



Paleo Footnotes

Volume 14, Number 10

October 2019

President's Note

Erich Rose

PSoA President

Things are getting busy this month. Emelia is putting together paleo passports and we are handing out fliers for Fossil Fest wherever we can.

We handed out a lot of fliers and fossils at the Texas Memorial Museum Identification Day last month and will be doing more at Gem Capers later this month. Please make sure you have signed up for a shift at Gem Capers and of course Fossil Fest in November. Our show chair Emelia Rose will have more info at the meeting.

The field trip is planned for Lake Texoma although we are pushing it back to the 26th so it doesn't interfere with Gem Capers. Lake levels were pretty good as of this moment and hopefully will hold until the 26th. See the announcement in the newsletter.

Take care,

Erich

Next Meeting

Tuesday, October 15 – 7 p.m.
Austin Gem and Mineral Society Building
6719 Burnet Lane Austin, Texas

Next Field Trip

Saturday, October 26th – 8 a.m.
Lake Texoma, TX
See meeting directions in Upcoming Field Trip section

Upcoming Meeting Program

Paul Hammerschmidt

Programs Chair

Fossil Preparation 101, Erich Rose

From Tooth Brushes to Air-Abrasion

One of the most frequently asked questions some of us get from new collectors is how did you get it to look that good? Although I am by no means an expert I do know what can be done to clean up and preserve specimens. I'll talk about basic, intermediate and advanced cleaning techniques. We'll look at consolidants and proper storage as well as how to label and store your specimens with conservation in mind.

My presentation will be brief as I believe this will be a subject that others will weigh in on once we open the discussion to comments and questions.

Upcoming Field Trip

Ed Elliott

PSoA Field Trip Chair

We'll be collecting along the shores of Lake Texoma. Meet at 8:00 a.m. on **Saturday, Oct. 26** at the entrance to Eisenhower State Park. The later-than-usual date is because of our participation in the AGMS show.

Unless you want to leave at three in the morning, you will need to drive up the night before. Plan to stay overnight in the Sherman area, as we will also be collecting Sunday morning. We will visit a variety of sites. Some of these include large ammonites, so be prepared. You will definitely want to bring your hammers and chisels to remove specimens and backpacks to carry those specimens a fair distance along the lake shoreline.

It goes without saying that you will need lots of water, sunscreen, a good hat, food, sturdy shoes, etc.

September Meeting Minutes

Lisa Izzi

PSoA Secretary

Pleistocene Manatees in Texas

Speaker: Chris Bell

Chris discussed West Indian Manatees and their fossil records in Texas.

Misc. Business Notes:

-The club funds are the same

-Gem Capers Oct. 18,19,20th 2019

-Kathleen invited the club members to join her on a trip to a meteor crater south of Uvalde

-Please remember to drop off any Fossil Fest Flyers you picked up at the meeting

-We need display cases for Fossil Fest, you do not have to fill one on your own, please let us know if you would like to contribute

-Please sign up to work Fossil Fest

-Please sign up to work Gem Capers (volunteers remember to get there early for parking)

-We need snack volunteers for the October and November meetings (we also accept monetary donations, please contact Melvin)

-We have two outreach requests:

- -one for an active adult community – they would like a program about Paleontology
- -another for a Paleo club at a Middle School in New Braunfels

September Field Trip Report

Glen Rose Formation from Bottom to Top (Erich Rose)

We met in Startzville, Comal County, at 8am and headed on to our first stop. A good crowd showed including Kathleen Howard, John Hinte, Gary and Cathy Rylander, Melvin Noble, Kevin Bills, Paul Hammerschmidt, Jamie Shelton, Grady Parks, Lisa Izzy, Bob McDonald, Ron DiPronio, Vaughn Nelson, Santiago & Gaudalupe Gamez, Leslie Riddel, Manuel Oliver with his wife and two sons and of course your Field Trip leaders Ed Elliott and Erich Rose.

We began at a site along Canyon Lake that exposes the lower part of Unit 2 of the Lower Member of the Glen Rose Formation. That portion is known as an echinoid marker bed and often referred to as the micro-zone for the typical size of the fossils found there: tiny. Almost immediately folks started finding echinoids. There were numerous *Parorthopsis comalensis*, *Hyposalenia phillipsae*, a few *Leptosalenia texana*, *Pygopyrina hancockensis* and bits and pieces of many other echinoids including two *Balanocidaris* club spines found by Leslie as well as fragments of *Psuedodiadema* and *Paracidaris* spines, crinoids, crabs, and zillions of the foraminiferan *Orbitolina texana*. My two best finds that morning included a tiny *Goniopygus* sp. and a pocket of associated Echinuthoroid plates. And just to make the morning that much more enjoyable we had clouds and then rain, blessed cool rain. It was wonderful and we stretched our stay out until almost noon.

Our next stop was a road cut that exposed the “*Salenia texana*” zone. There we were at the top of Unit 2 and the Lower Member. The unit is named for the abundant specimens of the large *Salenia* echinoid *Leptosalenia texana* which was found along with its spines and the heart urchins *Heteraster obliquatus* and *Pliotoxaster comanchei*. The sun was back out and the site was not as abundant as hoped so we moved on fairly quickly.

Our last stop took us pretty much to the top of the Glen Rose Formation. This road cut was further north on US 281, almost to Johnson City. The top of that cut includes Unit 7 of the Upper Member and includes one of a few “*Loriolia*” marker beds. There we found the small echinoid *Loriolia rosana* as well as oysters and other molluscs. This site in the past has produced ammonites as well. I had been told that vertebrate material could be found and my personal find of the day was just that. What at first I thought was just a fragmented turtle leg bone turned out to be a rare crocodile femur.

All of the locations were within the Glen Rose Formation, Lower Cretaceous (Albian stage) and would be dated around 110 million years old. The Glen Rose makes up a great deal of the typical Hill Country landscape and if you are willing to explore you can find many great fossils within its varied layers.



The first of Leslie Riddel's two Balanocidarid spines.



Gathered along US 281 just south of Johnson City



Erich Rose's crocodile femur as found

Special Notices

Emelia Rose

PSoA VP/Show Chair

Outreach Update

Display Cases

If you are interested in putting a display case together for our theme of "New Discoveries," please let me know and we can help you create labels or pair you up with someone if you only want to showcase a small portion of your collection.

We have a lot of display cases to fill in the Hall! If you're in need of exhibit case ideas, please consider:

- Collection of fossils from a specific locality around Texas and surrounding area
- Collection of a specific type of fossil from localities all around Texas and surrounding area
- Display of how a plant or animal becomes a fossil
- Examples and a brief description of changes to an organism over time
- Collection of a particular organism and their structures
- One organism - the characteristics used to identify it with samples and diagrams
- Fossil and display showing what we were able to learn about that fossil

Upcoming Outreach

Gem Capers and Fossil Fest are approaching quickly, it is important to have the support of volunteers who make our show and participation in Gem Capers successful! If your schedule allows, please take a moment to sign up for a shift and help us spread the word on how awesome our club is as well as educate hundreds of individuals.

The Gem Capers is our key outreach event and helps us generate traffic at Fossil Fest. It is also a wonderful show that you won't want to miss! There are many open spaces that need to be filled, so please take a moment to see what is available and check your schedule to see if you are free. The sign up can be found at: <https://signup.com/go/QMKggBE>.

Fossil Fest is our main show and signing up for one shift makes a big difference! You do not need to be an expert in fossils as we will always have a senior member at all stations. Currently our biggest need is help at the event setup on Friday, November 1st. Details on what to expect that day can be found in the signup, but the majority does happen in the morning, so showing up for couple hours is incredibly helpful. Some stations that are excellent for new members or those that are still learning about paleontology are the Dig Pit and Touch Table/Microscope/Passports. This newly merged shift will rotate through all stations as needed, so there will always be a senior member there to help & you get to learn some great insights to some of the most common fossils found in Texas!

The sign up can be found at: <https://signup.com/go/XWxdEon>.

Odds and Ends

What Happened the Day a Giant, Dinosaur-Killing Asteroid Hit the Earth

Using rock cores from Chicxulub crater, geologists piece together a new timeline of the destruction that followed impact.

Read more at <https://www.smithsonianmag.com/science-nature/dinosaur-killing-asteroid-impact-chicxulub-crater-timeline-destruction-180973075/>

T. rex had a skull so hard even T. rex couldn't break it

Its chomp was so strong it should've shattered its own skull.

Read more at <https://www.cnet.com/news/t-rex-had-a-skull-so-hard-even-t-rex-couldnt-break-it-say-scientists/>

Dust cloud sparked explosion in primitive life on Earth

Smashing of monster asteroid half a billion years ago thought to have caused mini ice age.

Read more at <https://www.theguardian.com/science/2019/sep/18/dust-cloud-sparked-explosion-in-primitive-life-on-earth-say-scientists/>

Massive 'Ice Dragon' Ruled the Skies Above Ancient Alberta

The newly described pterosaur with a wingspan over 30-feet was one of the largest flying creatures to ever exist.

Read more at <https://www.smithsonianmag.com/smart-news/ice-dragon-ruled-skies-above-ancient-alberta-180973104/>

Ancient Worm Died in Its Tracks, Shedding Light on Animal Movement

The 550 million-year-old fossil shows familiar animals evolved before the Cambrian Explosion.

Read more at <https://www.smithsonianmag.com/smart-news/ancient-worm-died-its-tracks-shedding-light-animal-movement-180973049/>

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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