



MISSION

The Texas Master Naturalist program is a natural resource-based volunteer training and development program sponsored statewide by Texas A&M 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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MESSAGE FROM MELISSA

by Mellissa Duckworth

APITHERAPY

Therapy involving the use of honeybees has been in practice for thousands of years; in Ancient Greek, Chinese, Egyptian and Mayan civilizations. Apitherapy today is still considered to be part of or a remnant of folk medicine in general, but that thinking is being replaced in the mainstream medical and homeopathic communities. Apitherapists are now M.D.'s and acupuncturists as well.

The products from honeybees consist of ideal ingredients essential for the human organism. Mellitin is the active component in bee venom or apitoxin. This is the "good stuff " or, in rare cases, the chemical that can send one into anaphylactic shock, if an individual is highly allergic.

In Germany, where apitherapy is a recognized component of homeopathic practice, there is a treatment prescribed that involves inhaling the air in an apiary via a specialized breathing tube. The treatment is for respiratory illnesses of any kind.

In Slovenia, apitherapy, and more specifically BVT or bee venom therapy is prescribed by Medical Doctors for conditions such as improving circulation, decreasing inflammation and promoting a healthy immune response.

There are numerous apitherapy clinics popping up in the United States promising to help a variety of maladies from mood disorders to phantom leg pain. Much of this is patient exploitation no doubt and lends a bad name to the legitimate benefits that ap-

itherapy can or may hold in the future. Medical research is ongoing into the venom of many biting and stinging members of the animal kingdom including scorpions, venomous snakes, spiders, sea urchins and gila monsters, as well as honeybees. New York Presbyterian hospital has completed a Phase II clinical trial using scorpion venom to kill brain cancer cells. Similar research is taking place utilizing apitoxin, by having the bee sting participants near a malignant tumor thereby killing the cancer cells feeding the tumor. Another study released by the National Cancer Institute states that a virus known as XMRV is linked with chronic fatigue syndrome, some prostate cancers, autism, atypical MS and fibromyalgia. The antiviral properties in apitoxin with it's ability to travel through neural pathways may explain the usefulness in combating these diseases.

The observation that beekeepers who are stung on a regular basis have fewer arthritic and heart issues initially prompted some earlier research. Severe allergic reaction is uncommon, however, it is a reality. Heart problems and death can occur.

Intentional bee stings have long been part of folk medicine. Now, the medical community is realizing those "folks" were on to something. Patients suffering from multiple sclerosis regularly seek out bee stings, the frequency of visits and number of stings at each session varying among patients.

I am a minimally knowledgeable beekeeper. I now have a small apiary on a small

(Continued on page 3)

INSIDE THIS ISSUE:

Message from Melissa	1
Melissa Duckworth	
May Program	2
Cathy Hill	
April Program	2
Mike Childers	
Get Well!	2
Nature Center News	3
Billy Hutson	
The American Crow	4
Joanne Fischer	
Field Trip - Colorado Bend State Park	6
George Brugnoli	
GOP	8
Cathy Hill	
Lawn & Garden Show Booth	10
Melissa Duckworth	
Gallery	10

Please submit pictures, articles, reports, stories, announcements, 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.

MAY PROGRAM

By Cathy Hill

The speaker for the May 4 HLMN meeting will be Dale Schmidt - TPWD, on the "Llano" eagles and where they have gone.

He may also present something on the turkey studies he's been doing.

APRIL PROGRAM

By Mike Childers

Barron Rector, PhD., Associate Professor and Range Specialist Texas A&M AgriLife Extension Service provided an interesting and entertaining plant walk and talk at Reveille Peak Ranch.



Photo by Susan Downey

GET WELL!

Prayers and loving thoughts for a quick recovery to be back "on the trail"

- Margie Butler – recovery from knee replacement
- Wade Hibler – his wife, Ellen
- Janis Koby and her husband – health
- Cris Faught – recovering from back surgery
- Hollis Neier – her back
- Kathy Griffis-Bailey - passing of her mother and brother in the hospital

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

NATURE CENTER NEWS

by Billy Hutson

Two new developments have occurred in the last month.

First- We have been asked by LCRA to partner with them in a monthly nature presentation at their Black Rock Park on Lake Buchanan. This fits right in with our year long partnering with Master Gardeners, NPSOT, Balcones Canyons NWR, and LUAS to widen our venues and get more people involved in nature education.

This venture is especially exciting since it involves families camped at the park and families have been our focus this year. Ray Buchanan will be heading this up and all are invited to contact Ray to provide a talk on your area of expertise. We already have Bats and Bees for topics and every month's talk will include an interpretive plant walk and a brief history of the Highland Lakes ecology which will be taught to us by LCRA at a training session in our May UHLNC meeting.

Second- Doublehorn Brewery/Restaurant will be having a benefit day for the Friends of the UHLNC on Wed May 18th. They choose a different non-profit each month and give 10% of their days proceeds to that entity. If you will be eating out that day for lunch, dinner, take out or just drinks, your attendance would be appreciated. We intend to make it a fun day for attendees.



Black Rock Park Lake View Hall Photo by Ray Buchanan



Photo by Paula Richards

APITHERAPY

(Continued from page 1)

piece of property across the county road from our ranch. I am stung (not intentionally) on a regular basis- on the limbs - not a big deal. If stung on the face, I go into hiding for fear of frightening small children with my distorted, swollen face. But hey, maybe my joints will not creak until I reach my mid-eighties. Perhaps I will never experience gout. I love my bees. I love the smell of their wax, their pollen baskets laden with orange or yellow pollen. I love their end product - light golden honey in the Summer and dark amber in the Fall. So what are a few stings? Maybe something better than money can buy.

Two quotes are worth sharing I think.

"Bees... by virtue of a certain geometrical forethought, knew that the hexagon is greater than the square and the triangle and will hold more honey for the same expenditure of material." Pappus, Greek Mathematical Works

" A strange observation some 20 years ago had been made by the Berlin Cancer Center. It's scientists and doctors had never seen a beekeeper suffering from cancer." Dr. W. Schweisheimer (1967)

THE AMERICAN CROW

by Joanne Fischer

I have to admit that I am enamored of crows and their relatives - ravens. There is something about their size, shape, color (I happen to like black!), aerial acrobatics and “intelligence” that intrigues me. And here in the Hill Country we are lucky to be in the range of both of these amazing birds.

The American Crow (Order: Passeriformes Family: Corvidae) is a large, long-legged, thick-necked bird with a heavy, straight bill. They are “all” black – which means not only their feathers, but also their legs, their bills and even their eyes! They have a medium length squarish tail (as compared to the Common Raven's tail which is wedge-shaped). They are commonly found in rural areas (fields, open woodlands and forests) as well as urban habitats (agricultural fields, lawns, parking lots, athletic fields, roadsides, parks and city garbage dumps). One identifying characteristic of the crow is its flight pattern - which is a methodical flapping that is rarely broken up with glides.

American Crows breed in at least some parts of all the 48 contiguous United States and in southern Canada. The Crow is a year round resident in much of its range, but Crows that breed in Canada are short-distant migrants that move into the states during the winter time.

Crows are omnivores and eat a wide variety of foods including grains, seeds, nuts, fruits, berries as well as earthworms, insects, and small animals like mice and voles. They don't often visit bird feeders but are attracted by peanuts left in an open space or by compost, garbage and pet food left outside – ugh! They sometimes will rob and eat eggs or baby birds from other species' nests. And although you may observe crows on roadsides feeding on roadkill, they are not specialized to be a scavenger and carrion is only a small part of their diet. This is primarily due to the fact that although



American Crow



Versus the Common Raven

their bills are large, they are not sharp enough to break through the skin/fur of larger animals.

American Crows are highly social birds, more often seen in groups than alone. Some reports estimate roosting flock sizes to be in the hundreds of thousands up to two million during wintertime (I can't

(Continued on page 5)

AMERICAN CROW

(Continued from page 4)

even begin to imagine what that must be like). In addition to roosting and foraging in numbers, crows often stay together in year-round family groups that consist of the breeding pair and offspring from the past two to five years. The whole family cooperates in raising the young.

American Crows do not breed until they are at least two years of age. In fact most do not breed until they are four or more years old. Young crows help their parents raise new broods for a few years. It's like they give the "kids" a chance to learn how to be parents before being put to the test. They prefer to nest in evergreens, but will nest in deciduous trees when evergreens are less available. Nests are typically hidden in a crotch of a tree near the trunk or on a horizontal branch, generally towards the top third or quarter of the tree. Both members of a breeding pair help build the nest and young birds from the previous year sometimes help as well. The nest is a large (up to 19 inches across) bulky basket of sticks, twigs, bark strips, weeds, and mud, lined with softer materials. Incubation is done mostly by the female and eggs do not hatch for about 18 days. Then the hatchlings do not leave the nest for another 4-5 weeks.

American Crows are numerous and their populations were stable between 1966 and 2014, according to the North American Breeding Bird Survey and therefore the American Crow is rated as of least concern from a conservation perspective. And this is in spite of the fact that many populations experienced dramatic declines with the spread of the West Nile virus early this century. Also, there have been attempts over the years to exterminate large numbers of crows because the large winter roosts have inconvenienced some communities with the noise and mess associated with them. Attempts at extermination have included dynamiting of these winter roosts. However, the crow remains abundant, and has found ways to adapt, survive and thrive in urban areas.

The American Crow (and Common Raven) are interesting to me in part because of the folklore associated with these species. (A couple of my sources for this information were www.native-languages.org and www.paganwiccan.about.com). Both crows and ravens have appeared in a number of different mythologies throughout the ages. In some cases these

black-feathered birds are considered an omen of bad tidings, but in others they are considered the messenger of the Creator. Some American Indian teachings include the thought that if you are visited by a crow or meditate on a crow you will be surrounded by great magic.

Here is a potpourri of folklore teachings about the crow. Many people are under the mistaken impression that crows were viewed as harbingers of death in Native American cultures, but in fact, that is not true at all. Indeed, just the opposite is found in Native American Literature. Seeing a crow was (and still is) considered good luck. In some folklore accounting, a crow flying in from the east or south was considered favorable. But in parts of the Appalachian mountains, a low-flying group of crows meant that illness is coming. And even more, if a crow flies over a house and calls three times, that signifies an impending death in the family. If the crows call in the morning before the other birds get a chance to sing, it's going to rain. And finally, despite their role to some, as messengers of doom and gloom, it's bad luck to kill a crow. If you accidentally do so, you're supposed to bury it – and be sure to wear black when you do!

Hopefully you have had an opportunity to observe these spectacular birds and have marveled at one or more aspects of their intelligence and beauty.

Parting Note: I have decided to end my stint writing a monthly bird article for The Steward with this magical bird. I hope that over the past three years (I can't believe I have been doing it that long) you have learned something from the research I have done on the various bird species I have highlighted in The Steward. And if not having learned anything that at least you have been entertained. I hope someone else in the chapter finds the research of birds rewarding and is motivated to pick up where I have just left off.

TRIP COMMITTEE 2016: COLORADO BEND STATE PARK DAY TRIP

by George Brugnoli

On March 23rd, 17 HLMN members successfully ignored the trip coordinator's directions ;>) and arrived at Colorado Bend State Park's Headquarters for HLMN's first field trip of 2016. After a brief introduction by Park Interpretive Ranger, Jason Hairston, our day began with an interpretive hike led by Jackie Bakker and Lynn Williams from the Central Texas Master Naturalists. As usual, we confirmed that the company of fellow Master Naturalists is a peak experience! We learned why Colorado Bend is kept in as natural a state as possible (primarily to preserve the significant riparian area, thus helping control flooding on the Colorado) and why deadfall is an important part of that process. In addition to reinforcing our understanding of important riparian plants, Jerry Stacy added wild carrots to his repertoire of edible plants – declaring the subsequent stomach pumping only precautionary (not so ;>)!

The hike concluded at the largest of the travertine pools created by Spicewood Springs Creek. Our hosts explained how these pools were created...and then we played "imagine." Recent rains had raised the level of the Colorado River to the extent that many of the smaller travertine pools were flooded – not visible. Regrettably...but only briefly...our planned hike up the Spicewood Springs Trail was also flooded out.

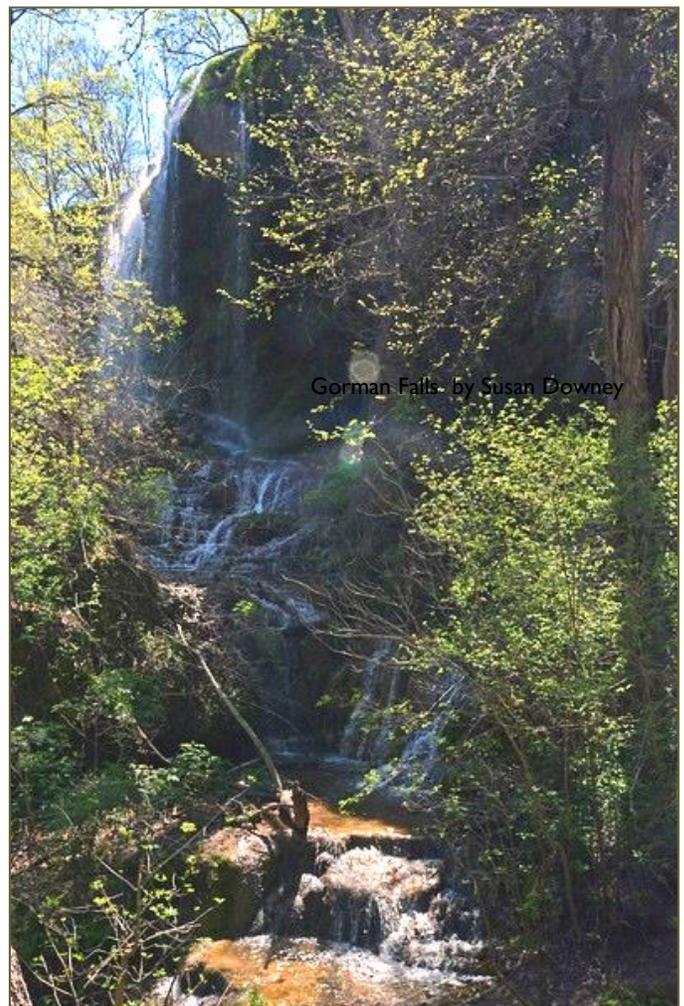
Our resourceful team of HLMNs "caucused" (ouch!) and the majority of us ventured to Gorman Falls as an alternative to the scheduled hike. A few of the diehards (author included) instead hiked the Spicewood Canyon Trail. We both "done good!" The Gorman Falls crowd braved a very slippery descent to the base of the falls for a view of its expression at high flow rates. Spectacular! The Spicewood Canyon Trail hikers were rewarded with exceptional views of Spicewood Springs Creek, a very touching memorial to a kindred spirit and the interesting flora and geology of the area.

After lunch, the planned volunteer service took relatively little time and we were ready for the afternoon's experience – a beginner spelunker's cave adventure. Colorado Bend is blessed with over 400 caves, the most magnificent of which, Gorman Cave, was closed for ecological reasons a few years ago. Instead, Jason led us on an interpretive hike to a cave



Intro to Colorado Bend State Park

Photo by Susan Downey



Gorman Falls by Susan Downey

Gorman falls

Photo by Susan Downey

(Continued on page 7)

COLORADO BEND

(Continued from page 6)

that has not been improved at all. After clearing a few snakes from the entrance (oh yeah!), we wriggled through a relatively narrow opening, to a passageway that Quasimodo would have had to scrunch down for, to a small but magnificent chamber, probably no more than 15 to 20 feet underground. We learned about the formation of such caves, its typical residents and how the stalactites and stalagmites were formed. We learned that the intricate crystalline structures we observed on some of the stalactites were formed by evaporation of moisture from the floor of the cave. We found exiting the cave substantially more challenging...but rejoiced at surviving the experience. It was a fantastic team building event!

Speaking of team building, we enjoyed the company of four of our New Class members...Paula Richards, Kristin Rodgers, Carole Hass and Wayne Reimer. Be assured...the future of HLMN is in good hands!

You've heard about the BIG TRIP to the Davis Mountains from Trip Committee Chair Linda O'Nan. Gonna be great! You haven't heard about the other three day trips we have planned. You will not want to miss them... but you WILL be behind me on the registration list!!



Lori Greco in the Cave

Photo by Pat Campbell



Some of the Gorman Falls hike survivors
Photo by Susan Downey



The Spelunkers

Photo by George Brugnoli



L to R: New Class Members Wayne Reimer, Carole Hess, Paula Richards, Kristen Rodgers (Wearing White Hard Hat is Ranger Jason Hairston. Photo by George Brugnoli

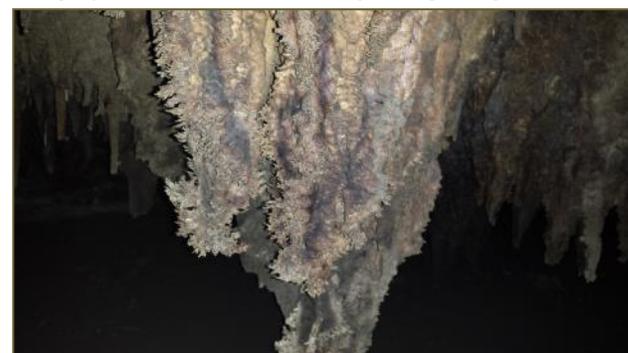


Photo by George Brugnoli

2016 GOP FINAL REPORT

by Cathy Hill

I am happy to report that our Great Outdoor Program at Inks Lake State Park for 2016 was a great success! Although I personally put in a lot of time and effort in scheduling workers and developing a new station, this success is due to all of my fellow Master Naturalists who volunteered to work it. Despite everything Mother Nature threw at us with wind, sun, rain and fog and various respiratory and other ailments we persevered and made it through with hardly a hitch. It certainly helped having it scheduled when it didn't overlap with other events.

This year we had 47 participating Master Naturalists, plus two people who are in the current training class, one of which is a park employee and the other a member of FOIL. Ten people were there for all six days and several more for nine days. But whether they were there for all six or only one day or something in-between, everyone's contribution was greatly appreciated! Thank you to all station leaders and workers, guides, and our snack and water supply personnel in the gator.

We had a total of 540 children and 300 adults from seven different elementary schools: Packsaddle, Burnet, Bertram, Spicewood, Highland Lakes, Marble Falls, and Colt. Our excellent group of guides led them from station to station and kept us on schedule. As in years past the students were taught about wood ducks and ospreys and shown how to use binoculars. Then they were educated and entertained by lots of flapping, honking, quacking, hooting, etc. to describe the birds silhouetted on the park store wall. Next the children and the adults got to run around and burn off some energy as they pretended to be migrating butterflies followed by a quiet moment under the wishing tree. Hope their wishes come true. From there it was on to the animal classes station where through the use of toy stuffed animals they learned the differences between mammals, birds, reptiles, amphibians, and fish and also heard a cute story about a possum. Another move brought them to the new station about trees. There they learned that acorns come off an oak tree, not an acorn tree and that the pecan tree is the state tree of Texas. Parts of a tree and their functions were also addressed. In addition it was discussed how trees are a habitat for many animals and provide

for humans as well. Finally they were encouraged to be tree huggers before they left the station which made for a great photo op. Last but not least was the aquatic station which began with a quick lesson on ecology. As usual they amused their instructors by suggesting that there might be sharks or whales in the lake! Then they got to see and touch what our seiners had collected before observing more fish both small and big in the tanks. Throughout their tour around the park they were often treated to up close observations of wildlife including squirrels, ducks, geese, and other resident birds.

I believe that a good time was had by all: students, teachers, parents, and volunteers, and that all would agree with the park motto, "Life is better outside!"

Thank you to park staff and FOIL for scheduling of schools, set up, and water and food supplies.

Thank you to station leaders: Ray Buchanan (birds), Celia Escamilla (silhouettes), Jennifer Daniels (butterflies), Sharon Drake (animal classes), Cathy Hill (trees), Jerry Stacy and Phil Wyde (aquatic), and Ed Lilly (guides).

Thank you to all the other volunteers: Elaine Barnhill, Terry Bartoli, Morgan Beck, Jan Belz, Judy Bloomquist, Elizabeth Bouchard, Linda Brown,

George Brugnoli, Pat Campbell, Lyn Davis, Paula D'Orsogna, Hanna Drago, Melissa Duckworth, Dennis Ellison, Nancy Ellison, Cris Faught, Sondra

Fox, Fredi Franki, Cindy Fronk, Billie Gunther, MJ Hansen, Judy Haralson, Eva Hobbs, Anne Holly,

Sue Kersey, Sandra Landis, Sue Lilly, Marilyn McClain, Bonnie Mikels, Mary Musselman, Linda O'Nan, Karyn Parker, David Payton, Alice Rheume, Paula Richards, Kristen Rodgers, Marilyn Ruiz, Lynn Wolheim, Fred Zagst, Kay Zagst, and Ray Zender.

Also thank you to the following who although they couldn't come due to illness or other complications were among those who volunteered: Betty Cruikshank, Kathy Griffis-Bailey, Hollis Neier, and Gretchen Pachthofer.

2016 GOP

Photos by Sue Kersey



HLMN BOOTH AT LAWN AND GARDEN SHOW

by Mellissa Duckworth

The Highland Lakes Master Naturalists had an entertaining booth complete with bins of live Night Crawlers and Red Wigglers from Texas Big Worm of Bertram- a vermiculture business. The owner, Brian Fraus, conveyed useful information in the ecological value of these earthworms with his many impromptu talks. Kids and adults were encouraged to dig through the dirt and handle the worms.

Ralph Herter also made batches of suet, complete with recipe; giving a demonstration on placing suet in holes of logs for the eating pleasure of birds.



Photos by Sue Kersey

GALLERY



Pale Paintbrush in yard

Photo by Beth Mortenson



Bluebonnet

Photo by Pat Campbell

(Continued on page 11)

GALLERY



Bandit raiding birdfeeder in broad Daylight!
Photo by Maggie Booth



Roadrunner in yard Photo by Beth Mortenson



Cedar Waxwings Photo by Lori Greco



Eagle behind my house Photo by Wade Hibler