

# Texas Master Naturalists ROLLING PLAINS CHAPTER

## NEWSLETTER

Vol. 8, No. 9

<http://txmn.org/rollingplains>

September 2016

### Presidents Report

by Terry McKee

With cooler temperatures comes more volunteer opportunities.



We start September 10th with our 11th annual Sikes Lake Cleanup at Midwestern State University. We always have a good response from MSU students for this activity, so we need lots of volunteers to help pull this off. We need members to pass out bags, gloves and grabbers so people can pick up trash in the area, and volunteers to serve hot dogs. MSU will supply refreshments and Kyle Owens, Facilities Director, and his staff will be on hand to pick up bags and dispose of all trash. We are also proud to have American National Bank and Trust support us with a monetary donation to help with the cleanup. I encourage you to bring your friends and family and join us for a morning of community service. Volunteers should meet by 8:30 a.m. on the east side of Sikes Lake. We are usually finished by noon.

On September 1st, Lake Arrowhead State Park will be reopened to campers, and we hope to have a chapter event to welcome them back. Another BioBlitz at LASP is scheduled for October 1. If you missed the last one, join us on Saturday starting at 9 a.m. We had tons of fun and lots of new sightings to add. And Monarchs! Around the first of October we should see migrating monarch butterflies to tag.

One last bit of business, it will soon be time to elect new officers for 2017! My how time flies! Should you be contacted about filling a position, we hope you will serve. It is good to have new blood and new ideas, and I am grateful for our current officers- they sure do make me look good. As always, the officers appreciate any input you have to improve and keep the chapter moving forward. Don't be afraid to jump into the fray!

### E LOCALS

**SEPTEMBER 6:** Rolling Plains Chapter monthly meeting is at River Bend Nature Center. **Location:** 2200 3rd Street, Wichita Falls, Texas. **Time:** 7:00 PM. **Program:** Our speaker will be Townly Thomas, the Education Director from 3 Rivers who is going to tell us about 3Rivers.

**SEPTEMBER:** Sikes Lake Cleanup **Location:** Midwestern State University **Time:** 8:30 a.m. Volunteers meet on the east side of Sikes Lake. We are usually finished by noon. This is a TMN volunteer activity.

**OCTOBER 21-23:** Texas Master Naturalist 17th Annual Meeting **Location:** Montgomery, Texas To stay up to date with the Texas Master Naturalist Annual Meeting, learn about registration details as they are posted, and be the first to see the meeting's agenda, join the TMN Listserv. The TMN Listserv acts as the main communication tool for the Master Naturalist Program. Event details, local training opportunities and statewide announcements are frequently sent out on this e-mail list.

### Congratulations!

The following members of the Rolling Plains Chapter of the Texas Master Naturalist have received their recertification award:  
Kay Murphy, Paula Savage,  
Jim Masuoka and Carol Lunsford!

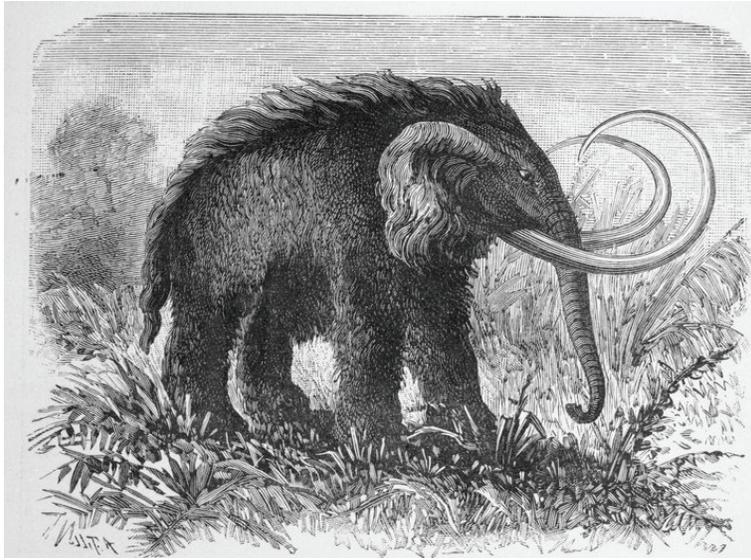
# Solving a Mystery of Mammoth Proportions

*Dwindling freshwater sealed the demise of the St. Paul woolly mammoths, and could still pose a threat today*

*by Rachel Nuwer, smithsonian.com*

*August 2, 2016*

Until recently, Alaska's St. Paul Island was home to a mystery of mammoth proportions. Today the largest animals living on this 42-square mile speck of earth are a few reindeer, but once, St. Paul was woolly mammoth territory. For more than 4,000 years after the mainland mammoths of Asia and North America were wiped out by environmental change and human hunting, this barren turf served as one of the species' last holdouts.



Engraving of a woolly mammoth. (Bettmann / Getty Images)

Only one group of mammoths lived longer than those of St. Paul: the mammoths of Wrangel Island, a 2,900-square mile island located in the Arctic Ocean, which managed to survive until about 4,000 years ago. In this case, scientists suspect we played a hand in the tenacious beasts' demise. Archaeological evidence suggests that human hunters helped pushed already vulnerable populations over the edge.

But the mammoths of St. Paul never encountered humans, meaning they were shielded from one of the main destructive forces that likely killed their kin. So how did they meet their final end some 5,600 years ago?

Scientists finally think they have the answer. This week, an interdisciplinary team of researchers reported in *Proceedings of the National Academy of Sciences* that the mammoths essentially died of thirst. Using mammoth remains and radiocarbon dating, researchers found that dwindling freshwater due to climate change caused populations to dry up. Their results—which also show that the St. Paul mammoths persisted for longer than originally thought, until about 5,600 years ago—pinpoints a specific mechanism that may threaten other coastal and island populations facing climate change today.

Scientists had known previously that climate change must have played a role in the St. Paul mammoth extinction, but they had few clues as to the specifics. “This is an excellent piece of research, well-evidenced and well-argued,” says David Meltzer, an archaeologist at Southern Methodist University who was not involved in the study. “It’s just the sort of species- and region-specific work that needs to be done to fully understand the causes of extinction for this and other animals in the past.”

The researchers began by meticulously combing St. Paul's caves for mammoth remains, which turned up a few pieces of bone and two teeth. Then, they took sediment cores from a lake on the island and analyzed them for four proxies that previous research has correlated with the presence of large animals, including ancient DNA and certain types of fungal spores.

Radiocarbon dating allowed them to determine the age of the mammoth bones and teeth, and plant remains and volcanic ash from the sediment cores helped establish the precise time that the mammoths went extinct.

Finally, they pieced together a timeline of how the environment changed by using other proxies taken from the cores. These included oxygen isotopes, plant material and the presence of aquatic life such as phytoplankton and water fleas, all of which correlate with freshwater levels. The results revealed that mammoths lived on St. Paul until 5,600 years ago, plus or minus 100 years—one of the most precise extinction dates ever produced for a prehistoric animal.

The data painted a clear picture of what ultimately caused mammoths to disappear from the island, which was once part of the Bering Land Bridge but now lies stranded in the middle of the Bering Sea. Climate change led to a more arid island environment, increasing evaporation and limiting the amount of rainwater that collected in two lakes—the only sources of freshwater on St. Paul. At the same time, sea level rise caused what researchers refer to as a “saltwater wedge”: the tainting of groundwater by saltwater that bleeds in from below.

This revelation came as a surprise to the team. “We were sure that the mammoth's extinction would probably have been caused by something environmental,” says Russ Graham, a vertebrate paleontologist at Pennsylvania State University and lead author of the paper. “But many of us, including myself, thought it might be some vegetational shift in response to climate change. We hadn't anticipated that freshwater availability had caused the actual demise.”

The mammoth's physiology—including thick hair impermeable to water, a body adapted to retain heat

and the need to drink 70 to 100 gallons of water per day—made the animal less able to weather the drying landscape. If they act anything like elephants, their modern-day relatives, behavior also might have played a role in their demise. As water became scarcer, mammoths likely congregated near the island's lakes, muddying them and exacerbating the freshwater's disappearance. Whether St. Paul's mammoths gradually died out or if a single catastrophic event did them in is unknown, but either way, the end result was the same: extinction.

"This is superbly done work that is deeply interesting and truly important," says Donald Grayson, a zoo-archaeologist at the University of Washington who

was not involved in the work. "This research can and should serve as a model for those interested in other vertebrate extinctions during the past 50,000 years or so."

The study's import is not limited to the past. As we face climate change and rising sea levels today, the danger of freshwater sources becoming contaminated with will likely grow increasingly relevant. "We think of places like Florida and the South Pacific islands as being flooded by sea level rise, but what we haven't discussed much is the impact of the saltwater wedge," Graham says. "This study clearly indicates that's a serious issue."

## Audit Results for the Chapter's VMS Site

by Larry Snyder

We just went through an audit of our chapter's VMS site. We've been on this system for just 10 months now and this was our first audit since our chapter's launch. Over all we did pretty fair I think, a few bumps and a few corrections needed but nothing major that can't easily be fixed with a few hours of work.

Part of the audit was making corrections to some of your entries.

There were a few entries made with no hours indicated. They've been fixed or deleted depending on the circumstance.

There were many entries made where the wrong Opportunity type was used. I've corrected all of those. This only affects about a dozen of us.

If you look at your Log Book entries and think something is missing, scroll to the bottom or, if you have two pages as a couple of you do, go to the second page at the bottom, and see if you find any corrections with the entry date of either 8/31/2016 or 9/1/2016. I assure you I took great care to not cause you to drop any hours, they're just under the correct opportunity type now. To be clear, all of these errors that weren't caught before the audit are on me. I should have caught them before I approved them and made you correct them. I've discovered a better, more efficient way to approve your hours that's easier on me. I will be more careful in the future. Or perhaps I should be fired??

Most all of the entries made incor-

rectly were flip-flopped between Chapter Meeting AT and our Chapter Meetings with the Meeting being entered as AT and the AT ALSO being entered as AT.

I think the confusion for all of us, including me, is because of the separate CB: RPC: Attending a Chapter Meeting and AT: RPC: Chapter Meeting. Therefore, **as of tomorrow, September 2, 2016, you'll no longer find the CB: RPC: Attending a Chapter Meeting opportunity available to you. Instead, beginning tomorrow and with our meeting on Tuesday of next week, you'll enter your Chapter Meeting hour, under CB: Administrative Work and then select Chapter Meeting from the drop down menu.** After the meeting I'll send out my usual e-mail with those instructions.

Also we have to be vigilant about not lumping hours together. For instance, if you spend 15 hours over several days researching an article or presentation, it's not acceptable to lump all that together in one day. It's almost like you have to be like a lawyer with your billable hours sheet next to your computer. That's what I've started to do ... I'm keeping a better clock on my hours now.

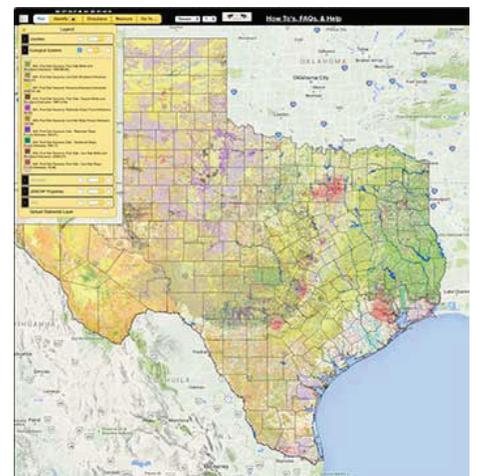
All of this is because our hours are audited by the Feds for the payment to TPWD for our volunteer time. So, if our "stuff" is entered incorrectly, well, no ticket, no wash.

If you have any questions, feel free to ask. This VMS is still a learning experience for all of us.

Sorry for the length of this ... lots of information to pass on.

Larry  
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## New Interactive Map of the Texas Landscape



The new Texas Ecosystem Analytical Mapper is now available for public use! Use this free interactive tool to create custom maps of the Texas landscape and its habitats. It includes information about vegetation, soils, geology, hydrology and ecoregions. Make your own Texas Vegetation Field Guide or discover another way this map can help you. For more information on this free tool go to [tpwd.texas.gov](http://tpwd.texas.gov).

# Chapter Activities for July and August

## Moth Watch July 30th at Wild Bird Rescue

Photos by June McKee



Terry McKee, Penny Miller, Paula Savage and Kay Murphy prepare for the moth watch by checking their field guides.



Penny and Kay and Terry trying to get a photo and an ID on a moth. (You can see the moth in Penny's camera). It was later identified as an American Lotus Borer.

## Monthly Bird Walk at Lake Arrowhead State Park

Photo by Debra Halter

Penny Miller, Terry McKee and Joy Parsons participate in the monthly bird walk held at Lake Arrowhead State Park, August 13.

Migrating birds have started passing through our area. Some of the birds seen that day included Yellow-billed Cuckoo, Greater Yellowlegs, Forster's Tern, White-faced Ibis, Least Sandpiper and Spotted Sandpiper

Penny leads the walk the second Saturday of each month at 8 a.m.



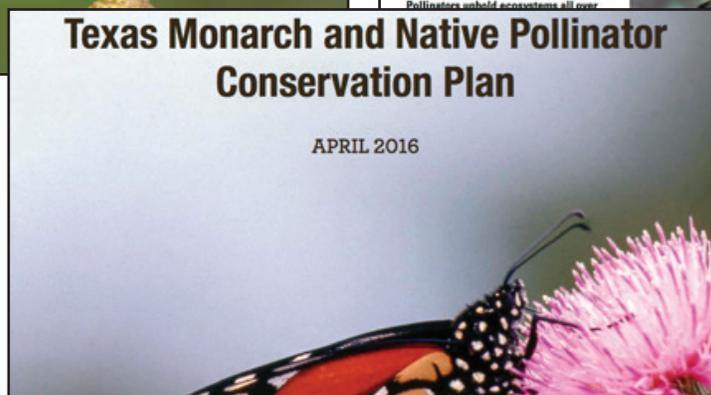
## Downloadable Publications at [tpwd.texas.gov](http://tpwd.texas.gov)



**Management Recommendations for Native Insect Pollinators in Texas**  
Practices that benefit ecosystems for native pollinators.



**Pollinators of Texas Fact Sheets**  
Printable fact sheets published by TPWD and USFWS.



**Texas Monarch and Native Pollinator Conservation Plan**  
TPWD contribution to monarch and native pollinator conservation.

# It's Time! Registration is NOW OPEN for the Texas Master Naturalist 17th Annual Meeting!

Registration Open - <http://txmn.org/2016-annual-meeting/>



This year's event will mark the Texas Master Naturalist Program's 17th Annual Meeting and will be the 18th year of the program. This year's meeting will be held on the edge of the East Texas pineywoods, where the pines and the metropolis of Houston meet. La Torretta Lake Resort & Spa on the shores of Lake Conroe,

with award winning amenities, a grand conference center and critically acclaimed banquet services, will play host to our Master Naturalists as they engage in educational training opportunities throughout the weekend. The Annual Meeting provides an opportunity for the Texas Master Naturalist volunteers from around the state to gather, participate in hands-on educational seminars, and receive all of their Advanced Training requirements for the year within one weekend. It's also an opportunity for program participants and supporters to network, share new ideas/projects, and to learn from different chapters from different regions of the state.

We are pleased to extend an invitation to ALL Texas Master Naturalist Program volunteers, along with all other program affiliates. This includes those certified volunteers, those still in training, program administrators and advisors of local chapters, and your local chapter partners, sponsors, or special guests. This year's gathering has several chapter enhancement and Advanced Training topics to choose from. Our social times, chapter project fair showcase and round table discussions will offer great opportunities to meet your fellow Texas Master Naturalist peers from our 46 Chapters across the state and share new ideas from the past year. Hear what projects your peers are contributing their volunteer time towards and make new acquaintances all at the same time. The Texas Master Naturalist Store and other surprises are also on the agenda. So, come out for a weekend filled with fun, fellowship, and learning on the shores of Lake Conroe in the heart of the pineywoods.

This year's meeting is scheduled for October 21st through 23rd and will be held at La Torretta Lake Resort and Spa.



Registration for this highly anticipated event is NOW available through the Annual Meeting page on the Texas Master Naturalist state website at <http://txmn.org/2016-annual-meeting/>. Additional information about the annual gathering weekend, annual awards and contests, the advanced training sessions agenda, and registration details can be found on the website as well.



## Volunteer Opportunity at RiverBend Nature Center

RiverBend is looking for volunteers to help with the STEM program. What is STEM? STEM is a curriculum based on the idea of educating students in four specific disciplines — science, technology, engineering and mathematics — in an interdisciplinary and applied approach.

You'd be working with children at River Bend so your volunteer time would count for Master Naturalist under our partnership with River Bend. Also your background check should be up to date through VMS.

If you have an interest along these lines or any questions you should contact Leslie at River Bend Nature Center. The phone number there is: (940) 767-0843



and identify as many pollinators as possible between **October 7th and October 16th**. Texans of all ages can venture outdoors to find pollinators and nectar-producing plants, and then sharing observations by posting a photo or video to Instagram or iNaturalist. A daily challenge will keep participants on the hunt and add to the fun. All will be encouraged to plant pollinator gardens. *In the coming days, watch the TPWD website, [tpwd.texas.gov/monarch/](http://tpwd.texas.gov/monarch/) for more information.*

# FUN FACTOIDS

Eight-foot tall giant beavers (Casteroides) roamed freely in North America during the last ice age. They're thought to have weighed up to 220lb, and were roughly the size of a black bear.



Mayflies have been around since before dinosaurs even existed; over 350 million years. Mayflies need clean water to live in and scientists look for their larva in water to see if the water is polluted.



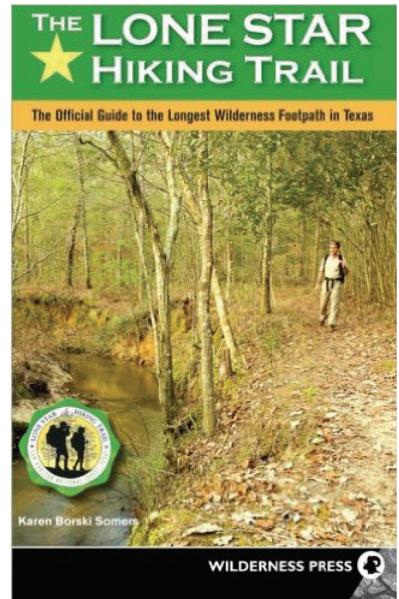
Quicksand forms when sand gets saturated and then the water gets agitated but can't escape; it then loses its ability to support weight. Most quicksand is only a few inches deep.

TEXAS Master Naturalist  
**BLUESTEM CHAPTER**  
 presents  
**VENOMOUS SNAKES OF NORTH-CENTRAL TEXAS**  
 Presented by **Mike Kech**  
 Professor of General Biology  
 Grayson County College  
 Sunday, September 18  
 3 pm  
 Hagerman National Wildlife Refuge  
 6465 Refuge Road Sherman, Texas  
 Free and open to the public!  
 bluestemmasternaturalists@gmail.com http://txmn.org/bluestem/ FB: Bluestem Chapter of Texas Master Naturalists

**This event has been approved for advance training.** If you attend the time will be entered under AT: RPC: Approved Workshops Remember, you cannot claim travel time for attending Advance Training events.

# RESOURCE CORNER

*The Lone Star Hiking Trail: The Official Guide to the Longest Wilderness Footpath in Texas* by Karen Somers  
 Paperback: 152 pages  
 Price: \$17.95 on Amazon



One of the hidden jewels of Texas, the Lone Star Hiking Trail is the only long-distance National Recreation Trail in the state. At 128 miles (including loop trails), it is also the state's longest continuously marked and maintained footpath. Located in the famed Big Thicket area in east Texas, the trail is well-suited for both short and long hikes (of up to 10 days), appealing to day-hikers, overnight backpackers and long-distance hikers. The LSHT lies between the major metro centers of Houston-Galveston, Dallas-Fort Worth, Austin, and San Antonio--home to more than 8 million people just a 2-hour drive from the trail. The author, a Texas native, is an experienced long-distance hiker who has thru-hiked the Appalachian Trail, the Pacific Crest Trail, and many other nationally recognized long-distance trails throughout the U.S. This is the first guidebook to the trail and is officially endorsed and promoted by the Lone Star Hiking Trail Club.

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