

# LOST PINES CHAPTER

Texas Master Naturalist



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## Back Roads Nature - Canyon Lake Gorge by Larry Gfeller

There is a huge lake 16 miles north of New Braunfels, created in 1956 by the Army Corps of Engineers and dedicated a decade later. It's not a state park . . . it's federal property. Built to curb the effects of a flooding Guadalupe River, this large body of water is locally known as the Water Recreation Capital of Texas. Canyon Lake covers 8,240 surface acres and has 80 miles of shoreline. It's a natural draw for boaters, fishermen, swimmers and water skiers.

Since I don't pursue any of those "sports," the whole idea is a big yawner for me—except for one thing.

Being a very large lake, there is a very large dam. There once was a nondescript valley covered with trees just below the Canyon Lake spillway. Following a major flood event in 2002, raging storm waters scoured out a 1,000 ft. wide, 40 ft. deep, 1 ½ mile long gorge in just a few days. Just scraped it away like a scab from a healed wound.



We know this rain event was significant when flood waters went over the Canyon Lake spillway for the first time in its history. It was a mega flood.

The upper part of the Guadalupe River watershed officially received 34 inches of rain in approximately one week in the summer of 2002. Water continued to pour over the spillway for approximately 6 weeks. That caused 1 ½ times as much water as is currently in Canyon Lake to move over the spillway at 67,000 cubic feet per second. That's roughly 185 billion gallons of water!

The torrent uncovered parts of the Glen Rose limestone formation that were laid down over millions of years. We're talking 110 million year old dinosaur tracks, lagoons and waterfalls, an inside look at the Trinity Aquifer in action, geologic formations and dramatic vistas. It's like peeling back time to the Cretaceous Era to get a firsthand look at earth before the advent of man.

This excavated area is accessible only by guided tour and you should be prepared to do some walking. After viewing the sprawling spillway from high atop the bluff, we descend onto the highest portion of the gorge like a line of llamas picking our way down a steep mountain trail. Once down into the interior, the initial terrain is flat rock, pock marked with

depressions, standing water from recent rains, and fossilized dinosaur tracks! Right off the bat we are witnessing a 70 million year old drama, as a small meat-eating biped—an Acrocanthosaurus—makes his way across the flat, in pursuit of food. It's all captured in the limestone.

As we wind our way through the layers of rock the changes in color and texture clearly signal the various time periods in which these striations were laid down, originally as carbonate sand,

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# Canyon Lake Gorge, cont.

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shells of marine animals and mud. Much of the gorge is softer limestone, but bedrock layers are visible, too. Because the gorge seems to get deeper and steeper as you leave the spillway behind, the going becomes increasingly more difficult. Moving water becomes more prevalent as it channels from underneath walls carved by the power of water. It's as if you are walking on the inside of the earth.

Water in the gorge comes in just about all forms. There are natural springs, flowing water that is ponded along fault zones, numerous waterfalls and a sinking stream. You seem to never be far from water in one form or another.

What makes this gorge special is that it exposes over 800 meters of the Hidden Valley fault, a fault that was known previously but did not have a clear view until after the flood. This fracture zone, along with rocks of the Glen Rose Formation, slipped downward by some 230 feet toward the Gulf of Mexico during the Tertiary geological time period—the period just prior to when gorge rocks were formed.

Approximately half way along the nearly 3-hour hike, we stop at a primitive but clean and serviceable restroom facility with benches and shade. This gives everyone time to go to the bathroom, re-hydrate, and rest. So if you go, do make sure you go to the bathroom before starting the tour.

The second half of the tour was, for me, the most interesting. Here you will see even more water, rippled bedrock that reflects the waves of ancient waters etched into the surface of the rock, and the ability to stop and find fossils of ancient sea creatures along a beach of shells and limestone.

Our tour guide was a Texas Master Naturalist and the place is very friendly to TMNs. In a situation where regular group tours cost \$10 per person, if it is a basic training class for TMNs the group gets in free! That's because the group who manages the gorge—the Gorge Preservation Society (GPS)—has a mission to encourage responsible access opportunities through academic partnerships, economic initiatives and citizen involvement. They do this in partnership with the Guadalupe-Blanco River Authority and the U.S. Army Corps of Engineers.

Most tours are arranged well in advance; there's not much hope in showing up and expecting to get a tour on demand. It's all very professionally done. Each tour group gets matched with who the GPS thinks is a compatible tour guide and docent. The docent's job is to handle paperwork so the tour guide is free to interact with the group. Written instructions are provided in advance to all tour participants (bring water, snacks, proper shoes and some form of pack so that hands remain free), and each must sign a liability waiver. You can find the GPS office in the small village of Canyon Lake at 2075 FM 2673, Suite D or reach them at 830-964-5424 or find them at [www.tours@canyongorge.org](http://www.tours@canyongorge.org).

I am always navigationally challenged (no smart phone) so finding the parking area near the lake where the tour begins was difficult for me. That said, when I finally found it, it was a nice little area protected from the main highway with a small office and souvenir shop, restrooms and bus service to the top of the spillway. The docent also drives the bus.



The tour is off limits to small children age 7 or younger. Once on the ground it's easy to see why. Time of year and weather also play a role in the experience. When I was there, it was overcast. A hot Texas sun in the middle of August could make this tour a very miserable three hours.

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# What's Blooming?

by Liz Pullman & Judy Turner with photos by Kathy McAleese

Ignoring the LPMN county boundaries, five of the plant interest group headed east into Lee County on an invitation by a private landowner. Who knows what can be found on new territory – probably “something new and different.”

The 40 wooded acres is situated between Elgin and Lexington on sandy soil with a little nameless creek bisecting the area and adding interest with the possible presence of some wetland plants. Immediately after turning into the driveway an abundance of flowering plants was encountered. A buckwheat (*Erigonum longifolium*), a good population of snake cotton (*Froelichia gracilis*), Hooker's palafoxia (*Palafoxia hookeriana*), firewheels (*Gaillardia aestivalis*) and a bit of goldenrod (*Solidago nemoralis*). The driveway circled an interesting area of mostly little bluestem grass (*Schizachyrium scoparium*) and gave us a clue as to the landowner's plant interests - grasses. We silently groaned, none of us being super confident with identifying plants in the family *Poaceae*. All was well since this couple is also interested in every little thing that was growing.



Reindeer moss (*Claydonia* sp.)

One tends to associate spring with the high point of blooming wildflowers but a walk around this property had no lack of blossoming plants. The narrow trails have been subject to only discrete clipping and chopping and well placed benches are scattered throughout in scenic places, plus a low water bridge across the creek. The woods have been kept in a natural state with only removal of some of the yaupon holly (*Ilex vomitoria*). Major trees include four species of oak, hackberry, loblolly and black willow. An unexpected colony of reindeer moss (*Claydonia* sp.) was pointed out to us on a slope near some loblolly pines and Yes! there were cattails (*Typha* sp.) in the wet areas as well as wax myrtle (*Morella cerifera*).

This property needs another look this winter and certainly next spring. Possibly by that time one of us will have identified our mystery plant - the little yellow flowers that have, so far, been laughing at us.

Following is a list of readily identifiable plants that can be found in October

<i>Conoclinium coelestinum</i>	blue mist flower
<i>Pluchea camphorata</i>	camphorweed, marsh fleabane
<i>Bidens frondosa</i>	devil's beggar-ticks
<i>Palafoxia hookeriana</i>	Hooker's palafoxia
<i>Eriogeron canadensis</i>	mares tail, horseweed
<i>Gaillardia aestivalis</i>	blanketflower, firewheels
<i>Liatris elegans</i> var. <i>bridgesii</i>	tall gayfeather

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# Blooming, cont.

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*Hypericum hypericoides*  
*Hypericum drummondii*  
*Euphorbia corollata*  
*Monarda citriodora*  
*Agalinis heterophylla*  
*Desmodium sp.*

St. Andrew's cross  
Drummond's St. John's wort  
flowering spurge  
lemon beebalm  
prairie gerardia  
beggar's lice

Just because this article is about a field trip plant survey that we did, it doesn't mean there aren't Latin lessons. How many plants mentioned above have people names? There are actually seven! You should recognize Drummond and Hooker. Who are the others? *Bidens* is not one of them. *Bidens* actually refers to two-toothed or bristles on the awns. *Froncosa* refers to the plant being leafy. How it's common name became devil's beggar ticks is a mystery! How about *Hypericum hypericoides*? The translation gives us *Hypericum* (Greek for above the picture) *hypericoides* (meaning resembling *Hypericum*.) Above the picture above the picture! I am not making this up!

Some of the other interesting definitions are heavenly or sky blue for *coelistinum*, *heterophylla* - meaning differently leaved, *aestivalis* - meaning of summer (why was it still blooming in October?), *camphorata* - like camphor, *longifolium* - long leaves, *gracilis* - graceful or slender, *scoparium* - like a broom and *cerifera* - bearing wax. Again we have English-ized Latin.

Lastly, we have the wonderful *Liatris elegans*. It really has an elegant bloom. But I haven't found any translation or definition for "liatris". If any of you find one, please let us know.



St. Andrew's cross (*Hypericum hypericoides*)



Camphorweed (*Pluchea camphorata*)

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The Texas Master Naturalist program is sponsored by the Texas AgriLife Extension Service and the Texas Parks and Wildlife Department.

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# The Remarkable Mr. Gfeller

by Julia Akin

As I was thinking about a topic for this newsletter article, the thought occurred to me, “Why not write about the person who does so much writing for all of us?” That person, of course, would be Larry Gfeller. Larry recently surpassed 2,000 volunteer hours, although I suspect he has worked significantly more than his recorded time would indicate. Larry is quietly everywhere, making a difference in any activity in which he takes a part.

We’ve all had the opportunity to enjoy Larry’s contributions to the chapter newsletter and blog. Larry thoroughly researches a topic (sometimes that topic is a fellow chapter member) and manages to educate and entertain us with his work. Larry is generous about offering his writing skills for any number of chapter needs, including memorable letters of recognition and appreciation to recipients of milestone awards. Larry is diligent about writing and submitting press releases to area publications, which have served to increase public awareness of LPMN and attract people to our basic training program.

As a member of the Board of Directors for the last three years, Larry’s original, critical thinking has inspired numerous new programs and priorities. As president, I have personally benefitted from Larry’s good judgment and wise counsel. He is one of those rare persons who tells you the truth, especially when it would be easier to soft peddle an issue.

Larry is responsible for the current success of LPMN’s interpretive hike program. He developed an advanced training program for hike leaders and manages the difficult task of drafting and coordinating the schedule for chapter hike leaders at area parks – all this in addition to leading hikes himself.

Larry is a card carrying member of the Bridge Maniacs and as such he is a regular contributor to the environmental work the group performs weekly. The work is hard - it’s hot, it’s strenuous and it’s constant. But he’s there with a smile on his face and chain saw in his hand, ready to overpower any misguided tree or debris that gets in the way of the Maniacs’ work.

And if that’s not enough, below are some of Larry’s other activities.

- \*Larry has singlehandedly planned and coordinated educational programs presented by chapter members to school groups and scout troops.

- \*He serves as the chapter photographer, chronicling all manner of chapter activities and events.

- \*He helps maintain the chapter website.

- \*He serves on the training committee and mentors students.

- \*He is the chapter’s liaison with Alum Creek Wildlife Management Association. He has made presentations on behalf of the chapter and manned outreach booths at ACWMA meetings.

I’m sure I have managed to leave something out because Larry is hard to keep track of and even harder to slow down. He’s a man on a mission, which fortunately for us includes LPMN.

Thank you, Larry.



The Remarkable Mr. Larry Gfeller



## Canyon Lake Gorge, cont.

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In the interest of fair disclosure, there is much more to Canyon Lake than the gorge. Four little nearby villages make up the local population—many of whom are in the tourism industry—there are extensive trails and parks, excellent birding opportunities and the Heritage Museum, which houses over 350 preserved dinosaur tracks. Nearby attractions include wineries, Natural Bridge Caverns and Schlitterbahn Waterpark. There is no shortage of things to do at Canyon Lake. But if you are into natural beauty and a little geology, you'll want to make the gorge your day's singular focus. If you've never been, it's worth your time.



## Wanted: Your Experiences & Viewpoints

Our newsletter is threatening to become stale, predictable and endangered. Won't you help us fix it? I enjoy, and I hope you also enjoy, the "feature story," "Meet (fill in the name of the featured LPMN member)," and other writings of Larry Gfeller, and our regular editions of "What's Blooming" by Liz Pullman and Judy Turner, and "Brooks on Books" and "Bill's Snippets" by Bill Brooks. We have so much going on in this Chapter, there is no way these folks can cover it all.

We need your help to deliver a diverse, interesting newsletter. As you participate in Chapter events, remember to snap a photo or two to share with others. Spend some time at your computer, write a paragraph or a page telling us about your experience or giving your point of view. We've all been writing since grade school, it's not that hard! Give us a hand . . . *PLEASE*.

This is an excellent way to accumulate volunteer hours without leaving the comfort of your home and it benefits everyone. It's not about writing skills; it's about willingness to contribute to your Chapter.

Our newsletter is published every other month to allow time for these stories and articles to be developed; the submission due date is always listed in the most current issue of the newsletter posted to our website. All you have to do is email [Roxanne Hernandez](mailto:Roxanne.Hernandez@gmail.com) with your paragraph and photo(s) and she'll take care of the rest.

## Newsletter Deadline

Submission deadline for the next issue is December 23, 2016. We welcome relevant contributions, photos, announcements, or other material relating to the mission of the Texas Master Naturalist program, particularly those pertaining to our local area. Submissions may be edited for clarity, grammar, spelling, and space requirements. Please send information to the editor at [Roxanne.M.Hernandez@gmail.com](mailto:Roxanne.M.Hernandez@gmail.com).

# Bill's Snippets

## MUSHROOMS MAKE THEIR OWN WIND

Mushrooms often live in sheltered areas on forested floors, where the wind doesn't blow. To solve the problem of spreading their spores, some 'shrooms create their own wind. To do this, the fungi increase the rate that water evaporates off of their surfaces, placing water vapor in the air immediately around them. This water vapor, along with the cool air created by evaporation, works to lift spores. Together, these two forces can lift the spores up to 4 inches above the mushroom, according to a presentation at the 2013 meeting of the American Physical Society's Division of Fluid Dynamics.



## ARTIC SEA-ICE LOSS BENEFITS WHALES WITH PLANKTON BOOM

The unprecedented reduction in sea ice in the Arctic has resulted in an increase in whales in the region, [scientists say](#). The ice reduction has spurred blooms of phytoplankton and zooplankton, drawing at least three species of baleen whales.

## A GIRAFFE IS A GIRAFFE?

Giraffes, that have previously been recognized to be a single species, have been divided into several sub-species. [This latest study](#) of their DNA suggests that four groups of giraffes have not crossbred and exchanged genetic material for millions of years.

- Southern giraffe (*Giraffa giraffa*),
- Masai giraffe (*G. tippelskirchi*),
- Reticulated giraffe (*G. reticulata*)
- Northern giraffe (*G. camelopardalis*), which includes the Nubian giraffe (*G. c. camelopardalis*) as a distinct but related subspecies.

## OH DEER!

The insurance agency of Texas says you have a 1 in 280 chance of hitting a deer this year.



## I'M NOT SO OLD

Remember! You will never be younger than you are right now.

## WHERE ARE WE GOING?

[Scientists](#) confirm the universe has no direction (Phys.org).

## ANCIENT CHINESE BEER

Barley might have been the "secret ingredient" in a 5,000-year-old beer recipe that has been reconstructed from residues on prehistoric pots from China, [according to new archaeological research](#).

## PLANT OR ANIMAL?

(Most) corals, which are tiny little animals, have even tinier little plants (algae) living in their cells (tissue), according to [Mr. Smarty Plants](#).

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# Snippets, cont.

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## LEMMINGS ARE NOT SUICIDAL

The lemming mass-suicide story is a myth, largely fabricated by a Disney documentary that faked its evidence. The Disney filmmakers drove the lemmings into the water because they wanted to make a memorable film, writes [Mr. Smarty Plants](#).



## NEW WHALE SPECIES

A new species of beaked whale found in Alaska has been described in Marine Mammal Science. The mysterious whale carcass washed up on St. George Island in 2014 and was first thought to be a Baird's beaked whale, but it was smaller, with dark skin and a large, floppy dorsal fin ([National Geographic](#)).

## COOPERATIVE FISH

Researchers from James Cook University revealed last fall in Scientific Reports that the Coral Rabbitfish pair off and take turns standing guard to watch for predators while the other one eats. While other scientists have recorded examples of reciprocal cooperation in a number of highly social birds and mammals, this study is the first to document such behavior in a type of fish ([National Wildlife Magazine](#)).



## EAT BUGS

Some 1,900 insect species are consumed by 2 billion or so people in more than 80 countries ([Texas Co-op Power magazine](#)).

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