

FIELD NOTES



Meeting

September
29th, 2010

Robin Gary
will be telling
us about her
experiences

on the Appalachian Trail — she
travelled it all and will share her
story.



Regular Monthly Meetings are the last
Wednesday of each month and are held
at 6:30, at the Austin Nature and Science
Center, Zilker Park. All meetings are
open to the public so bring a friend!

CAMN Board Meeting

Join the Board of Directors for a spirited
discussion about CAMN business on
November 4th, 2010. Contact any Board
Member for more details and for the
location of the meeting.

Volunteer and Advanced Training Opportunities

Visit the CAMN website at
www.camn.org and log in to the CAMN
Volunteer Calendar to start fulfilling those
volunteer hours.

Visit the CAMN yahoo group for On-line networking

This months image is a Pipevine Swallowtail
by Jim and Lynne Weber

FROM THE PRESIDENT

At last some wonderful weather and the promise of Fall is just around the corner. If you haven't registered for the Texas Master Naturalist State Conference, there is still time. Training is filling up fast but I do know there are still a few places left.

Actually, September and October seem to be jam-packed with conferences, so if our broad-spectrum MN conference isn't to your liking, then maybe one of the others will be. Don't want to leave Austin? Then I have a three-day event for you. I can even find a few free registrations if you contact me in the next few days. Being held at the LBJWC is the 10th annual Texas Plant Conservation Conference from September 15th to 17th, 2010 (see page 15). Let me know if you want to go.

Further afield and to be held in October is the 30th NPSOT Symposium in Denton that is working up to be a very special event. These conferences are exceptional at the best of times so don't miss out.

As usual, there are some wonderful articles in this issue of *Field Notes* but I would like to draw your attention to the

one about our new Website, which is proving to have a few teething problems. Other articles include one on Volunteer Opportunities and another on how to electronically sign your reporting forms. There are also some amazing items about different things members have seen, experienced, and attended. We really are an active group and you should all be so very proud of yourselves and what you are doing for our community.

Finally, I want to mention our last board meeting. We occasionally have visitors attend our meeting, which we love and encourage. However, we did find a glitch this time, in that our guest wasn't sure where to go. Since we all know where we are going, there were not any signs up. So if you want to attend a Board Meeting, please let us know in advance so we can be on the look out for you, and so we can ensure that there are enough reference materials available if needed. I certainly hope more of you will come and participate in our Board meetings in the future. **Everyone is welcome!** Have a great and productive month and I hope to "see you in the field."

Christine Powell

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From the Editor

Well, I seem to have a lot to say in this edition but we are changing again and I want your ideas!

First, I am not changing too much in this issue but we have had some suggestions for improving the *Field Notes*, so here is the first. Several people have said that they often would like to know what is happening in the issue so I am including a "In This Issue" area. I have avoided it in the past because, well, it was more work for me but, hey, I'm up for it if it means you will read more of the *Field Notes*! So let me know your reaction to it — was it helpful, waste of time, or totally useless!

What else would you like to see in the newsletter? What would you like left out? Is the *Field Notes* just not what you want? Is there something else you think would better suit us in this day and age? Let me know what it is you want to see in your newsletter and I will do my best to provide it.

Please send you comments and contributions to Christine Powell at xtinepowell@verizon.net and my thanks goes to everyone who sends me items every month.



I thought you said this stuff attracted cougars?

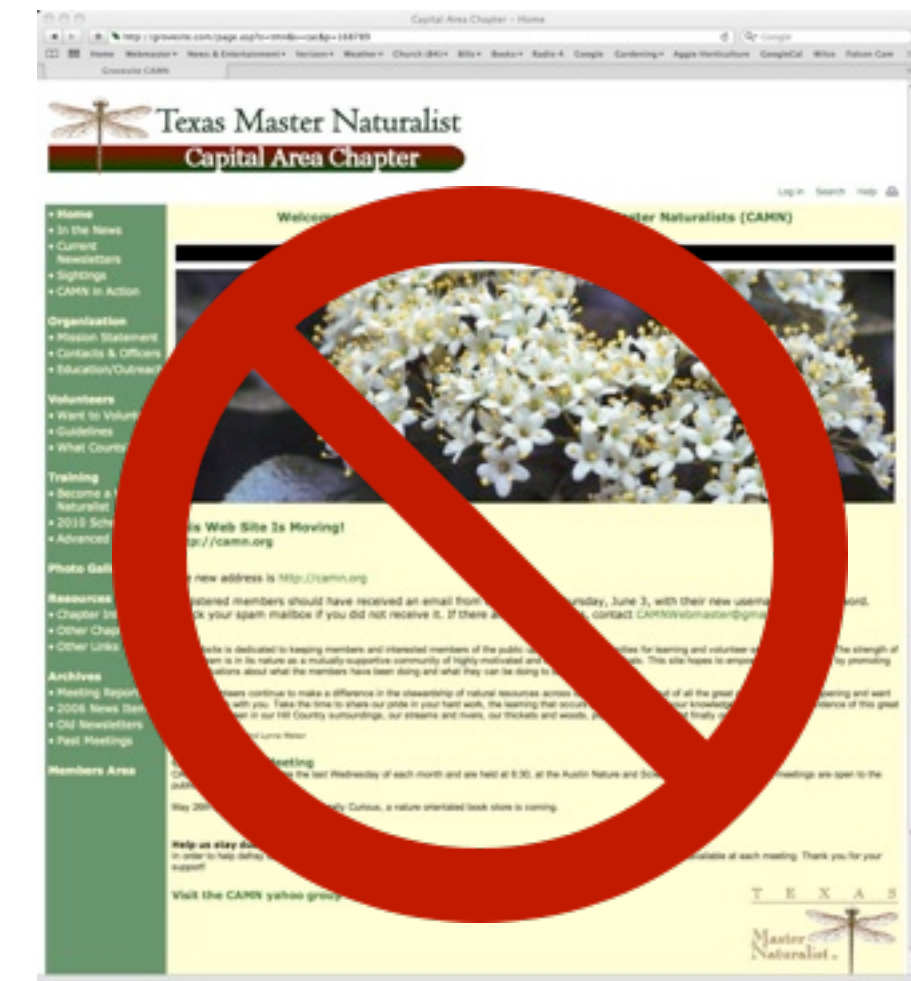
If you're headed into mountain lion country, don't wear Obsession for Men! Scientists at the Bronx Zoo recently did a series of experiments to confirm or deny the zoo folklore that big cats react differently to various perfumes and scents. They applied a range of products to rocks and trees and observed how tigers, snow leopards, and cheetahs reacted. Some scents provoked cheek-rubbing behavior, which facilitated using hair-collecting devices to do DNA studies on the follicles. Others were a complete dud. The champion was Obsession for Men by Calvin Klein. Since the formula is proprietary, the scientists don't know what is attracting the animals, but they know it works. The Maya Biosphere Reserve in Central America has been using Obsession for Men to draw big cats, particularly jaguars, but including pumas as well. Attracting the elusive jaguars in front of remote cameras has revolutionized the ability of Wildlife Conservation Society scientists to determine whether the animals are in an area and to estimate the number of individuals.

A Quick List of Website Solutions

As most of you are aware, we have had a few issues come up during our transition from the old CAMN website hosted on Grovesite to the new WordPress website hosted at Texas A&M University. Several problems have repeated themselves, so here are a few hints:

1. Be sure you are on the correct site. The old Grovesite files are still live (shown right), and we cannot delete them. Several people who had bookmarked the old site had not realized that they still lead there, and not to the new site. Worse yet, a Google search will still bring up the old address, the old site, and its out-of-date information. Our chapter website address, <http://camn.org>, will take you to the right place (see the image on the next page so you know what you are looking for), as will the State Master Naturalist site, <http://txmn.org>. Our chapter address is actually an alias for part of the state site, which is why our emails come from txmn.org. If you see “Grovesite” anywhere in the address, you are the wrong place. Update your bookmarks to camn.org. Be sure you use the right extension: camn.us is a group of chiropractors in Minnesota, and camn.com brings up a list of chat sites. Of course, if you are reading this online, you are already in the right place!

2. Those of you who get your internet service through Time-Warner Cable cannot receive emails directly from txmn.org, which is being blocked for some reason. We aren't sure if the problem is the URL (txmn.com is owned by noori.net, a Korean competitor to Yahoo, and txmn.info seems to be an adult site in Chinese) or the IP address of the server at A&M (Teasip skullduggery?). In any case, we have to send messages to almost sixty people with Road Runner addresses by alternative means. Since this is a major hassle, I would like to ask those people to contact Time-Warner and complain. You are paying for access to the whole



internet, not just part of it.

3. When A&M transferred our data over from the old site, they left out a few people. If you have not been getting routine CAMN emails like the Weekly Reader, you may be one of them. After you check to make sure these messages aren't just going into your spam folder, please use the form on the “Contact Us” page (see next page) or you can email us at CAMNWebmaster@gmail.com and I will check to make sure you are in the new database.

4. Some of our volunteer opportunities are at sensitive sites not open to the general

public. For that reason, the Member Calendar is in the Members Area of the website, where users must be registered and log in for access. To log in, click on Members Area in the home page header (or chose Member Calendar from the dropdown menu or sidebar). If you see the proper page content, you are already logged in. More likely, this will take you to a message “You must login to view this page.” Note that “login” is underlined, because it is a link to the Log In page. Click on the link, then enter your username and password. That will take you to a page WordPress calls “the Dashboard,” (partially shown below)



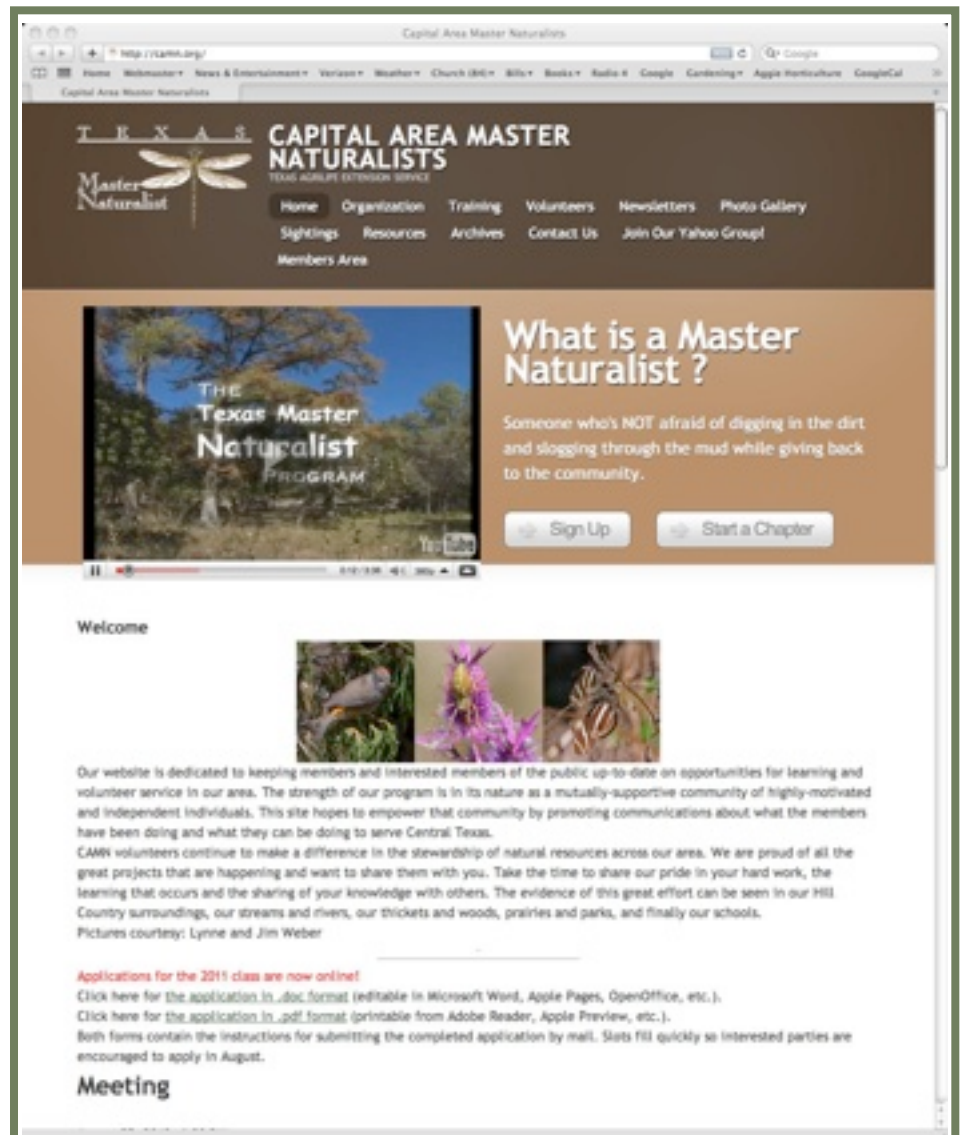
where you can enter and correct data about yourself, change your password (but not your username), and so forth. If you have no changes to make, you can click on the button “Visit site” in the top gray bar next to “Capital Area Master Naturalists” (green circle). That will take you back to the Home Page. From there, you can navigate to the calendar.

5. A few people have encountered a problem in which their computer refuses to recognize that they are logged in. You might check to see if your browser is set to block “cookies,” small local files that a remote website uses to track information such as your logged-in status. Contact the Webmaster if cookies are authorized and you still can't stay logged in.

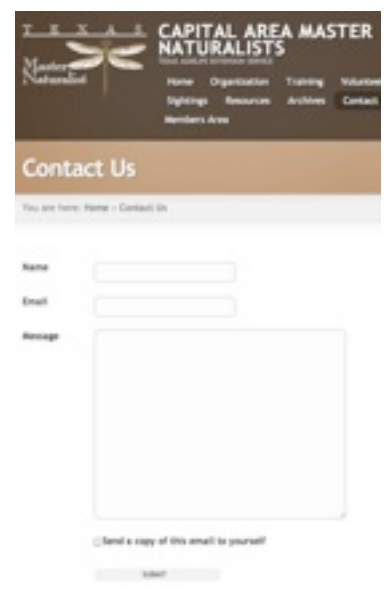
6. Back in early June, the system sent an email to everyone, informing them of their user name and password. Unfortunately, the Road Runner people didn't get the message and other people apparently had to hunt for it in their junk mail folder. Most, but not all, usernames are first initial plus last name; the initial passwords were randomly generated. Passwords are managed by the system, so I cannot tell you what yours is. However, I can change it to allow temporary access. If you can't log in, first try the “Lost your password?” link on the login page. If that doesn't work, use the Contact form or email CAMNWebmaster@gmail.com and I will check to make sure you are in the new database and give you a temporary password.

7. The forms for reporting your hours are on the “Forms and Documents” page in the Members Area of the website, so you will have to log in to download them. They are there in both .xls and .pdf formats. Please note that downloading can take awhile over a slow connection. To read the forms, you need the appropriate software. The .xls version can be filled out interactively in Microsoft Excel or in another program that can read Excel files—for example, the free OpenOffice.org or the Pages component of the iWork package for the Macintosh. The completed (and electronically signed) form can then be emailed to the Administrative Secretary. The .pdf file is not an interactive form, but it can be printed out in Adobe Reader or in another program that can read Acrobat files—like Apple's Preview program. It can then be filled out, signed, and either scanned and emailed, or simply U.S. Mailed.

CAMN FIELD NOTES



Above is our new Home Page. Remember, if you are not getting this view when you look for camn.org, you are in the wrong place.



If you have a comment or suggestion then please either email us direct or use the comment page illustrated right.

So, What Can I Count?

I am often asked, “so how do I know what I can count towards my volunteer hours?” Actually, it really is quite simple. Once you have worked out with the organizer if it will be double dipping to count an event (see our last issue) then you can use the following table to see what category it will fit into. Clearly we are always striving for the best activity column. Hope this helps and Happy Volunteering!

Bad/Unacceptable Activity	Better Activity	Best Activity
Being “on call” as a wildlife rescuer for a non-partner organization	Actually performing a wildlife rescue event for a partnering organization of the local chapter	
Planting exotic plants at a local school	Planting native plants or a Wildscape at a local school	Leading 5th graders and staff in implementing a native plant garden/ Wildscape at a local school
Monarch monitoring in Colorado	Monarch monitoring in Texas	Monarch monitoring within your local chapter’s area
Cleaning the elephant cage at a local zoo	Caring for the Prairie Chicken area at a local zoo that is in partnership with the local chapter	Leading interpretive programs about Prairie Chickens at a local zoo that is in partnership with the local chapter
Maintenance at a private native plant nursery	Maintenance of a demonstration garden at a park/nature center or being part of a native plant propagation team for the city’s botanical garden	Holding a workshop on how to install and maintain a wildscape or other similar type of native habitat.
Conducting wildlife management activities on your own land	Conducting wildlife management practices/activities on public land	Teaching/assisting landowners to develop their own wildlife management plans that the landowner would carry out
A teacher receiving service credit for natural resource education activities he/she conducts in their classroom	A teacher receiving service credit for natural resource education activities he/she conducts as an unpaid after school Environmental Club leader	A teacher /volunteer who organizes and conducts a natural resource education workshop for other Master Naturalists or the general public.
Stream clean-up by a volunteer who works for a local watershed protection program	Stream clean-up by volunteers who do not work for a local watershed protection program	Master Naturalist Volunteers conducting stream or watershed restoration practices. Or Master Naturalist volunteers coordinating a stream clean-up for the local community to participate in.
Receiving service credit for time spent serving as a Board or Committee member for another natural resource/environmental organization NOT in partnership with your local Texas Master Naturalist Chapter.	Receiving up to a set limit of service credit (e.g. 10 hours per year as set by your local chapter) for serving as a Board or Committee member for another natural resource/environmental organization that is ALSO a partner with your local chapter, providing the chapter with resources such as meeting space at little or no cost.	Receiving service credit for time spent serving as a Board or Committee member for a natural resource/environmental organization in partnership with your local chapter and because the organization invited you to serve and represent your local Master Naturalist Chapter in this capacity.
	Conducting endangered species surveys; developing nature trails or habitat brush piles at a local park/nature center which is in a partnership with your local chapter.	Maintaining a nature classroom/training area for that same partner who also allows the chapter to keep an office and/or hold chapter meetings in this same space

How to Easily Sign Your Digital Report

In last months *Field Notes* we were all advised that from now on we are required by the State Office to sign our reporting forms. Well, did you know you can easily make a picture of your signature, as well as do other digital signatures, by first going to this free site: <http://www.mylivesignature.com/register.php?>

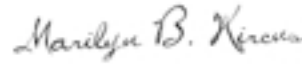
Here is what to do:

- The page will open to a form. Fill it out to register.
- Then click on the New Sig button on the top bar.
- You will be given a choice of three ways to make a signature.

1) Use the Wizard – This will allow you to make a style of signature that is somewhat like yours. Just click on Using the signature creation wizard and follow the directions. When you are finished, right click and select View Image. This will give you the image on a new page. Then right click and select Save Image As which will pull up your Save Screen. I made a folder called Signatures for my signatures and renamed the file with a name that reminded me I made it with the Wizard. These are pictures so it's a good idea to save them MY PICTURES. The signatures are also saved at this site so you could bookmark it and copy/paste the

signature each time you need it but that seems harder than keeping it on your own computer. It would allow you to retrieve it when working on different computers, though.

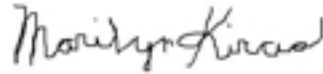
Here is the one I made:



2) Actually use your mouse, a drawing pad, or your finger on your laptop to write out your signature.

Just click on Hand draw your own personal signature and follow the directions. Save it just like you did for choice 1. (Be sure it has a different file name if you make both signatures.)

This is the one I made with finger writing and am using:



It's a little rough but is closer to my actual signature. (I've got really poor handwriting but a little practice or a sketch pad would make it very close to my written signature.) And you can practice until you are happy with the signature before proceeding to save it as a file.

3) Actually scan your signature and send it in to the company. This costs \$10 to \$20.

Again just click on that choice and follow the instructions.


This will be identical to your usual signature.

How to Use Your Signature

You can select a cell and type in Sig: Then merge the next couple of cells (or not) and put your cursor where you want to add your signature. Use Insert Picture and find and select your signature file. Then you can make it as small as you need it to fit in the cell. You can see that the signature is on a transparent background and you can only see the edges when you have the box selected.

Add the word: DATE: and in the next horizontal cell, fill in the date and you are done.

From now on you only need to use your signature. Here is what mine looks like on the Excel sheet.

Sig: 
Date: 7/29/2019

Note that you can also copy and paste the HTML to use this for other digital purposes.

Texas Monarch Monitoring Workshop

Volunteers from the Texas Monarch Watch, Cibolo Nature Center, Boerne and Texas Master Naturalists are offering a Monarch Monitoring Workshop on September 17-18. The workshop is designed to train volunteers to aid scientists as part of the Monarch Larval Monitoring Project, Monarch Watch and Journey North. The monarch's overwintering population in Mexico is the lowest ever recorded, and the butterfly was recently added to the World Wildlife Fund's Top 10 Most Threatened Species list.

The workshop will instruct teachers, youth leaders, citizen scientists and park naturalists across the state on how to monitor monarch butterflies at their local sites. Participants will learn how to mark migrating monarchs with paper tags, examine milkweed for monarch larvae and collaborate with international monarch research.

The monarch is probably the best known of all North American butterflies. The species is famous for its mass migration south for the winter, where populations will overwinter in various sites in Mexico and southern California.

The workshop will be held at the Cibolo Nature Center auditorium on Friday and Saturday from 9 a.m. to 4 p.m. Training costs \$30 per person and is approved credit for Texas Master Naturalists. Contact nature@cibolo.org to pre-register or call Cindy at 1-830-249-4616 for more details.

This workshop is sponsored by USFWS, Texas Parks and Wildlife, Monarch Joint Venture, and Cibolo Nature Center.

Hoppin' Orthoptera

Take a walk through a meadow on a warm summer day, and you'll no doubt encounter members of the insect order Orthoptera: grasshoppers, crickets, and katydids. While their Greek name translates to 'straight wings', these insects are better known for their jumping ability and powerful hind legs that can propel them to 20 times their body length.

Abundant, large, colorful, and often noisy, orthopterans are unlike other insects in that they undergo an incomplete or gradual metamorphosis. Their simple lifecycle consists of an egg, nymph, and adult, where the nymphs look similar to adults, but lack completely developed wings. Eggs typically hatch in the spring, nymphs develop through the summer, and adults mate and reproduce in late summer and fall, with winter passing in the egg stage. They have three basic body parts: the head, which contains sensory parts such as antennae, eyes, and mouthparts; the thorax, which contains the legs and wings required for movement; and the abdomen, which bears the digestive and reproductive organs.

The use of sound is crucial in courtship, with each species having its own distinct song. Males attract mates through stridulation, or producing sounds by rubbing the upper and lower wings or the hind leg and wing together creating a vibration that is species-specific. The auditory organs for orthopterans are not located on their heads, however, but on the abdomen for grasshoppers and the front legs of crickets and katydids.

A common group of grasshoppers in Central Texas are the Banded-winged grasshoppers (*Arphia* sp.). Heavy-bodied with large hind legs and rounded heads with vertical faces, these grasshoppers are typically 1 to 1 ½ inches long, grayish-brown to black and mottled with numerous spots. When they fly, their open hind wings show a bright orange-red, the only give away



Differential grasshoppers
(Photo: Rkitko)

to the natural camouflage of their grassy habitat. The Differential grasshopper (*Melanoplus differentialis*) is brown to olive-green and yellow and up to 1 ¾ inches long, with black herringbone markings on its legs. It feeds on both grasses and broadleaf plants, although it prefers the latter. A close cousin, the Eastern lubber grasshopper (*Romalea microptera*) is large and has a variable color pattern of yellow, red, and black, showing rose-colored forewings when in flight. Most often found in low moist areas with dense undergrowth, when alarmed this grasshopper will hiss, spread its wings, and secrete a foul-smelling froth from its spiracles, or breathing structures on the sides of its abdomen.

More often heard than seen, Tree crickets (*Oecanthus* sp.) are whitish to light green, with long antennae and slender bodies. In late summer from dusk into the evening hours, the males begin to chirp, with the rate of the chirp correlating to the outside temperature. If you count how many chirps you hear in 15 seconds and add that to 40, you'll come surprisingly close to the actual air temperature in degrees Fahrenheit. Field crickets (*Gryllus* sp.) are dark brown to black, about 1 inch long, live in cool, dark areas, and normally emit high-pitched, continuous calls. Those that live in caves are dark brown, have well-developed hind legs, and exhibit a hunchbacked appearance. The Southern mole cricket (*Scapteriscus borellia*) is a subterranean insect, with shovel-like front legs modified for digging. Dull brown and cylindrical, they are poor jumpers but fly at night and are quick runners.

The antennae of katydids are hair-like and at least as long as the body, superbly represented by the True katydid (*Pterophylla camellifolia*). The common name for these green insects is derived from their calls, with the true katydid's call



Tree cricket (Photo: Bastiaan M. Drees)

being rendered as a harsh ka-ty-did, she-did, she-didn't. Heard from early summer through early fall, it is rivaled only by the rapid, rhythmic but slurred call of the Central Texas leaf-katydid or Truncated True katydid (*Paracyrtophyllus robustus*). Living in woodlands and feeding on oaks, an outbreak of these insects can easily defoliate many trees.

Often, what you can't identify by sight during the day becomes clear when it sings, calls, buzzes, or chirps at night. Immerse yourself in the nighttime soundscape, and hear your way to discovery!

Truncated true katydid (T.J. Walker, University of Florida)



Send your nature-related questions to naturewatch@austin.rr.com and we'll do our best to answer them. If you enjoy reading these articles, look for our book, *Nature Watch Austin*, to be published by Texas A&M University Press in 2011.



There will be a training session held at Texas Stream Team headquarters (The Landing building) in the Aquarena Springs complex on Texas State University campus in San Marcos on Saturday, October 2nd from 8:30 am - 4:30 pm.

PLEASE CONTACT [JOSH OYER](#) IMMEDIATELY TO ENSURE YOUR SPOT IN THE TRAINING. THIS IS ON A FIRST COME, FIRST SERVE BASIS. Once the spots are full, the training will be closed.

Directions to the Landing: Take the Aquarena Springs Dr. exit (#206) off of IH-35. Head west on Aquarena Springs. After passing through the 2nd light, you will drive over some railroad tracks. IMMEDIATELY after passing over the railroad tracks, you will take a right into the Texas State University Golf Course. Pass through the golf course, over a low water crossing, and stay left to enter into the Aquarena Springs Center. Drive to the end of the long parking lot and park near the dumpster. You will see a gap in the fence that leads to a dirt driveway leading up to a green concrete slab and a building out on the water. That is the Landing, we are on the second floor.



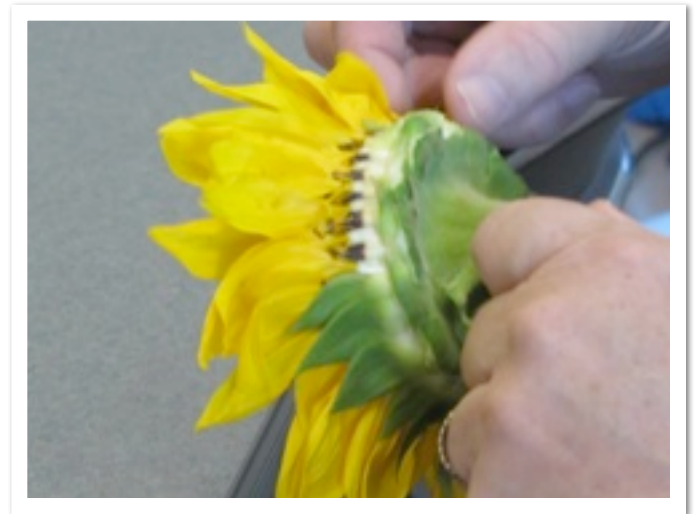
Another Day with Flo...



Flo Oxley returned to the Georgetown Public Library on August 28 for the third in the series of taxonomy classes she has been holding for Native Plant Society members, Master Naturalists, Master Gardeners and others. We began with one of the most obvious groups in nature.

The Sunflower family of plants, the *Asteraceae*, used to be known as the *Compositae*, because their showy “flowers” aren’t actually flowers at all, but rather composites of many small flowers arranged into large groups. Here we can see the head of a sunflower. What appear to be sepals are actually phyllaries, overlapping bracts (modified leaves) forming a receptacle for the flower head.

With the phyllaries removed from one side of the flower head, we can see the flowers that surround it. These “ray flowers” each carry one large ligule formed from fused petals, and have only male sexual parts.



Here we were counting the ligules. The reason that “she loves me, she loves me not,” works without having a predetermined answer is that there is a variable number of rays around a sunflower head. Again, there is really only one large ligule per ray flower. Knowing that, it is obvious that she always loves you!

Between the ray flowers in this view, you can see the far more numerous disk flowers that are arranged in a spiral that spans most of the flower head.

Here are two ray flowers dissected from a sunflower head. At the bottom of the ligule on each flower is the pappus, a modification of the calyx of the individual flower.

In flower heads of the plant family *Asteraceae*, pappus is the part of an individual disk or ray floret surrounding the base of the corolla, equivalent to the calyx of a non-compound flower. The pappus may be like bristles or tiny hairs, teeth, or scales, and can be too small to see without magnification. In some species, such as Dandelion or Eupatorium, the pappus of the mature fruit functions as a "parachute" which enables the seed to be carried by the wind.



Kathy McCormack wields a mean scalpel while dissecting a sunflower under the fascinated eyes of fellow CAMN member Sue Wiseman and Master Gardener Ingrid Langston. All are members of the Williamson County Chapter of the Native Plant Society of Texas. These were just three of about thirty people in the class.

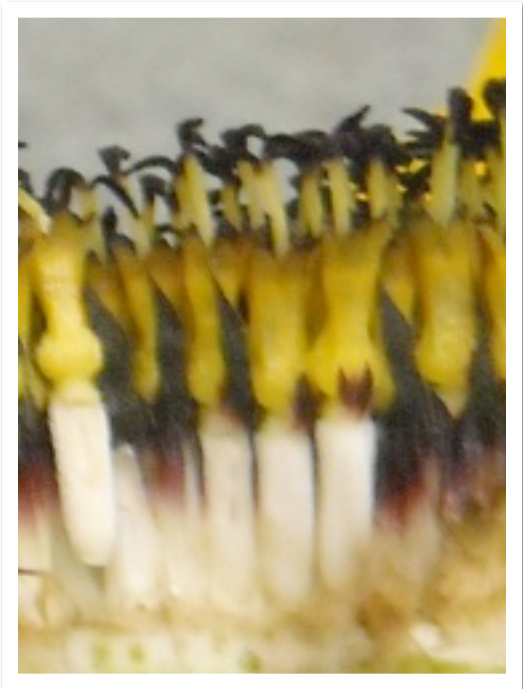
On ray flowers, the pappus appears as scale-like projections around the corona. The name pappus derives from the Ancient Greek word *pappos*, Latin *pappus*, meaning "old man", so used for a plant (assumed to be an *Erigeron* species) having bristles and also for the woolly, hairy seed of certain plants.





This disk flower is very different from the ray flowers that we were just dissecting. At the top is the stigma, the entrance to the style, the tube that leads fertilizing pollen down to the ovary. There are stamens, male organs, fused in a tube around the style. The corona on the disk flower does not have a big ligule, but petals fused into a small tube with lobes at the top.

At the base of the disk flower is a more prominent pappus than on the ray flowers.



Below each disk flower is an ovary, where the sunflower seeds (achenes) can be seen developing in the picture below.





Liatris (Gayfeather) is another group within the *Asteraceae*. Again, the showy blossoms are not flowers, but composites of many individual disk flowers (there are no ray flowers in this genus). Each individual flower is surrounded with a pappus of hair-like structures.

The milkweeds are now classified with the dogbanes in *Apocynaceae*. The five-lobed calyx that seems to mirror the petals is not uncommon in this family.



Reflections of a Slaughter Creek Naturalist: In Search of the Porcupine

I was enjoying the short drive from Wimberley to Driftwood early on a cool Saturday morning. Making the curves along the winding two-lane road was consuming most of my attention, thus my face was scrunched in concentration as another “z” curve was successfully negotiated. On a shady stretch just past an immature vineyard, my aunt screams “Pull over!” I rarely react quickly to passenger directives, having had my senses dulled by years of road trips with the family. My aunt was very insistent however, continuing to yell, “Stop! Stop!” I pulled off the road and stopped, my squinty eyes peering at her asking Why?

“I think that was a porcupine back there!” she exclaimed. I was unaware that any porcupines existed in this part of Texas. Guess I’d never thought about it—and not sure I had cared. She continued the request urgently, waving at me. “Go back there and see what it is!”

Again, this called for more discussion because I was not in the habit of chasing down wild animals. “It’s probably headed into the woods and if I get out to see, I’ll likely be run over by the next maniac racing around these curves.” “No,” she said, “It’s dead; it was run over. Go see.” Well, that made all the difference in the world, right? I said, “You screamed like a banshee to get me to stop so I could run back and look at road kill?” “Just do it”, she said. “I need to know.”

I know my aunt pretty well. If I didn’t go look at the critter, I would never hear the end of it. Maybe as one of the original East Texas naturalists, she was trying to educate me. So maybe what she meant was “I need to know that you know.”

With no choice, I grabbed my camera, carefully eased from the truck and headed

back to take a gander at the motionless mound on the side of the road. Looking back toward the truck, I noted that my aunt was not curious enough to be watching my progress. I continued onward a little further and, well, there it was.

I had never seen a live porcupine, so I wasn’t sure what a dead one should look like. I examined the poor thing. I had imagined big quills sticking out all over its body. This carcass looked somewhat furry, like a stiff brush, although the tail looked a little spiny. I didn’t want to touch it, so I started snapping photographs. A car passed by and all I could think was these guys must think I’m nuts. I didn’t look up. As I



Photo courtesy of Animalphotos.info

peered at its head, I noticed two very bright orange teeth protruding from its mouth. Document that. A few more shots then back to the truck and I get “See, I told you.”

Later that evening at home, sans aunt, I decide to do a little Internet research. After keying in “porcupine,” up pops a photo of the same mammal that I had visited with earlier—orange teeth and all. Mildly curious, I read on. Their scientific name, *Erethizon dorsatum*, means “the irritable back.” They are in the order of rodents and part of the *Erethizontidae*

family. It also says porcupines are most common in the western part of our state but also found in Central Texas, and moving further into the eastern and southern parts of Texas each year.

Intrigued, I read on. Adults are typically solitary creatures, interacting only during mating season. They are brown-black in color, with their quills giving them a yellowish tinge. Adults typically weigh between 11 to 25 pounds and in head and body length are between 25 to 36 inches with an additional 8-10 inches of tail. Their life span is around 5 to 7 years but have been known to live as long as ten years.

Porcupine vocalization is often described as mumbles, grunts, whines and moans, much like some of my offspring. Breeding occurs in the fall with births in the spring of usually one but sometimes 2-4 young have been documented. At birth, porcupines weigh about a pound, are covered in a coat of blackish hair, and within thirty minutes their well-developed quills have hardened to be as dangerous as their parents. Baby porcupines may suckle from three to seven weeks after birth, but begin eating vegetation almost immediately. Growth is slow with the young maturing the second fall after birth.

I am amazed to learn that they climb trees. In fact, they spend a good deal of time in trees. No Way! Now I had to study up. As youngsters, they are not necessarily good tree climbers, having to learn how to back down a tree rather than go down head first with predictable results. They eat things found in trees—berries, bark, limbs, leaves, mistletoe, and bird eggs. About 40 percent of their diet in the spring and 80 percent of their diet in summer is herbaceous ground vegetation while in the fall and winter they rely more

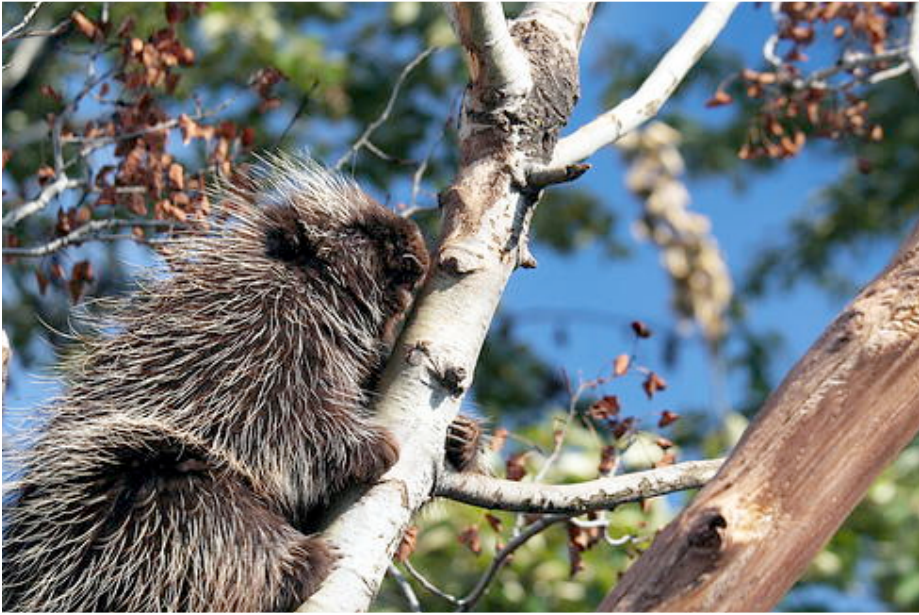


Photo courtesy of Animalphotos.info

on mistletoe, the inner bark of trees and pine needles, hence the tree-climbing. In the western part of Texas where fewer trees exist, they are equally adapted to being on the ground, preferring rocky areas for caves, dens, and resting areas and foraging.

My interest was piqued. “What about the quills?” I said to myself. The Internet did not disappoint me. The quills, I read, are nasty little devices. Small quills, which are modified hairs, cover most of the body, while larger quills protrude from the tail. Only its nose, legs and underside are not protected by quills. Long guard hairs hide and protect the quills over much of its body, yet when disturbed or frightened, its quills stand erect. Researchers estimate that more than 30,000 quills cover the porcupine, which equates to more than 100 quills per square inch. Quills on its sides are more limber, while quills along its back and tail are longer and stiffer. The tail is the real danger when confronting a porcupine. Porcupines can’t travel faster than a quick waddle, thus its quills are critical in keeping it protected from predators. It typically will turn and put its back to any threat, so that the longest, stiffest quills located on its back and tail are in the face of its enemy. I made a mental note.

Old quills are shed all the time just like hair, with new ones re-growing about a millimeter every two days until fully developed at which point the root closes, making the quill ready to release in defense. A quill, if jabbed into the flesh, is not an easy thing to extract due to the very tiny, overlapping scales of the shaft. Quick to swell up after getting into the moist skin of its victim, the scales of the quill open up like tiny umbrellas, making it

near impossible and certainly painful to extract. Why, some references even cited instances where quills worked themselves all the way through a victim’s extremity, being pushed further in with each flex of the muscles, and exiting on the opposite side. I was disappointed to learn that porcupines can’t really “shoot” their quills, although in a tangle, say, with a cougar, they sure might lose a few. Years of watching cartoons on television where the rascally of porcupine would fling its quills at whatever was chasing it were but a myth.

After learning all this I was now hooked. I wanted to find a live porcupine. It was only about six weeks later when I did see another one—unfortunately also quite dead in the middle of the road. This one was at the entrance to my neighborhood, and close to a local greenbelt where I spent time with my camera. Now, I was truly excited about the possibility of sighting one. For the next several months, I kept an eye peeled when hiking in the greenbelt. No trace. Someone told me, “You’ve got to look up into the trees. That’s where you’ll find ‘em.” Made sense to me, so then I walked around the greenbelt looking up into trees. No trace. At one point, a lady hiker stopped and stood by, looking up into the trees with me. She asked, “What do you



Photo courtesy of Animalphotos.info

FIELD REFLECTIONS: JERRY MAYFIELD AND SANDIE MAYFIELD
Reflections of a Slaughter Creek Naturalist: In Search of the Porcupine

see?" I said "Nothing." She asked, "What are you looking for?" "Porcupines," I replied. She turned and left rather hurriedly like I was an escapee of some sort.

I saw another porcupine two months later about a mile away from my home—

on the highway—run over. Now, that is three dead porcupines in less than nine months. Having never seen one before that, it seems very odd to have encountered so many road-killed ones, so there has to be some live ones out there.

So, I'm on the hunt. I'll find my porcupine, even if I have to stop looking in trees and start driving the roads at night.

Sources:

Nationalgeographic.com

TPWD.com

The Mammals of Texas, on-line edition by William B. Davis and David J. Schmidly

Another fun read: *Into the Porcupine Cave and Other Odysseys: Adventures of an Occasional Naturalist*. by William W. Warner [National Geographic Society]

Activity Kit Party!

On Thursday, August 26th, from 6 - 9pm several CAMN members finished organizing the Outreach & Education materials for our activity kits! We had a great time while we sorted, organized, got some of those last minute hours out of the way and, yes, we were out of the sun and in the cool!

The next step in the project is to get the information up on the website so each and every one of you will know what is available if you choose to take a kit out in the field and experiment on some unsuspecting children and adults. So, keep checking back at our website for more information on how we can make nature more fun for our community.



10th annual
Texas Plant Conservation Conference
September 15, 16 and 17, 2010
Thursday, September 16th, 9 a.m.

KEYNOTE ADDRESS:

**RIVERS AND WOODY PLANTS ON THE EDWARDS PLATEAU:
IS THERE A CONNECTION?**

Bradford Wilcox
Department of Ecosystem Science and Management
Texas A&M University

Go to http://www.wildflower.org/tpcc_speakers/ for more details

In Search of the Elusive *Aristolochia erecta*

Aristolochia erecta is a highly elusive plant—at least we've found it to be. We became interested in finding this small vine forb/herb, also known as the Swanflower, two years ago after learning it is a primary food source for the Pipevine swallowtail, one of our favorite butterflies flitting about the Austin area. A national plant database documents *Aristolochia erecta* in less than two dozen Texas counties. Thus, our challenge was on!



Bloom of *Aristolochia erecta*.

Throughout the summer and fall of 2009, we haphazardly looked for the swanflower during multiple nature photo expeditions around the Austin area, but never ran across the allusive plant. Finally in the late fall, we wandered westward from Austin into the Pedernales State Park area. About two miles east of Johnson City on FM 2766, we stopped along the road where the hillsides had been recently mowed. A few pipevine swallowtails fluttered by us giving hope that we might find our plant. After searching the roadsides dutifully for forty-five minutes, we found a nice patch of *Aristolochia erecta* with pipevine swallowtail caterpillars chomping



Adult Pipevine swallowtail

Aristolochia erecta is a member of the *Aristolochiaceae* or birthwort family, its genus being Dutchman's pipe. It grows no taller than 6 inches and mimics a loose trailing vine with very grass-like foliage, which makes it hard to spot among real grasses. *Aristolochia erecta* is documented as being found across all forty-eight of the contiguous states, but most abundantly found in Texas. It has an elongated tuber-like root, which makes it hard to dig up and transplant.

It typically blooms from April to October with blooms being small, purple and brown singular flowers that resemble a cross between a small orchid and a mushroom. The flower top ends with a green tab extending upward, which turns brown and a bit curly later. It is actually easier to spot the bright reddish orange caterpillars of a pipevine swallowtail than the tiny swanflower itself.



Pipevine swallowtail on *Aristolochia erecta* leaf.

on it. We snapped a few pictures and celebrated our first find.

Being more confident of what it actually looked like firsthand, we reenergized our search that next spring for more *Aristolochia erecta*, even to the point of looking for it during breaks at each of our CAMN 2010 class locations. No luck. We also asked for it at the local native plant nurseries so that we could plant our own—and came close several times—only to learn the last pot had just been sold or being told it wasn't in yet from the very few growers that propagated it.

We also began looking for *Aristolochia erecta* along the Old



Aristolochia erecta is hard to find among the usual Texas grasses.

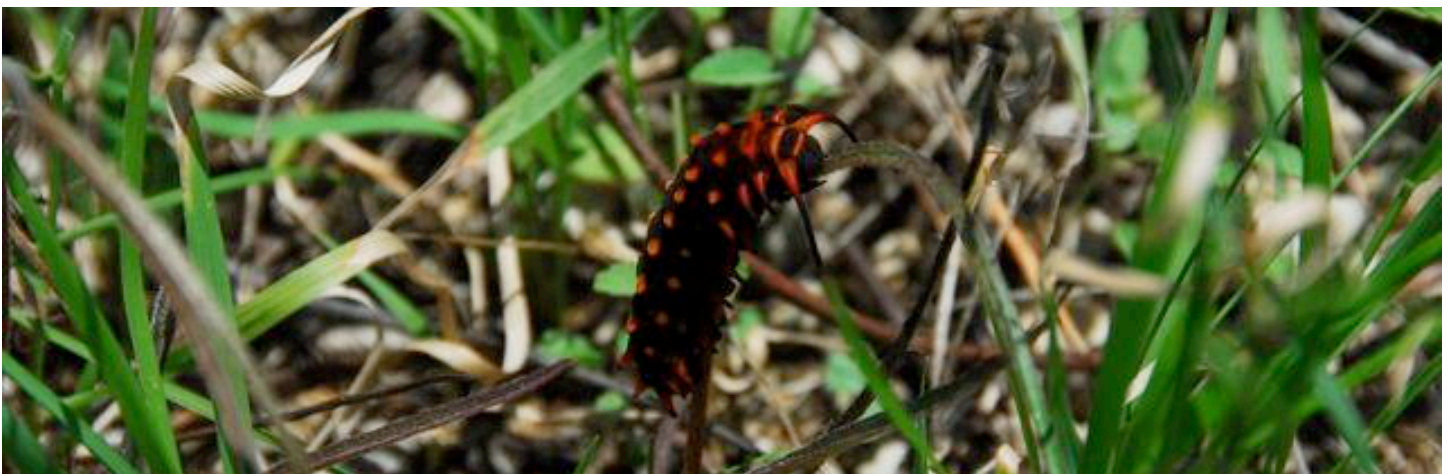
San Antonio Road south of Austin, as we had seen many Pipevine swallowtails in this area the previous year. April. Nothing. May. Nope. June. Nada. July. Eureka!

We spotted the bright color of the Pipevine swallowtail caterpillars, and upon closer inspection among the various grasses and forbs, uncovered the *Aristolochia erecta*. We delightedly stayed several hours watching the caterpillars chomp on the swanflower, slowly browsed through the triangle of grasses searching for more, and snapped photos of both plants and caterpillars. Challenge met.



Pipevine swallowtail caterpillar crawling across base of *Aristolochia erecta*.

One source suggested the Swanflower as poisonous, but it doesn't seem to stop this swallowtail caterpillar.



All photos by Jerry and Chris Mayfield

FIELD REPORT: SUE WISEMAN, KATHY MCCORMACK, VICKI HUSBAND, AND BOB KAMPER

Summer Plant Survey at Williamson County's Future Northwest Regional Park

The Williamson County NPSOT agreed with the Williamson County Parks department to do quarterly surveys of the Williams Tract just outside of Liberty Hill. Since a large number of CAMNers are also WC-NPSOT members and live in the area many MN's are joining in the fun.

In doing these surveys we knew we would have to have at least one of these in the driest, hottest month of the year. It is amazing how things change in one year. Kathy McCormack and I visited there for the first time just about a year ago and did not want to get out of our air-conditioned vehicle. There were very few things that were blooming and I was questioning why in the world we purchased this property. Since that day I have changed my mind and this year has been truly amazing.

We were blessed with a delightful morning at the Williams Tract; it is quite green and lush for July in Texas. We wish to thank Charles Wiseman for the use of his vehicle that did not mind getting South Texas racing stripes on its side and some very adventurous Master Naturalists and



Native Plant members, who were buffeted about by cedar and mesquite branches. We made the three mile trek from the ranch house at the Williams tract down to the lower pasture along the South San

Gabriel River in Charles' truck. On our way down the hill we stopped at what is now known as Johnston Creek (after Marshall Johnston), we went through knee deep grass to see the *Muhlenbergia arenacea* (aka Mahler's Muhly), a rare find. Along with this we spotted *Ruellia metze* (aka Sister Mary Clare's Ruellia) – its blossoms are white rather than purple. We have never seen it this far east in Texas – it is common along the upper Colorado and San Saba rivers (San Saba County), but not in Williamson County.

Along the river we found *Eupatorium coelestinum* (aka Blue Mistflower), *Teucrium canadense* (aka American Germander), *Cnidoscolus texanus* (aka Bull nettle) and *Ruellia humilis* (aka Low Ruellia). Unfortunately, we also found Ligustrum, Privet, and Chinaberry, all invasive non-natives. The good news is that they were not over abundant; unfortunately, in a riparian environment in Central Texas today, they are expected. We also spotted *Amorpha frucosa* (aka False Indigo). One of our last pauses was to view Wild Turkey near the ranch house and a



Beth Blankenship



Ruellia metze



Cnidoscolus texanus

beautiful *Eysenhardtia texana* (aka Kidney wood) in full bloom.

During our trek we were serenaded by Painted Buntings and near our return to the farm house enjoyed viewing three wild turkeys. We also heard and saw Northern Cricket Frogs while surveying the South San Gabriel River.

In all we added almost 30 species to our list of plants at this tract – we are up to 222 at the time I am writing this article and we have several more that we are attempting to identify.

That being said, there are many more plants out there and we need all of you to come help. The vast majority of the time is spent stopping and saying “what is this?” We need more folks that can spot things; even if it is something some of us already

know and is already on the list, it is the opportunity for all of us to learn, teach, or discover new things.

Many folks ask me how I have learned to identify plants and there are three main reasons. First and foremost, my parents pointed out and showed me and my siblings different plants. Secondly, I have gone to many meetings and lectures. But lastly, and most importantly, I have gone out on field trips and learned to ask “what is this?” With the advent of digital cameras and smart phones it is getting even better.

With all that being said, I expect to see many more of you “adventurers” at our next plant survey. Come help our Chapter and the County, and most important for you, learn about the native plants of Williamson County.



Beth Blankenship

Grasshopper — their eyes were really this blue....



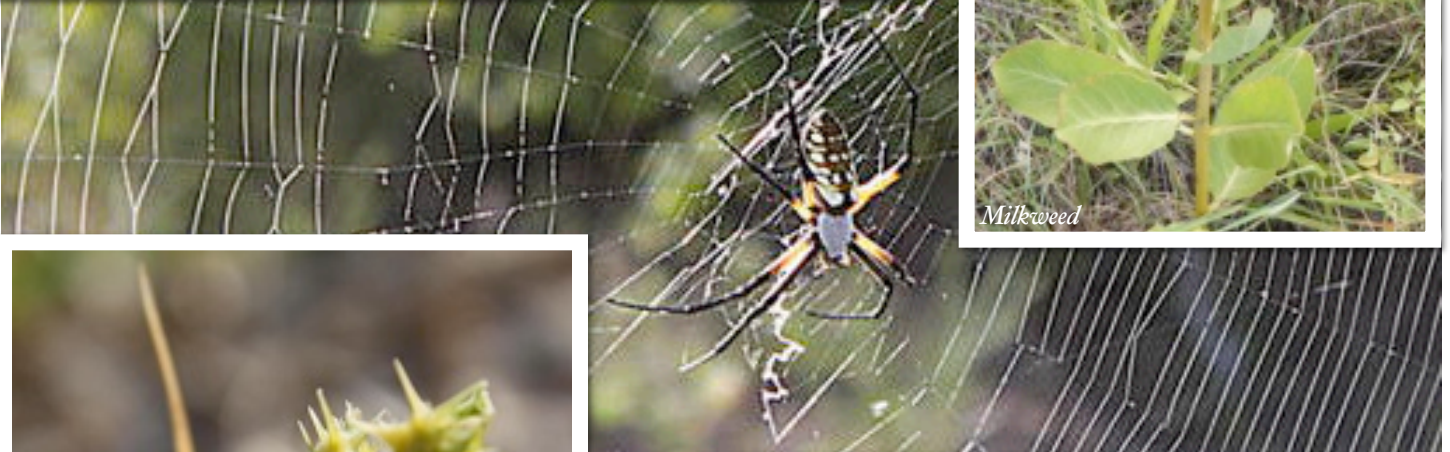
Kathy Comer



Kidneywood



Milkweed



Sandbur



Argiope Spider

All images by Bob Kamper unless stated otherwise

Mystery of the Missing Amphibs

Where, oh where, have our little froggies gone? Many of us who are loyal Riata Pond monitors are concerned about the apparent loss of calling amphibians. We don't know yet what is causing the loss of calling adults, but have started to investigate more carefully this summer. We have wondered about potential pollution in the water, and also the possibility of severe predation on polywogs and adults by the numerous ducks, turtles, and *huge* carp that inhabit the pond.

The results of the pollution testing have just come in, and Kathy's report follows.

Riata Pond Pesticide Screening Report

By Kathy McCormack 30 AUG 2010

The diversity and Call Index of frogs and toads at Riata Pond seem to have declined in the three years that CAMN has been monitoring there. A prolonged drought may have contributed to this, but since Riata Pond is used as a stormwater retention pond, there was some concern that polluted runoff from the surrounding residential areas and business park may be a factor. On July 4, 2010, Sue Anderson and Kathy McCormack collected water samples from Riata Pond's inlet and outlet. A water sample was also collected from Yett Creek (which flows out of Riata Pond) in an undeveloped park about half a mile downstream of Riata Pond. The samples were screened for four common pesticides and the results are below.

LLD – Lowest Limit of Detection

LOQ – Limit of Quantitation

MCL – Maximum Contaminant Level

HAL – Health Advisory Level

ND – Not Detected

All values are in ppb.

Atrazine

Location	LLD	MCL	Results
Riata Pond inlet	0.05	3.0	0.06
Riata Pond outlet			0.08
Yett Creek			0.09

Results are so close to the LLD that they are considered Not Detected.

Diazinon

Location	LLD	HAL	Results
Riata Pond inlet	0.1	20.0	0.024
Riata Pond outlet			0.027
Yett Creek			0.024

Results are below the LLD so they are considered Not Detected.

2,4-D

Location	LOQ	MCL	Results
Riata Pond inlet	1.0	70.0	ND
Riata Pond outlet			ND
Yett Creek			ND

Chlorpyrifos

Location	LLD	HAL	Results
Riata Pond inlet	0.22	30.0	ND
Riata Pond outlet			ND
Yett Creek			ND

Pesticides do not appear to be the cause of the reduced number of amphibians at Riata Pond. Perhaps the "moby" carp are the culprits?

So, now, how do we study possible predation? Anyone?



Cute One!



" I was out watering my raised bed of natives in the front yard on July 2 this year. I thought I saw a little twig on one of my lyreleaf sage plants, but before I brushed it off, I took a closer look. This was the smallest anole I have seen in the yard. It was about 8/10 of an inch (snout/vent). Notice, too, that it was shedding, so must have been getting plenty to eat. I hope it continued to take sleeping mosquitoes under the front deck!!!"

Sue Anderson

Hummingbird Heaven

On Friday, August 13, I set my face to the west and headed for Hummingbird Heaven. Actually, I was driving my car the 400 miles to Alpine, but the other way sounds better. With about a dozen other people, I had taken the Travis Audubon Society class on identifying Texas hummingbirds, and now was the time for out field trip. My wife had taken the course last year (FN July 2010), so I knew what to expect, but was still anxiously awaiting my own experience. Our genial host was Mark Klym, co-author of a standard work in the field, *Hummingbirds of Texas*. His PowerPoint presentations and lectures had prepared us for what lay ahead. After about seven hours on the road, I arrived near Sul Ross State University. My hotel doubled as accommodations for Union Pacific train crews, and was attached to an all-night diner that looked more like Brooklyn in the 1950s than West Texas today. They did have a poster of James Dean in his costume for *Giant*, which was filmed nearby.

The next morning, we headed for the Davis Mountains Resort. This is a place for people who want to get away. A local motto is, "If it's tourist season, why can't we shoot them?" However, most of the people are lovely, including the couple who shared their back garden with us. At any one time, there may have been 50 to 60 birds flying around. In addition to a wide selection of hummingbird species, there was a woodpecker who had learned to use the feeders. I was particularly impressed with the rufous hummingbirds, which seemed almost burnt orange. As impressive as the

display was, we were told that there were far fewer birds this year than usual, probably because the unusually wet weather has promoted the growth of nectar plants. There is less need to congregate around feeders. After a picnic lunch, we left the forested slopes of the Davis Mountains and dropped down to the savanna-like areas at lower elevations. We saw a completely different mix of species there, in a pretty garden. An additional attraction was the small bat colony living in the carport roof.

On Sunday, we headed south from Alpine and stopped first in the Christmas Mountains. This was a far more arid setting than we had seen the day before. However, there were many hummingbirds attracted to an artificial oasis that had been created by impounding the flood waters in an arroyo. I had two special close encounters. A four-foot racer came, well, racing through the group of us. I had never seen a pink snake before, and was too startled to get my camera before he disappeared. A few minutes later, I was confronted with a Lucifer hummingbird with a bright magenta throat patch who flew up almost to my face and hovered for several seconds. After lunch nearby, we headed south into Big Bend National Park, winding our way through the Chisos Mountains to the spectacular Basin. Some of our number saw a few unusual birds, but none of us were disappointed with the trip. That night, we drove back to Alpine through a thunderstorm before dispersing.



I continued west the next day, stopping first for several hours at the McDonald Observatory. As seems proper for Texas, the site contains several very large telescopes, one of which has the largest mirror of any instrument in the Northern Hemisphere (although the telescope design does not allow using all of the mirror at once). Other instruments include more conventional 82- and 107-inch telescopes, which were also among the largest in the world when they were built. After lunch at the excellent observatory café, I headed on to visit family in El Paso. Being a Master Naturalist, I made nature a part of my visit. I toured wetlands near where I grew up and along the Rio Grande River in New Mexico before returning to Georgetown. If you can take the Travis Audubon course next year, I can recommend it wholeheartedly.



McDonald Observatory, a must stop venue



Wetlands near El Paso

Firefly Watch Recruits Citizen Scientists

A recent story in the *Dallas Morning News* by Kristjana Gudmundsson described Firefly Watch, a program established in 2008 by the Boston Museum of Science together with researchers at Fitchburg State College and Tufts University. For some years, there have been anecdotal stories from people who feel that they have been seeing fewer of the winged beetles known as fireflies or lightning bugs. Possible explanations include loss of habitat, pesticides, and even light pollution. One theory is that the amount of background lighting, particularly intermittent lighting, in urban and suburban settings makes it harder for the flashing insects to locate mates. Grass lawns provide a terrible habitat for firefly

larvae, which live on other insects and require dense undergrowth for food and shelter.



The Firefly Watch program seeks to provide hard data to substantiate whether a decline is actually happening. For

example, B. O'Dell Molpus, an 80-year-old resident of Fort Worth, and his wife Jane sit on their back porch every evening and have counted as many as 250 lightning bugs. The two keep a detailed record of their observations and log in once a week to report their findings. The reports include information of frequencies, flash patterns, and weather. By aggregating the data from the thousands of observers, some serious science is possible that could never be done before. The fireflies provide a useful surrogate for the overall health of the local environment. If sitting on your back porch doing research appeals to you, Firefly Watch's website is <https://www.mos.org/fireflywatch/>

Firefly (species unknown, right) captured in Eastern Canada. The top picture is taken with a flash, the bottom only with the self-emitted light.

Light production in fireflies is due to a type of chemical reaction called bioluminescence. This process occurs in specialised light-emitting organs, usually on a firefly's lower abdomen. The enzyme luciferase acts on the luciferin, in the presence of magnesium ions, ATP, and oxygen to produce light. Genes coding for these substances have been inserted into many different organisms. Firefly luciferase is used in forensics, and the enzyme has medical uses - particularly for detecting the presence of ATP or magnesium. Renaissance painters used a powder of dried fireflies to create a photosensitive mixture. Caravaggio may have used this powder in his uniquely lit paintings.



Larvae of most species of Lightning Bugs are specialized predators and feed on other insect larvae, snails and slugs. (Photo by Gerald J. Lenhard, www.forestryimages.org).

Emerald Ash Borer Getting Closer West!

The Tennessee Department of Agriculture has announced the state's first detection of emerald ash borer. The discovery was made recently at a truck stop in Knox County near the Loudon County line. The Tennessee Department of Agriculture Division of Forestry estimates that five million urban ash trees in Tennessee are potentially at risk from EAB. The risk represents an estimated value loss of \$2 billion. – [Learn More](#)



At the August 21st seed cleaning party at the Lady Bird Johnson Wildflower Center our table (Cheryl Goveia, her daughter Denali (pictured), and Christine Powell (pictured) helped clean the last of the Texas Ash seeds for storage. These seeds will be used to help repopulate the county with ash trees once the threat from the emerald ash borer has passed. In the June issue of the *Field Notes* we explained the new threat to our Ash trees. This is a serious threat on a par with Dutch Elm Disease and Oak Wilt. If you find these insects please report them as soon as possible to the USDA so warnings can be issued. This new invasive insect is a major threat to our ash trees.



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Go to <http://www.coastalprairiepartnership.org/page/2010-state-of-the-prairie-1> to enroll.

Protect Your Groundwater Day

September 14, 2010 is *Protect Your Groundwater Day* and here are some interesting facts from the National Ground Water Association — pass the information on!

Simple ways everyone can act to protect groundwater

Everyone can and should do something to protect groundwater. Why? We all have a stake in maintaining its quality and quantity.

- For starters, 95 percent of all available freshwater comes from aquifers underground. Being a good steward of groundwater just makes sense.
- Not only that, most surface water bodies are connected to groundwater so how you impact groundwater matters.
- Furthermore, many public water systems draw all or part of their supply from groundwater, so protecting the resource protects the public water supply and impacts treatment costs.
- If you own a well to provide water for your family, farm, or business, groundwater protection is doubly important. As a well owner, you are the manager of your own water system. Protecting groundwater will help reduce risks to your water supply.

Groundwater protection

There are two fundamental categories of groundwater protection:

- Keeping it safe from contamination
- Using it wisely by not wasting it.

Before examining what you can do to protect groundwater, however, you should know that sometimes the quality and safety of groundwater is affected by substances that occur naturally in the environment.

Naturally occurring contamination

The chemistry of the groundwater flowing into a well reflects what's in the environment. If the natural quality of groundwater to be used for human consumption presents a health risk, water treatment will be necessary.

Examples of naturally occurring substances that can present health risk are:

- Microorganisms (i.e., bacteria, viruses, and parasites; these tend to be more common in shallow groundwater)
- Radionuclides (i.e., radium, radon, and uranium)
- Heavy metals (i.e., arsenic, cadmium, chromium, lead, and selenium).

Public water systems are required to treat drinking water to federal quality standards. However, it is up to private well owners to make sure their water is safe.

Contamination caused by human activities

Human activities can pollute groundwater, and this is where every person can help protect groundwater — both in terms of groundwater quality and quantity.

Some common human causes of groundwater contamination are:

- Improper storage or disposal of hazardous substances
- Improper use of fertilizers, animal manures, herbicides, insecticides, and pesticides
- Chemical spills
- Improperly built and/or maintained septic systems
- Improperly abandoned wells (these include water wells, groundwater monitoring wells, and wells used in cleaning contaminated groundwater)
- Poorly sited or constructed water wells.

An emerging concern in recent years is the occurrence of pharmaceuticals and personal care products in water. Much research remains to be done to assess the health risks of trace amounts of these items. Nevertheless, disposal strategies for these substances are increasingly being advocated.



Water conservation

Americans are the largest water users, per capita, in the world. In terms of groundwater, Americans use 79.6 billion gallons per day — the equivalent of 2,923 12-oz. cans for every man, woman, and child in the nation.

Agricultural irrigation is far and away the largest user of groundwater in America at 53.5 billion gallons a day followed by public use via public water systems or private household wells at a combined total of 18.3 billion gallons per day. More efficient use of water in either of these areas could save a huge amount.

At the household level, the greatest amount of water used inside the home occurs in the bathroom. The remainder of indoor water use is divided between clothes washing and kitchen use, including dish washing, according to the U.S. EPA. Calculate your household water use here.

Depending on where in the country you live, outdoor water use can vary widely.

If you want to get an ever better idea how much water you use, find out your “water footprint” by calculating the amount of water it takes to produce some of the food you consume.

ACT — acknowledge, consider, take action

On Protect Your Groundwater Day, NGWA urges you to ACT. Use this day to begin doing your part for protecting one of our most important natural resources — groundwater!

1. Acknowledge the causes of preventable groundwater contamination —

Everyone

- There are hazardous substances common to households
- Most household water use occurs in a few areas around the home.

If you own a water well

- Wellheads should be a safe distance from potential contamination
- Septic system malfunctions can pollute groundwater
- Poorly constructed or maintained wells can facilitate contamination
- Improperly abandoned wells can lead to groundwater contamination.

2. Consider which apply to you —

Everyone

- What specific hazardous substances are in and around your home?
- Where do you and your family use the most water?

If you own a water well

- Is your wellhead a safe distance from possible contamination?

- Is your well/septic system due for an inspection?
- Are there any abandoned wells on your property?

3. Take action to prevent groundwater contamination —

Everyone

When it comes to hazardous household substances:

- Store them properly in a secure place
- Use them according to the manufacturer's recommendations
- Dispose of them safely.

When it comes to water conservation:

- Modify your water use (more water saving tips)
- Install a water-saving device.

If you own a water well

- Move possible contamination sources a safe distance from the wellhead
- Get current on your septic system inspection and cleaning
- Get your annual water well system inspection

- Properly decommission any abandoned wells using a professional.

For more information

To discuss groundwater protection and other groundwater-related issues, follow NGWA's Facebook page and post your comments or questions on the discussion board.

For more information on Protect Your Groundwater Day, contact NGWA Public Awareness Director Cliff Treyens at 800 551-7379, (614 898-7791), ext. 554, or ctreyens@ngwa.org.



Adventures Among Ants

DR. MARK MOFFETT

Ecologist, explorer, photojournalist, and author

Mark Moffett, a.k.a. Dr. Bugs, will describe his adventures around the world with marauder ants, army ants, weaver ants, slavery ants, leafcutter ants, and invasive ants, combined with detailed science about the parallels between ant societies and human bodies, minds, and societies. From the top of the world's tallest tree, to deep in unexplored caves, Mark Moffett has discovered new species and behavior while risking life and limb to find stories that make people fall in love with the unexpected in nature. Mark is a real-life adventurer with awards for writing and photography... and now the highest honors in exploration, the 2006 Lowell Thomas Medal, from the Explorers Club and Rolex, bestowed on him at Cipriani Wall Street; and the sixth Roy Chapman Andrews Society Distinguished Explorer Award (2008).

With a Ph.D. from acclaimed conservationist Edward O. Wilson, Mark remains active in science, with over 80 peer-reviewed publications. He has penned more than 20 articles for National Geographic Magazine, which has featured nearly 500 of his images. You may have experienced Mark on Conan O'Brien, the Colbert Report, and National Public Radio. Dr. Moffett is author of a new book entitled *Adventures Among Ants*, detailing his personal observations and research of ant ecology and biology.

Live Webcast

09/16/10 7PM CT

[Click here for more information](#)

Can't make it? Watch live and get credit!

Scat and Frass



In the last issue of the *Field Notes* there was a long list of other TAS classes (go to <http://www.travisaudubon.org/classes.html> for more information). This has just been added and is a superb class if you have the time to take it.

Travis Audubon's Grasses Workshop 2010

Much of the landscape of Texas is dominated by grasses. Like animals and other plants, each species of grass has its own habitat niche. By learning to tell them apart, we can better "read" the land. Grasses can tell us about the underlying soil and geology, the locations of seeps and seasonally wet (or chronically droughty) areas, the intensity of grazing pressure, and the history of disturbance.

Some grasses are magnets for seed-eating birds and other wildlife. Many are superb erosion control, or provide cover for ground-dwelling wildlife. Some are pioneer plants that help to build soil after it has been lost. Some offer superb forage; others not so much. Come learn what the grasses can tell us about our land at a two-day workshop held at Peaceful Springs Nature Preserve in eastern Burnet County.

This will be Bill Reiner's fourth year to teach the class — after a two-year hiatus. Bill is now a biologist with the City of

Austin managing a portion of the Balcones Canyonlands Preserve. He became familiar with most of the 90+ species of grasses in the area when he was a biological technician at the Balcones Canyonlands National Wildlife Refuge adjacent to Peaceful Springs.

The dates are Saturdays, October 16 and 30, from 9 AM to 1 PM. Tuition for the class is \$50 for TA members and \$65 for non-members. To register, contact Paul Wheeler via e-mail or at 512-338-1131. Registration cut-off date will be October 1. Participants will be provided with additional information about the class and directions to the meeting place when they register. Peaceful Springs will provide notebooks for participants, and will permit them to collect specimens to make their own grass identification guides.

General Guidelines and Conditions:

Course withdrawal and refund policies
If a registrant withdraws from a class at least 48 hours before the 1st session, Travis Audubon (TA) will offer a full refund less a \$5 administrative fee that helps defray our costs. If TA cancels the class, we will fully refund the tuition. The TA office must receive payment for a class by 14 days before the 1st class session. If, at that time, the class is full and there is a waiting list, the registrar may remove an unpaid registrant from the roster and offer the place to the next person on the waiting list.

Important Notice: The Monarchs are Coming!

Within the past few days, observers in the northern United States and Canada have noticed monarch butterflies beginning to assemble in overnight roosts with hundreds of individual animals. That is the first sign that they are beginning their southward migration to the wintering sites in Mexico. Naturalists and gardeners here in Texas should be prepared for them to transit our area this Fall.

A remarkable website (<http://www.learner.org/jnorth/monarch/fall2010/update082010.html>) is available to track the progress of this year's migration. Maps include sightings of individual butterflies,

overnight roosts, and peak migration events, along with miscellaneous observations. General information on monarchs and their care and feeding is available from Monarch Watch (<http://monarchwatch.org/>).

Colorado River Talk

Join us on Tuesday, Sept. 14 for a presentation of research on the hydrology of the Colorado River at Hornsby Bend. Dr. Bayani Cardenas talking about his research measuring the effects of dam operations on surface water-groundwater interactions — *How the Pulse of a River is Affecting Its Liver*.

Jackson School of Geosciences Fall 2010 Technical Session Speaker Series at UT Austin Jackson Geological Sciences Building, Boyd Auditorium (JGB 2.324), 4 PM- 5 PM Map online at <http://www.utexas.edu/maps/main/buildings/jgb.html>

Dam-controlled river stage fluctuations alter groundwater-surface water interaction between persistent bars and islands and the rivers bounding them by rapidly changing hydraulic gradients and expanding hyporheic zones. A 300-m long and 80-m wide sand-gravel island with established vegetation located on the Colorado River (Austin, Texas, USA) is subjected to >1 m daily river stage variations due to upstream dam operations. Piezometer nests with probes monitored the evolution of the water table and groundwater flow paths through several cycles of dam-induced stage fluctuations. Results show that hydraulic head and the water table within the island closely track the river stage associated with dam release. Water table mounds and depressions which overlap in time were mapped through the course of one storage-release cycle over which >4,000 m³ of water moved in and out of the island. Dam operations have drastically altered groundwater-surface water connectivity between the Colorado River and the fluvial island aquifer by pumping substantial amounts of water in and out of the aquifer during dam release and storage cycles.

2010 National Wildlife Refuge Week

BALCONES CANYONLANDS NATIONAL WILDLIFE REFUGE

invites you to participate in FREE ACTIVITIES
on Saturday, October 9 at Doeskin Ranch on RR 1174.

8:30 - 10:00 am

BIRDS & BUTTERFLIES FOR BEGINNERS -

Casual walk.

*binoculars and identification books provided

8:30 - 10:30 am

NATURE PHOTOGRAPHY - Digital & 35mm workshop. Bring your camera manual and camera.

**Pre-registration required. For adults only

9:00 - 10:30 am

WATER WONDERS WALK - Scoop up water creatures from a creek & a pond & compare. For adults & kids!

9:00 - 11:00 am

USEFUL NATIVE PLANTS WALK - Casual walk.

9:00 am - 2:30 pm

DISCOVERING REFUGE DIVERSITY - Hike & learn about native plants and animals. A 4.5 mile hike of moderate difficulty through diverse terrain & habitats - 5.5 hours with 3 breaks.

BRING LUNCH & PLENTY OF WATER

9:30 - 11:00 am

BIRDING BY EAR WALK - Listen to the Mockingbird - the cardinal, wren & chickadee. Come learn the common bird songs and calls. You'll be able to recognize most of what you hear from now on!

11:00 am - 12:15 pm & 2:30 - 3:45pm

SPIDER WALK - Come share amazing facts about spiders with "Spider Joe" Lapp!

**Pre-registration required.



Look for migrating hawks!

Enter the BUTTERFLY TENT!

CATCH AND TAG MONARCH BUTTERFLIES! (if present)

11:00 am - 12:15 pm & 2:30 - 4:00 pm

WALKING STICK WALK - Look for Walking sticks, spittlebugs, leaf miners, etc... & catch bugs!

12:15 - 1:00 pm

SNAKES ALIVE! - Live snake program.

1:15 - 2:00 pm

WHAT'S IN YOUR BACKYARD? - See what's in Mark's storage trunk to learn: "What animals can I find in our backyard? What are they? Where do they live? Can we be safe?"

2:15 - 3:45 pm

NATURE WALK - Learn about ferns, flowers, fire, frogs & fossils!
A relatively easy walk.



Come & Go as You Please:

10:00 am - 4:00 pm
CREATURES FROM THE WATER
- View bizarre water creatures.

12:00 - 2:00 pm
PLANT ID WORKSHOP/LANDSCAPING WITH NATIVE PLANTS
- Have a plant that you're curious about? Bring us a sample or photo & we'll help you identify it! Be sure to show as much of the plant as possible & collect only where you have permission (roadside rights-of-way, your backyard, etc...). Also, learn the benefits of landscaping with native plants.



For more info call Rob Iski at 512-339-9432 x 70
Groups: Please call in advance to register.
Times & Activities subject to change

Announcements From Around the State

TMN Annual Meeting & Advanced Training taking place

October 22-24, 2010 at T bar M Conference Center in New Braunfels, TX.

http://www.regonline.com/TMN_11th_annual_meeting

Register today!! The most popular Advanced Training Sessions fill up VERY QUICKLY!!!

Your best value for registration is the full 3-day conference registration rate at \$140 now through September 19th. After that date, registration rates increase.

Lodging: You will need to make all of your own lodging arrangements.

Bunkhouse Lodging at T bar *-A NEW option made available in August A bunk house lodging option with separate Men & Women lodges have been set up at T bar M for our group. This option also offers lodging at a reduced rate of \$30 per night per person for those looking to cut lodging expenses. This price includes a bed roll with a pillow, blanket, two sheets, one large bath towel and a washcloth. You would need to bring your own toiletries. Check in as soon as you can to claim your preferred bed in this option! Earplugs might be a good item to pack too. Call a T bar M reservationists at 800/292-5469 twenty-four hours a day to make your reservation for this space. You will need to mention the reservation number of 308734 and the bunkhouse lodging.

PLEASE NOTE: At this time, all hotel style rooms at T bar M have been sold out for our conference. An Additional block of rooms has been set up with the Courtyard Marriott in New Braunfels and they have agreed to honor the same room rates as what has been negotiated with T bar M. Courtyard Marriott, 750 IH 35 North, New Braunfels, Texas 78130, Phone: 1-830-626-4700. You will need to give them the code of: TPWD-TMN for the \$85 base rate per room per night. You may also check with other

members in your chapter who have already made room arrangements and see if there are opportunities for splitting a room in which they have already reserved.

A special thanks goes out to the Lindheimer Chapter for all their hard work and assistance with the Annual meeting thus far!

Rainwater harvesting course to be held in Kinney County

Contact(s): Tyler Bobinmyer, 830-563-2442, tjbobinmyer@ag.tamu.edu

BRACKETVILLE - A Rainwater Harvesting Workshop will be held from 1-5 p.m. on Sept. 17 at the Kinney County Civic Center, 200 E. Spring St. in Bracketville.

The workshop, presented by the Texas AgriLife Extension Service, will be led by Billy Kniffen, AgriLife Extension specialist in water resources management.

"Billy Kniffen is an expert on rainwater harvesting and has extensive experience with many types of rainwater catchment systems," said Tyler Bobinmyer, AgriLife Extension agent for agriculture and natural resources for Kinney County and workshop coordinator. "He has worked with private landowners homeowners, schools, cities and counties, lending expertise and technical assistance toward building many catchment systems."

Bobinmyer said program topics will include water quality and quantity concerns, and rainwater harvesting systems for home use, landscape irrigation, wildlife and livestock. The workshop also will include hands-on construction of a 'wildlife guzzler' rainwater catchment system using a rain barrel and connections for drip irrigation. *With the state's growth and limited water resources, efficient water use is increasingly important,* he said. The cost for the workshop is \$5 at the door, but attendees are requested to RSVP to the AgriLife Extension office

in Kinney County at 830-563-2442 to ensure adequate seating.

Native Plant Society of Texas Symposium

October 7-10, 2010 Texas Woman's University - Denton, Texas Registration Begins For Symposium 2010 *Save Texas One Landscape at a Time: Our Native Plants Light the

Future!

The Native Plant Society of Texas (NPSOT) (www.npsot.org) has officially opened on-line registration for Symposium 2010 (www.npsot.org/symposium2010), a how-to-create sustainable landscapes educational event, to be held from Oct 7 - Oct 10 at Texas Woman's University in Denton, Texas. For additional information, please contact: Cynthia Maguire, President-Elect Symposium 2010 Chair Native Plant Society of Texas, 320 W. San Antonio St, Fredericksburg, TX 78624, Web: www.npsot.org/symposium2010, Email: symposium2010@npsot.org, Phone: 830.997.9272

10th annual Texas Plant Conservation Conference

This year's conference is scheduled for September 15-17 and will be held at the Lady Bird Johnson Wildflower Center, located in Austin, Texas.

Please note that the deadline for registration this year is Friday, September 3. After that date, registration fees will increase \$25. We will, as always, accept registrations at the door and those fees will be at the higher rate.

If you anticipate having any problems getting checks or POs from your agencies/organizations ready in time to meet the deadline, please give me a call and we'll work something out. Flo Oxley, Director of Plant Conservation and Education, Lady Bird Johnson Wildflower Center at the University of Texas at Austin, oxley@wildflower.org

Officers

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Board of Directors

According to the CAMN By-Laws, our Board of Directors consists of the Officers and the Chair of each Committee.

If you have concerns you wish the Board to consider, please contact one of the Board members via email or come to a Board Meeting (please let us know you will be coming).

CAMN Board Meetings are held on the first Thursday of odd numbered months at: 6:45 p.m. at the Academy of Oriental Medicine at Austin, 2700 W. Anderson Lane, Suite 204, Austin, TX 78757. Check with a Board Member for more details.

The agenda for the next Board Meeting is available [here](#).

Got info for the Field Notes?

Send info, photos and articles for publication in the *Field Notes* to: xtinepowell@verizon.net Deadline for submission is the 27th of each month.



Committees

Administrative

Contact: [Beck Runte](#)
Maintains database of students and alumni, including names, addresses, class attendance, volunteer hours earned, and advanced training completed.

Communications

Contact: [Dale Rye](#)
Webpage: [Dale Rye](#)
Field Notes: [Christine Powell](#)
Press releases: [Kelly Bender](#)
Responsible for the Internet web page and press releases.

Curriculum

Contact: [Patricia McGee](#)
Develops the CAMN curriculum, as well as plans the lectures, activities and field trips for each class.

Advanced Training

Contact: [Bill Dodd](#)
Plans, coordinates, and approves advanced training opportunities.

Food & Fun

Contact: [Andy Swain](#)
Facilitates the social aspects of CAMN including the Certification Ceremonies and holiday celebrations.

Volunteer Opportunities

Contact: [Vernon Berger](#)
Develops criteria to determine whether volunteer opportunities may be counted for CAMN credit. Reviews, approves, and publicizes opportunities.

Education and Outreach Committee

Contact: [Whitney Milberger](#) Promotes CAMN
Contact: Outreach CAMN

Sponsors/Partners

Mission Statement

To develop a corps of well-informed volunteers to provide education, outreach, and service dedicated to the beneficial management of natural resources and natural areas within their communities.

Members of CAMN are dedicated to the conservation, preservation, and restoration of our natural resources. To that end, we encourage and support trained Master Naturalist volunteers in Austin and Travis County in providing community programs and projects that increase appreciation of our natural environment and promote, protect, and preserve native flora and fauna.

[Austin Nature and Science Center](#)

[Texas Parks and Wildlife](#)

[Lower Colorado River Authority](#)

[Austin Sierra Club](#)

[The Nature Conservancy of Texas](#)

[Lady Bird Johnson Wildflower Center](#)

[Wild Basin Wilderness Preserve](#)

[Hornsby Bend Center for Environmental Research](#)

[Bat Conservation International](#)

[Native Plant Society of Texas](#)

[Travis Audubon Society](#)

