf Coast Chapter of the American Society of Landscape Architects, Buffalo Bayou Partnership, the Citizens' Environmental Coalition, and various home builders and apartment associations. And, on January 16, 2010, the Houston Chronicle featured *Great Small Trees for Houston* in an Arbor Day article on the front page of the Lifestyle section.

We hope that with increased public awareness, more nurseries will begin to include these small native trees in their inventory. So, to increase market availability, The Garden Club of Houston's Bulb and Plant Mart will again offer all of these trees for sale.

Many thanks to all of our community partners for their invaluable assistance with the demonstration plantings, especially The City of Houston, Buffalo Bayou Partnership, the New Nursery, and Trees for Houston. And, thank you to all of the other green organizations and individuals who continue to help us realize our vision for the Centennial Tree Project.

Photos by Pauline Singleton



Two-Wing Silverbell



Yaupon



Rusty Blackhaw Viburnum

Great Start for the Spring Training Class by Sara Snell

The thirteenth Galveston Bay Area Chapter-Texas Master Naturalists kicked off on 2/18/2010 with nineteen enthusiastic new class members. They were welcomed by more than 20 members of our chapter and were treated to scrumptious morning treats and a delicious potluck lunch. A very special gift was given each member of the class by the Spring Class of 2009 - their own dinnerware to be used at the potluck, chapter meetings and wherever food is served.



The class enjoyed getting to know each other by sharing their favorite "nature moment" with each other.

After a four year absence, the 13th GBAC TMN class was fortunate for the return of Dr. Barron Rector, the originator of the Texas Master Naturalist Program. Our changing environment was again the focus of his presentation challenging all of us to understand where we live so we can move into the future. To the class he said the only way to know your environment is to get out into it - get the mud between your toes and under your fingernails, smell it, feel it, and learn about it. He again reinforced that at the end of the class instruction it is our **obligation** to take our knowledge and use the talents we have so that we can help those coming behind us. He cautioned us to use research-based knowledge to look at the truth about the environment so we can better share the knowledge we have gained through the program. Dr. Rector said, "The success of the program depends on the people in the program - not the sponsors."

His program helped the class better understand how to make an observation much the way the early naturalists may have done and how better to enhance those observations. Most early naturalists were observers, recorders, collectors, and students, dedicated to the cause, and above all were good at telling life stories that they lived. Many were botanists from Europe that sent

home specimens of the plants found in their travels across Texas. Some of the early naturalists in Texas were Jean Louis Berlandier, Thomas Drummond, Ferdinand Lindheimer, Charles Wright, James Audubon, Julien Reverchon, Ferdinand Roemer, Jacob Boll and Gideon Lindecum.



What is a naturalist today? They still observe and record what they see. They teach others about the natural environment in which they live, they look for the truth - no hearsay or wives' tales, and they are always alert to learn more and teach others.

After lunch Diane Olsen continued with Field Observations for a Master Naturalist which provided the class an opportunity to hone their skills as observers. Master Naturalist Exploration, led by Dick Benoit, continued the practice of observer skills. The class explored the three pond areas, identifying the difference between them and gaining an understanding of why they are different. (Photos by Sara Snell and Nathan Veatch)



Heritage Book Study Group by Nelda Tuthill

The Galveston Bay Area Master Naturalists Heritage Book Study Group was created in November, 2004 to give members opportunities to read and discuss books related to our natural world and the people that have tried to keep it natural.

Last year the Group read *Last Child in the Woods*; *Saving our Children from Nature-Deficit Disorder*, *Walden: Or Life in the Woods*, and *Voyage of the Beagle*. Other books read by the Group have been *The Big Thicket: a challenge for conservation*, *An Unreasonable Woman*, *Voice of the Coyote* by J. Frank Dobie, *Karankaway Country* by Roy Bedechek, *Undaunted Courage: Meriwether Lewis, Thomas Jefferson and the Opening of the American West* and others.

Books are selected by the Group. The book currently being read by the Study Group is *Paddling the Wild Neches* by Richard M. Donovan. Donovan grew up hunting and fishing along the Neches. He became concerned that plans were being made to dam and commercialize the Neches in several locations. He felt that the river might not be free-flowing and available for others to enjoy the way he had. So this 65-year-old retiree canoed solo a two-hundred-mile stretch of the

Neches getting as much publicity as he could along the way in order to have the river declared a National Wild and Scenic River, "preserving forever the river's natural flow and what remains of the verdant bottomlands of this historic watercourse."

The book chronicles his trip and the natural and cultural history of areas along the route. The book shows what one retiree can do to allow the natural world to survive.

The Book Study Group will also be leading a discussion of *Matagorda Island: A Naturalist's Guide* by Wayne H. McAlister during the trip to Matagorda Island in April. Those who are planning to go on the trip being sponsored by the Advanced Training Team can read the book and enjoy the discussion while seeing the Island first-hand.

The Heritage Book Study Group meets the first Monday of each month, 10 AM to noon at the Texas City Prairie Preserve. Each meeting earns two hours advanced training credit. Visit the next meeting or call Elsie Smith 409-945-4731, Rita Smith 409-762-7763, or Nelda Tuthill 713-882-6792 for information.

Deep Blue Sea by Diane Humes

*Roll on, thou deep and dark blue Ocean - roll!
Ten thousand fleets sweep over thee in vain;
Man marks the earth with ruin - his control
Stops with the shore.*
George Gordon Byron, Lord Byron 1788-1824

Very early humans lived off the ocean's bounty on the coast of South Africa, perhaps as long ago as 164,000 years ago. They gathered shellfish, mussels, urchins, and fish from the beach and left the remains in caves for modern archaeologists to uncover. As their technology evolved, men learned to fish, build boats, and navigate the globe, but it is only in the most recent century that man can be said to have conquered the sea. The danger is that we will have changed it forever before we even understand it.

Only within our lifetime has the technology been available to truly penetrate the ocean waters. Water is opaque. Visible light disappears below 200 meters (656 feet); therefore, photosynthesis ceases. Pressure increases rapidly with depth; 200 feet down is the limit for



scuba divers. According to Barron Rector, "If you can't see it, you can't know it." So, given limits of visibility and safety, any understanding of the ocean bottoms was limited until sonar, satellites, and submersibles showed the topography - ridges, trenches, sea mounts, and thermal vents - and the amazing variety of creatures living in places previously assumed to be barren of life.

"The deep sea is the Earth's largest continuous ecosystem and largest habitat for life. It is also the least studied," says Dr. Chris German of Woods Hole Oceanographic Institution, one of the scientists working on the Census of Marine Life (CoML). Started in the year 2000, CoML is an international science research program uniting thousands of researchers worldwide with the goal of assessing and explaining the diversity, distribution and abundance of marine life - past, present and future - by 2010. Researchers have found an astonishing and diverse collection of 17,650 species living below 200 meters; of these, 5,722 live deeper than 1000 meters. They are a bizarre lot, including crabs, shrimp, and worms. Most have adapted to diets based on meager droppings from the sunlit layer above, others to diets of bacteria that break down oil, sulfur and methane, the sunken bones of dead whales and other implausible foods.

On a 2007 voyage in the Gulf of Mexico, a solitary tubeworm (*Lamellibrachia*) was found at 990 meters (~.6 miles) in what looked like ordinary surroundings. After a robotic arm lifted the worm from a hole in the Gulf floor, however, crude oil streamed from both the animal and the open hole. The "wildcat" tubeworm had hit a gusher and was dining on chemicals from decomposing oil. Also



in the Gulf of Mexico, an odd transparent sea cucumber (*Eynpniastes*) was discovered creeping forward at 2,750 meters (~1.7 miles) on its many tentacles at about 2 cm (~.8 inches) per minute while sweeping detritus-rich sediment into its mouth. At the end, it blooms into a startling curved shape and swims away to find another meal.

Paleontologists, archaeologists, historians, and ecologists are also searching for clues to past abundances of marine life to ascertain baselines to use in future conservation efforts. Using such diverse sources as old ship logs, literary texts, tax accounts, newly translated legal documents and even mounted trophies, CoML researchers are trying to understand and quantify changes that have occurred in the distribution and abundance of marine animal populations. For example, whaling records from New Zealand reveal that before the 1800's there were 27,000 southern right whales in the surrounding ocean, whereas now there are about 900.

Studying sizes and age groups of fish, Loren McClenachan of the Scripps Institution of Oceanography compared photos of 13 groups of "trophy" fish caught in Key West between 1956 and 2007. During this time, the average fish size shrank from 20 kg to 2.3 kg and the species mix changed from large groupers and predatory fish and sharks 2 meters long to small 34.4 cm snappers caught in 2007. Initial exploitation of fish stocks yields the

greatest bounty as the largest fish are caught; intensive fishing can remove 80% of the virgin fish stock in 15 years. Fish populations worldwide are currently reduced to 10% or less of their original world-wide abundance.

Overfishing is not a new problem; King Philip IV of France, in 1289 proclaimed:

"Today each and every river and waterside of our realm, large and small, yields nothing due to the evil of the fishers and the device of [their] contriving, and because the fish are prevented by them from growing to their proper condition, nor have the fish any value when caught by them, nor are they any good for human consumption, but rather bad, and further it happens that they are much more costly than they used to be, which result in no moderate loss to the rich and poor of our realm."

However, world population is orders of magnitude greater than in King Philip IV's day, technology far more efficient, and global demand for fish products high. World fisheries are in a bad state; almost 80% are fully- to over-exploited, depleted, or in a state of collapse. Worldwide, about 90% of the stocks of large predatory fish are already gone. The world stands to lose its largest ecosystem and a valuable source of food.



(Photo by Chad King, Monterey Bay NMS)

A few places in the ocean have been off-limits to fishing for many years. For instance Merritt Island in Florida, was established in 1962 to protect the Kennedy Space Center. But, within 100 km of the refuge is now a hotspot for world-record-sized fish, although this was not the case previously. And fish populations are larger. It seems that fish can recover, if given enough time to be able to mature and reproduce. And, they don't always stay on the reservation.

Worldwide, it is proposed to set aside a network of marine reserves protecting 20 - 40% of the area of the high seas, to reverse the damage done and promote

sustainability. Several countries have made good progress. South Africa has committed to protect 20% of its waters and Australia protects one third of the Great Barrier Reef Marine Park. The U.S. has 15 marine reserves; the newest is Papahānaumokuākea National Marine Monument, one of the largest fully protected marine conservation areas in the world, home to green turtles and Hawaiian monk seals and 7000 species of fish. We can make a difference.

Primum non nocere. First, do no harm. Hippocrates

To learn more:

www.coml.org Census of Marine Life

www.montereybayaquarium.org

<http://sanctuaries.noaa.gov/>

Kunzig, Robert. *Mapping the Deep: The Extraordinary Story of Ocean Science*. New York: W. W. Norton & Co., 2000.

Roberts, Callum M. *The Unnatural History of the Sea*. Washington, D.C.: Island Press, 2007.

Teatime Advance Training (TAT) by Vic Madamba

Each Tuesday at the Texas City Prairie Preserve a new program has been added to the mid morning break. Instead of just tea and crumpets during the thirty minute break the team got together and incorporated an advance training to cover the break time. Thus the "Teatime Advance Training", was hatched. Each volunteering member gets to present a short subject on prairie restoration, prairie chickens, seed balls, or any other subject as long as it is connected to the Prairie Preserve. Seed ball making was on the menu till the mid-morning break. The hot water for tea was ready and Sally Paulissen had her presentation on prairie flowers and butterflies ready. With a few minutes to spare, Vic quickly demonstrated how to assemble the new invasive cactus moth trap. After the TAT, the team resumed their activities: Sara and Tom went to track Prairie chickens, Dick checked the progress of the grasses, Vic went to set the new traps, while Robert, Sally and Terry had other chores. Although TAT is only for thirty minutes, it does

provide team members who cannot attend a normal advance training session a chance to build up advance training hours. So come join us at TCPP Tuesdays, 9 a.m. and don't forget your cup and tea bag.



Upcoming Education Volunteer Opportunities by Mary Jean Hayden

Please contact Mary Jean at bean1219@earthlink.net.

Fieldtrips to Galveston Island State Park

- **4/15**, 9:00 - Noon - 39 Travis High School. AP Environmental & Aquatic Science
- **4/21 & 4/23**, 8:30 a.m. - 2:30 p.m. - 55 Austin Magnet School 5th graders, 6 groups will rotate through 3 activities - beach, bay, and prairie. We need lots of help on this one
- **5/11 & 5/12**, 9 a.m. - 1 p.m. - 60 4th graders from Hughes Rd. Elem, groups to explore beach & bay

- **5/14** 10 a.m.-2 p.m. - 14 kids from Covenant Academy will explore the beach & bay

Camp Wild, June 7-11, 8:30 a.m. - 1 p.m. every day - Volunteer as a group counselor (you will have a partner),

Treasures of the Bay Educator Workshop is a mini-MN course for formal and informal teachers, **June 15-18**, 9 a.m. - 3 p.m. - to volunteer contact **Bill Ashby** at jbashby@comcast.net.

Of Special Note: Ocean Leadership Site

Editor's note: The following is an e-mail sent to Sara Snell by Sara's friend, Bob Olivas, who is now on assignment with the Ocean Drilling Program.

From: [JR Bob Olivas](#)

Sent: Sunday, January 17, 2010 7:08 PM

Subject: Bob's Expedition to Antarctica

Hi Everyone,

The first official video of Expedition 318 has been posted to YouTube. You can find the video on the Ocean Leadership YouTube channel:

<http://www.youtube.com/user/OceanLeadership>. (This video is 9 ½ minutes long and well worth your time!)

Every week a new video will be posted at these locations, so check back often!

We are very close to our first drilling site and when I woke up this morning you could see icebergs all around the ship. At this point they are not too close, perhaps half

a mile away, but each is different and very beautiful. If all goes well and there is not too much ice at our primary location we should have our first samples aboard this evening.

Temperature is about freezing right now but the wind is less than 15 mph that makes for nice iceberg viewing. (Editors' Note: It is summer in Antarctica)

The scientists want to do analysis of clays on this voyage and because one of the fume hoods I must work under is occupied by scientists working with Hydrofluoric acid (really nasty stuff) it's going to make my job a lot harder. It should be interesting and challenging.

Will try to send pictures of icebergs later.

Take Care,

Bob

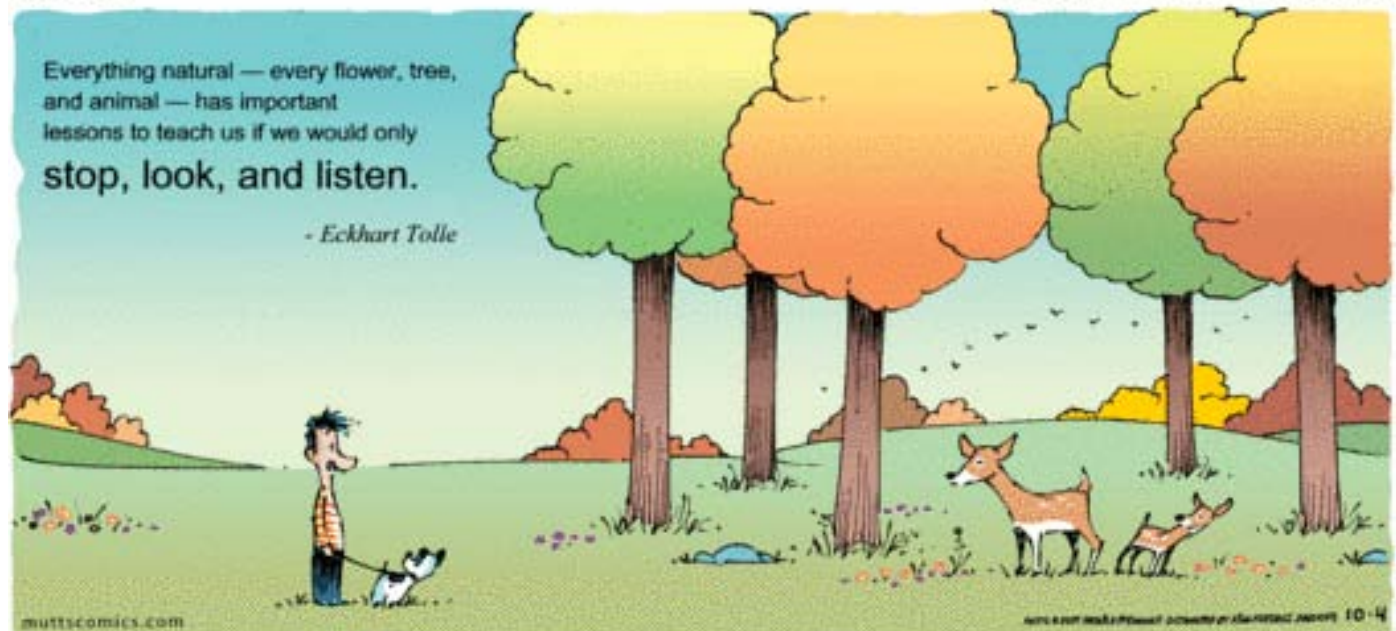
E-318

Integrated Ocean Drilling Program

A Final Thought

MUTTS

BY PATRICK M'DONNELL



Guppies from Julie

The Spring 2010 class is off and running with 19 new Master Naturalists in training! Please introduce yourself to our new Master Naturalists and invite them to join you in your favorite volunteer opportunity!

Many thanks to everyone who is helping make the class a great success especially Sara Snell, Barbara Rabek and Beverly Williams, the training class co-chairs!



Education and Stewardship - How to Win in the Master Naturalist Game!

The Texas Master Naturalist Program has two goals: 1) improve public understanding of natural resource ecology and management and 2) enhance existing natural resource management, education, outreach and research activities!

Each of these goals has a focus on education! There are many opportunities this spring and summer to help educate kids, teachers and adults on our natural resources!

On February 28, Mary Jean Hayden sent an email to the chapter outlining a variety of volunteer possibilities regarding education. She pointed out that you can help with these programs even if you don't know much or can't stand being around kids! Give her a call to discuss how you might contribute. "If children aren't exposed to nature at an early age, they are unlikely to participate in nature-based activities as adults or become stewards of these natural places." (Walt Dabney, Texas State Parks Director).

See you on the marsh or in the prairies! Julie



Improving Lives. Improving Texas.

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.

The Midden

This newsletter is published by **Galveston Bay Area Chapter - Texas Master Naturalists.**

Texas AgriLife Extension Service
5115 Highway 3
Dickinson, TX 77539-6831

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



The Midden Deadline For the June Issue

Monday, May 3

If you have Advanced Training or Volunteer Opportunities, please submit information to Diane Humes treimanhumes@earthlink.net