Antelope Horns flower covered by Hairstreak butterflies photo: John Siemssen

Texas Master Naturalist Lindheimer Chapter

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In This Issue:

Message From Coco Brennan

Spring has sprung: the birds are back, the grass is green (well, it was for a minute), the critters are crittering…everything but the showers. Seems we are back in a drought, nature fans. We have even more inspiration this year to encourage rainwater harvesting and use of gray water for landscape watering than before. This has been the driest winter in 44 years according to the state climatologist. So water wisely and be fire wise as well. Sometimes just the least bit of a spark will create a wildfire that will eat up acres.

Folk Fest was a huge undertaking and our heart-felt thanks go to Ray Laxson, Caroline Carpenter and all of the many volunteers and contributors to the event. There is no other event in the year that puts the Master Naturalist before the public the way Folk Fest does.

A friendly reminder about turning in your hours: while we completely understand that being a volunteer is fun above all, it is a responsibility as well. Our sponsor, Texas Agrilife, uses the number of hours we put in as volunteers to receive funding and they are requesting our monthly input to assist them. If you need any help with the reporting form, please feel free to contact Charlie Thomas or me, and we'll be glad to help you out.

Edie Zaiontz, our web mistress, has worked really hard on the LMN website. We have now a members-only area that allows us to place our project list and forms as well as other information out there for your use. Please contact Edie for a password and give it a try.

There will be some great speakers for the next few months at the monthly meetings, be sure you come and visit with us. You get one hour of advanced training for attending the meetings. For some of the long-time members, this may be the easiest way to get AT if you have taken as many classes in the area as I have.

We are working on a couple of field trips for the Chapter, so stay tuned. One is to Jan Fulkerson's place in Wimberley. Jan is with the Texas Forest Service and a busy woman right now, as you can imagine given the wild fires throughout the state. So a date will be determined. Jan is a point person for the Firewise program, a national program aimed at helping small communities mitigate the fire dangers in their areas. Another trip will to the A E Wood Fish Hatchery in San Marcos to visit our friend, Rob Schmid who gave a terrific presentation at the April Chapter meeting. There are lots of good ways to get out there and get dirty, hope you take advantage of some of them and enjoy!

Coco — 2011 President

"Treat the earth well: It was not given to you by your parents. It was loaned to you by your children. We do not inherit the Earth from our Ancestors, we borrow it from our Children."

Native America Proverb

Art Williams presenting the Community Recognition Award to the Friends of Historic Landa Park for their part in helping to arrange the installation of the new sprinkler system in the park. Additional recipients of the award were: the Parks and Recreation Department of the City of New Braunfels and the City Council.

CALLING ALL WOMEN!

TPWD's "Becoming An Outdoors-Woman" Program

The goal of the TPWD's "Becoming an Outdoor Woman" program is to provide an atmosphere where women feel comfortable learning new skills associated with hunting, fishing, and other outdoor activities, in a supportive and non-threatening environment. After putting this in the Out & About FYI for March email I was intrigued and decided to sign up for the March 25-27, 2011 BOW workshop at Brownwood Lake. What a blast! I had so much fun, met such wonderful people that I can't wait to go again in September when the BOW workshop will be at Camp Allen in Navasota. The hardest part was choosing just four sessions from the more than forty that were offered for the three-day weekend. I chose Plant I.D. for Friday afternoon, Archery for Saturday morning, Geocaching Saturday afternoon and Kayaking Basics on Sunday morning.

When I arrived at the Texas 4-H Conference Center at Brownwood Lake, I was directed to the 8 bed Cabin 2B in which I met two delightful women who had previously attended BOW workshops and were able to give me good information. For Mona, this was her 6th time taking BOW classes! Soon, two more women showed up, (both first-timers like myself) and we all chose and made beds, stowed away our gear, and set off for lunch. I wasn't expecting a whole lot from cafeteria food, but I was really impressed at how good everything was, and the quantity. We could have seconds if we had room. They also had tea, coffee, and ice available all day.

There were about 70 women all together, ranging in age from 18 to maybe 80, not all fit and healthy, but all eager to learn and to try new skills. None of us in our cabin had the same classes, so it was fun to meet up between sessions and discuss what we had learned and talk about what we want to take next time. Fishing, Bird watching, Land Navigation, Camping Basics, Boater Education parts 1 and 2, Firearms, All about GPS, Outdoor Photography, Hunting, Outdoor Cooking (planked salmon, mmmmm), Rifle and Handgun Basics, Mountain Biking and Woodworking for Wildlife were some of their choices.

Each session had 10-12 classes, so most of the groups had 6-8 women. All my instructors were great, and showed lots of patience and enthusiasm. In the Plant ID class we tasted several wild plants before going out onto the grounds. The instructor was very disappointed that there were so few wildflowers blooming but still made everything very interesting. There were so many things to remember in Archery, but right at the end of the session everything came together for me and it felt soooo good. I would really like to continue with that. Geocaching was fun, lots of information and then searching for the hidden geocaches. It was so hot that afternoon that I wished I were kayaking on the lake. The next morning the cold front had moved in, it was less than 50 degrees, and again I wished I had kayaked the day before. I learned a lot from the instructor, Ashley, didn't get very wet and gained a lot of confidence.

The evenings were wonderful too. Friday evening we had four women directors from TPWD discussing budgets, policies, wind energy, water conservation as well as all the different programs in TPWD. Then there was an owl prowl. Who knew you could call up a screech owl on an i-phone? The owl was so cute but so bewildered to see 50-60 women staring back at him that he only stayed 30 seconds. Saturday we had an auction to raise money for the BOW program, and that was a hoot when our Cabin 2 entered a bidding war against Cabins 5 and 6, for a delicious (so we were told) chocolate cake that had been baked outside. Cabela's donated some great, top of the line equipment for the auction as well. For some reason I was really drooling over the fly-fishing rod but was out-bid. After that the astronomy instructor held court with a laser pointer and stories of the stars until after 11 pm. Perfect conditions, cloudless and the moon didn't rise until 2-3 in the morning.

Dormitory style rooms (bring your own bedding and towels), good showers, lots of mirrors, great food, wonderful instructors and so much fun for $195. I think this was a real bargain! Some of the courses change depending on the venue; sometimes they have sailing or First Aid with CPR/AED or backpacking or horseback riding. If you have never tried any of these activities before, or hope to improve your skills, this is a great way to do so. The other women in my classes were incredible: young Kathleen, so helpful and funny from Texas A & M; Jordan, a reporter with Texas Monthly, very petite and friendly; Jody, a local from the town of Brownwood; Connie, an elementary principal eager to have the TPWD archery program for her students; Susan, who runs a ranch with her husband; Leah, cautious and strong and her mother, Marion, dogged in pursuit of geocaches in spite of wilting under the 95 degree heat.

Last but not least, my roommates, Mona, Donna, Sandra and Seema – I could not ask for more congenial people – I was even renamed Janna so that the end of my name matched theirs! We all live around Austin, Dripping Springs and Canyon Lake, and are making plans to meet up for dinner this month and for rooming together again at Camp Allen. We are having withdrawal symptoms! Roll on September! **Janet Wilson**

http://www.tpwd.state.tx.us/learning/bow/

FOLK FEST – 2011

The New Braunfels Folk fest celebration was held this year at the Heritage Village Plaza in early April. The Lindheimer Chapter of Texas Master Naturalists had seven exhibits and approximately 40 chapter member volunteers over the two-day period.

Caroline Carpenter (left) sponsored the TMN Traveling Trunk exhibit with fossils, animal skulls, and skins and lots of information about the Texas Master Naturalists. A sandbox containing fossils for the youngsters to discover and identify kept them busy while their parents learned about the TMN program.

Art Williams (right) sponsored exhibits of some of our chapter projects, including the Canyon Lake Gorge, the Mesquite Creek Wildlife Habitat Area, the Friesenhahn Cave project, the native grass garden, and several hiking trails built and maintained by the Lindheimer Chapter.

Ray Laxson (below) sponsored an archeology exhibit with a number of stone artifacts and replicas of spears and atlatls and a map depicting the Indian tribes that inhabited parts of Texas prior to European settlement. He also sponsored an exhibit based on the operation of his property as a wildlife management area. Several books containing photographs of animals, birds, and rainwater catchment systems for wildlife were shown. A lot of information pertained to whitetail deer, including several antler displays. Approximately 150 polished antler necklaces were given to youngsters who stopped by to look at the exhibit.

Charles Tubbs (2nd. Photo on right) sponsored a native grass exhibit, including samples of some of the common local grasses and several books of photographs supplied by Doug Dalglish. There were some lively discussions about the types of grass that should be used for lawns in our area.

Davy Laxson checking out the skulls and skins exhibit

Julie Crouch (left) sponsored a birding exhibit, including pictures of various birds placed nearby that were viewed thru binoculars supplied by the chapter.

Skip Johnson (no photo available) brought the Agri-Life guzzler – an inexpensive rainwater catchment system– including a drip station and demonstrated how it operated. Skip also had construction plans for those who wanted to build one for themselves.

Weather for the event was good, but just a little warm in the afternoon. An estimated 200 people visited the chapter's exhibits.

Ray Laxson

Photos courtesy of Earl Dittman

To The Door Of The Courthouse….. And Beyond

Well, sure, the Master Naturalists are mainly concerned with the environment and the natural world. We spy on the black capped vireo, we seek and destroy the China-berry, we save the Kemp's Ridley turtle and we wring our hands over water. But we're members of our community too, and we're interested in the things the community is interested in.

L. to Rt.: Janet & John Siemssen, Sarah Laird, Mary Hitch, Toni Allison, Linda Thomas, Carol Allison, Mary & Art Williams, Carol Landry, and Tour Docent

So, when the City of New Braunfels, through its Planning Department, offered free tours of the Comal County Courthouse, to show the current state of the restoration project, the Lindheimer Master Naturalist chapter reserved one tour for itself. The happy participants, in their borrowed yellow hardhats, are shown just before entering the building.

The courthouse was constructed in 1898, with major renovations and additions completed in 1931 and 1970. Now the county has agreed to restore the building to its original state, in return for the state agreeing to pay about half the cost of restoration. Work began last year and, at present, the site looks more like a demolition project than a restoration.

Workers have torn up the modern floors, torn down some of the additions and hacked away at the rest, and have removed the dropped ceilings and the sheetrock that covered many of the original interior walls. This has revealed hidden windows and forgotten doorways. It has exposed what was exterior stonework when the courthouse was first erected, that is now well inside the building. Some of the stonework is undamaged but much of it has been stained or damaged by the adhesives used to attach new material. In one case, a carved stone ornamentation had been crudely chipped away to allow for easier placement of wallboard.

The county was able to obtain from the Sophienburg Museum and from private collections many photographs of the interior before any renovations were carried out. The best of them have been blown up and hang in the various rooms, to show the workers what they must try to recreate. It is a daunting task, and it has not yet begun since they are still in the deconstruction stage.

The work will continue for another two years. When it is finished, the courthouse will stand as it originally did, a smaller structure but more pristine, with an exterior and interior true to the design of the first architect.

The group left the building impressed with the scope of the project and the effort it entails. There was much excited chatter about what we had seen on the short trip back to the assembly point where the next group waited for our hard hats.

Then, as we handed the hats over, our primary focus reasserted itself. A member mentioned some obscure native plant that had reappeared on his property after the deer were excluded. At once a SIG formed around him and they were off into the world of botany. The courthouse was consigned to its proper place in history.

Master Naturalists, indeed!

Art Williams

The old 1930's annex that has been removed is the single story stone structure on the lower right side seen directly behind the tree and the pickup truck.

Local and Regional News

Tye Preston Memorial Library Nature Trail - New Project

A nature trail is being developed at the Tye Preston Memorial Library. This project is already approved for Volunteer Hours. The route of this trail will follow the property's perimeter boundary and has already been partially rough cut by a bobcat (the machine, not the animal).

The present plans for this trail are that it will be mulched with the mulch that is free from the county and will be lined with cedar posts. Because of prior grazing habits (cattle & llamas), this trail does not display much variety in plant species. Therefore, some replanting of Hill Country varieties will be needed. Doug Dalglish is developing this plant list.

Presently we are looking for someone to be the Project Lead. If you are interested in this, please e-mail Susan Bogle at jfbogle@gvtc.com or call her at 830-899-2444. Don't be shy - if you have never been a project lead before, this is a perfect opportunity. Also, if you have any cedar posts available, we will be glad to pick them up for the library trail. Just let Susan know.

Texas House Bill 3391 - The Rainwater Harvesting Bill Passes

Promotes rainwater harvesting for both potable and non-potable uses

The passage of Texas House Bill 3391, known as the Rainwater Harvesting Bill, represents a giant step forward for conservation of water resources and water security for the state. Rainwater harvesting is one of the best solutions to limited water resources and an increasing demand on water supply in Texas.

HB 3391 provides rule-making changes that promote rainwater harvesting for both potable and non-potable (drinkable and non-drinkable) uses. The bill also offers incentives for installing rainwater harvest systems in homes, businesses, schools and government buildings. It even makes provisions for funding rainwater harvesting demonstration projects throughout the state.

Christy Muse, Hill Country Alliance (HCA) executive director says: "This special region desperately needs new tools to deal with a tremendous amount of unmanaged growth in an area with very fragile water resources. Rainwater harvesting is one of those tools."

Before passage of the bill, use of harvested rainwater inside a structure with public water supply was restricted to non-potable purposes such as landscape irrigation, laundry and toilet flushing. The bill also changes the local Government Code to make it possible for counties and cities to offer incentives for rainwater harvesting such as discounts on rain barrels or rebates on water storage systems at residential, commercial and industrial facilities.

The cost of installing a rainwater harvesting system as well as maintenance and use of electricity compare favorably with costs to dig, maintain, treat the water and run the pump for a groundwater well. Generally, professional installation for a basic rainwater system is about $1.25 per stored gallon, and less if you install it yourself. Adding the water purification system for potable use adds about $1,000 to the total cost.

To find out more about rainwater harvesting, make plans to attend the 2nd Annual Rainwater Revival, October 8, 2011 at Roger Hanks Park in Dripping Springs, TX. The event combines education and entertainment with speakers on a variety of rainwater harvesting topics, live music, auction of artist-decorated rain barrels and more.

More details at:
www.rainwaterrevival.com

Is Edwards region's top priority more water or lower cost?

Would you be willing to risk occasional severe water-use restrictions in exchange for the lowest possible price for pumping from the Edwards Aquifer? That question is being confronted by regional leaders in the legislatively mandated Edwards Aquifer Recovery Implementation Program (EARIP). Leaders are working to craft a funding mechanism for a plan to protect endangered species that live in the aquifer and aquifer-fed streams during a severe drought.

Bexar County and the City of San Antonio are also involved in regional planning efforts to balance the conservation needs of rare plants and animals with the demand for economic growth and development. The Southern Edwards Plateau Habitat Conservation Plan (or "SEP-HCP") covers south central Texas, including Bexar, Medina, Bandera, Kerr, Kendall, Blanco, and Comal counties.

If regional leaders fail to adopt and fund a protection plan, an environmental lawsuit could lead to court-ordered management of the aquifer. Regional planners are facing a statutory 2012 deadline for submitting their plan to the U.S. Fish and Wildlife Service, and it must include the funding mechanism. Waiting to try again in the 2013 legislative session is a high-risk proposition.

While severe cuts would be rare, the possibility is real and the reductions would be painful. Cutting San Antonio's water usage in half likely would eliminate all outdoor water usage. And once triggered, the periods of severe cutbacks would last for months. So the region must decide whether it is preferable to avoid severe pumping cuts or pay less to protect endangered species.

More info. at:
http://www.sephcp.com/

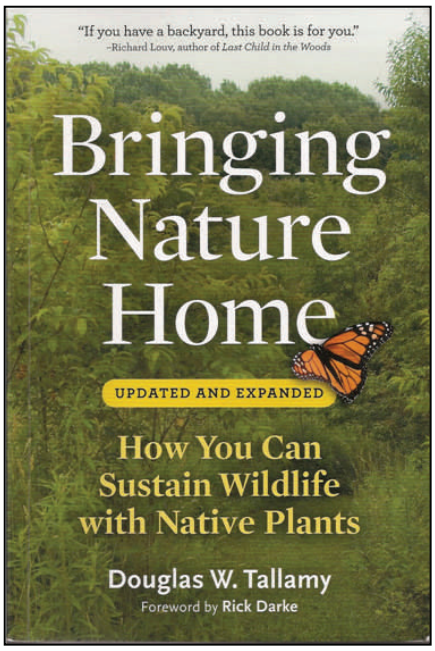
Source article:

http://www.mysanantonio.com/default/article/Is-more-water-or-less-cost-the-region-s-top-1399239.php#ixzz1NylmVKR6

"Bringing Nature Home"

a book by Douglas W. Tallamy

We all can recite reasons why native plants are preferred to exotics: they require less water, fertilizer, insecticides, etc. How about - life depends on them? That's the thesis Dr. Tallamy puts forward in his book "Bringing Nature Home," and if you take the time to read it you too will be convinced about the urgency of his message.



The author, a Professor and Chair of the Dept of Entomology and Wildlife Ecology at the University of Delaware, convincingly puts together a series of arguments that support his thesis: plants are the organisms that can convert the sun's energy into food energy; insects are very efficient at converting this energy to a form necessary to many animals that are unable to eat the plants directly; insects rely on the plants they co-evolved with over millions of years; these native plants are being threatened by habitat fragmentation and destruction, and displacement by exotic invasives; this loss of native vegetation is a direct threat to the very existence of many animals.

He explains that many insects cannot use alien plants as food, just as we are unable to eat cucumber leaves! Loss of native vegetation as a food source for insects directly results in a reduction of animal populations, such as birds, that depend on them.

However, the book doesn't only present the problem - it proposes a solution: that each of us can help reverse this dangerous trend by carefully considering how, and with what, we plant on the land we live on, no matter how small a parcel it is.

One example he mentions is that we have planted as much as 40 million acres as lawns, which are effectively deserts when it come to sustaining insect populations. This is an area eight times the size of New Jersey, or almost half the area covered by all 500 + US National Wildlife Refuges combined! If half of this lawn area were converted to native plantings it would cover an area almost 9 times the area of Yellowstone National Park! It's an eye opening statistic. And each of us has the choice to help make it a reality.

So the next time you look at your property, consider the question "What have my plants fed today?" If the answer is "Not much" then it may be time to reconsider what you have growing there.

As Dr. Tallamy wrote on the title page of our copy of his book: *"Garden as if life depended on it!"*

Synopsis by John Siemssen

"Tusk!" by Stephen Harrigan

Texas Monthly, April 2011

Author Stephen Harrigan has had a fascination with the Woolly Mammoth since seeing a science fiction film when he was a boy about a thawed one coming to life. His article "Tusk!" describes the Mammoth in Texas and why it was found particularly at sites in Waco, Friesenhahn, and West Texas.

Harrigan describes how the dying effort of an adult male Mammoth to toss a young Mammoth to safety from a flooding river is preserved in stone. And the interesting interview with Professor Larry Meisner will add new information to any lectures and anecdotes you have previously enjoyed.
Stephen Harrigan's books include: The Gates of the Alamo, Aransas, and Comanche Midnight. **Review by Julie Crouch**

Online article at http://www.texasmonthly.com/preview/2011-04-01/feature3
(complete article available for registered members only)

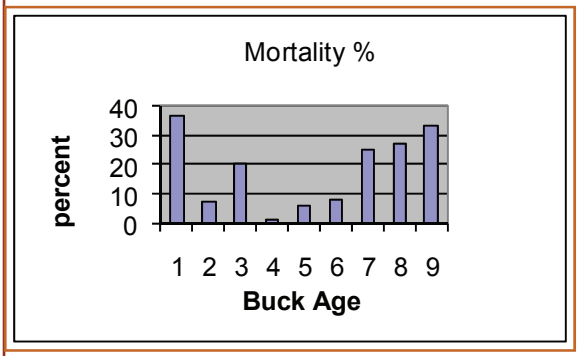
The Rise and Fall of "Not Eleven"

Our property is located Near Spring Branch and is operated as a Wildlife Management Area. Although we have cattle, our top priority is to provide habitat for our deer, turkey, quail, and dove. Due to the overpopulation of deer in our area, we have high-fenced the property primarily to keep excess deer off. We do an annual survey of our deer herd and keep the population to a manageable number by hunting. Our objective for our deer herd is to let the bucks grow to their maximum antler development, which is generally five or six years old. We maintain a buck/doe ratio of approximately one-to-one.

Many of our older, larger bucks on the ranch have been named. Name selection is random and arbitrary and is generally based on some unusual characteristic of the animal. When this particular deer was five years old and had not yet been named, he had 11 points and was hastily named "Eleven." Well, the following year he only had 10 points, so a name change was in order, as calling him "Eleven" when he only had 10 points would be a serious breach of Texas deer-naming conventions.

After some serious thought, he was renamed Not-Eleven and all was well at the ranch. I was fortunate enough to find his shed antlers every year, although it took two years to find one of his sheds that had gotten lodged in a persimmon bush. I began posting his sheds, along with his age, on a display board (photo on right). You may note that his best set of antlers occurred when he was five or six years old. As he aged beyond that, his antlers were never quite as good and at eight years old he was only an eight-point - so Not-Eleven was still an appropriate name! He was even-tempered and was often spotted lying under nearby oak trees as we drove the jeep around the property. He also seemed to enjoy getting his picture taken and often posed, proud as a peacock (see above photo). He was something to see.

Starting around 2007, one of our larger, tougher, meaner bucks had worked his way up the hierarchy totem pole and there were lots of buck fights and I witnessed a couple of them. If the bucks are evenly matched, the fight may go on for some time and become very violent and brutal. Many of our mature bucks show signs of these encounters, with broken antlers and various scrapes and scratches. Not-Eleven also showed a few scrapes and broken antlers, but never anything too serious until the fall of 2008, when he disappeared. A few months later, while searching through thick brush, I found his remains. He had appeared to be in good health prior to his disappearance and I am convinced that he suffered an antler puncture wound that caused his death. In 2008, we also lost another of our big mature bucks and, again, I suspect it was injuries from fighting.



Dr. Mickey Hellickson, King Ranch Chief Wildlife Biologist, wrote an interesting article about buck mortality with regard to a study that was done from 1992 to 1994. In this study, 125 bucks were radio collared and monitored daily for three years. These bucks were off-limits to hunters. Mortality of each age group was tabulated as shown in figure 1. Twenty-nine of the 125 bucks (23%) died of natural causes over the three years of the study. Most of these deer died after the end of the rut, January thru March. The general theory is that the bucks are extremely malnourished after the vigorous activity of the rut and are unable to recover.

It is generally accepted that bucks reach their maximum antler development at around six-and-a-half years. Based on the mentioned study, without any hunting at all, 76 of every 100 buck fawns will die before they reach 6.5 years old. Add in hunting pressure and it is little wonder why we see so few mature bucks roaming the hills. With the active deer management program here at our place, we often see several mature, heavy-horned bucks on the property. It is an uplifting experience, and something to be enjoyed today, as they may be "gone under" by next year. Life can be tough out in the hills. **Ray Laxson**

The Brown-headed Cowbird

North America's Most Notorious Brood Parasite

Male and female Brown-headed Cowbirds at a backyard feeder

Our backyard invasion—For the past few years, our wooded backyard has been visited by Brown-headed Cowbirds each spring. We have watched in sad dismay as we have seen male Northern Cardinals struggle to satisfy the hunger of "their" hefty and ravenous cowbird fledglings. This year it seems we have had a small explosion of Brown-headed Cowbirds.

The Brown-headed Cowbird is one of two species of cowbirds found in North America. It is found throughout the U.S. The other is the Bronze-headed cowbird, a Central American bird which makes its way to the American Southwest and is usually found only in the border states and Louisiana, but has recently been spotted as far north as the southeastern edge of Blanco County. Both are members of the blackbird family.

Cowbirds are called **brood parasites** because they lay their eggs in the nests of other birds and do not rear their own young. Their parasitic reproduction strategy is unique among the world's blackbird species.

Above: Cardinal egg on left and cowbird egg on right.

Since cowbirds evolved to follow herds of grazing animals, including the American Bison, often covering many miles in a day, they had little time to build their own nests, lay and incubate eggs, and care for the chicks. Instead, the female cowbird finds the nest of another bird, usually lays only a one egg in it, and leaves. The female cowbird may repeat this behavior an average of up to 40 times per breeding season. A female in a captive breeding study laid over 70 eggs in a single year!

Cowbirds tend to parasitize birds smaller in size than themselves. The female cowbird will remove or destroy some or all of the eggs or nestlings of the host birds. The host birds, usually songbirds such as cardinals, vireos and warblers, raise the cowbird chick as their own.

Left: Nest with four Song Sparrow eggs and one Brown-Headed Cowbird egg. Even though a bit larger, the similarity of the cowbird eggs to those of the Song Sparrow is striking. Some host species recognize and reject cowbird eggs, but many host species such as the Song Sparrow do not distinguish between their own eggs and those of the cowbird.

Right: Cowbird Egg in Chipping Sparrow Nest. In this photo, the cowbird chick (in red circle) is in the process of hatching. Cowbird chicks usually hatch a day or two before the eggs of the host bird and grow rapidly.

Cowbird eggs hatch sooner and the young grow faster, so the cowbird chicks get most of the food and have been known to push the host's chicks completely out of the nest. Most of the time the adult host birds end up feeding and caring for only the cowbird chick, rather than raising the next generation of their own kind.

By the time the young cowbirds are ready to leave (fledge) the nest, they weigh twice as much as most song bird nestlings. In fact, a fledgling cowbird can be larger than the adult songbird! The huge cowbird nestling not only can cause host young to starve by monopolizing the food supply brought by parent birds but also literally may crowd host young right out of the nest. Although the effect of parasitism varies among the host species, it usually results in the loss of at least one, and often all, of 3-5 host young! In spite of the fact that each cowbird female may only lay one egg in a nest, a high abundance of cowbirds in an area often will lead to many cowbirds parasitizing the same limited supply of host nests.

This cowbird nestling (on right) is poised to out-compete its much smaller companion wren nestling (on left).

The Effects on Songbird Populations

Throughout North America songbird numbers are declining. There is no single reason for this decline; however it is believed that a contributing factor is the spread of the cowbirds due to landscape changes throughout North America. In the distant past cowbirds only occurred in short-grass prairies, where they followed buffalo herds, feeding on insects stirred up by the grazing animals. Human-caused changes to the environment, including the introductions of domesticated grazing animals and cultivated fields; the wholesale clearing and fragmentation of large expanses of woodlands and ever increasing manicured lawns, have been to the great advantage of the cowbird, helping it to spread to newly exposed territories to prey on more songbird species. Today the cowbird parasitizes more than 225 species of North American birds. The cowbird may pose a particular danger to already-threatened species in Texas such as the Black-capped Vireo. Studies have shown that the removal of one female cowbird enhances the survival of 35 songbirds per year.

Texas Parks and Wildlife has implemented a Cowbird Trapping Program in an effort to manage the Brown-headed cowbird populations. Anyone wishing to trap cowbirds through the Texas Parks and Wildlife Department (TPWD) Program must be certified through their approved training class before the trap is put into operation. This half-day, hands-on training is offered at no cost by TPWD. It provides the landowner with permit coverage to handle and release non-target birds that may inadvertently enter the trap. Contact the TPWD Wildlife District Office nearest you to sign up for the training class. **Janet Siemssen**

Sources for text and pictures:
Texas Parks and Wildlife Department: online article "Cowbirds"
Smithsonian National Zoological National Park – Migratory Bird Center website:
"Brown-headed Cowbirds: From Buffalo Birds to Modern Scourge":
http://nationalzoo.si.edu/scbi/migratorybirds/fact_sheets/
Photos from: Chipper Woods Bird Observatory, courtesy of Wildbirds Unlimited; Internet Bird Collection
You Tube Video of Brown-headed Cowbird - Laying an egg in a Northern Cardinal nest" - NestCams.org
and also found at: http://www.youtube.com/watch?v=k3vAPMUW4CA

Cowbird trapping. Trapping is a valuable management tool available to private landowners in Texas who enjoy bountiful songbird populations and wish contribute positively to songbird diversity. Private landowners from approximately 50 counties participate in the cowbird trapping program each year. Cowbird populations are concentrated in certain habitats that are more typical of some regions than of others. Trappers follow strict protocols to protect other bird species and ensure that harvested cowbirds are humanely dispatched. Since the initiation of cowbird trapping programs in Texas, studies at specific sites have documented reductions in parasitism rates on Black-capped Vireo nests from over 90 percent in the 1980's to less than 10 percent by 1999. Trends suggest that cowbird trapping is reducing local and regional cowbird populations.

Contacts for District 4 (includes Comal County):
Mike Krueger (830) 896—2500, Kelly Bender (512) 308—0979, Terry Turney (512) 396—0321

A Great Day at Mesquite Creek Wildlife Habitat!

Seven bluebird houses are up and ready for occupancy at the Mesquite Creek Wildlife Habitat. The picture is of Kathy Kranavek and Charles Tubbs checking the bluebird houses. We're still waiting for our first bluebirds to settle in but on that little drive to the east side of the large pond we saw three deer, several hawks, ducks, and a caracara.

YEA, SPRING!

Ann Tubbs

My First Wildlife Rescue

I received my first rescue request from Wildlife Rescue and Rehabilitation in early spring, one week after my training. The request was to rescue a "baby bat." I accepted the task and called the contact person, James, who had found the bat on the floor of his apartment. He said he did not want to leave the bat because of threat from his cat.

When I reached the location in downtown New Braunfels, James was sitting in the front with the bat wrapped in a dish cloth. I came prepared with the equipment WRR required, a small pet carrier and gloves. I examined the bat. It was not a baby, but an adult Pipistrelle that seemed to be barely breathing. I guessed that James' cat had attacked the bat and was not sure if it would survive the night. James offered the wrapped-up bat to me and I placed it into the pet carrier. James was relieved and made a $10 donation to WRR.

I began the 10-minute drive back to my house, planning to watch the bat overnight and, if he survived, drive it to Kendalia in the morning. About halfway home I heard the familiar rattle of the pet carrier from the rear of my SUV. Assuming the carrier had merely shifted I thought nothing of it but it was quickly followed by a faint scratching sound.

I immediately turned down the radio to listen closer. As I continued to drive, the scratching sound got louder and closer. My mind began racing when I realized that the bat was loose in my vehicle!

When I got to my house I placed my cell phone in its usual resting place in the cup holder between the front seats. There, in the other cup holder and illuminated by the cell phone, was the very much alive bat! In the commotion of rolling down all four windows and pulling into my drive way, I heard the scratching noise again.

I made a quick inspection of my truck in the dark and assumed that the last noise I heard was the bat leaving thru one of the open windows, and I left them rolled down all night just to be sure.

The next morning I drove to Seguin for a day of volunteer archaeological excavation and left my windows down for the trip.

The following evening was a Sunday and my son and I left church on Loop 337. The sun had just set when I felt something crawling quickly up my boot under my jean leg! I'm sure I screamed and pulled the truck onto the shoulder in front of the high school. A few stomps and kicks and the very upset bat fell out of my pants and onto the ground. He was chirping and began to quickly crawl toward the road and traffic. I quickly found a piece of cardboard in my car and redirected him away from harm. I then used the cardboard to lift him up and gently toss him into the air and was relieved to see him take flight.

My son later told me he thought I had flipped out and had no clue what was going on until he saw the bat. My mother is reluctant to ride in my truck again. All in all, however, a successful wildlife rescue and release! **Karen Sewall**

Karen's recent visit to Bracken Cave

Groups Threaten to Sue Government Over Bat Disease

Bat with evidence of white-nose syndrome

Conservation and organic farming groups, alarmed by the spread of a disease decimating bats, recently threatened to sue the U.S. government unless it immediately closes caves and abandoned mines on public lands.

White-nose syndrome, named for the telltale fungus that appears on the muzzles of bats, has killed more than a million bats in the eastern United States since its discovery in upstate New York in 2006, according to government research.

The fungus has been detected in 19 states across the northeast and mid-Atlantic regions. Scientists say it is only a matter of time before it spreads westward to infect bats that hibernate in caves and abandoned mines.

"We're facing a number of bat species probably going extinct within a few decades if things don't change," said Mollie Matteson, advocate for the Center for Biological Diversity, the lead group behind the threatened lawsuit.

The fungus is mostly transmitted from bat to bat. But government biologists say it also can be transferred by caving enthusiasts and others whose underground explorations may bring them into contact with infected bats or with the spores left behind after white-nose syndrome killed off a colony. Government land managers have already closed caves and abandoned mines in most states east of the Mississippi.

The U.S. Fish and Wildlife Service has recommended cutting off access to caves in states where the fungus has been detected as well as adjacent states. But it has stopped short of advising nationwide closures.

The groups contend piecemeal closures are inadequate to address what the government itself has described as an unprecedented wildlife disease that is expected to infect colonies in the West and Pacific Northwest.

Organic farming groups behind the proposed action say the syndrome could devastate their industry along with the bats.

The pest-control benefits of insect-eating bats are estimated to save agriculture in the United States from $3.7 billion to $53 billion a year, according to a recent study by Boston University and other scientists.

Closures - including proposals now under consideration on public forest lands in Montana and northern Idaho - have been hotly contested by cavers, with 10,000 members and 250 caving clubs organized under the National Speleological Society.

Mike McEachern, head of the Northern Rocky Mountain Grotto, a caving club, said those organizations are committed to preserving caves and the bats that inhabit them. But he predicted a debate over closing caves would be contentious.

"Most of the caves in the West are on federal property and asking to close all caves is like asking the government to close the ocean," McEachern said.

Ann Froschauer, national white-nose syndrome spokeswoman for the U.S. Fish and Wildlife Service, said the government is scrambling to gather the science that may help combat the killer bat disease. "We're looking at potentially losing over half of our bat species; we're trying not to create a new potential epicenter out West," she said. Laura Zuckerman --(Reuters)

Little brown bats in NY hibernation cave. Most of the bats exhibit fungal growth on their muzzles. Photo by Nancy Heaslip, NY Dept of Environmental Conservation.

Another Sort of Flowering Plant

Lace Hedgehog Cactus
(*Echinocereus reichenbachii)*

Over the past few months our various species of flowering cacti have been in bloom, some for just a few weeks and some for longer periods, supplementing the generally austere palette of colors associated with Hill Country. These have included everything from virtual groves of prickly pears, full of plants crowned with multiple big, beautiful, butter-colored blooms, to clusters of smaller, pickle-shaped native cacti blossoming with pinkish-purple flowers for a brief but pleasant week or two.

This period of cactus flowering was even more profound last year, probably as a result of the increased precipitation we enjoyed in 2010, and was much more muted in the drought-ridden previous year. The presence of cacti in Hill Country, particularly prickly pears, is to some extent a sign of environmental degradation, and such plants survive nicely in marginal areas where more delicate flora would perish. It would nonetheless seem that such hardy plants benefit from improved conditions as much as any others and flourish under them.

As attractive as I find these "other wildflowers" to be, an awful lot of people seem indifferent to them and I have spoken with many who dismiss them or have not even noticed that they were in bloom. These plants are, however, every bit as beautiful to me in their blossoming state as any bluebonnets or other wildflowers and I am not inclined to ignore or take them for granted.

Indeed, hiking around in the hills and coming across rocky meadows full of purple-bloomed cacti, like some sort of Southwestern fairy rings, is almost a transcendent experience for me. And discovering that some small proportion of prickly pears have pale orange rather than yellow blooms was a special treat. And, like other blossoms, many cactus flowers also have a pleasant scent (although, admittedly, smelling them can be a bit hazardous).

Prickly Pear Cactus
Opuntia engelmannii (several varieties)

With an eye to increasing our enjoyment of such plants, my father and I decided to establish a cactus garden on my lot in March 2010. After some consideration, we picked a spot set alongside a formation of bedrock that also had some nice stands of prickly pear to serve as a backdrop (opting not to include any of these relatively large plants in the beds of the garden themselves). Having these native cacti in bloom has optimized the appearance of the garden and made us appreciate this clever bit of strategic planning all the more.

Prickly Pear Cactus
Opuntia engelmannii (several varieties)

We then stocked the garden with a combination of native cacti, a few succulents and some native bulbs that we found when building the cactus beds — and which briefly displayed white, lily-like blooms — rounded out its appearance.

I have also incrementally complemented the regional look of the garden by decorating it with fossilized snails and clams, as well as a deer skull, that I have found during my walks through the nearby hills and valleys.

Hardy though cacti are, the garden has required some level of maintenance in order to look its best, and I have had to periodically remove leaves and other debris and — something that came as a surprise to me — even had to weed it.

Cacti are also highly susceptible to the combination of dampness followed by freezing cold, something we experienced quite a bit this past winter and which led to the loss of a number of our cacti, particularly ones we had purchased. The remedy to this is to cover the cacti ahead of a freezing rain – whether individually with transparent or translucent things like gallon milk jugs or collectively with a sheet of clear plastic – and is something I need to be more diligent about this coming winter.

Strange as it might sound, it also does not hurt to water garden cacti if conditions warrant it and doing so once a month during the hottest and driest conditions times of the year can go a long way toward improving their appearance and longevity.

A xeric garden with a blooming West Texas cactus, bluebonnets, sages and yucca (sp.)

An Aloe (sp.) plant in full bloom

As a side note, we had also initially planted an aloe in one of the beds but within a few weeks it became badly sunburned, something that came as a surprise to me (i.e., aloe is supposed to have sunburn-healing qualities, so I intuitively figured the darn things must themselves be immune to such damage)*. Once I transplanted it to a partially-shaded smaller cactus garden we had established further back on the lot it quickly started to recover, the damaged leaves withering and dropping off and succulent new growth began to sprout from the center of the plant. But one summer day a few months later I went back to check on the supplemental garden and discovered that the aloe had been eaten, gnawed right down to its roots.

Like any other tender garden plants one tries to grow in this area, the aloe had become a target for our prolific white-tail deer. Protected by their spines, however, the surrounding cacti were untouched by the voracious herbivores, making them in at least one way the ideal sort of garden plant for Hill Country.

Michael Varhola

Michael O. Varhola is an author, editor, and publisher and a certified master naturalist. Feel free to contact him with comments or questions at varhola@varhola.com. Cacti and garden photos courtesy of John Siemssen.

** Aloe, native to Africa, is a genus containing about four hundred species of flowering succulent plants. The most common and best known is Aloe Vera which is known for its healing qualities for sun burns and skin abrasions.*

Grower's Tips: Not all cacti or succulents sold in local nurseries are necessarily native to our area. Choose cacti that will be able to survive our local climate changes and variances in rainfall and temperature and purchase your plants from a reputable nursery. Select a location in your garden where there will be sufficient sun in the morning and/or afternoon. Some young cacti may burn in too much direct afternoon sunlight. If so, you can use a large interesting rock or a native plant, such as a flowering sage, to provide light shade during hot afternoon hours.

In nature only about 10% of plants in a desert are cacti so include other drought tolerant plants of various shades of green, other colors and interesting texture in your "cactus" garden. These can be randomly mixed with cacti and succulents all placed naturalistically in natural materials, rubble, and larger rocks which are anchored about 1/3 into the soil, to achieve a realistic setting. It is important to plant cacti in shallow holes and use a soil mix that provides good drainage and aeration for long lived healthy plants. To control "weeds," you may wish to first cover your xeric garden area with a weed barrier. It is worth the effort in the long run.

A cactus native to Texas or our local area may need a mix of 1/3 soil, 1/3 "decomposed" granite, and 1/3 gravel. A plant native to higher elevations may require a mix with more gravel, granite or some sand to mimic its natural dry conditions. Add a layer of the mechanically crushed granite over the top of the garden to help preserve moisture and help with even distribution of water. Wait a week or so after planting before watering to prevent rot. Then water the plants a little bit, but do not soak the ground. Unless it rains, keep watering every two weeks until the plants take root. Watering should not be necessary again unless there is a prolonged drought such as we are experiencing now. Cacti do not show the same signs of stress due to drought as other plants. You may wish to fertilize the plants annually with a diluted houseplant food, but don't overfeed.

For further reading: Texas Cacti by Brian & Shirley Loflin; Cacti of the Southwest by Del Winegar

Texas Droughts and Poaching in them thar hills!

Native plants have increasingly become popular for landscaping in recent years across the American Southwest. They are very efficient in their use of water, which in this region is a valuable and precious natural resource. So it stands to reason that the demand for native plants and other drought tolerant plants such as cacti has steadily grown.

Black Lace Cactus (*Echinocereus reichenbachii* var. *albertii*) Since this cactus has large, pretty flowers, people have dug them up to take home or to sell.

If you see this cactus, don't disturb it or the area where it is growing. Take a picture instead!

3 known populations in Kleberg, Jim Wells, and Refugio Counties.

This trend has not gone unnoticed by small and large scale commercial nurseries. This would seem to be a good thing. However, there is an ugly side to the increased demand for plants for our xeric gardens!

Native cacti have been especially affected by this new type of poaching. Some species that once were common are now threatened or endangered. Since they are very slow-growing, some cacti taking 10 to 30 years to produce a landscape sized specimen, the increased demand for these water efficient plants has sometimes resulted in unethical (and frequently illegal) harvesters removing plants from the wild in order to supply nurseries with starter stock.

In certain parts of the state plant poachers have completely denuded native cacti habitat to obtain specimens for commercial sale for both the domestic and international markets. They have severely depleted wild populations, endangered rare flowering species, disrupted ecosystems and deprived wildlife of their natural habitat. As a consequence, many of these plants have become endangered.

Collecting various native plants species is illegal according to state and federal endangered species laws. Many native plants are protected by Texas regulations because they are considered to be in danger of extinction in the state. Encroaching development and overgrazing have also increased the pressure on many native plants. "Collectors" who harvest these plants from native habitats have only further increased the pressure.

It is never wise to collect plants from the "wild." At the very least, it can be difficult to replicate the appropriate habitat and the plants may eventually die.

It is illegal to remove plants or artifacts from state or national parks, or from nature preserves. Affordable Native plants are widely available at reputable nurseries which have nurtured the plants properly for the hobbyist and which have not been illegally collected from the wild. It is environmentally wise and economical to purchase native plants from a reputable nursery.

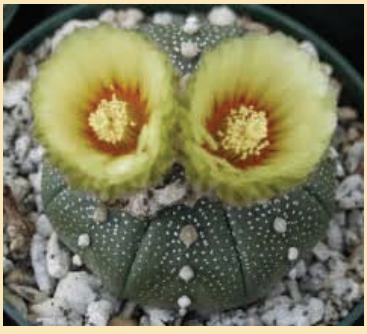
What are the laws regarding plant harvesting?

The laws vary by county, state, and federal facilities. However, Texas Parks and Wildlife Department regulates the harvest on private and public land of native plants that are listed as threatened or endangered under state and federal law by issuing permits.

In Texas 96-97% of the land is privately owned. According to Texas state law, individuals collecting plants on private property must have prior written authorization from the landowner. Remember, taking *anything* from private property without permission is at the very least, considered vandalism and, at the most, it is stealing!

Janet Siemssen

Star cactus *(Astrophytum asterias)*— a flat to low dome-shaped, spineless cactus that blooms from March through May. It historically occurred in Cameron, Starr and Hidalgo Counties in Texas and in Nuevo Leon and Tamaulipas states in Mexico. In Texas, it is now limited to just one site along a creek drainage in Starr County. This species is highly prized by cactus enthusiasts and collection of wild specimens constitutes a significant threat to the species.



Davis' Green Pitaya *(Echinocereus viridiflorus var. davisii)* The diminutive size of some cacti make them highly prized collectors' items. This species is no exception. Probably the only reason that it has not been extirpated on public land is due to its tiny size and its ability to "disappear" during droughts. Currently found only in Brewster County on 2 sites, primarily on private land.

Sources:

Texas Native plants by Brian & Shirley Loflin)

Information about Endangered and Threatened Plants in Texas can be found at:

http://www.tpwd.state.tx.us/huntwild/wild/species/endang/plants/index/phtml

Brochure entitled **"Ethics of Native Plant Acquisition"** can be found with an online search engine, such as Google, using the title as the "keyword." Also found at:

http://elpaso.tamu.edu/research/Docs/Plant%20Acquisition%20Ethics.pdf

Summer Opportunities

Sierra Club
July 9, 2011 – Hike the Government Canyon – 7:45 am
Join the Friends of Government Canyon and the Sierra Club for a jointly led guided hike, which will range from 4 to 7 miles. Meet by the rainwater-harvesting tower by 7:45 am. Moderate difficulty with some steep/rocky sections. Call Terry Platt at 210-695-9570-0939 for more information.

Sierra Club
July 16, 2011 – Summer Canoe/Kayak Excursion
Join us as we float down the San Marcos River in our rented canoes or kayaks, and watch for different types of birds and wildlife that like to be near the river while we lazily make our way. More information will be posted closer to the date. Contact Terry Platt at 210-695-9570 if you would like to participate.

Austin Astronomical Club
July 23, 2011 – Public Star Party
Open to all. Park entry fees apply. The star parties are held at the Eagle Eye Observatory at the Canyon Of The Eagles location. (See driving directions and maps.) For go/no-go information please call the Canyon of the Eagles lodge at 800-977-0081.

San Antonio Botanical Gardens
July 2, 2011 – Cordage Making with Texas Native Yucca – 10 am to Noon
Michael Harrison presents an introductory class on the basics of making high tensile cords with fibers taken from a variety of local yucca plants. Students will learn the terminology and concepts of collecting plants, prepping materials and rolling fibers to produce cordage suitable for a variety of uses in primitive life. Limit 20 participants. Fee: $20. To register, please contact Sasha Kodet at 210.207.3270 or sasha.kodet@sanantonio.gov.
San Antonio Botanical Gardens

July 9, 2011 – Basic Home Landscape Design – 10 am to Noon
Join Margie Noonan of the AgriLife Extension and learn how to design a simple, but beautiful, garden. Get step-by-step directions on how to map out your property and create a plan for your new garden beds. Understand plant placement based on watering needs, sunlight, texture, color, scale, and more. Limit 30 participants. Fee: $20. To register, please contact Sasha Kodet at 210.207.3270 or sasha.kodet@sanantonio.gov.

San Antonio Botanical Gardens
July 23, 2011 – Composting with Red Worms – 10 am to Noon
Start turning your waste into rich worm castings for your garden and plants. Red Worm composting from TexasRedWorms.com will show you how to make your own worm bed and bin, how to feed, care for, and harvest your own steady supply of worm castings. Limit 30 participants. Fee: $20. To register, please contact Sasha Kodet at 210.207.3270 or sasha.kodet@sanantonio.gov.

San Antonio Natural Areas
July 2, 2011 – Friedrich Wilderness Park, Insects – 10 am to Noon
The leaf munchers and other insects are busy with their chores. As the guide points out the delightful features of Friedrich Park, we'll have a 'buggy' expert along to help you learn more about the 6-legged critters. Meet at the restrooms near the parking lot and be sure to bring water to drink. Reservations recommended. Call 210-564-6400 for more information

Sierra Club
August 13, 2011 - Hike the Government Canyon – 7:45 am
Join the Friends of Government Canyon and the Sierra Club for a jointly led guided hike, which will range from 4 to 7 miles. Meet by the rainwater-harvesting tower by 7:45 am. Call Stan Drezek 210-493-0939 for more information.

Austin Astronomical Club
August 19, 2011 – Stargazing at Wild Basin
Sky tour, star charts. $5 for adults, $3 for seniors and children up to 12. Reserve tickets in advance to secure seating and telescopes. Call 512-327-7622 or email mitch@wildbasin.org

Austin Astronomical Club
August 20, 2011 – Public Star Party
Open to all. Park entry fees apply. The star parties are held at the Eagle Eye Observatory at the Canyon Of The Eagles location. See driving directions and maps. For go/no-go information please call the Canyon of the Eagles lodge at 800-977-0081.

Hill Country Wine Trail
August 5-7 and 12-14, 2011
Enjoy wine and food pairing event. Venture through sleeping vineyards, and cozy wineries, along the way enjoying complementary chocolates and enchanting wine pairings. Self guided. For more information call 866-621-9463 or www.texaswinetrail.com

San Antonio Botanical Gardens
August 20, 2011 – Fall Vegetable Gardening – 10:30 to 12:30
We need to eat! Come visit with Extension Horticulturist David Rodriguez of Texas AgriLife Extension Service to learn about improving your vegetable garden production or starting from scratch. Limit 30 participants. Fee: $20. To register, contact Sasha Kodet at 210.207.3270 or sasha.kodet@sanantonio.gov.

Cibolo Nature Center
August 3, 2011 – Land Management & Estate Planning in the Texas Hill Country – 6:30 to 8:30 pm
TPWD wildlife biologist, Rufus Stephens, discusses the top ten best practices for land management in the Hill Country, followed by estate planning attorney Thomas Hall of David Braun & Associates, best practices for preserving family land. $20 for members and $25 for non-members. Pre-registration is required. For more information call 830-249-4616.

Cibolo Nature Center
August 6, 2011 – Sustainable Concept House Workshop
The Adams family has lived in the Sustainable Concept House and will share their insights on what works and what doesn't in the home and yard. Program will include: efficient building practices, in ground rainwater storage, subsurface drip irrigation and gray water reclamation for outdoors watering. Meet at the CNC pavilion at 8:45 am and carpool to house promptly at 9 am. $20 for members and $25 for non-members. For more information call 830-249-4616.

Lady Bird Johnson Wildflower Center
August 13 & 14, 2011 – Pre-Fall Seed Sale
Stock up now for planting next month, when the weather changes. Save 20 percent on all seed purchases in store.

TMN-LC OFFICERS - 2011

President:
Coco Brennan

Vice President:
David Simpton

Past President:
David Reel

Secretary:
Irene Newhall

Treasurer:
Janet Hahn

Volunteer Council
Representative:
David Reel

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Education Coordinator:
Marlin Brendsel

Membership & Records:
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Communications:
Edie Zaiontz

Out and About:
Janet Wilson

Volunteer Projects:
Diane Schaule

Community Recognition:
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TMN-LC Newsletter
Winter 2011 Edition:
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* *Delete "at-symbol" and insert @*

The TMN Mission

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. Many communities and organizations rely on such citizen volunteers for implementing youth education programs; for operating parks, nature centers, and natural areas; and for providing leadership in local natural resource conservation efforts. In fact, a short supply of dedicated and well-informed volunteers is often cited as a limiting factor for community-based conservation.

ADVANCED TRAINING: – Section J of Your TMN Membership Manual

1 Advanced Training is meant to provide TMN volunteers an opportunity to focus their interests on one or a few specific topics that interest them.
2. Advanced Training opportunities must be approved in advance by the Projects Committee.
3. Acquiring Advanced Training Hours:
   a. Advanced training courses may be made available directly through TAE, TPWD, chapter sponsored activities, or any number of short courses provided by universities, conservation groups, or nature centers, etc.
   b. The Projects Committee must review and pre-approve all advanced training. Educational television shows are not a form of advanced training and will not be approved.
   c. The Projects Committee will use the following criteria when reviewing and approving Advanced Training:

Does the Advanced Training opportunity:

1. Promote continued learning and development of naturalist skills?
2. Provide the Texas Master Naturalist with knowledge and skills to work in volunteer efforts?
3. Directly train volunteers toward specific programs in need of their services?
4. Provide practical information and training for application in volunteer efforts?
5. Take advantage of local partnerships?
   Provide the Master Naturalists an opportunity to focus their interests in one or a few specific topics?
7. Build on the core curriculum initially provided by the local chapter?
8. Provide natural resource management issues and information applicable to Texas?

Note: Advanced Training opportunities must meet criteria 1, 2, 6, 7, and 8. It is suggested that the remaining criteria also be a part of the opportunity.

This newsletter would not be possible without the time and talents of our members. This edition was possible as the result of contributions from these members: Coco Brennan, Janet Wilson, Ray Laxson, Art Williams, Michael Varhola, John Siemssen, Julie Crouch, Karen Sewell and Earl Dittman.

We meet on the third Thursday of every month, except December, at
7 p.m. at the Comal County AgriLife Extension Office:
325 Resource Drive
New Braunfels, TX 78132-3775
Phone: 830-620-3440
As of this date: Map at:
http://www.mapquest.com/mq/5-_VMrDGXs

We welcome anyone interested in the various guest speakers' topics and the Texas Master Naturalist program.

For more information about our chapter visit our new website which can be viewed at:
http://txmn.org/lindheimer/

Edie Zaiontz, TMN-LC Communications & Webmaster