Members Take Part in Texas Master Naturalist Annual Meeting

by Donna Cole

The 17th Texas Master Naturalist Annual Meeting was held October 21-23, 2016, at the La Torretta Lake Resort & Spa in Lake Conroe, Texas. The meeting is designed to bring chapters together for education, networking and idea sharing, fellowship and statewide communication. I have attended this conference every year since 2002 and every year I am amazed at what I see and learn! I have friends I have met over the years from all around the state, and I look forward to our “reunion” each year, as well as the opportunity to take classes from some incredible instructors.

The annual meeting is an excellent way to get your entire year of advanced training hours in a single weekend. This year, 98 different field trips, classes and presentations were scheduled with topics covering a wide range of subjects. Ever wanted to know more about the geology and soils of Texas? What about identifying bird songs by ear? How about using the iNaturalist program? These topics and more were covered in an intense 48-hour period including a class taught by our own Dave Powell. Linda Stevens, a member of the Cross Timbers chapter, said she “really enjoyed Dave’s class and thought he did an excellent job.”

We also took time to enjoy art and photography from fellow members and enjoyed viewing other chapters’ scrapbooks, newsletters, brochures, videos and chapter projects.

On Saturday evening, after a boisterous roll call where the Blackland Prairie Chapter was recognized for our 10-year anniversary, we honored special volunteers like our own Clyde Camp. As a member of the VMS Team, Clyde was called on stage to receive special thanks for his work on VMS project. We also cheered on our Blackland Prairie Chapter members who received a milestone award this year. Deborah Canterbury hit the 1,000 hour mark and Clyde Camp received his Presidential Lifetime Volunteer Service Award for giving 4,000 hours to the Texas Master Naturalist organization. Finally, the 2017 re-certification pin was unveiled: certifying members next year will receive a Kemp’s Ridley Sea Turtle pin!

Another highlight (at least for me) are the shopping opportunities. The TAMU Bookstore had some great books for sale and offered a 30% conference discount. The TMN gear store did a brisk business all weekend, selling TMN branded shirts, hats and other items. One of my favorite events each year is the silent auction, a member-donated auction event that raises money for our conference scholarship fund. Our chapter members donated numerous

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Items but the most intense bidding was on the “Ed Ellerbe Screech Owl News Box” which finally closed at $125!

I spoke with a gentleman from the Louisiana Master Naturalist program who came to see “how we put this kind of thing (conference) together.” He was impressed with not only the conference but the program in general. I kindly offered to go visit his chapter in New Orleans in exchange for beignets and crawfish étouffée.

I asked some of our members to give me their favorite moments or classes from the event:

“Different Strokes for Different Folks – a look at prehistoric Indians in the upper coastal region and the Hill Country… Interpretive Trail Guiding, the other six classes were also very good… The Spiders of Texas program (and the short video) of the peacock spider… a toss-up between the photography session with John Herron and Urban Coyotes… In Search of Missing Species with Texas Nature Trackers. Elly Tittle, a new member and first-time attendee said she found the “entire conference has been exciting and very motivating” and our president, Deborah Canterbury, summed it up well: “To be around 480+ fellow nature lovers is just amazing.”

The 18th annual conference will be held October 20-22, 2017, at the Omni Hotel & Resort in Corpus Christi, Texas. Make plans now to attend this remarkable event!

### CONGRATULATIONS TO OUR MEMBERS!

#### RECERTIFICATIONS

- Ron Bamberg
- Al Baume
- Alison Baylis
- Beverly Carpenter
- Carol Clark
- Denise Dengler
- James Dulan
- Lisa Edwards
- Arlene Englert
- Janice Goria

- Georgette Guernsey
- Tom Heath
- Jeffrey Holba
- Rick Joosten
- Yvette Justice
- Marcia Lucido
- Mittie McDonald
- Bob Mione
- Rita Murph
- Robert Napper

- Kathy Opheim
- LuAnne Ray
- Randy Robinson
- Karen Saucedo
- Sharla Stack
- Ernest Stokely
- Frances Wolf
- Fran Woodfin

#### MILESTONES

- 250 hours
  - Nancy Cushion
  - Rick Joosten
  - Yvette Justice
  - Lorelei Stierlen

- 500 hours
  - Cicely Brown
  - Beverly Carpenter
Trail of Tears Vacation Takes Me Back to My Ancestor’s Remedies
by Deborah Canterbury, BPTMN president

Growing up, my dad’s side of the family told stories about my great grandmother, Transylvania Clegg, and how the full-blood Cherokee married Hap Canterbury (obviously British) and moved to Arizona from the Ohio/Tennessee area. Both lived to be 100. There was even an article in the Tucson paper about them and her denial of her Cherokee blood in order to survive. Imagine my surprise when an Ancestry DNA test said I have zero percent Native American DNA. I look too much like my parents to be adopted, and my mother wrote letters while carrying me so...next up – National Geographic genome test just to ease my mind.

Well, something is there, and I have the herbal remedies, notes and memories of my grandfather’s stories and blessings he chanted until he died still in my brain to corroborate it. I would like to share some of those remedies with you.

I just got back from a vacation that took me partially along the Trail of Tears, and it inspired me to keep Great Granny Transylvania alive. Please do not try these on yourself or anyone else. This is just to entertain and inform. I do not want to see you at a meeting with hair on your face and feet or an extra limb growing out from somewhere it should not be!

For “Big Chills”: Decoct of wild tobacco or choke cherry. Blow it on the patient and chant - Oh, whirlwind, Thou and I are powerful!

For “Headache”: Wild tobacco or gins root. Blow on the head and chant – The wizards have just passed by, they have caused relief.

For “Sharp Pains”: Chew wild tobacco and parsnips and chant Oh, Black Raven put me back on my feet cause only a ghost has caused it.

For “Itching”: Root of stickseed and comfrey boiled into tea and put on while saying - use these plants, this is all there is to it.

For “Urine Complaint”: Bruise roots of two spurges, make a tea to drink and rub on, too. Fast, and ask yellow frog who has put this on you to release its hold.

For: “Rhumatism (sp) and Arthur(arthritis)”: Warm fused leaves of rhodendron, Indian poke, loucothe, mountain laurel and pink portaranth. Rub on ailing spot and say – Thou on high has caused the white bones to come down on the body.

For “Big Headache, Backache”: Tea from milkweed and clematis is drunk for back and chewed. Do not use salt while healing.

For “Diarrhea”: Drink all you can of pleurisy root of butterflies around the flow it is good. Otherwise color as blossoms.

And this prayer to you: Honor the sacred. Honor Honor all with whom we share the Earth:- Four-swimmers, crawlers, plant and rock people. Walk Dohiyi my tsogalii – Peace my friends!

And this prayer: Honor the sacred. Honor the sacred Honor all with whom we share the Earth:- Four-swimmers, crawlers, plant and rock people. Walk in balance and beauty.
Under a tall, blue sky, I sit under a stately, old oak tree amidst the historical oasis known as the Heritage Farmstead. Above me, the Titmouse’s high-pitched call, “peter, peter, peter” is joined by the Pileated Woodpecker’s syncopated drum, and then across the way by the Blue Jay’s “scree.” The early September heat, like my fellow master naturalists from the Blackland Prairie Chapter, has not yet arrived.

Soon this peaceful 4.5-acre historical remnant of the original 395-acre Farmstead will become an island in a sea of early morning traffic with its dull roar, blaring horns, thumping stereos and toxic emissions. For now, in repose, I can’t help but wonder what vista I might have beheld in 1891 when Hunter Farrell purchased the land for Mary Alice and Ammie, his wife and daughter.

In 1891 Plano, situated in the Blackland Prairie, consisted of about 1,300 souls and was growing. The threat of marauding Comanche had been eradicated. The nomadic tribe had been either massacred or relegated to reservations, making settlement of the region by immigrant Americans much safer. The vast bison herds had been decimated. Trains, as of 1872, connected McKinney, Plano and Dallas bringing iron plows, wire fencing (late 1870’s) and scores of eastern settlers. The times were indeed “a changing” in the Blackland Prairie.

What was once a 12.6 million acre ecosystem, unique among the world’s ecosystems, was even then beginning its relentless march to extinction. Today, less than 1% of the Blackland Prairie remains in small, scattered remnants, many of its bio-diverse inhabitants gone the way of the bison, brown bear and wolf.

In 1891, the Farrell family, while sitting on their porch, may have admired acre upon acre of tall, native, grasses waving in the morning breeze. Ammie may have plucked a bouquet for her mother from the profusion of native wildflowers that flourished year round in and among the tall grasses. Inexorably, the landscape would be transformed in the coming decades by iron plows hardy enough to break the stubborn vertisols, by wire fences that surrounded row crops and cattle pastures, and by rapidly growing settlements.

Mary Alice and Ammie inhabited their farm until Ammie died in 1972. Soon after, the Heritage Farmstead Museum was formed and the buildings were renovated. Today, visitors to the Farmstead can inspect implements and furnishings utilized over time by the family. They can walk among buildings representative of the period. Chickens, hogs, a cow and a jackass enhance the stroll through our Texas heritage. All have voices that tell of their role in our history.

It seems fitting that visitors would be afforded the opportunity to witness a representative prairie garden redolent with grasses and forbs that early settlers to the region would have encountered before the landscape was forever altered by row crops and pasture land that was re-cultivated to support cattle. And that is how I happen to be sitting under this Oak tree on an early Saturday morning.

Little by little my fellow Texas Master Naturalists and students from the Plano High School Environmental Science Classes (taught by Mark Yoder and Elizabeth Carson) begin to filter into the Farmstead. The Museum directors have commissioned our chapter to construct a prairie garden. The completed garden will contain representative native bunch grasses and forbs that once populated the Blackland Prairie in North Central Texas.

Our Project Leader, Jeff Holba, was trained in landscape architecture at Oklahoma State and works as a professional landscape architect at the prominent.

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international architecture firm, Huitt-Zollars. Jeff’s design includes an ADA friendly path that winds its way through the native plants, and a sitting area where visitors can enjoy the birds, pollinators and butterflies that will be attracted to the prairie plants.

We hope to use the garden as a forum for public discussion of the many important properties of prairies, including Blackland Prairie history, native plant constituency and residential landscape applications, water conservation, soil improvement temperature regulation and habitat.

In the spirit of our mission statement, this project evidences our chapter’s commitment to education, outreach and service.

Won’t you join us? For more information contact me at gthayd@sbcglobal.net.

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**Naturalists: Dedicated, Curious, Disheveled by Jerri & Aaron Lipple**

The October BPTMN chapter meeting was more lively than most. Breaking into smaller groups triggered much more conversation among members and brought out the rambunctious side of many. This resulted in widespread laughter more than once.

The purpose of the meeting was to plan for the next 10 years by looking back at the last 10 years. This was done by seeding discussions about how to describe naturalists, what we have in common, what we have done well in the past, and what we would like to change in the future. In one exercise, members were asked to share their “aha” moment which made the group really click with them. For many members, this moment was just sharing an experience with others who hold similar interests.

Members commented that they had "found their own kind" with the Blackland Prairie Texas Master Naturalists. In a separate exercise, members were asked to list one word that describes naturalists. A few words which BPTMN members used to describe naturalists include: dedicated, adventurous, curious, disheveled and sweaty. All we need now is a Sleepy and a Doc and we will have a Disney movie!

President Deborah Canterbury will email the results of the break-out sessions to all members at a later date. If you wish to add anything to the discussion, please reply to her email when you receive it.
In spite of protests from neighboring ranchers, the grey wolf was reintroduced into Yellowstone Park in 1995. Elk and deer over-population and starvation had become a problem in the park. Naturalists thought the presence of their natural predator might solve the herd starvation problems and bring the park ecosystem into a more natural balance.

The cascade of events from the reintroduction of wolves into the park has far exceeded even the wildest conjectures of Yellowstone ecologists. First noticed were the regrowth of willows around the creeks and the revival of shrinking groves of aspen where wintering herds of hungry elk had scraped away the snow to eat the tender shoots. Aspens, a plant that propagates through its root system, suffered and creek bank willows were depleted. The park beaver population became stunted due to lack of winter food. Once the wolves returned, the beaver were able to again have a plentiful winter food source. Why? The elk herds were not only reduced, they avoided the open valleys around the creeks, allowing the willows to regenerate.

But, it was not just elk, beavers and the aspens that felt the ripples of wolf reintroduction. Because of creek bank regrowth and the return of the normal beaver population, rivers literally changed course. Ponds were created, providing habitat for waterfowl, trout and other aquatic creatures. Returning migratory birds found more nesting site choices, thanks to the wolves.

It was not just the trees, the beavers, the fish, the birds and the healthier elk herds that are the beneficiary of the wolf reintroduction. Grizzly bears, eagles, coyotes, and other carrion eaters have flourished from the reestablishment of elk carrion, a regular menu item in the park.

It’s not just the Yellowstone wolf story in that is opening our eyes to the interconnectedness of nature. We all know about the demise of the American honeybee and its impact on the pollination of our vegetable food sources. Beyond the importance that insects play in our lives, the story of interconnectedness turned to the recent biomedical discovery that the very fauna growing in our gut may play a dramatic role in our health. While we are just beginning to understand the full impact of these “bugs,” new discoveries suggest that the gut biome may play a major role in controlling weight, allergies and even the regulation of our immune systems.

All this is to say, it’s time to be more aware of how completely interconnected life on the planet is. It is time to wonder about the unintended consequences of things like: the worldwide extinction of species, the local spraying of pesticides that may do little to kill mosquitoes but lays waste to most of our insect population, and the countless other human modifications of the planet ecosphere.
It’s been years since bobwhite quail have been spotted or heard through their distinct “bob-white” call at Connemara Meadow in Plano, TX. But that’s all about to change thanks to a group of determined BPTMNs being led by Bob Mione, a BPTMN and Con- nemara’s Meadow Manager.

In September, the meadow committee approved the concept of using bobwhite quail “call back” pens as the next step in attempting to restore bobwhite quail to the Connemara Meadow and Montgomery Farms. If all goes according to plan, BPTMNs will have built a call-back pen in the meadow that about 15 young birds will call home before Christmas. The timing for the effort is focused on a period when one of the major predators of the bobwhites—snakes—are hibernating and the outdoor temperatures are more conducive to success.

“The project will be fun and full of opportunities to learn a great deal about bobwhite quail, other ground nesting birds, native supporting habitat, predators and more,” Bob said. “It will also be difficult and filled with set backs, disappointments and frustrations, similar to any restoration project. After all, if it were easy, it would already be done.”

A species in flux
Northern Bobwhites (Colinus virginianus) are one of the most common species of quail in Texas. Both sexes look very distinct, with a mottled brownish back and wings. The males, also known as cocks, have a white throat and face, while the females, or hens, have a buff-colored throat and forehead stripe.

While some reports issued by conversation and environmental groups say bobwhite populations have been on the decline since 1980, others indicate the quail population in some parts of Texas, as well as in Kansas and Oklahoma, are on the upswing. Click here (http://quailforever.org/Hunt/State-Forecast.aspx) to read Quail Forever’s 2016 Quail Hunting Forecast.

The leading cause for both the population decline and upswing seem to point to changes in the quantity and quality of habitat. At Connemara Meadow, BPTMNs will build the call-back pen close to an area where prairie restoration is well underway, where there is existing habitat provided by shrubs and small trees and a water source is nearby.

In addition to gaining as much knowledge as possible from local experts before moving forward with the project, the team will obtain the appropriate permits from the State.

How the call-back concept works
Since bobwhites love companionship, they are perfect candidates for the call-back pen concept. Bobwhites instinctively want to stay together. Part of the reason for this is safety, and another part lies in the fact that the bobwhite is one of the few bird species that roost together on the ground. While this can be very hazardous in the wild, it makes them an ideal species for the call-back pen.

Here’s how we think the concept could work at Connemara. Each day, volunteers will let a majority of the birds out of the call-back pen so they can explore their surroundings and get acclimated to their home in the Meadow. The ones that remain in the pen will eventually call out to the birds on the outside and encourage them to come back through a funnel that is just the right size to ensure predators will not be able to get in. The bobwhites’ natural instinct to convey with the other birds will lead them back to the pen.

Another reason the birds will come back to the pen will be an ample supply of food and fresh water. Volunteers will make sure the birds have food and water available in the pen so they will have the ability to survive during the winter months. All of the birds will eventually be let out of the pen permanently when they are ready to survive in the meadow on their own.

With a lot of hope and a positive attitude, we have decided to embark on this exciting journey. If you would like to join us as a volunteer, contact Bob Mione at meadow-manager@connemaraconservancy.org.
When most naturalists think of nature preserves and conservation, they think about the native habitats and animals they are saving. Wild plants and animals, however, are not the only ones who benefit. Spending time in nature has very real, measurable effects on human physiology. Fifteen minutes is all it takes.

According to a Japanese study conducted by Yoshifumi Miyazaki at Chiba University, physiological changes were seen after a walk in nature as short as 15 minutes. In the study, 84 subjects walked through the woods for 15 minutes and another 84 subjects walked through an urban environment for 15 minutes. Subjects who walked through woods reduced their levels of cortisol (a stress hormone) by 16 percent, blood pressure by two percent, and heart rate by four percent. Subjects walking in an urban environment did not experience these positive changes.

In another study conducted by Greg Bratman at Stanford, subjects were split into two groups. One group walked in a grassland area with oak trees for 90 minutes while the other group walked down a busy, four-lane street for 90 minutes. Brain scans were conducted on the volunteers before and after the walk. The group that walked through the grasslands with trees had reduced activity in the subgenual prefrontal cortex, the area of the brain that is responsible for depressive rumination. Depressive rumination is repetitive thought focused on negative emotions, on their causes and consequences rather than positive solutions. Reducing activity in this area of the brain can reduce anxiety and sadness while improving concentration and problem solving abilities.

Scientists do not know exactly why nature improves health but studies show that spending time in nature shows measurable improvements in our physiology. So, take a hike! It may not cure all of your problems, but it will make you feel better.

For more information, including additional studies linking improved health to nature, read National Geographic’s article titled: This Is Your Brain on Nature.

GREAT PLACES FOR NATURE WALKS

Arbor Hills Nature Preserve
Bonham State Park
Connemara Conservancy
Eisenhower State Park
Erwin Park
Hagerman National Wildlife Refuge
The Heard Natural Science Museum and Wildlife Sanctuary
Lake Tawakoni State Park
Oak Point Park & Nature Preserve
Parkhill Prairie
Sister Grove Park

DID YOU KNOW...?

Increasing your heart rate with exercise for 20 minutes a day can rejuvenate memory cells.

Dr. David Perlmutter, neurologist and author of Grain Brain, explains that it does not have to be an intense exercise like running. It can be as simple as a brisk walk.

Take a hike! It’s good for you!
“I am only one, but still I am one. I cannot do everything, but still I can do something; And because I cannot do everything, I will not refuse to do the something that I can do.”
- Edward Everett Hale

Naturalists Out and About in Our Community

Sulphur Springs

Naturalists look over finds and displays from fossil hunting at the North Sulphur River.

Plano Environmental Learning Center

Melanie Shuchart and Erin Hoff participated at the recent All About Butterflies program at the Center.

Bull Frog Pond Project at the Heard Museum

Mucking out Bullfrog Pond at the Heard is underway. Next up is planting green ash trees along the boardwalk leading to the Wood Duck Trail. Among those helping Parviz Shakeri on the wetlands project were Elly Tittle, Greg and Karen Hayden and Mark Baver. True dedication!
Susan Smith got involved with the Heard Museum last year after her son started volunteering there. Now she loves her work at the Heritage Farmstead, Connemara Prairie, Wylie Prairie, Erwin Park and in the Paleo Lab. She was happy to talk about her experience at any of these places but most interesting was the work she is doing at the Paleo Lab. In fact it was at the Paleo Lab that she found out about the Texas Master Naturalist Chapter and the classes. She shared her excitement and interest in the preparation for the historical tortoise bones that the Heard Museum brought in and will be on display soon. She is an example of new members that have turned immediately to volunteer work and are reporting a great number of hours.

Thank you, Susan, for all you do.

Help Collect Data about Birds This Winter for Project Feeder Watch

If you are looking for volunteer hours you can do from home, check out Project Feed Watch, a citizen science project promoted by the Cornell Lab of Ornithology that begins November 12 and ends April 7, 2017. This annual survey is designed to collect data on the count and types of birds that visit feeders across the U.S. and Canada. Data collected by participants helps scientists understand long-term trends in bird distribution and abundance of more than 100 species of birds. There is a small fee to participate, $15 if you are already a member and $18 if you are new. You will receive instructions in the mail regarding where to put your bird feeder/s, the best types of feed, etc. Register at http://feederwatch.org/.

Encourage Nature Lovers to Join BPTMN Class of 2017

If you know someone who is interested in nature, cares about the environment, enjoys volunteering and is not already a BPTMN, encourage him/her to sign up for our chapter’s 2017 Certification Training. Classes begin Feb. 8 and run through May 3. All classes are held at The Heard Natural Science Museum. Tuition is $150.

Details and applications will be available at www.bptmn.org starting Nov. 1. Class size will be limited to 32 this year so interested students should submit their application and tuition as soon as possible!

Greg Hayden and his wife Karen, have found great success with us at BPTMN. We owe our new members a big thank you for getting in there quickly and making a bigger difference here in our community.

"I first discovered the TMN when reading an article about the organization in the Dallas Morning News back in the summer of 2014, said Greg. “I was preparing for my retirement in January 2015 and had always wanted to give back. Plus, one can only play so much golf. My professional life involved long hours and extensive travel, so I rarely had any time to give to those outside my family. Karen and I love the outdoors, and our spirits soar when hiking, especially in the mountains. We decided that becoming master naturalists would allow us the opportunity to volunteer in joyful activities and to continue educating ourselves in the process. Needless to say, we were thrilled when LuAnne notified us that we had been accepted into the Class of 2015.”

Greg has volunteered in the Heard Museum and Wildlife Sanctuary Seed Project; as a trail guide at the Heard and Blackland Prairie Raptor Center; in prairie restoration at Wylie Prairie, Erwin Park Prairie and Heritage Farmstead; and in chapter administration on the Education Committee and as Chairman – Project Outreach.
Last revised in 2014, tanzanite, zircon and turquoise are listed to illustrate the winter blues of December’s birthstones. Of these three, turquoise has been known for more than 10,000 years and occupies a space in civilization that no other stone has ever occupied. Turquoise has been celebrated by the peoples of the Orient, the American Indians, and civilizations of Africa, most notably the Egyptians. It is one of the few minerals that gives its name to anything that resembles its striking color – white/powdery blue to the color of a robin’s egg to green.

The word turquoise dates back to the 13th century, drawing from the French expression pierre tourques, “Turkish stone.” Early trade routes brought turquoise to Europe from the mines in central Asia passing through Turkey. Ancient Persia (Iran) was the traditional source for sky blue turquoise. This color is often called “Persian blue” today, regardless of its origin.

For thousands of years, turquoise has spanned all cultures, prized as a symbol of wisdom, nobility and the power of immortality. It occupies a place in the history of human civilization that no other stone has ever occupied. It was especially esteemed by Egyptians, American Indians and the peoples of the Orient. This is the only mineral able to change its color depending on the environment. It has been surrounded by numerous legends and superstitions in most cultures, and in the distant past inspired awe and worship. It was used both in jewelry and for ritual purposes on all the continents. Records of it are found in the very first works about gems, as well as in a number of myths (especially those of the Navajo Indians). The death mask of Tutankhamun was studded with Turquoise, as were the mosaic masks dedicated to the gods, the fabulous inlaid skulls, shields and power statues of Moctezuma, the last ruler of the Aztecs.

For nearly a thousand years, Native Americans have mined and fashioned turquoise, using it to guard their burial sites. Their gems have been found from Argentina to New Mexico. Indian priests wore it in ceremonies when calling upon the great spirit of the sky. Many honored turquoise as the universal stone, believing their minds would become one with the universe when wearing it. Turquoise is found in only a few places on earth: dry and barren regions where acidic, copper-rich groundwater seeps downward and reacts with minerals that contain phosphorus and aluminum. The three best known turquoise sites are Iran, the Sinai and the United States. The result of this sedimentary process is a porous, semi-translucent to opaque compound of hydrated copper and aluminum phosphate.

For most of time, blue turquoise varieties were considered most desirable, while green turquoise was thought to be inferior. It was believed by the ancients that blue turquoise did not lose color over time, and that stones with lesser blues would eventually fade to green. However, history has shown that this is not the case. Since recent times, the demand for green turquoise has increased. In fact, there are several green turquoise varieties that are now considered to be some of the top ranked turquoise available today, including many of Nevada’s turquoise and also China’s ‘Skyhorse’ and ‘China Mountain’ varieties.

The demand for White Turquoise has occurred fairly recently. There are critics and competitors who say it isn’t turquoise at all. However, White Buffalo Turquoise is found in veins like turquoise. Much of it is mined in Nevada in the same area as turquoise. The veins themselves are surrounded by a black chert, a black rock similar to flint. White turquoise cuts and polishes like its blue cousin. There has been much debate exchanged as to whether the white variety is actually turquoise. This particular stone is often referred to as simply White Buffalo as the debate is ongoing.

Turquoise goes in and out of style. However, if you live in Texas you should own at least one piece of this cultural icon...wear or decorate with it. Enjoy the beautiful color as those before you.

Works cited:
https://www.americangemsociety.org/en/december-birthstones
http://www.durangosilver.com/white-turquoise.html
https://www.crystalvaults.com/crystal-encyclopedia/turquoise
http://www.gemselect.com/other-info/green-turquoise.php
https://en.wikipedia.org/wiki/Turquoise
Blackland Prairie Raptor Center, 1625 Brockdale Park Rd. Lucas, TX 469-964-9696. in-fo@bpraptorcenter.org

First Saturday Event: Saturday, November 5, 10am-3pm
Kids activities, make an owl cookie! Raptor programs at 11am and 1pm, followed by guided prairie hikes.
Ribs and Raptors Fundraiser: Saturday November 12, 11:30am-2pm
Register by November 8. Tickets $75 per person. Ask about the Family of 4 discount.

Connemara Conservancy, Alma and Tatum Rd. Allen, TX (Meadow Preserve Parking Lot Public Gate)

Bird Walks:- Saturday November 5, 7-10am, Sunday December 4, 8-11am, Saturday January 7, 7-10am
Bring binoculars and field guides, wear long pants, close-toed shoes, sunscreen, and bug spray. Walks take about 3 hours.

Lewisville Lake Environmental Learning Area, 201 E. Jones St. Lewisville, TX 972-219-3550 Monday through Friday, or 972-219-7980 on weekends. lcole@cityofl Lewisville.com

$5 per vehicle entry fee. Some events may require an additional fee.
Nature Walk: Saturday November 5, 10am-12pm, all ages are welcome.
Bird Walks: Saturday November 12, 7:30-10:30am, Saturday December 10, 7:30-10:30am and Saturday January 14, 7:30-10:30am Ages 10 and up.
Night Hike, Saturday November 12, 5:30-7:30pm. Enjoy a twilight stroll along a 2 mile trail. Ages 5 and up.
$10 per person.
LLELA offers a lot of other activities, as well. Be sure to check their website for additional outings!

Heard Natural Science Museum and Wildlife Sanctuary, One Nature Place, McKinney, TX

Holidays at the Heard Fundraising Event: Saturday December 10, Friday December 16, Saturday December 17. 6:30-9pm. Families sip hot cocoa, walk a festively lit nature trail, and enjoy holiday entertainment in the outdoor amphitheater.
Visit website for ticketing information, or contact lragan@heardmuseum.org about volunteer opportunities. Volunteers will be needed during November and December to get the trail ready, and multiple volunteers will be needed during the event hours.

City of Plano, Live Green in Plano Program - Visit: www.plano.gov/LGIPvolunteer to learn more, or contact Heather Harrington, Sustainability Volunteer Coordinator at heatherha@plano.gov or call 972-769-4313

Free classes at the Plano Environmental Education Center, 4116 W. Plano Parkway, Plano, TX 75093 Register online.
Landscape for Life: Class meets every Wednesdays, October 19 - November 16, 7-9pm. This series covers the role of soil, water conservation, plant selection, and eco-friendly garden design.
All About Composting: Thursday November 17, 7-8:30pm. Learn how to turn garden debris and food waste into compost. Class will also cover grasscycling, leafcycling, brown bagging, compost piles, trench composting and vermi-composting.

Green Source DFW Sustainable Leadership Awards
Thursday November 3, 5:30pm at the Dallas Arboretum, Contact Wendel Withrow at Wen-del@GreenSourceDFW.org or 214-287-1046

City of Dallas
Water Wise Seminar: Saturday November 5, Richland College, 12800 Abrams Road Wichita Hall, Room WH-103. Dallas, TX

Bonnie Reese, author and landscape designer of Beautiful Landscapes will be the speaker at both sessions. First-time seminar attendees at each session will receive a copy of Ms. Reese’s book, “Common-Sense Landscaping” (limit one per household).
Water-Wise Landscape Design 101, 9am-12:30pm - Teaches the principles of landscape design with an emphasis on how to create a beautiful landscape that will save resources - natural and financial!
Fantastic Plants for North Texas, 1:30-5 pm - Learn when, where and how to plant each of the recommended trees, shrubs, vines, perennials, groundcovers and turf grasses.
Free. Register online at SaveDallasWater.com or by calling 214-670-3155.

The Great Seed Bomb
Saturday November 5, 1:00pm, Clear Fork Food Truck Park. 1541 Merrimac Circle. Fort Worth, TX
The Great Seed Bomb is a 15k fun bike ride benefiting bees, monarch and other pollinators. During the ride, seed balls (milkweed and other wildflowers) are launched from bikes. A portion of the money raised will be donated to the Native Prairies Association of Texas. Event also features: food trucks, vendors, live music, learning stops with environmental experts.

REI, Plano, 2424 Preston Rd., Plano, TX
Hiking Basics Class: Friday, November 18, 7-8:30pm
Learn about trip planning, essential items, equipment, safety precautions, along with local resources and places to go. Free class. Register on-line.

Audubon Christmas Bird Count, December 14- January 5. Visit the website to learn how to participate! http://www.audubon.org/conservation/join-christmas-bird-count

SAVE THE DATE!
The winter months mean fewer pre-arranged outdoor activities, but I just learned of an event in February that sounds just wonderful! Plan a road trip, because you won't want to miss The Whooping Crane Festival in Port Aransas, TX, February 23-26! 1-800-45-COAST or visit www.whoopingcranefestival.org

How Squirrels Survive During Winter
by Amri Carrasco, Jr. Naturalist

Freezing your little squirrel friends during this cold month? Oh my! How can we keep them warm? During the winter, most animals say no to the cold and decide to hibernate. Some animals, on the other paw (see what I did there?), decide to brave it out and forge on like brave little soldiers. Squirrels, for instance, stay up during the winter and fatten up to stay warm.

Squirrels are homeotherms, which means that their body temperature remains consistent throughout the year. Before winter begins, squirrels will fatten up and make a cozy den to rest in. They will often snuggle with a friend to keep warm. A lot of the time squirrels will hide food in little holes to keep it safe and use for later munching. Squirrels also keep warm by shivering. Shivering is muscles using friction to warm the body up.

Normally squirrels will avoid each other and remain solitary, only coming together to mate. But in the winter months, squirrels will buddy up to keep warm. A little known fact about squirrels is that they have a valve at the base of their tail that is able to open and close and either restricts blood flow through the tail in winter to keep warm blood in the main part of their body. And in summer, that same valve opens to increase blood circulation through the tail to help cool the blood and regulate body temperature as air flows through their bushy tail that acts as a radiator to dissipate heat!

During this time, these little squirrel "buddies" may become more. Oh yes, romance may bloom – although, male squirrels don’t stick around to watch the pup! A squirrel’s gestation period is roughly 45 days. She will give birth to two to eight little babies, and when they are born, pups are tiny! About one-inch long and about one-ounce in weight, these little guys need all the help they can get.

Next time you see a squirrel, don’t get angry at the little guy. They’ve got to eat, too!
Upcoming BPTMN Meetings
2nd Tuesday, 7 p.m.,
Heard Museum Science Center

November 8 - Diane Brownlee: Local Seismic Activity

December 13 - Daphne Lynch: Topics from the Collin County Health Department

Websites of Interest...

All About Birds: https://academy.allaboutbirds.org/features/birdanatomy/

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


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/