TEXAS Master Naturalist ℠

TEXAS PARKS & WILDLIFE

TEXAS A&M AGRILIFE EXTENSION

The Texas Master Naturalist program activities are coordinated by Texas A&M AgriLife Extension Service and Texas Parks and Wildlife. Texas Master Naturalist and Extension programs serve all people regardless of socioeconomic level, race, color, sex, religion, disability or national origin.

*Celebrating and sharing our experiences along "**the roads**" we take through nature.*

Award Winning Newsletter of the El Camino Real Chapter

Milam County Texas Master Naturalist Fall 2012

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Did You Know?

What's home to a trillion organisms?

See last page for answer.

Prairie Tracks by Katherine Bedrich

Watching and learning about Moths

The El Camino Real Chapter of Texas Master Naturalist Program participated in the First National Moth Week ; July 23-29, 2012; by holding public events throughout the county.

Black lights and white sheets were set-up at Wilson-Ledbetter Park in Cameron and Fair Park in Rockdale on two separate nights. The lights attracted an array of moths and insects. Most moths were less than 2.5cm. The largest moth was found clinging to the bottom of a sheet, it has not been identified yet. It is a slug caterpillar moth with a very fuzzy body and legs in the Limacodidae family.

Several colorful moths attracted attention as to the beauty nature displays in the most unnoticed of creation. A Chickweed Geometer Moth, Haematopis grataria, was spotted at Wilson-Ledbetter Park. It is a pretty yellowish moth with pink line markings. The antennae on this moth were feathery meaning it was a male.

On Thursday at Fair Park we had a green and black camo colored moth, Emarginea percara, entertain us. It stayed around for awhile and at one time we saw it do a wiggly dance. Not sure if this movement had anything to do with mating, but we sure enjoyed watching. A pretty olive green moth, Parachma ochracealis, showed up at both parks.

On Friday night we were at the Perry Pecan Patch on the San Gabriel River. John Pruett's black light attracted a frenzy of insects. The hood of his vehicle was covered with many small black beetles and other insects that were checking out the light. One insect seemed to be displaying an unusual behavior. We could not id it at the time; it looked like a dragonfly with long antennae. This insect would turn on its back and flutter its wings in a very berserk manner. It hung around for most of the evening. A few more showed up, but they did not display the same behavior. The insect in question has been identified as an owlfly; Ululodes macleayanus, it is in the same order as doodlebugs – Neuroptera.

Watching moths was a new activity for most of us. Learning about moths may be a new project for some of us as we look forward to next year's Moth Week.

[photos by Katherine Bedrich]

Moth Watch—A Diary of My Learning Process

By Linda Jo Conn

They were three humbling nights for me. July 26, 27, 28, 2012. I watched moths.

July 26

I attended a scheduled Moth Watch with El Camino Master Naturalists at the Fair Park in Rockdale. Several interesting moths were observed, but none were personally identifiable, even though I researched moths and even downloaded several photos of Texas species prior to the event.

After further internet searching that night at home, I did learn more about moth behavior and identification.

July 27

On my front porch at 8 pm, I set up a white plisse fabric and illuminated it with lighting hoped to be attractive to nocturnal moths, a 60W equivalent CFL bulb. I also turned on the 60W incandescent porch light at the front door of my house.

Again, I realized that I could not identify any of the moths I had enticed to either of these sites.

July 28

I set up the flood lamp with a blue 60W incandescent plant grow light, hoping it might attract a greater variety of moths. After untangling a dragon fly and a yellow jacket from the nubby fabric that I had hoped would add background texture to future close up photo shots, I wondered about the suitability of my choice. I really regretted not having a working camera.

Over ninety percent of the moths I observed in the last two nights were either buff or grayish in color and what I labeled "cigar-shaped" when at rest. Attracted to the artificial glow, they remained motionless, moving only when my attempts to inspect them more closely disturbed them.

This disappointing initiation to moth observation has challenged but certainly has not deterred me in my quest to learn about their life cycles and attraction to moonlight. Surely there are identification resources available for Texas moths; I just have not found them. Or, perhaps, I or one of my fellow Master Naturalists has not yet compiled and published it.

[photo by Linda Jo Conn]

A Pointed Question?

reprinted from eNature.com

Just How Do Porcupines Mate?

We're getting close to the time of year when porcupines begin feeling frisky.

But that's not the real news. The real news is that porcupines are able to mate without inflicting serious harm on one another.

As you might guess and, as the old joke goes, a porcupine has to proceed down this path very carefully.

The Common Porcupine, of course, is known for its sharp quills—excellent for self-defense but intimidating for a suitor. One misstep and ... ouch! So if you're a porcupine, it's important not to surprise one's partner.

First, the female must relax its quills. Doing so allows her to raise her tail and, in a maneuver that biologists delicately refer to as "presenting", signal her readiness to mate.

So how does the male porcupine (or sometimes several males fighting over a female) get the female "in the mood" and induce her to relax her quills? By embarking on an elaborate courtship ritual which includes squirting the female with high-pressure jets of urine.

It doesn't sound pretty, but it seems to be effective given that we have porcupines throughout the Western US. And that's just one of the steps in a fairly elaborate mating ritual.

If the encounter is a success, a little porcupine (multiple births are rare) appears seven months later. Fortunately for the mother, the infant is born in a placental sac, and its short quills are soft for the first half hour or so of its life.

And the porcupine isn't the only creature who will soon have love on its mind. Many mammals mate in the fall, gestate over winter and give birth in the spring— the timing just makes sense.

A Porcupines defends itself by erecting (not throwing) its quills, lowering its head, and backing up toward the intruder with its tail flailing.

Quills can become painfully embedded in the victim's skin. Cutting the end off the quill releases air pressure and allows it to be more easily withdrawn.

See eNature's field guide to learn more at enature.com/fieldguides/.

Thoughts of a 2012 Trainee

By Linda Jo Conn

When I became a Trainee for the 2012 Class of the El Camino Real Chapter of Texas Master Naturalists, I began to notice many previously ignored things hanging around my house.

I observed delicate flowers flourishing close to the earth amid the Bermuda grass.

After several classes, my appetite for knowledge was becoming insatiable, but I was becoming a bit intimidated by talk of awards and pins and patches and food and volunteer hours!

I focused on learning, but found it difficult to identify most of the life forms I saw, so I purchased a multitude of guidebooks and comprehensive manuals to Texas species. I still could not make positive identifications. So I bought a new digital camera to aid my memory in later searches.

Stress grew. Wasn't this supposed to be fun and enjoyable? Was I failing as a master naturalist?

The enthusiasm of fellow classmates and the leaders of the naturalist group eventually became contagious. How can one not be affected with such joy in new and simple discoveries!

So I continue to count ruby-throated hummingbirds and mix sugar water and clean feeders.

My first photo of a Ruby-Throated Hummingbird! Yay!

I listen to the twitters of unseen birds in tree branches and speculate as to their identification.

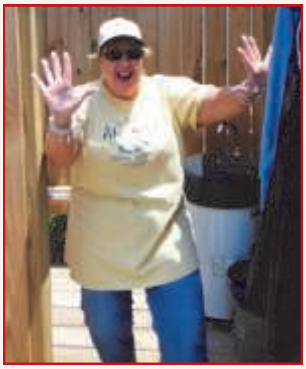
I walk with my eyes on the parched soil in front of me, hoping to encounter a horned lizard.

I irrigate my butterfly-friendly plantings and hope for a beneficial rain.

And, I continue to learn. Today, I know more about anthropology, fishes, birds, bryophytes, insects, forestry, wetlands, herps, climatology, and many more topics than I knew when 2012 began.

The Master Naturalist Training Class was well worth the effort.

[photos by Linda Jo Conn]



Jan Wise raved about the outdoor shower used by Genie and Chuck Lindberg at their Big Lump residence.

Katherine Bedrich, 2012 President of El Camino Real Texas Master Naturalist group, closely inspects a specimen of lichen during a training class field trip.

Observing Nature Project

by Katherine Bedrich

El Camino Real Chapter of Texas Master Naturalist had an eight week program from June into August this year "Observing Nature" with the Apple Tree after-school youth.

Four groups of youth with an adult leader picked an area to observe for the 8 weeks. Each week they recorded their area - soil temp., air temp, plant growth, and any nature changes. They also listened for nature sounds, smelled the scents of nature and felt nature textures. Rainfall was recorded. The youth used a GPS, magnifier, compass, ruler, and thermometer for their recordings.

How many legs does a spider have? What are the three body parts of an insect? Who is the big fish in the pond? These were just a few of the subjects presented. Projects the youth participated in also included butterfly feeding stations, mammal tracks and insect rubbings. The Enviroscape Watershed Model was used to demonstrate the importance of water in our environment and how contamination occurs. A certificate and a nature journal were presented to the students for participating in the program.

Members involved in the project included: John Pruett, Jan Campbell, Sherry Colley, Chip Colley, Joyce Dalley, Pamela Neeley, Katherine Bedrich, Jeanette Patschke, Paul Unger, Cindy Bolch, and Sue Taylor.

[photos by Katherine Bedrich]

The Scary Creatures of Halloween

reprinted from eNature.com

In most people's minds, Halloween means vampires and witches, bats, owls and spiders. Even the mere mention of these creatures sends shivers through some folks. Vampires and witches—a fear of them is understandable.

But what is it about bats, owls, and spiders that makes people associate them with evil?

One trait these creatures share is a preference for darkness. They're active mainly at night, which runs counter to our own diurnal tendencies. As a result, people tend to regard night animals as demonic.

What Makes Bats So Scary?

Consider the bat, which has long been associated with the darker side of our subconscious. Because bats appear only at night and vanish during the day, it was believed that bats were the souls of sleeping people. Likewise, depictions of the devil customarily feature batlike wings and ears (angel wings, meanwhile, are birdlike). And since bats often

dwell in caves, people commonly associate them with the underworld.

The Mexican Free Tailed Bat is found throughout Texas

As for the connection between bats and vampires, experts trace it to an ancient Asian myth involving night spirits that feed upon the blood of sleeping victims. True vampire bats exist only in the American tropics and were not described in scientific literature until 1810. The first literary work in which a vampire transforms into a bat and flies at night in search of human victims was Bram Stoker's "Dracula," published in 1897.

But Why Owls?

Owls are also generally associated with death and the underworld because of their nocturnal habits. The most widespread species, the Barn Owl, with its ghostly appearance and blood-curdling shriek, is considered a bad omen in cultures throughout the world. Several African cultures depict owls as spirits of the dead and as omens that foretell the death of anyone who sees them.

Barn Owls are found throughout North America and Europe

One notable exception is the Inuit belief that the Snowy Owl is a good omen. Perhaps the reason for this unusually positive view of an owl is that the Snowy Owl is a daytime creature. Diurnal activity is a necessity for this owl: it lives above the Arctic Circle where the period of breeding and peak prey abundance coincide with the endless daylight of Arctic summer.

OK, Maybe Spiders Really Are Scary To Some Folks!

Spiders are not an exclusively nocturnal group, either, though many species, especially those that hunt actively on the ground, favor darkness. These are the species most likely to hide in cupboards and clothing, which doesn't help their reputation. Perhaps the reason spiders inspire such negative responses is that they tend to be most numerous in the dark recesses of places like caves and old buildings. Also, despite the fact that most spiders are harmless to humans, poisonous species can be found on every continent.

Yet the current link between spiders and evil is not consistent with their usual treatment. Traditional myths repeatedly feature spiders as creators and omens of good fortune. The sheetweb spiders (family Linyphiidae) are known in Europe as "money spiders" because it's believed that an encounter with one means a person will soon receive some cash. Still, most haunted houses include spiders alongside the bats, owls, and witches, and these are meant to play upon our darkest fears—or should that be our fear of the dark?

Have you had any scary critter encounters during Halloween season? What is your own theory why folks find these critters so frightening?

[photos from eNature and public domain.]

A Toad Story, as Told by ...

Dorothy Mayer

Last year, during the drought, I discovered that toads had a home near the dog's watering cooler. I guess they found the coolness of the sloshed water enticing, as the dog has a habit of wetting himself to keep cool anywhere he can find water. Anyway, after I saw their hideout, I made it a point to make sure to keep their home damp and also to water other places that looked hospitable to toads. As a result, this year I was fortunate to be well rewarded for my efforts. I go out lots of nights and see toads here, toads there and toads most everywhere.

Beaudreux cooling off—and providing some splash for the toads.

My dad used to sit on his patio in the evenings and he usually had two or three toads that he called his pets. One time after we were grown, my sister and I were out on the patio visiting with him and we got to watching one of his pets catching bugs. The June Bugs were out everywhere and my sister decided to make it easier on the toad and picked up a June Bug and set that bug near the toad. We saw the toad look at that bug and that bug just disappeared. So, we stuck another one out there and the same thing happened. Over and over we watched as the bugs vanished thinking that eventually we'd see that tongue come out, but we never did.

After about 30 or more June Bugs vamoosed, that toad quit eating them. So, finally he decided to take himself to bed, I guess, and the poor guy couldn't even hop. He was that full. We definitely got some good free entertainment that night.

I sometimes wonder how many people know that toads can walk moving their legs at different times rather than hop if they want. However, hopping is their preferred method of getting where they want to go, I think.

I'm thinking toads are a great way to enjoy wildlife without worrying about pet cats and dogs harming them, since they taste bad if they get them in their mouth. They also can help keep the insect populations in check. So, if you enjoy sitting outside and want a little evening or nighttime entertainment, consider holding off on the chemical poison controls, and encourage the toads at your place. I read that they can live up to 14 years.

I wonder if I'll have enough bugs to keep them happy and healthy. I sure hope so.

[Photos by Dorothy Mayer]

Have I "toad" you lately that I love you? And in front of everyone else, too!

Field Trip to Waco Mammoth Site

By Katherine Bedrich

Chapter members along with Central Texas Chapter Master Naturalist visited the Waco Mammoth Site. In 1978 two men found a bone near the Bosque River while looking for arrowheads and fossils. Little did they know what they had stumbled upon.

The mammoths found at the site are Columbian Mammoths. They stand 14' at the shoulders and weigh 20,000 lbs.; their size being larger than the Wooly Mammoth. Columbian Mammoths lived on the tall grass prairie of North and Central America. Fifty gallons of water and 400 lbs. of food is what they consumed daily. Four chewing teeth, which could be replaced up to 6 times in a lifespan of 65 -75 years, are what would keep a mammoth alive. If these chewing teeth wore out, it would died from starvation.

Two tusks grew in rings like trees. But unlike tree rings, the new growth pushed the old growth out; like a cone from the inside out. The Mammoth tusk had the younger growth inside, on a tree the youngest growth is on the outside. The purpose of the tusk was for defense, digging, destruction and desire. Both males and females had tusks.

A thick wedge shaped heel formed the tippy toed foot of the Columbian Mammoth. The size of the foot could be 2' in diameter.

The Saber tooth cat, Deep faced bear, Giant armadillo, Giant beaver, Giant sloth and Camels were some of the other mammals roaming the tall grass prairie with the Columbian Mammoth.

The site at Waco was a nursery herd of females and their young. They were found in a defensive circle possible drowning in a flash flood 68,000 years ago,

The dig shelter was toured, where work is still needed for completion. The group helped with a project by sorting through material from North Carolina and Florida looking for mammal fossils. Sharks teeth were found along with other fossilized ocean animals.

An outdoor picnic lunch was enjoyed by members who endured the Texas noon summer heat.

Check out The Waco Mammoth Site website, wacomammoth.com.

[Photos by Katherine Bedrich]

Monarch Migrations

reprint from eNature.com

Fall's in the air throughout most of North America. You've probably noticed that your local birds are preparing for it— and so are many of our butterflies.

Monarch butterflies are famous for their annual migrations. Some of these insects travel thousands of miles each fall—an astonishing distance for such fragile creatures.

Yet few people realize that the Monarchs we see in the spring are not necessarily the same ones that fluttered past in the fall.

Beginning in late September, the skies along the Gulf Coast of Texas slowly become filled with meandering groups of Monarchs. Their flight, while not hurried, is purposeful, moving southwest toward a small forest in the highlands of Central Mexico. These butterflies travel from southern Canada and the northern United States at a rate of approximately 50 miles per day. They'll spend the winter in a few small groves of evergreen trees, with each grove containing as many as 20 million butterflies. Sheltered from the wind and snow, the butterflies conserve energy, for they still have a lot of work ahead of them.

The Monarchs become active again in February. Mating begins, and the air fills with swirling masses of copulating pairs. The first warm days of late March trigger their northward flight. A close look at these butterflies, now eight months old, reveals that their wings are faded and tattered. Still, the Monarchs fan out across the southern United States, looking for Milkweed plants on which to deposit their eggs.

Four days later, the eggs hatch, producing small caterpillars that immediately begin to feed on the Milkweed leaves. Ten to fifteen days later, each caterpillar stops feeding and forms its chrysalis—a beautiful soft green jewel flecked with gold. In another ten to fifteen days the chrysalis splits open, and a new Monarch emerges.

This generation of butterflies mates, lays eggs, and dies within the span of a few weeks. During this time it moves north, following the progress of spring and the emergence of Milkweed.

By the end of summer, two more of these short-lived generations will have repeated the process, ultimately coming to inhabit the Milkweed patches in the far north latitudes.

Thus the Monarchs born in the Northeast and Canada in September are the great great grandchildren of the last Monarchs to inhabit the area. These are the ones that will head to Mexico. They're significantly larger than the three generations that preceded them and still sexually immature. Rather than mate and lay eggs, they seek out nectar-producing flowers. The nectar serves two purposes: some of it fuels the southward migration, and some of it is converted to fat reserves that sustain the butterflies through the winter.

This incredible annual cycle applies to all Monarchs east of the Rockies. The populations in the West follow a similar pattern, though their migratory path is westward, from the Great Basin to overwintering sites along the Pacific Coast.

Since 1992 MonarchWatch has been carefully tracking Monarch Butterflies as they migrate. Much of their data comes from the work of volunteers who tag and track the butterflies. They can always use more helpers.....

Are you seeing butterflies in your neighborhood?

El Camino Real Master Naturalist
C/O Texas A&M AgriLife Extension Service
100 E. First Street
Cameron TX 76520-0790

Texas A&M AgriLife Ext. Svc. Phone: 254-697-7045
E-mail: Milam-tx@tamu.edu or our chapter at ElCaminoRealMasterNaturalist@gmail.com

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Certifications, Etc. By Debbi Harris

New for 2012 are in this color.

Our 2012 Re-Certification pin is the Bat. Those achieving their 2012 Annual Re-Certifications to date include: Katherine Bedrich, Cindy Bolch, Ann Collins, Lucy Coward, Joyce Dalley, Vivian Dixon, Michele Fletcher, Debbi Harris, Donna Lewis, Dorothy Mayer, Cindy McDaniels, Gary McDaniels, Pamela Neely, Connie Roddy, Phyllis Shuffield, Kim Summers, Sue Taylor, Cindy Travis, Don Travis and Paul Unger.

There's still time to get those 2012 hours in. Contact Debbi and she'll "swoop" in like a bat to help you with the forms or any questions. It is a "cool" pin.

Lifetime to date Milestone Achievement Levels Awarded include:

250 Hours—Paul Unger, Ann Collins, Katherine Bedrich, Cindy Bolch, Paula Engelhardt, Don Travis, Debbi Harris, Joy Graham, Lucile Estell, Shawn Walton, Anne Barr, Ed Burleson, Connie Roddy, Dorothy Mayer, Lucy Coward, Donna Lewis, Sue Taylor, Phyllis Shuffield, Sandra O'Donnell, Jim O'Donnell, Vivian Dixon, Sandra Dworaczyk, Cindy McDaniels, Sandra Dworaczyk, Janice Johnson, Gary McDaniels, and Rusty Thomas.

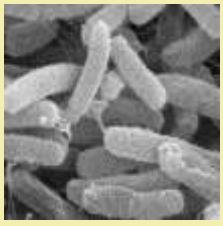
500 Hours—Paul Unger, Ann Collins, Katherine Bedrich, Cindy Bolch, Paula Engelhardt, Don Travis, Anne Barr, Donna Lewis, Phyllis Shuffield, Lucy Coward, Debbi Harris, Dorothy Mayer, Sue Taylor and Connie Roddy

1000 Hours—Paul Unger, Ann Collins, Katherine Bedrich, Cindy Bolch, Don Travis, Paula Engelhardt, Donna Lewis, Debbi Harris, and Connie Roddy

2500 Hours—Paul Unger and Katherine Bedrich.

Congratulations to All!

Did You Know? **What's home to a trillion organisms?** - Your skin!



While there are some very scary microbes crawling around, not all bacteria are bad. In fact, the vast amount of these indigenous bacterial, viral and fungal microorganisms are not only mostly harmless but are actually necessary for our own good health. They consume dead skin cells, fight off other "bad" organisms, and help our auto immune system do its thing to fend off infections. Another aspect of skin bacteria is the generation of body odor. Sweat is odorless however several bacteria may consume it and create byproducts which may be considered putrid by men and women (but not to flies!).

We know that when we wipe out certain beneficial bacteria in our guts with a round of antibiotics prescribed to kill off a harmful bug; other unwelcome species of bacteria can then move in and cause health problems, or those bad bugs that do survive will reproduce with a higher tolerance for that antibiotic. This is also true for our skin.

And no matter how many showers you take a day, you're still a walking colony of bacteria – and that is actually a good thing according to related articles.

It's been said that you transmit more bacteria by shaking hands than by kissing, so from now on lets greet everyone with a big kiss, ok? ...but still wash your hands! [Source—various Scientific American online articles, and Wikipedia]