

**MISSION**

The Texas Master Naturalist program is a natural resource-based volunteer training and development program sponsored statewide by Texas AgriLife Extension and the Texas Parks and Wildlife Department.

The mission of the program is to develop a corps of well-informed volunteers who provide education, outreach, and service dedicated to the beneficial management of natural resources and natural areas within their communities for the state of Texas

**OFFICERS**

**President**  
Fred Franki  
ffranki@nctv.com  
(830) 637-7197

**Vice-President**  
Linda O’Nan  
bronan@kctc.com  
(830) 693-6126

**Secretary**  
Sondra Fox  
msfox@nctv.com  
(512) 695-5725

**Treasurer**  
Phillip Mitchell  
phillipmitchell@gmail.com  
(830) 693-0184

**MULTILLIDAE, VELVET ANTS OR “COW KILLER”**

By Phil Wyde

This past week I saw several velvet ants and they started me thinking. Of course I have seen them many times before and actually thought that I knew something about them. But try as I might, the only thing that would come to me was that they were not really ants. So I hit the literature and came up with some “tidbits” that I would like to share with you.

First, I was right. The velvet ant is not really an ant, but a wasp. It belongs in the Animal Kingdom, phylum *Arthropoda*, Class *Insecta*, Order *Hymenoptera* (wasps) and Family *Mutillidae* (<http://en.wikipedia.org/wiki/Mutillidae>). There are more than 3,000 species of wasps in this family. Their common name obviously derives from 1) the dense, velvety hair that covers them; and 2) their ant-like appearance. What makes them so striking is that they are much larger than any ordinary ant (up to an inch long) and the very bright color of their hairs (I want to say fur). It turns out that although they are usually bright scarlet or orange, they may be other colors including black, gold, silver or white. What throws you off from thinking that they are wasps is that the females are uniformly wingless – unlike any wasp that I know. (I need to change this to knew.)

I suspect that most of you already knew that velvet ants are not really ants. But do you know “why are these insects so brightly colored?” It turns out that the



bright color serves as an “aposematic signal.” (I threw this in for Cindy Sterling so that she could impress her artistic friends. I suspect that the rest of you, even if you did not know this term, already subconsciously knew the answer to the question. Moreover, it takes a lot more to impress you – and you probably don’t have artistic friends.) For Cindy: an aposematic signal is one that describes natural colors or bright markings on an animal that warns predators that it is poisonous or harmful.

The next interesting fact about velvet ants revolves around this wasp’s other common name, “cow killer.” This moniker comes from the fact that velvet ants are known for their extremely painful sting –

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(Continued from page 1) **Cow Killer**

“said to be strong enough to kill a cow” (<http://en.wikipedia.org/wiki/Mutillidae>). From what I can tell this common name is no more suitable than “velvet ant.” It is doubtful that any cow ever died of a velvet ant sting.

Unlike real ants and some bees, *Mutillidae* do not live in societies, let alone social orders that have drones, workers and queens. However, their sex is determined by whether they are haploid (1X number of chromosomes) or diploid (2X number of chromosomes; King R.C; Stansfield W.D. and Mulligan P.K. 2006. *A dictionary of genetics*. 7th ed, Oxford University Press, p194); and Hunt, [J.H. 1999. Trait mapping and salience in the evolution of eusocial vespids wasps. *Evolution* 53: 225-237). Males are haploid and females diploid.

The exoskeleton of velvet ants is especially hard. Apparently they developed this extraordinary tough exoskeleton to be able to resist the stings and bites of their prey – which being primarily bees and wasps is a good thing (see below). The unusually hard exoskeleton also helps velvet ants to retain moisture (<http://en.wikipedia.org/wiki/Mutillidae>).

Male and female velvet ants exhibit extreme dimorphism (differences in morphology or shape). First, male velvet ants have wings, while females of the species never do. In addition, “the males and females are so different that it is almost impossible to associate the two sexes of a species unless they are captured while mating.” In a few species the male is so much larger than the female that he carries her aloft while mating ..... (<http://en.wikipedia.org/wiki/Mutillidae>.” In other species, the female is larger. As in all *Hymenoptera*, only females can sting since the stinger is a modified ovipositor – an organ that is only found in females.

All North American species of *Mutillidae* are parasites. The female velvet ant enters the host's nest, usually a ground dwelling bee (e.g., bumblebee) or wasp, punctures the cocoons present there and lays one egg in each. The hatching velvet ant larva feed on their hosts causing their death in a matter of days. Interestingly, the velvet ants do not consume any of the food stored in the host's nest. Species in other parts of the world also parasitize flies, beetles, butterflies, and moths, in addition to bees and other wasps.

*Mutillidae* occur worldwide, but are most common in the dry tropics and in desert and sandy areas. Over 400 species are found in Mexico and southwestern United States.

### Other references:

<http://insects.tamu.edu/fieldguide/cimg344.html>

[http://www.everythingabout.net/articles/biology/animals/arthropods/insects/wasps/velvet\\_ant/](http://www.everythingabout.net/articles/biology/animals/arthropods/insects/wasps/velvet_ant/)

Congratulate yourselves!

In the first six months of 2012, our Highland Lakes Chapter has performed 6,794 volunteer hours and acquired 1,214 advanced training hours.

## NATURE CENTER NEWS

by Billy Hutson

To start off our meetings this fall we will try to have a speaker each month until it gets too cold. That means maybe Sept and Oct for speakers and then resume in the spring. Without an enclosed building it's tough to hold a comfortable meeting with speakers. We may consider the M.F. library however to continue through the winter. For Sept we will start with an interpretive hike for any one that wants to see the several close trails, to be followed by our monthly meeting and then a presentation by Bill Wren, veteran astronomer from Mc Donald University by Fort Davis. Next

we'll have a pot luck event until dark when Bill will give us a live show of the sky. Finally we will end the evening with a night sounds listening with Joan Mukherjee present to interpret - if the weather brings out the critters.

It's a full night of outdoor experience so set the time on your calendar. Bill will have just been to several other local venues so if you wish to just take in part of the evening you can pick and choose.

For more on the latest happenings with the nature center come to our meeting on the 9th.

## GRAN & ME

by Linda O'nan

Okay, I will not apologize for the cute grandkid photo, this group understands....and yes, not good master naturalist behavior, feeding the wildlife, but how many of us learned our love of the outdoors with a close and personal encounter? (don't even go there, Dr. Phil, with plague & hanta virus) So, WHAT DID I DO ON SUMMER VACATION? One-on-one with grandson, Jack, in Colorado. His dad, my son Jason, spent the days with older son, Ben, at Boy Scout Camp Alexander doing the big boy stuff while Jack and I explored nearby 11 Mile Canyon Gorge. We had a great time hiking (even though Mimi was huffing and puffing at elev.), rock-hoppin, trout fishing--Jack is a real pro & was spectacular, bird watching (the stellar jays were you know...stellar), picnics (with leftover trail mix for you know what) and other minor excellent adventures. Jack is crazy about rocks, so one day we went to a nearby mine, riding down into the bowels of the earth in a steel cage (gulp). Much to my surprise, I thoroughly enjoyed it and learned a lot about geology & mining history in Colorado. I wasn't going to show Jack what a wimp I was on the dark, absolutely claustrophobic ride down, down, because the headgear was great. The next day we trekked through a national forest petrified wood park (I didn't know there were ancient giant redwoods in Co!) Nearby was a grandparent/kid-friendly museum with fantastic fossils, dinosaurs, etc. with a unique behind the scenes look at mold-making for museum exhibits across the country, very cool. We poked about rock shops until we found



just the right one to add to his backpack of rockmates. Nights were spent with popcorn, UNO, and Parcheesi, with video games being charged ONLY for the trip home. All in all, the most incredible week doing the things I love the best with the people I love the most. I have seen "Gran & Me" programs being offered at parks and nature centers now across the country. This kind of offering would sure be easy for our group to incorporate, with no shortage of grandparents in this area. What better way for all of us to enjoy & share our experiences and knowledge with our grands and other grandparents! Okay, I did not go too overboard with cute pictures, but to be a fair and impartial grandmother, stay tuned, I HAVE 4 MORE GRANDSONS!

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**WOW, Jerry Stacy achieved his 2500 hour pin! Special thanks and congratulations on your great contributions to the community and to the Texas Master Naturalists! Presenting Jerry's award were President Fredi Franki and Awards Chair Sue Kersey.**

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**Joan Stone, Sherry Bixler, and Mike Childers received their 1000 hour pins!**

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Terri Whaley, Judy Parker, Linda Fleming, and Linda O'nan received their 500 hour pins!

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Joanne Fischer, Betsy Bouchard (received by Maggie Booth), Betty Cruikshank, Blair Feller, Marcy Westcott, and Hollis Neier receive their 250 hour pins!

## 2012 CERTIFICATION!



Receiving their 2012 Certification Pins are: Sue Kersey, Mike Kersey, Fredi Franki, Terri Whaley, Ray Zender, Hollis Neier, Jerry Stacy, Helen Smith, Arlene Garey, Ray Buchanan, Bill Luedecke, Terry Bartoli, Susan Bartoli, Jerry Stone, Sherry Bixler, Cynthia Castleberry, Bonnie Mikels, Joanne Fischer, Nancy Ellison, David Payton, Mike Childers, Betty Cruikshank, Sammye Childers, Joan Mukherjee, Sharon Drake, Marjorie Dearmont, Helen Dillon, Sondra Fox, Janice Warren, Duke Dillon, Billie Gunther, Marcy Westcott, Dennis Ellison, Cathy Hill, Judy Parker, Linda Fleming, Shirley Winslow, and Linda O'nan

## 2012 CLASS GRADS CERTIFICATION!



2012 class members receiving their 2012 certifications and badges: M. J. Hansen, Celia Escamilla, Pat Campbell, Sheryl Smith-Rodgers, Barbara Booth, Ed Bergin, Tom Ashcroft, and Deborah Maroney

# WELCOME MORE NEW CLASS GRADS!



2012 Class members receiving their graduation certificates from class coordinator Sammie Childers (r): Becky Breazeale, Celia Escamilla, and Pat Campbell.

## 2011 CERTIFICATION!



President Fredi Franki presents Ralph Herter his 2011 certification pin.

## SHOREBIRDS (*CHARADRIIFORMES*) AND FLYWAYS

by Sherry Bixler

Experts differ on the definition of the word shorebirds and in most countries outside North America they are simply called waders and include the larger birds such as herons and egrets. In North American field guides, the shorebird section usually includes 17 species of sandpipers plus the plovers, phalaropes, curlews, yellowlegs, stints, tattlers, turnstones, snipes, knots and about ten small waders with individual names such as killdeer, dunlin, willet, sanderling and ruff.

Shorebirds are mostly dependent on coasts and mudflats for the crustaceans and invertebrates that make up most of their diet, although some also consume insects. These birds need open gravel, sand or grassy areas for nesting as the nests are usually depressions lined with grass. Most species lay four eggs which need three to four weeks to hatch. Youngsters quickly leave the nest but follow parents as they learn to forage.

The Red Knot was once the most abundant shorebird in North America but was slaughtered in huge numbers during the late 1800's and early 1900's. Fortunately, there are still Red Knots although in much-diminished numbers and there has been a recent effort to place them back on the endangered species list. Red Knots occur in large flocks as do many other shorebirds such as the Surf-bird and Stilt Sandpiper. Other shorebirds are far more solitary.

The only shorebird typically occurring year-round in our area is the Killdeer. Almost all other shorebirds here are migrants but a few winter in central Texas; Spotted Sandpipers, Greater Yellowlegs, American Woodcocks, Least Sandpipers and Wilson's Snipe are often seen during Christmas Birdcounts. Since we have few mudflats, most shorebirds are not seen in large numbers. Two good spots for shorebirds are Inks Dam National Fish Hatchery and the sandy areas of Lake Buchanan, but many species winter on the Texas Coast and can be viewed there all winter.

Shorebirds are some of the most spectacular distance migrants with two thirds of them flying from the Arctic to South and Central America each Fall and



Greater Yellowlegs

back in the Spring, up to 15,000 miles round-trip. They may fly at heights of 10,000 during migration; other bird species can be found as high as 29,000 feet. This is only possible because bird lungs can extract more oxygen from the air than those of mammals.

Flyways occur over most of North America; the largest four are the Central, Mississippi, Atlantic and Pacific flyways. Texas is part of the Central flyway but Mississippi flyway migrants cross eastern Texas each year.

Five major stops along the flyways are critical to the success of migrating birds although thousands of smaller stops are also important. The five major stops are Alaska's Copper River Delta, Washington's Gray Harbor, Canada's Bay of Fundy, Kansas' Cheyenne Bottoms and Delaware/New Jersey's Delaware Bay.

Efforts to protect these vital areas are ongoing, but habitat destruction in their wintering grounds is also ongoing. Most Central and South American countries are working on this problem and some, like Costa Rica, pay farmers to keep woods and marshes intact. Concerned individuals also buy small plots of land in these countries just to prevent development while some corporations buy land for the same purpose in order to enhance their image. These measures are effective but large areas are still being drained or cleared as growing populations demand it.

# JUNIOR ANGLER EDUCATION - JULY 10 - KINGSLAND LIBRARY

by Linda Fleming

This was the 4th year for Junior Angler Education as a summer program at the Kingsland Library. Twenty-five Junior Anglers visited the 4 stations where they received training and hands-on experience on Casting, Basic Tackle and Knot Tying, Fish ID and Habitat and of course Safety. At the end everyone received their Certificate of Achievement. A good time was had by all the Anglers as well as our members who volunteered for the program that day.



## HABITAT SURVEY AT GRANITE SHOALS

By Freddie Franki

The City of Granite Shoals City Hall sits on 131 acres, a former site of the Cold Spring Granite Quarry, at the corner of Phillips Ranch Road and RR 1431. When the city received a grant from TPWD to construct a hiking trail on the property, one stipulation was an endangered species habitat survey, specifically for the Golden-Cheeked Warbler and the Black-Capped Vireo. With TPWD approval, the city asked HLMN to do the survey. This type of survey required that we first review geography, topography, and plants. If the site was found suitable for either bird then we would comb the area for bird sightings.

If you drive by the City Hall, all you see from the road is a huge granite office building surrounded by bare ground with some Mesquite trees and cactus. And in fact Mesquite and cactus are prevalent throughout the acreage. But we also found some wonderful surprises further back from the road.

The survey team was Marvin Bloomquist, Sherry Bixler, Joanne Fischer, Jerry Stacy, and me. Joan Mukherjee planned to join us, but unfortunately had to be out of town. Before we could get access to the property in June, the city did a bit of clearing to some old, over-grown roads on the back side of the property. They provided utility vehicles and a guide. Because of spring rains there was an abundance of undergrowth, cactus, tasajillo, bitterweed, etc. Piles of huge granite blocks weighing tons had been dumped years ago at various places on the property. Trees and shrubs are growing around the granite blocks giving a nice relief to generally flat land.

We spent two partial days on the site, with snake boots on, in 100+ temperatures. Sherry said she would almost rather be snake bit than wear those boots again in that heat. We never saw a snake. We also spent time on research. Chuck Sexton, retired from BCNRW, gave us reference material to study and we reviewed Google Earth maps of the area at City Hall and surrounding properties. It was also helpful to look at known warbler/vireo habitat on Google Earth.

So what did we learn? We did not see either GC warbler or BC vireo habitat. For the GC warbler, optimum habitat will have a nearly continuous canopy cover of trees with 50-100% canopy closure and overall woodland canopy height of 20 feet or more. There should be a natural mix of Ashe Juniper and hardwoods. And GC warblers prefer some canyon lands. For the BC vireo, vegetation should be from 3 to 15



Joanne, Sherry, Fredi, and Jerry. Photo by Marvin

feet high with a variable canopy. Brush cover should be from 30 to 70% and include open areas and woody areas with 100% canopy closure. Woody shrubs with foliage from ground level to about 4 feet are critical as breeding habitat. We found some of the trees and shrubs these birds prefer but not enough. We judged the overall canopy cover at less than 35%. As I said earlier, there is a lot of Mesquite and cactus. There are pockets of live oak, blackjack oak, post oak, and cedar elm. There is even a little Ashe Juniper. Small clumps of prickly ash, skunk bush, persimmon and agave exist. We did not see any shin oak, a vireo favorite. But bottom line, there was not enough of the desirable vegetation to sustain a colony of either bird.

The proposed trail will pass through the nicest areas. There is a deep pond, an old quarry pit, which will be on a side loop of the trail. At the back of the property are two man-made tanks and one was especially delightful. There was a multitude of dragonflies and an impressive variety of them. This was a real treat for us and we just stood there watching the dragonflies, forgetting about birds for a while. We went one morning before sunrise and saw a great variety of birds; lark sparrow, pyrrhuloxia, yellow-billed cuckoo, summer tanager, Bell's vireo, and green heron to name a few. Overall we saw about 35 different birds. We made a plant and bird list as part of the study. Every team member was positively impressed with the property and would like to see it developed into a nature area for the City of Granite Shoals. Hopefully there will be future opportunities for HLMN to assist with that project.

## AUGUST MEETING

Our July program introduced us to Jacob Abels, a student from Spicewood who attended the Buckskin Brigade at Southern Star Ranch this summer with support from the HLMN. Jacob shared what he had learned about how to attract deer by rattling antlers and how to ID plants and rate them based on their palatability to deer. He also learned how to determine the age of a deer based on its teeth, the anatomy of deer, and conservation practices



President Fredi Franki, Jacob Abels, and his Mom, Sharon Abels

## SEPTEMBER MEETING Linda O'nan

Our Wednesday, September 5th meeting features Bill Wren, special assistant to the Superintendent at the McDonald Observatory in Ft. Davis, Texas. We are the first program he will present in the area on "Dark Skies". Many of you met Bill at Big Bend Ranch State Park last year and remember what a dynamic speaker he was. Be sure to not miss this!

## MASTER NATURALISTS SUMMERTIME PROGRAM SUPPORT AT INKS LAKE

by Carol Navarro Adams

Inks Lake State Park has enjoyed the support of the Master Naturalists for several of our programs this summer.

Individuals from the Texas AgriLife Extension participated in a canoe and kayak workshop and tour at the park in July. For some of the participants it was their first time in a kayak. Linda Fleming was involved in teaching the group kayaking skills prior to the tour.



Photo by Deb Maclintock

In August, Inks Lake State Park hosted a Junior Angler Education Program. Several of the Highland Lakes Master Naturalist are trained instructors and taught the participants fishing knowledge and skills at the vari-



ous stations. Hollis Neier taught the participants about fish and fish habitat. Linda Fleming helped participants

with bait, lures, rods and reels; Phil Wyde had just as much fun challenging the participants with fishing ethics and regulations. Becky Breazeale taught water safety and fish handling; Jerry Stacy taught all the kiddos how to tie knots with much patience. With their help, there are 37 new junior anglers in the world.

Fishing with the Ranger is a weekly program at Inks Lake State Park. We never know how many participants will show up. We relish the support of many of the Texas Master Naturalists for those unpredictable moments at the shoreline with all the kiddos that try fishing for the very first time.

The Canoe and Kayak Basics program has been very popular this year. Melanie Huff, Phil and Kay Zagst and Becky Breazeale have been instrumental in keeping us afloat during these busy summer months on the water.

Moonlight Paddles is a fun event for adults on the waters of Inks Lake....and sometimes unpredictable things happen. It's great to have the consistent support of Ralph Herter to keep us out of trouble on troubled waters.

Thank you for your tremendous support this busy summer at Inks Lake!



## MYSTERY AT THE HELPING CENTER GARDEN

By Sammye Childers

About the middle of July a “mysterious” stickiness coated parts of the Helping Center Garden. Plants were covered with a sticky, amber colored goop, leading to the defoliation of some plants. Plants growing in the Native Plant Garden, along with a very large pecan tree, were particularly coated and affected. One day, thriving; a couple of days later, leaves dead or dying. It was a puzzlement.

Yes, we knew that pecans exude a certain amount of stickiness, and the area was near or under a pecan, but this much goop was beyond any normal circumstance. Every possibility explored led to a dead end. I had almost given up solving the mystery when I happened upon an article in the Austin Statesman. Mystery solved!



I was amazed by the answer and thought maybe a few of you might be, too.

The culprits were aphids who are particularly fond of pecan trees and crepe myrtles. For some reason there has been a plague of these creatures. Experts



believe the rampant growth of the aphids this year can be attributed to the July rainfall. The rainfall created new plant growth, aphids thrive on new growth and aphids can reproduce faster than any other insect.

The secretion produced by aphids is called honeydew. By itself, it is relatively harmless but can lead to formation of black sooty mold on leaves. It is unsightly and makes plants look as if they have been sprayed with black paint. The mold is potentially harmful to plants by inhibiting photosynthesis, causing the plant to weaken.

The suggested remedy was to spray the plant with a jet of water for several minutes, three times a week. The pecan tree at the Helping Center is still coated with honeydew and has developed black sooty mold, so now we have another mystery. How on earth are we going to spray that large pecan tree with a jet of water, three times a week? The possumhaw holly, the plant most damaged, as well as the other plants, are on their way to recovery after the water baths removed the goop. The pecan still looks sad with its spattering of black paint.

Jeff Ferris, a staff member at the Natural Gardener, calls the unusually large aphid invasion this summer “one for the books”.

Original article from Austin Statesman  
‘Goop Engulfs Austin’ by Asher Price

## GALLERY

by Jerry Stone



Wild White Petunia (*Ruellia metziae*) taken in Horseshoe Bay on 7/27/12



Common Wild Petunia (*Ruellia nudiflora*) taken in Horseshoe Bay on 7/8/12

This genus *Ruellia* is not the petunia common as potted plants which are in the Solanaceae (Potato Family). This genus of wild petunias is in the Acanthaceae (Acanthus) Family. Flowers of both open about sunrise, falling from plant in early afternoon, lasting only one day.



Standing Cypress or Texas Plume (*Ipomopsis rubra*) taken at The Trails of Horseshoe Bay on 7/29/2012



Butterfly Pea (*Centrosema virginianum*) taken at The Trails of Horseshoe Bay on 7/29/2012

## GALLERY

by Jerry Stone



Purple Leatherflower (*Clematis Pitcheri*) taken at the Trails of Horseshoe Bay on 7/22/12.



Rain Lily (*Cooperia pedunculata*) taken at Slick Rock Trail in Horseshoe Bay on 7/19/12. There are actually three petals and three sepals, all white.



The white Silver-leaf Nightshade (*Solanum elaeagnifolium*) was taken in Horseshoe Bay on 7/20/12. Discovered a vacant lot in Horseshoe Bay West that was covered in white specimens of this wildflower which is more typically light blue to violet-purple in color.



Catclaw Mimosa (*Mimosa aculeaticarpa* var. *biuncifera*) taken at Slick Rock Trail in Horseshoe Bay on 7/19/12. This plant is also known as Wait-a-Bit and anyone who has tangled with one, knows it was named for good reason.

# GALLERY

by Jerry Stone



Male Roseate Skimmer (*Orthemis ferruginea*) taken at The Trails of Horseshoe Bay on 7/22/12



Male Common Pondhawk (*Erythemis simplicicollis*) taken at Slick Rock Trail in Horseshoe Bay on 7/19/12



Common Mullein (*Verbascum Thapsus*) taken at the Trails of Horseshoe Bay on 7/22/12



Bluebell Gentian (*Eustoma grandiflorum* or *Eustoma exaltatum*) taken at Slick Rock Trail in Horseshoe Bay on 7/19/12.

### AUGUST - SEPTEMBER EVENTS & VOLUNTEER OPPORTUNITIES

Fables & Facts about Rainwater Quality -Water Wise Conference McKinney Roughs, Cedar Creek, TX	Aug 18 9am-1pm
Harvesting Rainwater and Solar Energy Cibolo Nature Center	Aug 25 9am-noon
Texas Groundwater Summit <a href="http://www.iemshows.com/2012TGS/">http://www.iemshows.com/2012TGS/</a> Crowne Plaza Hotel, Austin, TX	Aug 28-30
HLMN Board Meeting Agrilife Office, Burnet	Aug 30 1pm

### FUTURE EVENTS & VOLUNTEER OPPORTUNITIES

HLMN Monthly Meeting Kingsland Library	Sep 5 1pm
Highland Lakes Bird and Wildflower Society - Dr Bill Wren, Night Sky Preservation Marble Falls Library	Sept 6 10am
Addressing Resource Concerns in the Edwards Plateau - <a href="http://tinyurl.com/kerrarcep">http://tinyurl.com/kerrarcep</a> Kerr Wildlife Management Area	9/7, 10/5
Swift Fest Jonestown, Texas	Sep 8
Kids Day Out Burnet - Galloway - Hammond Recreation Center	Sep 15
Texas Stream Team Monitoring Training at the Waco Wetlands	Sep 22
Renewable Energy Roundup and Green Living Fair Frederickburg, TX	Sep 29-30
Native Plant Society of Texas Annual Symposium Kerrville, TX	Oct 4-7
Refuge Week Balcones Canyonlands National Wildlife Refuge	Oct 13 8:30am-4pm
Texas Native Plant Week Various activities providing volunteer and advanced training opportunities	Oct 14-20
Native Plant Festival - Native Plant Society - Highland Lakes Chapter Inks Dam National Fish Hatchery	Oct 20 9am-3pm
Texas Master Naturalist Conference Camp Allen, Navasota, TX	Oct 26-28
Rainwater Revival <a href="http://rainwaterrevival.com/">http://rainwaterrevival.com/</a> Boerne, TX	Oct 27
Texas Society for Ecological Restoration Annual Conference - <a href="http://txser.org">txser.org</a> Rio Grande Valley & World Birding Center, Weslaco, TX	Nov 2-4
HLMN Galveston Field Trip Galveston Island	Nov 11-15

For volunteer opportunities and events scheduled at Inks Lake State Park, Blanco State Park, and Balcones Canyonlands, Balcones Canyonlands Preserve, check these websites for information:

[http://beta-www.tpwd.state.tx.us/state-parks/parks/find-a-park/inks-lake-state-park/park\\_events/](http://beta-www.tpwd.state.tx.us/state-parks/parks/find-a-park/inks-lake-state-park/park_events/)

[http://beta-www.tpwd.state.tx.us/state-parks/parks/find-a-park/blanco-state-park/park\\_events/](http://beta-www.tpwd.state.tx.us/state-parks/parks/find-a-park/blanco-state-park/park_events/)

<http://www.fws.gov/southwest/refuges/texas/balcones/>

<http://friendsofbalcones.org/>

<http://www.ci.austin.tx.us/water/wildland/onlineregistration/ecowebevents.cfm>

Please submit pictures, articles, reports, stories, calendar and event entries, etc. to [chili865@gmail.com](mailto:chili865@gmail.com). Photos should have captions and appropriate credits. The deadline for submissions to each month's newsletter is the 10th of the month and publication will be by the 15th.