

SUMMER 2016

Prairie Partner Update

A publication for and about Blackland Prairie Texas Master Naturalists



BPTMN Looks Back While Forging Ahead

Group Celebrates 10-Year Anniversary at Special Meeting on June 14

by Lisa Runyon

Imagine if TPWD Ranger LeRoy Thompson had not planted the seed in the minds of some North Texas Master Naturalists that there was a need to preserve the vanishing Blackland Prairie in rapidly growing Collin County. What would have happened?

Would there be thriving partnerships with the likes of the Heard Museum or the Raptor Center or an award-winning chapter of Junior Naturalists? Would there be a Wylie Prairie, a Connemara Meadow? Butterflies at the Holifield? Trail guides?

Thankfully, LeRoy teamed with Rick Maxwell from Texas AgriLife to act as advisors, inspiring Donna Cole, our chapter's first president, Mary Lou Cole, Ed Ellerbe, Sally Evans, Don Fielding, Sharon Meines, Lorrie Reeves and Tara Still to take up the call and file the paperwork that led to the official formation of the Blackland Prairie Texas Master Naturalist (BPTMN) chapter.

In February 2006, the BPTMN chapter began with 21 eager members logging 747 volunteer hours. Between 2007 and 2008, another 48 people joined, bringing the group total to 69 members who logged 6,138 volunteers hours the first three years the chapter existed. Since then, the chapter continued to expand. According to 2016 BPTMN president, Deborah Canterbury, "Requests for us to participate in or develop more projects and provide expertise for public and private requests has really grown. How do we prioritize and meet those needs? How do we retain those who have gone through training and don't burn them out? How do we share the demands in a way that

encourages people to volunteer to take leadership roles?" These are the challenges in our future.

But for now, let's take time to celebrate our history!

You'll want to save the date, June 14, 2016. At this special 6 p.m. meeting of the BPTMN, we will celebrate our 10th anniversary in a big way. Dave Powell promises an interesting program looking at our chapter's past and future. Who knows, there may even be an official Collin County Commissioners Proclamation to review. Afterwards, snacks, cake, bubbly and fellowship will wrap up the evening. Don't leave without your commemorative 10th anniversary pin for your vest!

Then after the celebrating is over, think about our chapter's future—how will you move our chapter forward the next 10 years? Can you bring a friend to a meeting or a project? Lead a trail group? Teach? Build? Plant? Write?

Canterbury offers this insight, "We are an extraordinary and dedicated group of like-minded people who want to be contributors in the education of the public about the native and natural environment of the Blackland Prairie that is vanishing so rapidly. Most say it is already extinct. But we have the golden opportunity to restore and preserve through outreach education, member education and our volunteer services. We will play a significant role in the future as we help to preserve a living history for generations to come and provide an outlet for people more passionate about the environment than concrete and strip malls."



Since 2006, naturalists have been giving their time and talents educating the community and helping out with partner events.



Texas Bluebonnet

by Gary Howerton



The blue bonnet flower (*Lupinus texensis* or Texas lupine) figures in many Native American tales and Spanish missions that planted these flowers around their missions leading to the impression that the blue bonnet came from Europe.

We are familiar with this plant, the state flower that was adopted in 1901. The selection was not a straightforward process since there are several varieties of blue bonnet. And some state senators favored the cotton boil.

The blue bonnet begins as a small rock-like seed that is impervious to damage because of an exterior that is stone-like. Most always the bluebonnet blooms in the spring, as early as March. It emerges as a seedling with the individual plants having two cotyledons. As the plant grows, it has a rosette of 5-7 leaves. The leaves are palmately compounded. They are about 3-10 cm long. As the plant base grows larger, a 20-50 cm plume of flowers emerges.

These flowers are easy to grow. Just plant the seeds in moderately dry ground in October or November. The seeds need to undergo scarification using a knife to nick a small quantity of seeds or use sand paper for large quantities of seeds.

Make sure the site gets at least eight hours of sunlight. Also, make sure, the garden site isn't frequented by this plant's only pest, the roly-poly (also known as woodlice, doodlebug, pill bug or *Amadillidium vulgare*). These insects can etch open the stone seed and make a meal of the inner plant material.

Removing wood bits and leaf litter before you plant the seeds can preclude the infestation of *Amadillidium* in your garden. If an infestation develops, then place a half of cantaloupe upside down in your garden and when the pill bugs migrate to it you just throw into your compost pile.



These photos of my blue bonnet garden show open spaces, so it is clear I needed to plant the seeds earlier and/or my scarification process was inadequate. Next year I will broadcast a pound of seed onto my front lawn in November and use a coarser

sheet of sandpaper for my scarification process.

Getting to Know the Mourning Dove

by Jodi Hodak



Photo by Rick and Nora Bowers/VIREO available at <https://www.audubon.org/field-guide/bird/mourning-dove>

Most of us have likely heard the distinct call – coo-ah, coo, coo, coo – of the Mourning Dove (*Zenaidura macroura*). This cooing is one of the most familiar bird sounds, and it gave this fair-feathered bird its name.

The Mourning Dove is very versatile. It does well in man-altered habitats and can be found in almost any kind of warm open or semi-open habitat such as prairies, farmland, suburbs and deserts. This dove can also be found on roadsides and in some treeless areas.

It is a very prolific bird. Healthy Mourning Doves typically raise five to six broods per year in southern areas, which is more than any other native bird. Incubation is handled by both parents and takes about 14 days. The young birds do not stay with their parents for long. Both parents feed the young "pigeon milk." The young then leave the nest when they are about 15 days old and move to a nearby location where they are fed by their parents for the next one to two weeks.

Mature Mourning Doves forage mostly on the ground, although they will sometimes perch on plants to take seeds. They will readily come to bird feeders and can often be found eating on the ground under elevated feeders.

As far as migration goes, some remain in southern areas through winter, but many move south from northern areas in fall. Migration is mostly by day, in flocks. So be sure to watch and listen for this beautiful bird!

Cephalopods – Ammonites, Belemnite and Nautiloid Fossils *by Patti Tuck*

Visiting the tropical waters along Australia's Great Barrier Reef, one might chance upon a *Chambered nautilus*. The nautilus is considered to be a living fossil having changed little in over 400 million years. The population of this creature is in decline due to the



Chambered nautilus

collection of its beautiful, unique shells.

The *Chambered nautilus* joins the cephalopod family along with squids, cuttlefish, octopuses, the Ram's Horn Squid and the "paper" nautilus. However, its past is far more varied and more interesting.

There are about 17,000 named species of fossil cephalopods, compared to the 800 identified living species of cephalopods.

The Nautilus comes from a clade of cephalopods called the orthoconic nautiloids. These orthoconic nautiloids tend to have straight or very weakly curved shells and a graceful appearance. Although the last orthoconic nautiloids became extinct 208 million years ago, one order, the Nautilida, continued to thrive and modern descendants can be found at



Belemnites

depths of up to 600 meters in coral reefs across the Indian Ocean to Australia and from Samoa to the Philippine Islands. This is the *Chamber nautilus*. Its ancestors in the Devonian (400mya) were not identical being significantly larger. Nonetheless, *Nautilus* is certainly indicative of cephalopods at their most primitive state of development.

Two other groups found in the fossil record must be examined—the ammonites and the belemnites. The belemnites are long cigar-shaped or bullet-shaped fossils and the ammonite is a coiled fossil much like the *Chambered Nautilus*. Before the belemnite fossils were understood as fossils, early Europeans explained them as the products of lightning hitting the ground and named them "thunderbolts" or "thunderstones." Ammonites, like belemnites, also found their way into the folklore of early Europeans. Their coiled shells were interpreted as lithified snakes, called 'stone snakes'. Early Romans mistook ammonite fossils for

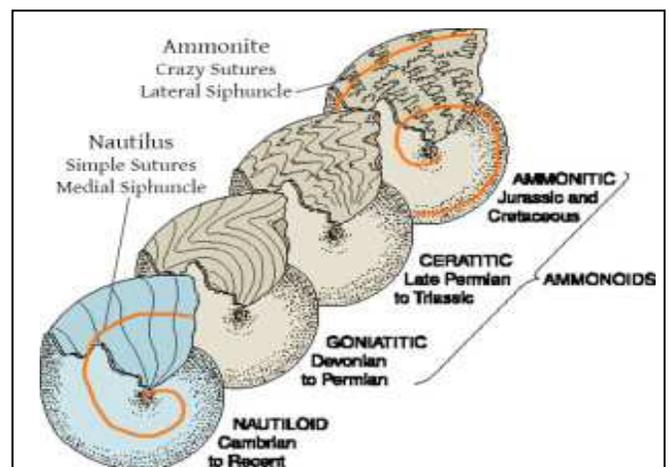
horns and coined the term 'ammonites' for the coiled horns of the Egyptian ram-god Ammon.

The hard parts of the octopus, squid and cuttlefish are internal and can be small. The extinct belemnites, however, are the exception. These squid-like animals swam with ammonoids and nautiloids in oceans of the Mesozoic Era and are considered by paleontologists to be the ancestors of the Coleoidea family of octopus, squid and cuttlefish. Belemnites had a straight shell, but it was internal, not external. The last part of the shell is a hard part called the rostrum. Being highly resistant, the posterior bullet-shaped rostrum is most often preserved and can be found in great quantity and concentration in Mesozoic marine sediments.

Though nautiloids and ammonoids may appear the same, there are some physical features that distinguish them. Because the nautiloids have the same outer physical appearance as the ammonite, they are often mistaken for each other. The confusion begins as they have a flat, coiled shell. The differences are found inside their shells.

The interiors of the shells have septas. Septas are bulkheads that divide the chambers inside the shell of these cephalopods. Where the septas meet the exterior shell, the sutures will be the visible line on the shell. When you open up the shell and examine the interior part of it, you will find these septas, and you will be able to notice the great difference between the two cephalopods. When you observe the septa of the nautiloid you will be able to notice that it is quite simple, unlike that of the ammonites. The nautiloids have septas that look more like contact lenses while the ammonites have septas that look more like

(Continued, page 4)



Modified from Harold Levin

lasagna full of swerves, loops and other complex margins. Another difference is their shell's tube. These tubes that stretch through the length of the shell of these cephalopods are called



siphuncle. The siphuncle of the nautiloids runs through



the center of the septum while the siphuncle of the ammonite runs around its shell's outer edge through the edge of every septum. (Refer to diagram on page 3). Lastly, ammonites are extinct having died out with the dinosaurs. There are still six species in two genera of nautiloids surviving up to this day.

The beautiful spirals of the nautilus and the ammonite make them wonderful additions to any collection. To hold a fossil in your hands is to envision past worlds, ancient seas and look upon the face of time.

All photos by Patti Tuck unless otherwise noted.

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Take a Closer Look at the Mosquito That Transmits Zika

by Jodi Hodak

It's the beginning of mosquito season here in Texas, and many of us have grown increasingly concerned about the female *Aedes aegypti* (*A. aegypti* and *A. albopictus*) mosquito.



This aggressive daytime biter (they can bite at night as well) transmits the viruses that cause yellow fever, dengue, chikungunya and Zika. All male mosquitoes are excluded because they don't bite.

Picture of female Aedes aegypti mosquito taken from the [CDC website](#).

The *Aedes aegypti* becomes infected when she feeds on a person who is already infected. Infected mosquitoes then spread the virus by sucking human blood to create babies and leaving the virus behind to grow inside the bodies of its bite victims. When left in the body of someone who is pregnant, the Zika virus can cause [microcephaly](#).

Zika reports in the U.S. and Texas

The [Centers for Disease Control and Prevention \(CDC\)](#) says no locally acquired vector borne Zika virus disease cases have been reported in U.S. states as of April 14, 2016. However, the CDC has reported over 150 travel-associated Zika virus cases and in Feb. 2016 reported the first case of the disease being sexually transmitted to a person living in Texas.

The World Health Organization (WHO) estimates three to four million people across the Americas will be infected with the virus in the next year. Since 80% of people are asymptomatic, epidemiologists worry most infected people will be unaware they have the virus.

There is currently no vaccine for the Zika virus. The CDC says Zika can be prevented by avoiding mosquito bites.

Creating a Smartscape Yard *by Mary Gazioglu*

After several attempts to make our yard more attractive, we decided to hire a professional to redo the flower beds around the periphery of



the yard, extend the patio and re-sod the grass. Once I convinced the landscaper that our goal was to use the existing perennials and native plants, not to be replaced with loads of shrubbery that needed to be trimmed, we were on our way.



My new favorite plant—pink globe mallow.

The landscaper put in two Nellie Stevens Hollies, three podocarpus and a Bloodgood Japanese Maple as anchors. By the time a few years had passed, the St. Augustine grass was dying leaving patches of dirt. We decided that the grass had to go and

to replace it with a stone walkway. My husband, who built our fence and once constructed a stone retaining wall in our Asheville, N.C. yard, decided to do the project. Over a three-week period, he dug the path four-inches deep, put down a thick layer of decomposed granite, then laid the stone. We added two flower beds, one abutting the patio and the other in the middle of the pathway under our Shumard Red Oak tree. We added John Fannick phlox, penstemon, globe mallow,



lemon coral sedum, hostas, irises, Lenten roses, columbine, oakleaf hydrangea, blue star, Turk's cap, salvias, germander, a 5'x5' herb/vegetable garden and many other plants. That was in 2015.

This year, with the same issues about patchy grass in the front yard (two mature trees blocking the sun equals bare ground), we decided to put in a stone path and extend the flower beds by two feet. We dug out most of the old sun-loving landscaping and put boulders around the trees. Our landscaping is a work in progress,



Monarchs vie for landing rights on an orange zinnia.

but so far we have added five Japanese maples, farfugium, lantana, black and blue salvia, bee balm, lambs ear, Turk's Cap and other plants.

Throughout this process, we met neighbors who stopped by to see what we were doing and to ask if my husband hired himself out. Not! We now have a more maintenance-free landscape that attracts, bees, birds, and butterflies, and we couldn't be happier with the results.



The front yard is a work in progress.

High in a blackland prairie that twists like a tornado from the Red River to the Hill Country sits a little anomaly. It's the soil found at Erwin Park in north Collin County: Austin silty clay, according to Dave Powell, and that's a bit of a mystery.



Laura Ragan, volunteer coordinator at the Heard, shows the taproot of some scabiosa she pulled at the park.

Powell, state program representative for the BPTMN chapter, is also ramrod of the fledgling prairie restoration

project at the county park that lies about four miles west of US 75 and equidistance north of US 380.

"This is an interesting area," Powell said as he walked the property one Saturday morning in March. "Since this isn't black clay, the soil should have an effect on the plants growing, but I haven't figured that out yet," he said. "We've got more trees here than I'd like in the prairie," Powell added, surveying a mott of cedar, smilax, and soapberry, "but the park service wants them, so I say as long as you let me grow the native grasses, I'm happy."

BPTMN has gotten permission to work on restoring the native prairie to 50 of the park's 212 acres. The rest of the park hosts miles of mountain bike trails with bike repair stations, playgrounds and picnic spots, campgrounds and ponds for fishing and exploring. "There are a lot of people using these trails," Powell said. "We want to introduce them to native plants and show them what it looks like."

To start with, chapter volunteers are "lollipoping" the cedars, cutting them up so that the lowest

branches are about six feet off the ground, digging up scabiosa and picking up trash. The Austin silty clay is one reason Powell is taking it slow. Since he's not sure of the effect of the silty clay on the grasses and forbs, "we're leaving it to see what grows here," he said. "We want to see what prairie grasses and forbs exist before we start trying to worry about putting other things out here." Milkweed pods have been spotted, though, so he is hopeful.



Dave Powell and Norm Miller examine soapberries in a mott.

In the meantime, Powell and other volunteers like Rick Jaynes, Amy Conroy, Bill Cornette, and Tony Manasseri, have been working on the cedars, have seeded for a butterfly way station west of the dam, and have seeded five 10' x 20' quadrants with different mixes: pollination, bee, butterfly, hummingbird and a prairie mix that comes with a full range of forbs.

Volunteers interested in helping first meet with Powell to walk the area and see what is needed. "Every little piece of stuff we find that's not natural we pick up and get rid of. It's better for nature and for the critters," Powell said, before issuing a warning. In the summer, volunteers should remember their insect repellent with DEET because the chiggers may be plentiful.



This photo was taken from the top of the hill that's part of the 50 acres that's being restored to prairie. It's a view of a dam where chapter members seeded for a butterfly way station. The dam is at the base of a pond into which a stream flows.

Mike Petrick



Mike Petrick developed a love of the outdoors early in life. He was born and raised in Burnet, TX, and grew up in the outdoors hunting, fishing and camping.

All this and photography continued to be his hobbies for the rest of his life.

He taught in San Angelo for 18 years and in Lewisville for 20 years. The last eight years of his career he taught outdoor education, which included hunting, boating safety, fishing, camping, Dutch oven cooking, orienteering etc. at Huffines Middle School in Lewisville.

“In order to teach the Texas Parks and Wildlife Hunter, Boater and Angler education programs, I became a certified Hunter, Boater and Angler Education Instructor,” said Mike. “I was also certified to teach the Archery in the Schools Program. Since that time, I became a TPWD Angler Education Area Chief and in Archery in the Schools Specialist. Since retiring, I mainly train and certify teachers to teach Angler Education and Archery in the Schools.

“After retiring, I needed something to do, and I had heard of the master naturalist program, but was reluctant to join since I had no scientific training in any of the natural sciences. In 2011, I decided to join up anyway and on the last day to turn in applications, Sally Evans met me at the post office parking lot in Plano and took my application. The rest is history, and becoming a master naturalist has been one of the best things I have ever done.

“It turns out that it didn’t matter that I had no formal scientific training. My 60 plus years of experiences in the outdoors and my 38 years of teaching were enough, and I became a Texas master naturalist in the class of 2011. Once I became a master naturalist, I began going on bird walks and field trips and have become an avid birder and bird photographer.

“I have been able to combine my love for the outdoors, birds, photography and teaching in my volunteering. As an old teacher, I love to talk and work with young people. The first thing I volunteered for was trail guiding at the Heard. I have since become a

trail guide at the Lewisville Lake Environmental Area leading school groups on hikes and also leading night hikes. I also volunteer at the Hagerman National Wildlife Refuge as a tram tour guide and help out with the weekly bird census there. Since 2011, I have been able to serve over 1,000 volunteer hours.

“Since I don’t own land in the country, one of my main objectives in becoming a master naturalist was to have access to places so I could get outdoors. By volunteering at these places, I have accomplished that as well as my other goals of helping students and adults to love the outdoors.

LuAnn Ray

I have been a student of nature since I was a little girl. I loved the surprise of it all. Nature is different every day and seeing a new animal felt exciting like a Christmas present and then leafing through the bird and flower books to give my new find a name was just the most fun and it still is!

I grew up in Virginia Beach, Va., and spent a lot of time at my grandparents’ home which was situated in a little cove where the Chesapeake Bay met the Lynnhaven River. The combination of old growth pines and brackish water created a wonderful place for all kinds of wildlife. There were fiddler crabs, American bitterns and muskrats at low tide, pileated woodpeckers frequented the old pine long dead from summer lightning strikes and mother bobwhite quail with their line of chicks appeared every spring moving through the grass.

My first binoculars were antique opera glasses which my grandmother bought at an auction since her binoculars were too heavy for me to hold up for very long. She and I shared a well-worn copy of *Peterson’s Eastern Birds*.

My love of nature has followed me as we moved from Virginia to Florida, Kentucky, and Ohio and for the last 20 years in Texas. Each move required more field guides to ID the regional flora and fauna. In 1999, while living in Tyler, TX, I saw an article in the Tyler Morning Telegraph about the Texas Master Gardener program and decided to give it a try. Volunteer hours were required to complete my certification; I decided to lead nature hikes for third graders at Camp Tyler - one of the oldest outdoor education programs in the

Busy Volunteers of the Blackland Chapter *(contd.)*



United States. The site was perfect, with the piney woods along Lake Tyler. I loved working with eager students, spending days outside seeing nature's surprises with the kids while planting the seeds of environmental awareness. I found that one thing that I do best—opening children's eyes to nature just like my grandparents did for me.

In November 2012, we relocated from Tyler to Plano, and I thought instead of transferring as a master gardener, I'd like to see what the master naturalist program was about. With some wonderful mentoring by Sally Evans and Louise Frost, I started volunteering at the Holifield and soon was invited to join their staff.

At the Holifield, many Plano children have their first outdoor experience, and I get to be their guide to experiencing nature's richness, beauty and lessons. When I lead a group of students on a trail, we stand in silence to hear the sounds of the wind through the trees, birds singing, scolding or the scratchy noise of a woodpecker's feet against tree bark as it spirals upward looking for insects. I want them to touch bedstraw, look at it and realize that nature invented Velcro first. Perhaps on this walk they will catch a whiff of something pungent and musky and think skunk but it's the olfactory evidence that a rat snake has passed through not too long ahead of them. Next, I lead them to a creek and have them take a long look and notice if there is anything present created by man, unfortunately there is almost always tattered litter hanging in the roots of trees in the eroded creek banks. It's then that I do my most important work when students realize that this litter has made its way from their yards and roadsides through the storm drains and the solution to stop this trashing of the creek is so very simple—just put your trash in a trash can. Presto, man/land connection and I have planted more seeds of environmental awareness to grow in an upcoming generation!

Often, I teach the Jr. Naturalists class on aquatic ecology, a dozen or so 'tween age students with nets and boots in the creek discovering the small creatures that provide valuable information about water quality.

When I was approached in 2014 about becoming BPTMN Education Chair, I was reluctant to accept the position because I did not want to give up the important work I was doing with children. I spent a month pondering the idea and I realized my contribution grows exponentially by training other master naturalists to go out and fulfill our mission of education, preservation, conservation and restoration of our natural resources. As I watch the class of 2016 on their journey to certification, I feel tremendous pride in these BPTMN newbies. They are resourceful, committed and fun folks to be around, a group of eager learners and I think some future BPTMN leaders. Whether leading kindergarteners or adults, I am excited to share my time making discoveries and learning the ways of nature each day holding a little wonder, mystery and adventure.

Congratulations to Members for Their Achievements in 2016!

Recertification	Milestones – Hours Accumulated
Bill Cornette	
Brigid Brown	
Dave Powell	Amy Dessert, 500
Deborah Canterbury	Brigid Brown, 500 and 1000 hrs.
Gailon Hayden	
Greg Haydern	Clyde Camp, 4000
Karen Mitchell	Deborah Canterbury, 1000
Kathy Hudson	Gailon Brehm, 500
Melanie Schuchart	Gary Hayden, 250
Mike Roome	
Nancy Cushion	Karen Mitchell, 2500
Nancy Davis	Laura Simpson, 500
Nikki Lefebvre	Linda McBee, 250
Rich Lefebvre	
Sally Evans	Nancy Davis, 1000
Tony Manasseri	

Please contact Gary Howerton, gghowerton@gmail.com, if you have enough VH and AT hours to recertify for 2016 or if you have reached a milestone.

Carolina Wrens Nest in Our Yard *by Amri Carrasco, Jr. Naturalist*



A Carolina Wren perches in a bush in the Carrasco yard.

Ah, summer! A beautiful time where there are butterflies, swimming in pools and even birds. But birds don't start as adults, they have to fledge, and grow feathers. Quite recently, a male and female mated pair of Carolina Wrens came to my porch due to the scattered seeds and bird feeders we have dangling in various positions. The journey begins, however, when they build their nest.

It was warm outside and we could hear the continuous chirping of what we (my mother, my sister and I) thought was a male wren on our porch. Being the excited naturalist type, we took photos of the bird and continued watching him. He flew into a bag of potting soil and then returned back to his position on our porch railing. We watched this little guy for many days wondering what was inside the soil bag. My mother said that we shouldn't disturb the bag, because we might scare off our little bird friend. That's when a hail storm arrived.

Of course we were terrified of the storm and what it would do to the neighboring wildlife! My family watched the outside being pelted by pieces of ice the size of chicken eggs. Then, we realized that our wren could be in danger. We rushed over to the porch and my mom clutched her phone to her chest. She then held it over the soil bag to check on our bird friend. She snapped quick pictures and then came inside. We looked at the photos and saw a wren in the bag, in a nest. When we turned back around, the original wren was on the patio railing. We were very excited to see that our wren had a mate, AND a potential wee one. We found out that both male and female wrens sing, and they take turns on the nest. They look almost identical to determining the difference between male and female is very difficult.



My father and I arrived home several weeks later and saw my mom and my sister standing outside. When we got closer, we could see two adult wrens flying around, and a little baby wren, just a little floof ball, on a twig. He had feathers and just a little down left on his tiny body. He was fledging! Fledging is when a young bird gains his feathers and learns to fly away from the nest. He was very scared on his branch, but my mother recorded him learning to fly before we showed up.

These birds are attracted to bird seeds, some fruit and insects. They enjoy areas with lots of vegetation to find food in and forage. Putting a brush pile near your bird feeder will attract these birds to your area. The Carolina Wren lays six to eight eggs and it takes roughly 14 days of incubation. They stay in the nest for about 14 days.

Many people assume because a young bird is on his own that means he's lost or has fallen from his nest. This is inaccurate. Young birds can be fledging or trying to find food on their own. Many times the adult is watching their young from afar. Never take in a baby bird unless certified. Call an animal rehabilitator if you think it is necessary. It is often better to leave the bird there, as it has a better chance of surviving without being messed with. The baby bird will survive better in the wild, and even though we nature lovers hate this thought, it is often best to let nature take its course.

I love the way summer feels. The denim shorts, the chlorine pool, the freedom from school (cough), but my favorite is seeing the birds fly up ahead in the distance. What would it be like to fly? Only the nature lovers want to be like the birds.

2016 BPTMN Trainee Helps Design Plan to Reduce Stormwater Runoff



BPTMN Volunteer 2016 Trainee, Sherry Fabricant and her UTA Landscape Architecture Master's Studio team won a national U.S. Environmental Protection Agency RainWorks Challenge.

In April 2016 on Earth Day, the EPA announced four winners and two honorable mention projects in response to 77 student teams from 26 states that submitted green infrastructure designs for the fourth annual Campus RainWorks Challenge. These projects show how managing stormwater at its source can benefit the community and environment by reducing the burden on local water infrastructure, managing local flooding, reducing urban heat islands, and lowering energy demands. This round of competition encouraged students to learn about the current or potential impacts of climate change on campus and demonstrate how using green infrastructure practices on their campuses can build resiliency to those impacts while effectively managing stormwater runoff. Sherry's team won first place in the master plan category for designing a plan to reduce stormwater runoff in future UTA construction projects. The project titled "Eco-Flow: A Water Sensitive Placemaking Response to Climate Change recommended reducing non-permeable surfaces by 20 percent, decreasing heat contributions from those non-permeable surfaces by 22 percent and increasing the tree canopy in the project area by 50 percent. As a result, the model indicated stormwater absorption rates at the site increased 60 percent during a storm event, significantly reducing downstream flooding.

What does something like this mean for the BPTMN's? Well, certainly on a local basis as we

understand more about climate change and increased storm intensity along with longer drought duration, the annual RainWorks Challenge serves as an educational outreach model that introduces to the public the types of changes we can and will need to make in order to deal with increased runoff due to climate change and the stress our biological systems will endure. We can affect and encourage these practices in our volunteer endeavors on a micro-climate level, whether it be on our prairie remnants or gardens and using natives mindfully, concern for water quality (Texas Stream Team) and designing areas for enhanced erosions control or water infiltration, or on our own residential properties. Green infrastructure and using Low Impact Design (LID) can be implemented at any level and the best place for anyone to start is where you are and at what you can access. For many of us, that means at home or the projects where we volunteer our time.

So what constitutes Green Infrastructure or Low Impact Design? Designing areas using techniques such as using bioretention (swales and rain gardens) to reduce peak flows, green walls (vertical gardening) and roofs to increase plant surface area, permeable paving to increase water infiltration, rain barrels and cisterns for water catchment and storage, amending the soil and using expanded shale, and installing tree box filters in urban settings.

For more information regarding the EPA RainWorks winning designs over the past 4 years refer to: <https://www.epa.gov/green-infrastructure/2015-campus-rainworks-challenge>. A good introduction to LID can be found at: <http://www.lid-stormwater.net/background.htm>. Any interest or questions can be direct to Sherry Fabricant at sfab18_au.me@verizon.net.

Summer Outings and Opportunities *by Mandy Carrasco*

Hello nature lovers!

These warmer months offer a lot of great Outings and Opportunities, many of which are led by members of our own TMN chapter. Some opportunities may be a little distant, but worth the drive. Like always, remember to call ahead to reserve a spot or confirm details. Happy trails!

City of Plano

Environmental Education Center. 4116 West Plano Parkway.

Sustainability Volunteer Orientation. Make Plano “cleaner, greener, and healthier.” Thursday May 5. 6:30-7:30pm, 972-769-4313

Nature Explore Family Day: All About Birds. Free event! Saturday May 7. 10am-2pm, 972-769-4130

DIY Drip Irrigation. Everything you need to know! Thursday May 12. 7pm-8:30pm, 972-769-4216

Free Outdoor Adventures. by fellow Master Naturalists. Registration required. 972-941-5403
Arbor Hills Nature Preserve, Nature Walks: Sats- June 25, July 16, August 20. 8:30-9:30am

Oak Point Park & Nature Preserve
Plant Walks: Weds- June 8, July 6, August 10. 8:30am-9:30am
Bird Walks: Sats- June 4, July 2, August 6. 8-9am
Nature Walks: Weds- June 15, July 13, August 17. 8:30-9:30am and Sat.- June 11, July 9, August 13. 10-11am
Family Night Hikes: Weds- June 8, July 13, August Sats- June 18, July 23, August 20

City of Frisco

Frisco's **Urban Forestry Program** is a board of volunteers that advise City Council on matters of stewardship. The Urban Forestry Board meets at 6:30pm on the 4th Wednesday of every month (Parks and Rec Dept. Offices. 6726 Walnut Street.) The UF Board will be hosting ArborFest in December of 2016. For information on how you can participate, call 972-292-6511.

City of Allen

Critterman's Texas Tails, children's event featuring animals native to Texas. Pick up tickets just prior to the event. Allen Public Library. 300 North Allen Drive.
Monday June 13, 2:30-3:30pm and 3:45-4:45pm

Sustainable Landscape Series. Allen City Hall, Council Chambers. 305 Century Parkway. Free, but registration is required. 214-509-4553. Saturdays, 9-10:30am.
May 7: DIY Drip Irrigation Systems
May 14: Sprinkler Controls
May 21: Fruits, Nuts, and Berries

Heard Natural Science Museum and Wildlife Sanctuary

One Nature Place, McKinney. 972-562-5566

Bee with your Mom. Assemble a bee house with your family. Included with general admission., Saturday May 7. 10am-noon.

Second Saturday Bird Walks. 8-9am, May 14

Summer Night Hike., May 14. 8-9:30pm

Third Saturday Nature Talks. 9:30-10:30am

An Introduction to Fossil Preparation: May 21 and Pond Ponderings: June 18

Native Texas Butterfly House opens, May 28

Texas Heritage Festival, the Heard's summer fundraiser. Saturday June 4, 10am-3pm.

Come support the Heard Museum and enjoy live music, historical demonstrations, children's activities, and more!
There will also be plenty of volunteer opportunities. volunteers@heardmuseum.org

Connemara Conservancy

Alma and Tatum Road, Allen. 469-200-4085

News! Dogs are now welcome at Connemara. This trial period runs now through July. You must first obtain a “Pooch Permit.” For fees and other details, please visit connemaraconservancy.org

Bird Walks. Registration suggested. Meet at 7am. Walks take several hours, all ages welcome.

Saturday May 7, Sunday June 5, Saturday July 2

Volunteer Opportunities. Presently seeking volunteers for these areas: GIS Mapping and Research, Special Events and Activities, Office Admin, Graphic Design, Photography, Videography.

info@connemaraconservancy.org

Spring Outings and Opportunities (contd.)

In-Sync Exotics

3430 Skyview Drive, Wylie. 972-442-6888

Volunteer Opportunities and Internships available. [In-syncexotics.org](http://insyncexotics.org)

The website does not yet have information about these events- but they sound like fun! Call for details.

Mother's Day Pancake Breakfast. May 8, 7-11am

Big Cat Birthday Bash. June 11

Melon Toss. July 23

Lewisville Lake Environmental Learning Area (LLELA)

201 East Jones Street, Lewisville. M-F: 972-219-3550. Sat/Sun: 972-219-7980

Canoeing on Beaver Pond. Call 972-219-7980 for details.

Migration Bird Banding. Registration and fee required. Ages 7 and up.

Friday May 13, 7:45-9:45am

Nature Lovers Book and Hike Club. (How cool is that?!) Ages 12 and up.

Sunday May 15, 1-3pm

Sunday June 19, 4-6pm

Sunday July 17, 4-6pm

National Trails Day. Saturday June 4, gates open at 7am.

10am Nature Walk. 8:15pm Night Hike.

\$5 per car. Family activities, guided trails, kids' fishing, plant sale! Most activities are free but some require registration or have a fee.

Stars on the Prairie. Ages 5 and up. Registration required. \$10 per person. Due to security gates, you must arrive on time and stay the entire time.

Friday May 6, 8:30-10:30pm

Saturday June 25, 8:45-10:45pm

Friday July 29, 8:45-10:45pm

Myers Park 7117 County Road 166, McKinney.

972-548-4792

Myers Park is a large park, which contains many separate areas. For a full list of features, visit collincountytx.gov

A Walk in the Park. June 4, 8am-noon

A public tour of the Earth-Kind Research and Demonstration Gardens. There are several demonstration gardens throughout the park. Earth-Kind landscaping encourages water conservation, reduction of fertilizers/pesticides, reduction of landscape waste. Earth-Kind Demonstration Tours are also available on other dates by calling 972-548-4219. Brought to you by AgriLife and Collin County Master Gardeners

Collin County Farm Museum. 972-547-5752. Jennifer Rogers ccfm@collincountytx.gov Volunteer Opportunities available.

The CCFM offers classes covering a variety of heritage skills. Some classes are done in blocks, and others are stand-alone. As part of a block of lessons titled Homesteader's Pantry Type B, there's an upcoming class called "**Kitchen Companion: Plants and Worms.**" The museum also offers exciting things like Antique Driving Classes, Cheese Workshops, and Soap Making.

Model Tea Picnic and Open House, CCFM. Antique cars, rural crafts, outdoor food and games. May 14, 11am-2pm. Free Admission.

Blackland Prairie Raptor Center

1625 Brockdale Park Road, Lucas. 469-964-9696

Owls, Hunters of the Night. Meet the raptors (11am, 1pm), guided hike, learn about owls!

Saturday May 7, 10am-3pm

Bird of Prey Photo Day. Animal Ambassadors will be available for you to photograph in natural settings. This is a once per year event- don't miss your opportunity! Fee is \$20 and you must pre-register.

Saturday May 21, 7:30-11am.

Trinity River Wind Festival 146 West Commerce Street Viaduct, Dallas. 214-671-9500.

Saturday June 11, 11am-5pm. A day of free family events. Be sure to see the Trinity River Audubon Society Center's homing pigeons, as well as our feathered friends from the Blackland Prairie Raptor Center. You can also stop by the Sprint Booth to recycle old cell phones.



Jim Varnum

Our heartfelt condolences to the family and friends of Jim Varnum, a master naturalist, nature speaker and walk leader. Jim was generous to others with his extensive knowledge about native plants and his love of nature was evident as he led walks. *Jim's This and That* newsletter always began with humorous thoughts before listing all the nature-related events in the Dallas-Ft. Worth area. He will be greatly missed.

There will be a Condolence Open House Sunday, May 1, from 2 to 4 p.m. at the Varnum home, 14524 Tamerisk Lane.

Farmers Branch, and a Celebration of Life Service will be held Monday, May 9, at 7 p.m. at Christ Lutheran Church, 3001 Lovers Lane, Dallas

Are you looking for a place to volunteer?
Approved activities for volunteering and advanced training can be found at:

<http://bptmn.org/info/project-opportunities/>.

Send your questions about volunteering to
Melanie Schuchart at VHAT@bptmn.org.



Prairie Partner Update is published quarterly by Blackland Prairie Texas Master Naturalists.

Editor: Mary Gazioglu
email newsletter@bptmn.org.

Past issues can be found on our website at:
http://bptmn.org/_BOARD_FTP/newsletter/

Other BPTMN communications are at:

Smugmug - <http://bptmn.smugmug.com/>
Facebook - <https://www.facebook.com/bptmn>

The Mission of the Texas Master Naturalist program is 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 for the State of Texas.

The Texas Master Naturalist program is a partnership between the Texas AgriLife Extension Service, Texas Parks & Wildlife and other local partners.

Websites of Interest...

All About Birds:

<https://academy.allaboutbirds.org/features/birdanatomy/>

Blackland Prairie Texas Master Naturalist Calendar <http://bptmn.org/calendar/>

Cornell Lab of Ornithology -

<http://www.birds.cornell.edu/Page.aspx?pid=1478>

Earthkind Landscaping

<http://aggie-horticulture.tamu.edu/earthkind/>

Green Source DFW

<http://www.greensourcedfw.org/>

Insects in the City - <http://citybugs.tamu.edu/>

Ladybird Johnson Wildlife Center

<https://www.wildflower.org/>

Prairie Partner Update past issues

http://bptmn.org/_BOARD_FTP/newsletter/

Texas Aggi Horticulture

<http://aggie-horticulture.tamu.edu/>

Texas Parks & Wildlife Updates

<https://tpwd.texas.gov/>

Texas Smartscape <http://www.txsmartscape.com/>

Texas Superstar Plants <http://www.texassuperstar.com/plants/>

Texas Tree Planting

<http://texastreeplanting.tamu.edu/>

Upcoming BPTMN Meetings 2nd Tuesday, 7 p.m.

- **May 10** - Monica Morrison: Texas Wild Cats
- **June 14** - Sally Evans: Dirt Stew, A Few Surprises, And Celebrating Our 10th Anniversary!
- **July 12** - Leah Patton: Texas Tarantulas

Are you current with your 2016 dues?

Refer any questions to: treasurer@bptmn.org