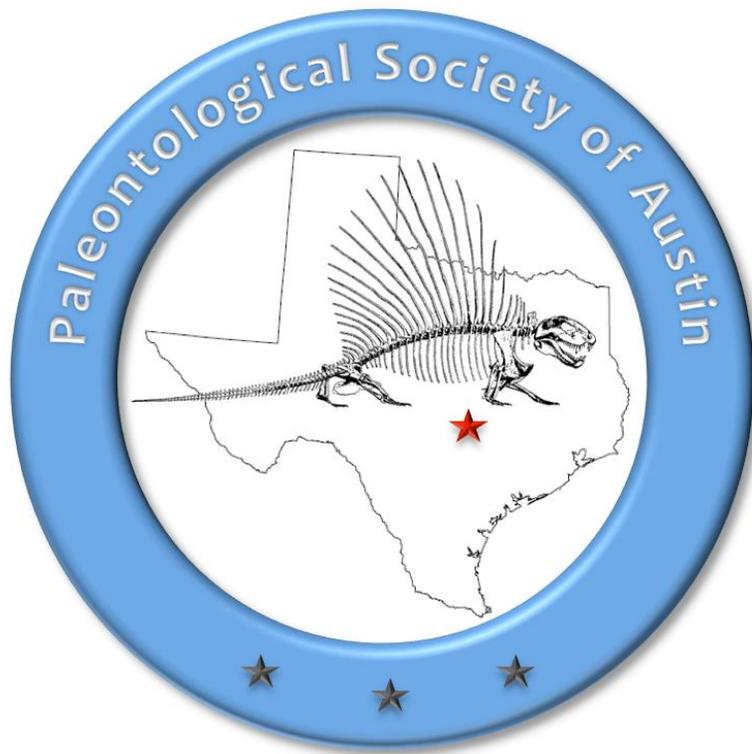


# Paleo Footnotes

Newsletter of the  
Paleontological Society of Austin

Austin and Central Texas



Volume 9, Number 4  
April 2014

## President's Note

Welcome springtime in Texas! Bluebonnets, Indian Paint Brushes, Wine Cups, and dozens of other wildflowers are in bloom. Don't you just want to get on the road and see them? So here is where I cut to the shameless promotion and suggest that one of the best places to see all of them is at Westcave Outdoor Discovery Center (AKA Westcave Preserve) <<http://westcave.org>> where I am now the weekend manager and a natural science educator. And of course Westcave is where we hold our annual Picnic and Auction. Come early and do the 10AM tour or stay after and do the 4PM tours down to the grotto and cave or you can now hike at your own pace on our new upland trails. If any of you have never been there it is approximately 45 minutes from central Austin and one of the most beautiful spots in the Hill Country. So first off I hope you can attend our club event and secondly I hope you can take some time to explore the preserve. See the details in the meeting announcement.

Our field trip this month will be the annual pilgrimage to Oklahoma. We often do not have an April field trip because of the Auction weekend event but this year with that coming early and the desire of many members not to skip Oklahoma we are squeezing it in at the end of the month. Ed will be lining up a combination of classic collecting locations and most likely a few new ones if he can. The Arbuckle Mountain region offers some very rich collecting in lower Paleozoic rocks we don't have easy access to here in Texas. You will most likely be spending time in the Ordovician, Silurian and Devonian and possibly some Pennsylvanian as well. Really nice trilobites, crinoids, cinctoids, brachiopods, corals, bryozoans, etc., will all be plentiful. Of all of our two-day long-distance field trips this is the one to put on the calendar. See the details below and hopefully Ed will have more details for us at the Auction on the 12th.

I look forward to seeing many of you at the Auction and when we meet again in May, hearing all about your great experiences in Oklahoma.

Take care and get out on those rocks while it's still cool!

-- Erich



No trip is now complete without a shot of you-know-who cat napping between fossils.  
(photo: L. McCall)

**Next Meeting**  
**Saturday April 12th**  
**12:00 Noon - 3:00 PM at Westcave Outdoor Discovery Center**

**Paleontological Society of Austin Annual  
Auction and Potluck Picnic**

The main dish and beverages will be provided. Bring your favorite side dish or dessert.

Please bring fossils or fossil-related items to contribute to the auction. Along with great fossils, books, maps and art have been popular in the past. Something you feel folks might actually competitively bid on is the idea. Remember this is one of our only two money-raising events for the year and often makes up a substantial portion of the next year's budget.

And don't forget your checkbook or cash!

Stay after the auction and take a guided tour at 4pm. Grotto tour rates are \$10 per adult, \$4 per child 4-12, or \$25 per family. Free tour admission is offered to Westcave Preserve members.

Westcave Preserve is located at 24814 Hamilton Pool Road just beyond the Pedernales River in western Travis County. Head out TX 71 and pick up Hamilton Pool Road (FM 3238) just north of Bee Cave. This is about a 45-minute drive from downtown Austin.

Next Field Trip

**Saturday & Sunday, April 26th & 27th**

**Paleozoic of the Arbuckle Mountain Region,  
South-Central Oklahoma**

We'll meet in Ada at the Callixylon tree on the East Central University campus at 8:00AM Saturday morning. This incredible petrified tree is located at the corner of Main Street (now pedestrians only at this spot) and Francis Avenues on the campus. There will be parking spots along Francis Ave. & E 12th St. Collecting sites will be in the Devonian, Silurian and Ordovician. If you go up early on Friday contact Ed about some of the possible bonus locations and stops to visit along the route.

More detailed info will be provided at the auction but if you can't make it call (evenings only) Ed Elliott at 512-657-7581 for further information.

This is a two-day trip and we will visit numerous sites. It will be HOT! Rest stops and facilities will be few and far between so be well prepared. Bring LOTS OF WATER. At least a gallon a day for each person, no kidding. Hats, long sleeves, sun block, etc. are all a must! And bug spray because there will be weeds and where there are weeds there are chiggers and ticks. Food is also suggested since we will be in a very rural area with virtually nowhere to get a quick bite.

Some of the locations will require a short but strenuous hike, which in the hot weather can be a challenge for some. If you have any concerns please speak with the field trip leader Ed Elliot.

There is usually a group meal back in Ada Saturday night. Ada is a college town and there are a number of motels to pick from. Suggestions will be made at the meeting.

Depending on the site you may need hammer & chisel or just a good set of knee-pads. Bring lots of containers, zip-lock bags, soda flats, newspaper, etc. and something to label it with.

## Field Trip Reports - March 2013 East Texas

Well, we missed the dogwoods, but the redbuds and wildflowers were in bloom, as were the echinoids.

Ed Elliott, Suzanne, Gordon, Ryan, Riley, & Avery Galligher, Rich Geist, Paul Hammerschmidt, Linda McCall, Melvin Noble, Ron and Janet Root, Gary, Cathy, \* Becca Rylander, Mike Smith, and Gary Vliet met at O'Reilly's Auto Parts in Nacogdoches on an overcast Saturday morning.

Based on the Google Earth view, there had been some question as to whether what would have been the second stop still had collecting possibilities. We decided to stop there first in case it was a bust. If there was nothing we could go on to the second site and collect the rest of the day. Good news - the collecting was great! While the hillside where we were doing most of our collecting is steep and beginning to be overgrown with Macartney Rose it was very productive. A large number of nice *Protoscutella mississippiensis* were collected. Rich Geist found a particularly loaded boulder that yielded several nice slabs containing multiple specimens. Mike Smith found a large (82 x 72 mm) specimen that he was able to hack out of the middle of the road. The BB (*Fibularia texana*) ledge that Linda found last year was still there and yielded a bumper crop. Except of the hopelessly addicted, I think everyone collected his or her fill of BBs. The one prize that continues to elude us is a good specimen of the 'sea biscuit', *Eupatagus texanus*. We found some fragments, but nothing to write home about.

Continuing to our second quarry we spent several hours crawling over a reduced spoil pile. Apparently when they were dumping material they forgot to call Ed. There was a new layer of unproductive overburden on top of part of our prime collecting area. However, all was not lost. Gary found a fabulous crab with legs and claws neatly folded up underneath. Rich found a nice specimen of the rare heart urchin from this locality (*Maretia arguta*). And there was a competition to see who could find the most shark teeth - last I checked someone was up to seven. Given the reduced collecting area we decided to return to the first quarry, in part to check out another hillside we had spotted on Google Earth. After some extensive jockeying of vehicles due to a narrow road we crashed through the brush around the border of a barb-wire topped chain link fence protecting an oil or gas facility we got to the tantalizing slope. Which turned out to be empty of anything other than some interesting ironstone vuggs.

Many folks returned to the BB slope and others did some further exploring of the property without turning up any worthwhile additional locations. We adjourned to Nacogdoches Seafood for a rousing dinner with an extremely patient waitress.

We had been lucky on Saturday. Rain had been predicted but we encountered just a few sprinkles. Not so Sunday morning. We met in a cold light drizzle and headed out to Lake Nacogdoches. The rain turned out to be minor and let up as the morning advanced. This site seems to become harder to collect. It may have had something to do with the cold breeze blowing off the lake. After some serious

excavating, Melvin found a very nice nautiloid. And with some help from Rich, Avery, Riley, and Ryan all found pockets of solitary corals and gastropods.

To crib some data from Ed's trip report of last year:

All of these sites are Weches Formation, Middle Claiborne, Eocene. Lake Nac is very close stratigraphically to the Queen City Formation. While the Emerson book on the Stone City Formation can be used for a lot of the fauna, our friend Chris Garvie wrote a book that helps. *Bulletins of American Paleontology*, Vol. 111, Number 352 (1996) "The Molluscan Macrofauna of the Reklaw Formation". A good number of the fossils just aren't in the Stone City and Chris' book helps to fill some of the gaps.

All in all, a great weekend. -- Mike Smith

Dear Mr. Rose,

Last weekend I went to East TX. We went fossil hunting. It was my 1st time. We went to 3 places. The 1st place we went to was a place with a pond. When we were driving there I was super excited to actually be going fossil hunting. There was a hill where we were looking for fossils. I heard my mom yell and walked over to see what she found. She found a spotted frog camouflaged in the brush. At first glance, she thought it was a snake. Then Mrs. Linda said she was going to go to a little rock and collect b-b echinoids. My whole family went with her. It took a while for my eyes to adjust to finding the small round b-b's. After a while I gave up on finding any. My sister, my dad, and I went over to the pond. My dad taught us how to skip stones. It was really fun! Then, we found millions of other fossils and left. Then, we went to Quarry 2. There were a bunch of dirt piles! There was a log that we went across from 1 dirt dune to another. My sister and I would climb to the top and "surf" down. We found a muddy area and we would jump off a dirt dune and make footprints in the mud. My brother and father both found a shark's tooth! Then when my mom, sister, and I were exhausted, we went to the car. Mr. Vliet was by his car and my mom came up to him and said, "I don't mean to frighten but you have a scorpion on your sleeve." My mom got it off. It was charging at Mr. Vliet's shoe. Instead of going on top it went under. He stepped on it. Then, Mr. Hammerschmidt came over and picked it up. He asked if we wanted to hold it. I said no but Riley said yes. She said it was sticky. Anyway, then we went to our hotel and went to bed. The next day, we went to the lake. We had our own professional digger + teacher, Mr. Geist. It was raining. So we were wearing ponchos. We found like a hundred horn corals and shells. It was so fun! We ran around. On the way back we went to Whiskey Bridge. I was hoping to find a shark's tooth, but didn't have any luck, but found a few other fossils. Thank you so much for letting me come to your field trip. THANK YOU! Sincerely, Avery Galligher

Dear Mr. Rose,

Last weekend I went to East Texas with the PSoA on a field trip. It was my first field trip and I really enjoyed it. We woke up at 7:00 A.M. and left to go fossil hunting at 8:00 A.M. Our first stop was Quarry 1, where I found a funny looking frog and a Crab Carapace. I thought it was very cool. I found some gastropods and other fossils there, too.

Our second visit was to Quarry 2. There were HUGE dunes of dirt where you were bound to find fossils. I found a couple of bivalves when I decided to play with Avery in all of the dirt. We would climb to the top of the dirt, see all that was up there, and then ‘surf’ to the very bottom of it. We would jump from dirt dune to dirt dune, and in the muddy areas we would jump from the dirt and make deep imprints with our feet. Then, nestled between two dunes, I saw a tree that was stable enough to walk all the way across! You could jump on it and it wouldn’t budge at all! After a while I decided to cool off when my mom found a scorpion on Mr. Vliet’s shoulder! My mom got it off and I actually got to touch it! I didn’t hold it. Mr. Hammerschmidt held it by the tail and laid it on my hand. It was cool but a little scary. Then Ryan found his first shark tooth. It was a really cool day.

The next day, Sunday, We went down to Lake Nacogdoches River, where Mr Geist showed us how to find the fossils there. It was cold and rainy that morning, but I still found a bunch of Horn corals and shells. Avery and I went to the van, rested a little, and then played and ran around.

After that, we started to drive home. Then, Ed, Melvin, Mr. Vliet, and my family decided to go fossil hunting at Whiskey Bridge. I dug and found a bunch of fossils, Mom picked up a bunch of fossils lying on the surface. Ed, Melvin, Ryan, and my dad did a little bit of both. Avery, on the other hand, did not keep any fossils she found. That is because she was so intent on finding a shark tooth that she tossed all of the other fossils she could have kept. I found a lot of cool fossils, and Avery learned that it is harder to find a shark tooth than it looks. Overall, My field trip with the PSoA was really awesome.

Thank you! -Riley Galligher



Avery & Riley



Collecting in one of the quarries

## **PSoA PUBLIC & K-12 OUTREACH**

Report by Suzanne G.

There's been a whirlwind of outreach activity this month for PSoA members. I'm very grateful for each person who donated their time and talent to educate school children and the general public about the fossil treasures in our central Texas backyard. It's such a fun and inspiring experience when you come across a student (and the occasional adult) who is excited about fossils. They are eager to learn or share their fossil hunting adventures. It's energizing and rewarding and I highly recommend it to all club members, you may be surprised at how much you like it too! Many thanks to Kevin Bills, Ryan

Galligher, David Lindberg, Melvin Noble and Ron Root for furthering the science of paleontology and planting seeds with future generations.

This past month we interacted with 400 - 500 students and parents at both the Steiner Ranch Science Rodeo and the Science Night for Caraway Elementary. The Waco Mammoth Site estimated 1500 people attended their "Mammoths on the March" event. Many of these folks stopped by the PSoA booth for fossil identifications and talked with us about fossils, paleontology and science in general. Finally, at the Cedar Creek Elementary Science Day we gave a fossil/paleontology presentation, conducted a science experiment and gave the 175 - 200 students the opportunity to be a Fossil Preparator.

Thanks again to all of the volunteers that helped make all of this possible and to the organizations that invited us!

### **Paleo Society Meeting Minutes for 3.18.2014**

President Erich Rose gavelled the meeting to order at 7:03 and Program Chair Ron Root introduced tonight's speaker, fellow Paleo Society member Dr. Jim Sprinkle, an expert in crinoid paleontology. Due to a technical glitch, Dr. Sprinkle was temporarily unable to use his slide presentation and spoke generally of his pioneering experience in this field, pointing out the difficulties and gaps in evidence encountered in scientific analysis of such ancient fauna. In speaking on the early evolution of crinoids, his report to us gave an overview of extensive breakthrough work by himself, his colleagues Guensburg and Sumrall, and their published treatises describing crinoid development from the Late Cambrian and Early Ordovician and importantly, how their conclusions are at significant variance with other scientists' conclusions in analyzing the early crinoid evidence and evolutionary direction. With the slide show restored, Jim Sprinkle then convincingly made the case for their own published position that crinoids have evolved from complex-to-simple in their structure and function. He showed numerous drawings and tables explaining this dynamic. He called into question many of the contrary assumptions and conclusions of other scientists, who somehow favor a simple-to-complex evolutionary trend, in spite of much demonstrable evidence supporting Sprinkle's thesis. In his presentation to us, Sprinkle exemplified a true scientist's forensic ability to examine minute details, combining them with experimentation and logic to produce accurate models of dynamic phenomena from the ancient past. In concluding, Dr. Sprinkle said his further contribution to the scientific record would be in more published arguments for the hard evidence on crinoids and what it may signify in this area. He then took questions from the audience. We then paused the meeting for our customary refreshments and conversation break, and then we returned for the second part of the meeting; business and upcoming events. The meeting minutes were approved with revision to the minutes' title in the newsletter. Erich emphasized upcoming outreach opportunities on 3/26 at Caraway Elem. and on 4/4 at Cedar Creek Elem. and on 6/19 from 5-8 during Nature Night at Lady Bird Flower Center, which looks like fun. Melvin and Kevin stated they will be on hand at the Waco Mammoth Site's Springtime Festival on 3/29. Suzanne and Ron will provide outreach for Williamson County Park's Dino Day, which is May 10, from 10-2. Erich announced that our next Paleo Society gathering will be the annual Paleo Society Auction, which is on April 12 this year, from 12-3pm at West Cave Preserve. Erich is now actually working at West Cave Preserve. Then, 'Should we have an email group for our Society?' was discussed. Though limited in the past, Suzanne suggested that a private Facebook group would be easy to operate and Erich said that our own Facebook group would fill in communication gaps, providing better info to everyone who elected to be part of it. Ed announced that the field trip to Oklahoma is slated for April 26. He also announced that this would be his final year as Field Trip Chair. We then welcomed a new member and Erich asked her what got her interested in fossils. The Treasurer's report was given and Frederick also reported receiving more membership payments. Erich requested: Bring something to the auction you think people will bid on. And bring a dish for the potluck. Suzanne will be sending out an EVITE to announce the Auction. She also said that Linda McCall will be at the upcoming field trip and that she will be bringing copies of a book recently published and for sale by her Paleo club in NC. Ed then gave details of the field trip to East TX coming up this weekend. The three door prizes were won by Melinda, Ron and Bob. We adjourned the meeting at 9:08.

The purpose of the **Paleontological Society of Austin**, a 501(c)(3) non-profit organization, is the scientific education of the public, the study and preservation of fossils and the fossil record and assistance to individual, groups and institutions interested in various aspects of paleontology.

Meetings of the **Paleontological Society of Austin** are held the third Tuesday\* of each month, 7:00 p.m. at the Austin Gem and Mineral Society building, 6719 Burnet lane, Austin, TX. The public is cordially invited to attend. See web site for April & December dates.

Annual Dues: \$18/individual, \$24/family and \$12/associate (non-voting, receiving newsletter) Send to: Treasurer, Paleontological Society of Austin, PO Box 90791, Austin, TX 78749-0791

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**PALEONTOLOGICAL SOCIETY OF AUSTIN**

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DATED MATERIAL – *PICNIC and AUCTION EARLY DATE: April 12.*

**FIRST CLASS MAIL**