



Highland Lakes Steward

April 2011

Volume 2, Issue 4

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

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LAWN AND GARDEN BOOTH A SUCCESS!

By Phil Wyde

Our project at the 2011 Master Gardener Lawn and Garden Show on March 26th of this year was to have a booth that individuals, families and children could stop by and participate in an animal photo and/or an animal sound ID quiz. Whether they identified all, none or some of the animal sounds or animals in the photos, they got to fill out a raffle ticket and get a chance to win a 14 megapixel Nikon camera, camera case and 4 GB memory card for the camera. The idea was to get people to meet Highland Lakes Master Naturalists and get to know something about Texas Master Naturalists, in a light-hearted manner.



We filled in and had 229 tickets to draw a winner from.

Usually only one person in a family or party filled in a ticket. Sometimes 2 did. Very occasionally more than 2 in a party did. Many people stopped by or just looked at the pictures or listened to the animal sounds just to see what was going on. This means that many more than 229 people took notice of us.

Indeed, I had a number of people ask me about how to become a Texas Master Naturalists.

We had several Master Naturalists walk

around the Community Center wearing masks and a "sandwich board" advertising our booth and activity. Lyn Davis and Helen Smith were unanimously voted the cutest. Ray Buchanan was the most imposing. Based on the number of people coming



by the booth, this ploy was successful. The winner of the 14 million megapixel Nikon camera, camera case and 4 megabyte memory card was Mary Jo Wilson. She was delighted, as were her grandchildren.

The project cost us about \$175 (\$100 for the camera, case and memory card, \$45 for KBAY to advertise our booth and what we were doing, and a small amount for putting the photo display together). I think that the project was a success. But, keep in mind that I am biased.

Special thanks go out to Lyn Davis, Helen Smith, Ed Lilly, Sue Lilly, Billy Hutson, Lee Kinard, Cindy Fronk, Earlene Thorne, Sherry Bixler, Sondra Fox, Ray Buchannan, Phillip Mitchell, Judy Bloomquist, Judy Parker, Sharon Drake, Robert West and Sue Kersey. They were our volunteers or helped out in some other critical way. (Ed and Sue Lilly made the Photo Display besides running the Photo Quiz in the morning.) Much thanks to each of you.

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MAY MEETING

Fred Franki

When: May 4th at 1:00pm

Where: Reveille Peak Ranch, Co Rd 114, Burnet Tx
(<http://rprtexas.com/about/location/>)

Lunch: Bring your picnic lunch at noon and enjoy the beautiful outdoor setting. There is a covered pavilion with tables and chairs.

Speaker: Maxine Heath is retired from the University of Illinois where she was a professor of entomology. Both during her career and since retirement she has pursued a study of cicadas. She will speak about cica-

das and share some of her insect collection.

After the meeting, at approximately 3:00pm, there will be an interpretive hike to Reveille Peak.

Directions: From Burnet go west on Hwy 29 (toward Llano) about 3.5 miles and turn right on RR2341. This is the road to Canyon of the Eagles. Continue on RR2341 about 4.5 miles to Co Rd 114, turn left and you immediately see RPR sign.

From the town of Buchanan Dam on Hwy 29, go east about 8 miles and turn left on RR2341, toward Canyon of the Eagles. Continue on RR2341 about 4.5 miles to Co Rd 114, turn left and you immediately see the RPR sign.

BEYOND TRIVIA – TAYLOR'S MARVELOUS CURIOSITIES AND FASCINATING FACTS

By John and Rosalie Taylor, submitted by Lyn Davis

Let's spend a little time with that fascinating creature once known as the devil's darning needle," and that we now call the dragonfly. Dragonflies undertake a celebration before they die. They mate on the wing in tandem, at midday, for up to three hours without stopping. The male clasps the female by the head with special grabbing appendages and flies her around while she does high wire acrobatics to get her eggs fertilized. The male makes a daring swoop and drags her through pond water to wash away her eggs.

Both go their separate way without caring for the fate of their offspring. The dragonflies expire about a week after their fancy flight, spent by the demands of procreation, but having done their duty – helping to provide a continuation of bodies to house the dragonfly gene pool. While adult dragonflies only live a few weeks, their larvae, living underwater, can live for years.

Their offspring larvae hatch shortly thereafter. The hatchlings are cricket like nymphs that live in the water. They breath through gills implanted in their anus. They crawl and swim about the bottom of the pond eating smaller insect and crustacean creatures. However, when they get in a hurry, they jet propel themselves forward by coughing.

EXPLORING RIPARIAN MYTHS: #3 - LARGE WOODY DEBRIS AND FALLEN TREES ARE BAD FOR RIPARIAN ZONES Sammye Childers

Numerous studies of creeks, rivers and riparian zones have proven that large logs and fallen trees are necessary and important to the properly functioning riparian area. Large dead trees which fall into the channel or upon the banks act as retaining walls. They help dissipate energy, stabilize the banks and trap moving sediment. As these large pieces of debris become partially or completely buried, new floodplains build up and the wood eventually becomes an important structural component of the channel. One might visualize the wood as providing the same structural component as the use of rebar in concrete. This large wood structure remains intact for centuries when it is completely buried in sediment.

As trees complete their cycle of life or during severe droughts, some will inevitably die. No one enjoys seeing a huge old tree die and fall over, but this is a completely natural and essential process. After these trees die and their root systems begin to deteriorate, they are susceptible to falling into the stream. Some may think this is unsightly. Other well-meaning landowners often remove these dead trees under the impression that they clog the creek and contribute to



Photo by Mike Childers

flooding. However, dead trees are vital to the proper function of many riparian areas and dead trees and logs should generally be left in place unless they pose a safety hazard downstream. As these trees and logs become entrapped and locked into the channel by other trees, they provide a matrix of strong wood that can eventually assist in the restoration of the creek or river. The localized erosion that may occur around woody debris can actually be important for the ecology and structural diversity of streams and rivers.

To maintain a continual supply of large woody debris for our riparian areas, there must be a source of large living trees, and trees in various stages of growth, along the banks and in adjacent floodplains. As trees die or are washed out, new trees must be present to replace the ones that were lost. The lack of young trees and seedlings is a serious issue for many rivers and streams. A healthy riparian area contains trees in various stages of growth.

Large debris may also create pools for wildlife and habitat for aquatic life.



Photo by Mike Childers

Reviewed by Steve Nelle

BIRD BANDING AND THE EASTERN PHOEBE

Sherry Bixler

Bird banding, or ringing as it is called in Europe, was first recorded in 1595 when Henry IV banded his Peregrine Falcons. Falconry was considered a noble sport. There are few records from past centuries but in 1669 Duke Ferdinand banded a Grey Heron, using a silver band. The bird was found by his grandson in 1728 – it had survived at least 60 years. In 1710, another Grey Heron found in Germany had been banded in Turkey, more than 1200 miles away.

And in 1840, Audubon banded his first bird, an Eastern Phoebe. He wrote that it returned the following year.

The Eastern Phoebe is a common bird in the hill country and often found year-round although central Texas is in the northernmost edge of its winter range. Adult birds are mostly gray and yellowish-white with a dark mask; juveniles show more yellow on the belly. Adults are seven inches long and usually very easy to spot due to the Fee-Bee call and their relative ease around people. The call can be monotonous; he repeats it up to 40 times per minute. Females are also known to sing.

There are only four Phoebes world-wide and three occur in the United States: Black Phoebe, Eastern Phoebe and Say's Phoebe. The White-winged Phoebe is found in South America. The Eastern Phoebe summers in most eastern states and is occasionally spotted in the west.

Eastern Phoebes prefer locations near water and build their nests of mud balls and moss. They still use cliffs and overhangs for nesting but also nest under bridges, eaves and barn roofs. Nests are built in seven to ten days and three to five eggs are laid. About a month from this time, the young fledge and the adults may raise one to two more broods.

They are a common cowbird host but are one of the species capable of building a mud floor over the



cowbird egg so that it cannot hatch. Despite this, there has been a decline in numbers in some areas.

The Eastern Phoebe often bobs or twitches its tail and usually selects a perch with a clear view of the surrounding area. It is a very useful destroyer of noxious insects – most of its diet is made up of cotton boll weevils, strawberry weevils, cucumber beetles, ants and grasshoppers.

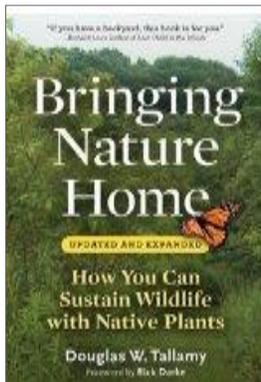
Old names for this bird include Barn Pewee, Water Pewee, Bean Bird, Pewit Flycatcher, Phoebe Bird and Bridge Pewee.

Stewardship

An ethic that embodies cooperative planning and management of environmental resources with organizations, communities and others to actively engage in the prevention of loss of habitat and facilitate its recovery in the interest of long-term sustainability

RECOMMENDED READING

By Betsy Bouchard



Douglas W. Tallamy, *Bringing Nature Home. How You Can Sustain Wildlife with Native Plants*. Portland, Oregon: Timber Press, 2007.

“A plant that has fed nothing has not done its job.” Even on the surface, Dr. Tallamy’s assertion is unsettling. The mind leaps from fields of amber grain (some of which is going into gas tanks

across America) to the mountain laurel and basil in the garden, with shredded leaves where something...fed. Hmmm.

Dr. Tallamy is an entomologist, which is abundantly clear from the pages of glossy color photographs of Hercules beetles, froghoppers, and spittlebugs. When he speaks of sustaining wildlife I quickly realized he wasn’t talking about deer and raccoons. He is encouraging the reader to plant a garden that will feed insects. Aside from the yuck factor of a nest of sawfly larvae, one wonders if the insect world really needs encouragement.

So it seems. Much of our native wildlife depends on insect protein for food, “so a land without insects is a land without higher forms of life.” The danger comes from the usual suspects: loss of habitat leading to species extinction, and... our suburban gardens of bug-free, non-native ornamentals. The good scientist makes his case in an argument for biodiversity and using native plants to support biodiversity. The heroes on the white horse are, surprisingly, the wise suburbanites who garden with a variety of native plants. You will have some bugs, but these native bugs also come with their natural predators, like mockingbirds.

We Master Naturalists understand that our planet sustains itself on an interlock of balanced systems—an ecosystem, and that breaks in the system can undermine our very existence. Those of us who live in the sprawling suburbs of cities now occupy 53-55% of all the land in the United States. We are part of the problem as we contribute to the break-up of unbroken open habitat. But by using native ornamentals rather than alien ones in our gardens, Tallamy argues that we support species of insects and insectivores (ie. birds) and encourage the biodiversity necessary for a

sound ecological immune system. While we may be attracted to alien plants that are not only showy but also “pest-free,” we need to remember that the birds and butterflies may go hungry in our gardens. Native plants produce 4 times more insect biomass and 35 times more caterpillar biomass (the protein source of most nestling birds) than alien plants. Can we share?

Avoiding alien imports also helps to slow down the spread of invasive species like Tamarisk (choking the Rio Grande), Oriental bittersweet, Bermudagrass, Giant reed (Inks Lake), and Ligustrum (everywhere). Where these invasives take over a landscape, native species cannot hold their own, nor can the wildlife that depends on them.

Dr. Tallamy lives in a Pennsylvania suburb and many of the examples of plant hosts and insects come from that area.

Although he does include appendices that recommend native plants for various parts of the country, if you want advice on native species to plant in the Hill Country, this book will not be of great use. If you want a well-written explanation of how naturalists can help save the American ecosystem in their own backyards, this is for you.

WILDLIFE MOMENT



Screech owl in Dennis Ellison’s Owl House
Photo by Dennis Ellison

THE LEAF CUTTER ANT

Phil Wyde

Except in nature documentaries, I never saw a leaf cutter ant until I moved to the Texas Hill Country. As you can imagine, I was fascinated and ecstatic the first time that I saw them. In fact, watching the columns of these ants carrying pieces of leaves over large distances (ant miles) left me with a feeling of exaltation. However, my fascination, excitement and exultation soon turned to exasperation and extreme annoyance as I soon realized that the creatures were defoliating and killing my favorite trees and shrubs! I also soon came to realize that these ants are about the most de-



termined creatures that I have ever encountered! I could find nothing to deter them or dare I say this to Master Naturalists, KILL THEM! I quickly found out that most things that inhibit or kill other ants do not work on leaf cutter ants. My most remarkable attempt to stop the marauders was to put a 6 inch broad, 1/2 inch deep swatch of a product called Tanglefoot completely around the trunk of a favored pear tree. The guy that sold me this material at the animal and feed store assured me that such a barrier would stop the ants from getting up the tree to the leaves. It did stop the first hundreds (maybe thousands) of ants. But the ants kept coming and coming, and coming. The vanguard got caught up in the sticky Tanglefoot substance and died. But the succeeding ants kept coming, and coming, until they were able to simply climb and walk over the dead and dying ants, and continue up the tree! My awe – and anger – tripled as I watched the ants return with pieces of pear leaves, again cross their ant bridge, and continue, undaunted, down the tree to their nest! I waited for my four year old pear tree to leaf out again, but that never happened. It was after this dismaying experience that I really set about trying to learn as much as possible about these ants and how to control them. I would like to share some of the things that I learned with you.

The scientific name of the Texas leaf cutting ant is *Atta texana* (order: *Hymenoptera*). They are also known as “cut ants, parasol ants or town ants.” They are common in Texas and Louisiana and have relatives

in other parts of the southern United States, South America and Central America. All of them are social insects. If left alone, their underground nests can get to be 15 to 20 feet deep, many feet across and contain more than 1,000,000 individuals. There are a number of castes in these colonies, all but one female. Males, who hatch from unfertilized eggs are called drones. They usually die soon after mating with a queen. (Only drones and queens can mate.) Most colonies have only one queen, but if a colony is large, there may be several. The castes of leaf cutter ants include nursing ants, foraging ants and soldier ants. As the names of these castes imply, each caste has a specialized job.

Winged females and males leave their nest en masse and engage in a nuptial flight. After mating, the males (drones) die and the mated queen lands on the ground, loses her wings and looks for a suitable underground site to start a new colony. She digs a small tunnel in which she begins laying eggs. Only 2.5% of the young queens are successful in establishing a long-lived colony. (This was the first good news that I encountered in my search!)

Worker ants remove leaves and buds from small grains, forage, turf grasses, fruit and nut trees and many ornamental plants. Worker ants travel up to 600 feet or more along foraging trails and bring back the leaf pieces over their bodies. Because the ants are very selective about the species of leaves that they collect, they will often bypass plants to get to the ones that they want. The collected leaves are not eaten, but are chewed into a pulp-like material. The

ants leave an invisible scent on the trails that they use in order to find their way home.

NOW THIS IS A KEY POINT! LEAF CUTTER ANTS DO NOT EAT THE PIECES OF LEAVES THAT THEY COLLECT. THE PIECES ARE USED TO RAISE A FUNGUS AND ALL MEMBERS OF THE COLONY FEED EXCLUSIVELY ON THAT FUNGUS. BECAUSE OF THIS, ORDINARY ANT BAITS WILL NOT WORK ON THESE ANTS! Regardless, what happens in the ant fungus gardens is truly fascinating. The ants don't just allow the fungus to grow by itself, but actively cultivate their fungus. Thus they feed it with freshly-cut plant material and keeping it free from pests, molds and competing fungi. They also "groom and prune" the fungus. (Since both the ants and fungus benefit from this activity, this activity is an example of ant-fungus mutualism (Piper, R. 2007. *Extraordinary animals: an encyclopedia of curious and unusual animals.* Greenwood Press.)). Different species of leaf cutting ants use different fungus for food, but all of the fungi the different leaf cutting ant species use are members of the fungus family *Lepiotaceae*. As if this was not enough, the mutualistic relationship is augmented by another symbiotic partner. The ants harbor bacteria that secrete chemicals that act as antimicrobials that help keep undesirable microorganisms out of the fungus gardens. And if this was not enough, the leaf cutter ants are sensitive enough to adapt to the fungi's reaction to different plant material. (They apparently can detect chemical signals from the fungus.) Thus if a particular type of leaf is toxic to the fungus, the colony will no longer collect those leaves.

Do leaf cutter ants do anything beneficial for humans? Apparently the by-products from the leaves, fungi and ant wastes help fertilize the soil. The bacteria involved in the fungi growth do some nitrogen fixing as well. (Yea! Now I can have fertile soil but not the plants and trees that I want.) In tropical forests the impact of their leaf cutting is less evident and the benefit is more dramatic in the tropical forest floor.

This brings me back to what started me on my quest to learn about these ants: Can one (especially me) control leaf cutter ants? Should I try? (I have met at least one TPWD interpreter that doesn't think so. But I suspect that she doesn't have trees, shrubs and plants that she has

babied through thick and thin.) The truth is that there is not much available to control leaf cutter ants. Suggestions that I have found include:

Drench the mound with a weakened, diluted residual (long lasting) insecticide.

Surround the mound with an anti-insecticide that contains Orthene™.

(Wade's suggestion). Steep manure for weeks to grow a fungus that can then be poured down a leaf cutter mound and compete with the *Lepiotaceae* fungus that the ants require. I think that it is a very clever idea, but I could not stand watching my trees and shrubs disappear while waiting for the manure fungus to grow.

Surround the trunk with a barrier such as Tanglefoot. (Ha!) Someone else said that painting the base of trees being attacked with lime would work.

Cover the mound and surrounding area with dry molasses. (I am currently trying this method, using my own method as a control.) My own method? I personally favor an all out, combination attack. I scatter a residual, long lasting insecticide around the mound and then add an Orthene-containing agent immediately around the opening(s) of the mound. I then check daily to see if I my assault was successful. If not, I repeat the process. Sometimes it takes three tries.

If any of you have a better remedy, I would be delighted to hear about it.

WILDLIFE MOMENT



Red Shouldered Hawk at the Trails of Horseshoe Bay
Photo by Jerry Stone

DENNY RANCH 2 SPOTLIGHT

Deborah Douglas, M.D.
Photos by Thomas Fisher, M.D



(c) Thomas D. Fisher, M.D. 2011



(c) Thomas D. Fisher, M.D. 2011

Mating Monarchs



(c) Thomas D. Fisher, M.D. 2011

Great Blue Heron



(c) Thomas D. Fisher, M.D. 2011

Spicebush Swallowtail

KILLEEN BIRD TRIP

By Phil Wyde

Nineteen of us met March 30th at 8 a.m. at a Valero gas station and food store in Nolanville, Texas, just north of Killeen where we met Tim Perkins, our Birding Pal guide. It was cold!

We visited 3 sites where we saw or heard 50+ species of birds.

New birds for me included the loggerhead shrike, rock pigeon, Nashville warbler and Swainson's and Cooper's hawks. The discussions that ensued, particularly between Tim and Sherry Bixler, following sighting of the latter two on why they were Cooper's and Swainson's hawks and not a sharp-shin or another type of hawk provided an example of what made the trip worth Advanced Training credits. We discussed color patterns, wing shapes, species distribution, habitat, thickness of the legs, head size, and more! With other birds we



Photo by Jerry Stacy

which of course most of us have seen many times. However, apparently not over Lake Belton and the Killeen area.

We ate lunch picnic style in a fine outdoor setting. (It had warmed up by then.) Lyn Davis shared chocolate cake and Sue Kersey gave out her famous short



Eastern Blue Brd

Photo by Sue Kersey

discussed eye rings, eye lines, superciliary stripes, and much, much more!

The most striking birds for me were the eastern blue bird and red bellied woodpecker. (There were many of the former.) Neither bird was new to me, but they were in brilliant color and magnificent when viewed through binoculars, and especially when seen through a spotting scope.

A big fuss was made over seeing a brown pelican



White Crowned Sparrows

Photo by Sue Kersey

cake. This may have been the peak of the day for me.

We gave up the chase about 3 o'clock. At that time we gave Tim a painting of a kiskadee by Daniel Adams, took pictures of Tim and the group and returned to the Valero gas station in Nolanville.

Based on the smiles on the faces and good cheer of the participants, I think that the trip was a great success.

VOLUNTEER OPPORTUNITIES AND AT/EVENTS CALENDAR

Mike Childers

APRIL EVENTS & VOLUNTEER OPPORTUNITIES		MAY EVENTS & VOLUNTEER OPPORTUNITIES	
Geology Rocks! Inks Lake State Park	16th 10am-12pm	Amphitheater Programs, Saturdays Inks Lake State Park	May thru Aug 8-9pm
Seining in the Lake Inks Lake State Park	16th 10am-11pm	What You Need to Know to be a Birder/Birdwatcher Balcones Canyonlands NWR friendsofbalcones.org	1st 1pm
Walk & Talk Nature Workshops(LCRA), Earth Day, free MkKinney Roughs LCRA Park, Bastrop, TX	16th 10:30am - 4pm	Young Beginning Birders (12-18 yrs) Balcones Canyonlands NWR friendsofbalcones.org	1st 7:30am
Texas Outdoor Family Blanco State Park	16th-17th 9:30am - Noon	Spring Wildlife Field Research Cibolo Nature Center	May 2-7
Fishing with a Ranger Inks Lake State Park	22nd 4pm	Texas Ornithological Society Spring Meeting Junction, TX	5th-7th
Breakfast with the Birds Inks Lake State Park	22nd 8am-10pm	Kid's Day Out Blanco State Park	6th
Family Fun Day - Easter Egg Hunt Inks Lake State Park	23rd 10am	Bridges to Birding Balcones Canyonlands NWR friendsofbalcones.org	6th 8:45am-2pm
Geology Rocks! Inks Lake State Park	23rd 10am-12pm	Fishing with a Ranger Inks Lake State Park	6th 4pm
Seining in the Lake Inks Lake State Park	23rd 10am-11pm	Flying Wild GSA Balcones Canyonlands NWR friendsofbalcones.org	7th 9:30am-1:30pm
Riparian Proper Functioning Condition Workshops Lampasas County Farm Bureau Building / Ed & Sue Lilley's Ranch	26th 8am-3:30 PM	TAS/FOB Field Trip Balcones Canyonlands NWR friendsofbalcones.org	8th 7:30-11:30am
Riparian Proper Functioning Condition Workshops Parrie Haynes Ranch - Equestrian Center	27th 8am-3:30 PM	The Hatchery Outdoor Program Inks Dam National Fish Hatchery	9th, 12th, 16th, 19th 9:30am - Noon
Wine & Star Shine Fundraiser! - Friends of Balcones Canyonlands Flat Creek Estate Winery friendsofbalcones.org	29th 5:30pm	Going Buggy Program Balcones Canyonlands NWR friendsofbalcones.org	13th 8:15am-1:30pm
Hill Country Nature Quest near Utopia, TX www.hillcountrynaturequest.com	28th - 30th	Fishing with a Ranger Inks Lake State Park	20th 4pm
Fishing with a Ranger Inks Lake State Park	29th 4pm	Moonlight Paddles Inks Lake State Park	17th Moonrise
Songbird Festival Balcones Canyonlands NWR friendsofbalcones.org	29th-May 2nd	Texas Outdoor Family - Large Group Coming Inks Lake State Park	21st
Family Fun Day - Hiking, Fishing, etc. Inks Lake State Park	30th 10am to Noon	Regina's Regatta Inks Lake State Park	21st
Geology Rocks! Inks Lake State Park	30th 10am-Noon	Texas Outdoor Family Inks Lakes State Park	21st-22nd
Seining in the Lake Inks Lake State Park	30th 10am-11pm	Kayaking and Canoeing Kids Days in the Park Ink Lake State Park	May 21, 28
Birding the Refuge with Field Guides Balcones Canyonlands NWR	30th 7:30am	2011 Intnt'l Urban Wildlife Mgmt/Plan Conf Austin, TX www.urbanwildlife2011.org	22nd-25th
Beauty, Birds, and Butterflies - Native Plants in the Landscape Balcones Canyonlands NWR friendsofbalcones.org	30th 1pm	Going Buggy Program Balcones Canyonlands NWR friendsofbalcones.org	24th 9am-2pm
Wildflower Identification for Beginners Balcones Canyonlands NWR friendsofbalcones.org	30th 9am	Fishing with a Ranger Inks Lake State Park	27th 4pm
		Celebrate Memorial Day with Family Activities Inks Lake State Park	29th 11am - 1pm
FUTURE EVENTS & VOLUNTEER OPPORTUNITIES			
Kayaking and Canoeing Kids Days in the Park Ink Lake State Park	June 8, 9, 10, 25	Moonlight Paddles Inks Lake State Park	Aug 13 Moonrise
Moonlight Paddles Inks Lake State Park	Jun 15 Moonrise	Kayaking and Canoeing Kids Days in the Park Ink Lake State Park	Aug 20, 27
Fishing with the Range and Dad Inks Lake State Park	Jun 19 9:30-11:30am	Native Plant Society of Texas Symposium Houston, TX	Oct 14-16
Parkwide Family Fun Day Inks Lake State Park	Jul 2 9am - Noon	Native Plant Garden Tour Burnet County	Oct 15
Kayaking and Canoeing Kids Days in the Park Ink Lake State Park	Jul 2, 9, 23, 30	Texas Master Naturalist State Conference Mo Ranch, Hunt TX	Oct 21-23
Bike Parade and picnic Inks Lake State Park	Jul 3 9:30-11:30	Big Bend State Park Field Trip Big Bend State Park	Oct 30-Nov 4

Please submit pictures, articles, reports, stories, calendar and event entries, etc. to 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.