



Paleo Footnotes

Volume 14, Number 4

April 2019

President's Note

Erich Rose
PSoA President

This month we have our annual potluck picnic and auction to raise money for the club. And then at the end of the month the Oklahoma field trip. Two great events.

The picnic will be at the usual location, Westcave Preserve, but the date, Saturday the 13th, is a little earlier than normal as we try to avoid Easter weekend. Then the field trip will be the last weekend of the month, the 27th & 28th.

The picnic is a great opportunity to socialize with other members and their families and the auction is one of our two big fundraisers. Bring a side dish or a desert and something paleo-cool that others would want to bid on. Oh and don't forget the check book...;)

Oklahoma, later in the month, is the place to go for Ordovician, Silurian and Devonian fossils. These time periods are poorly represented here in Texas but the area near Ada in southern Oklahoma is rich with good outcrops and fossils. It's a full weekend commitment but well worth it.

More details for both are included in the newsletter.

-Erich

Next Meeting

PSoA Auction Saturday, March 13 – 12 p.m. to 3 p.m..
Westcave Preserve
24814 Hamilton Pool Rd, Round Mountain, TX

Next Field Trip

Saturday, April 27 - 28 – 8 a.m.
Ada, TX
See directions in Upcoming Field Trip Report section.

Upcoming Meeting Program

Paul Hammerschmidt
Programs Chair

April Auction and Potluck Picnic

Join us for the PSoA Annual Auction and Potluck Picnic Saturday, April 13th from 12 p.m. to 3 p.m. at Westcave Preserve.

The main dish and soft drinks will be provided, just bring your favorite picnic side dish or dessert. Please bring a fossil or fossil-related item for the auction to donate, as all proceeds go toward furthering our mission of education. In addition to fossils, books, maps, tools, hand-made cards and art have been popular items in the past – consider anything on which folks might competitively bid. Remember, this is one of our two money-raising events for the year, and it often makes up a substantial portion of the next year's budget. You'll need cash or a check to pay for your goodies, so plan accordingly.

Date: 04/13/2019 (Sat.)

Time: 12:00pm - 3:00pm CDT

Location: Westcave Outdoor Discovery Center

24814 Hamilton Pool Rd, Round Mountain, TX 78663

March Meeting Minutes

Lisa Izzi
PSoA Secretary

Meeting Notes 3/19/19

- Topic: Surviving the Permian-Triassic Mass Extinction (PTME)
 - Speaker: Elizabeth Petsios, Assistant Professor Baylor University
 - This was the largest extinction of animal life of the 5 that we know of. Approximately 81-96% of all species became extinct.
 - The PTME defines the border of the Paleozoic and Mesozoic, as well as the transition from Paleozoic fauna to the modern fauna.
 - The extinction of the Paleozoic allowed for the modern fauna to take off.
 - Casualties of the PTME include: all trilobites, blastoids, rugose corals, tabulate corals, and more.

March Meeting Minutes (cont'd)

- The extinction is linked to severe global climate change and greenhouse warming. There were high ocean temperatures, and a lack of oxygen on the ocean shelf. There is also evidence of large swings in the carbon isotope records. Which is believed to be linked to the release of CO₂ into the atmosphere. One theory is that Basalt escaped from the Siberian Traps Large Igneous Province.
- The Early Triassic was a recovery period but environmental issues didn't calm until the Middle Triassic.
- There are different ways to measure recovery:
 - Richness: the number of taxa, the count of life
 - Diversity: the richness and abundance of life in the community
 - Dominance: the representation of the organisms in the community
 - Evenness: the opposite of dominance
- The Paleobiology Database: free open access fossil collection database – <https://paleobiodb.org>
- The Early Triassic was a recovery period characterized by the dominance of “disaster taxa”. However when the ecosystem recovers, the disaster taxa are pushed out.
- The PTME changed the course of history, for the current fauna we see today.
- Business:
 - Next meeting is our annual auction and picnic at West Cave. Saturday 4/13, please sign up to bring a side or dessert. We also need some “bid worthy” items, so please donate. We plan to eat a noon.
 - Field Trip for March is East Texas. Meet at the O’Riley’s on University at 8am.
 - For the May meeting, we need people to sign up for snacks.
 - We need small fossil donations for the Fossil Fest games.
 - We are also asking for Paleozoic fossils for the teacher kits.
 - Check out “Hot Science, Cool Talks” - Hot Science – Cool Talks : Environmental Science Institute: The University of Texas at Austin

Upcoming Field Trip

Ed Elliott

PSOA Field Trip Chair

The Club's next field trip will be to Ada, OK for some Devonian, Silurian and Ordovician collecting. We'll meet on the East Central University Campus on the corner of E. Main St. and N. Francis Ave. near the petrified Callixylon tree at 8 a.m. Saturday, April 27. Park near Francis Ave. and East 12th St.

This is a two-day trip and we will visit numerous sites. Facilities will be scarce, so be prepared. Bring at least a gallon of water a day for each person, food, hats, long-sleeve shirts, sunblock, knee-pads, etc. Bug spray is also recommended for chiggers and ticks. Some of the locations will require a short hike. Depending on the site, you may need a hammer and chisel. Bring lots of containers, zipper bags, soda flats, newspaper, etc. and something to label your finds.

Ada is a college town with a number of motels and restaurants. We usually gather for a group dinner on Saturday night. More information will be provided at the auction, but call me at 512.657.7581 (during the evening) if you need more details.



An example of the terrain the Club will be visiting.

Field Trip Report

East Texas - Eocene, Nacogdoches, Texas, March 2019 (Ed Elliott)

On a lovely East Texas spring morning I met with Cathy and Gary Rylander, Mike Zimmer, Dianne and Robert Vlasik, Michael Bowland, Linda and Bruce McCall, Brian and Emerson Bedrosian and Melvin Noble. After talking for a while, we headed out through a lovely stretch of Hwy 21 from Nacogdoches to San Augustine and to our first quarry. All of the sites we hunted are Weches Formation, mid-Claiborne Group, Eocene marine. And all are over grown. We had a good time at this little quarry but it is

a shadow of its former self. We found sand dollars (*Protoscutella mississippiensis*), though few. We also found the BB echinoid (*Fibularia texana*) and oysters, gastropods and corals.

After a few hours we moved on to the second quarry. The places we used to hunt are really over grown but still produce some nice things. Finding some newer spoils piles kept us going and smiling like we used to. Quite a few nice things were picked up. There were at least five kinds of coral found, nice bivalves, bryozoans, *belosaepias* and more. We were lucky enough to have picked up a total of six of the heart urchin *Maretia argutus*. The real treat for me was the diversity of nice gastropods. I even saw my second *Murex* from the Eocene. It was a good day.

For Sunday, our options were to go see if we missed anything or to go to Lake Nacogdoches. We've been able to skip the lake for several years due to all of the spots around San Augustine. With several of our sand dollar road cuts covered by grass, we went again to the lake. It was instantly apparent why our last trips weren't so good. We didn't see it incrementally happening every year. Now it is obvious that a large part of it is just gone. We always hunted in the water, at the edge of the water, even if we dug into the sides of the hills it was always close to the water. And we kept finding less each year. From the first time we went there I would say that at least a third of the land is gone, the lake has removed it. Possibly half. Some nice gastropods were found in the water along with a few corals. Digging yielded little. I did get into a "nest" of corals which was nice. I found nothing else. I can't declare the site gone, but it is in that vicinity. While this site was Weches Formation, it was near the bottom of the formation and had a lot of Queen City and Reklaw Formation fossils that were only available to us here. It will be missed.

The theme for this report is that we need new sites for East Texas. I'll keep trying. As for this trip, beautiful weather, spring green everywhere, lots of fossils and nice people – sounds like a great trip to me. See you in Oklahoma.

Odds and Ends

Spectacular new fossil bonanza captures explosion of early life

A wealth of ancient remains found by chance on the banks of a river in China are some of the most astoundingly preserved fossils now known on Earth, researchers report today in the journal *Science* [<http://science.sciencemag.org/cgi/doi/10.1126/science.aau8800>]. The 518-million-year-old site, called Qingjiang, joins just a few places around the world where fossil preservation is so extraordinary, it captures even soft-bodied animals.

Read more at <https://www.theguardian.com/science/2019/mar/21/mindblowing-haul-of-fossils-over-500m-years-old-uneared-in-china> & also <https://www.nationalgeographic.com/science/2019/03/treasure-trove-of-spectacular-fossils-found-in-china/>

STUNNING DISCOVERY OFFERS GLIMPSE OF MINUTES FOLLOWING 'DINOSAUR-KILLER' CHICXULUB IMPACT



A study to be published in the *Proceedings of the National Academy of Sciences* offers a scientific first: a detailed snapshot of the terrible moments right after the Chicxulub impact — the most cataclysmic event known to have befallen life on Earth..

Read more at <http://news.ku.edu/2019/03/29/stunning-discovery-offers-glimpse-minutes-following-%E2%80%98dinosaur-killer%E2%80%99-chicxulub-impact> & also <https://www.smithsonianmag.com/science-nature/fossil-site-captures-dinosaur-killing-impact-its-only-beginning-story-180971868/>

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 on the third Tuesday of each month at 7:00 p.m. in the Austin Gem and Mineral Society building located at 6719 Burnet Ln. in Austin, Texas. The public is welcome to attend. Visit austinpaleo.org for more information.

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

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