



Paleo Footnotes

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October 2018

President's Note

Erich Rose

PSoA President

Have you signed up for Gem Capers (October 19-21) and Fossil Fest (November 3 & 4) yet? Well, you better do so sooner than later or we will be coming for you... No, seriously, please sign up for one or both of these events if you can. We need all the help we can get for our two biggest volunteer and outreach events of the year. See the links to the online sign up forms later in the newsletter or contact Emelia Rose at showchair@austinpaleo.org.

I was so excited by the rains and the prospects for great collecting and yet I have hardly had time to get out myself. Unfortunately I was not able to attend the last field trip out to Bandera and vicinity. Looking forward to seeing the field trip report as I haven't talked with Ed Elliott since the last meeting. It rained like crazy that morning here in Austin but should have been cleared up out there in Bandera by the time folks got going. That site is known for some unusual echinoderms. In particular Comatulid (stalkless) crinoids. Several types appear to be present from tiny micros to some larger (1/2 inch plus) varieties. Our science advisor Dr. James Sprinkle has requested that if any of us have specimens from the Cretaceous of Texas we bring them to the next meeting. He has been contacted by a Ph. D. candidate from the University of Michigan doing research. Who knows, you may have the type specimen for a new crinoid. See the photos of a few of the specimens I have personally collected and will bring to the meeting. If you have similar fossils bring them as well.

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Next Meeting

Tuesday, October 16 – 7 p.m.
Austin Gem and Mineral Society Building
6719 Burnet Lane Austin, Texas

Next Field Trip

Saturday, October 13 – meet at 8:00am
Lake Bridgeport - Meet at the McDonald's in Bridgeport.
See directions in Upcoming Field Trip Report section.



Our Fossil Fest theme this year is a broader "Life in the Cretaceous Sea" and we need display cases filled with your best specimens. Ammonites, echinoids, corals, oysters, and more. All the cool stuff we find in our road cuts, creeks and backyards. Shark teeth and other vertebrate stuff is still welcome but we want folks to see that there was quite a variety of critters making this place their home below the waves 65-110 million years ago. Display cases can be fancy or simple. Hand-made labels are as good as printed ones. Don't be shy, and if you want some help let me know. I would be happy to help you set up a case and even confirm your graphics or identifications as needed. Either send me an email or meet me at this next meeting.

Until the 16th...

Upcoming Meeting Program

Paul Hammerschmidt

Programs Chair

Topic: Electronic Field Labels

Synopsis: The last two summers I volunteered with expeditions in the northern Bighorn Basin organized by the Bighorn Basin Paleontological Institute (BBPI) and the Academy of Natural Sciences of Philadelphia (ANSP). In preparation for this summer's dig, I developed a cell phone app to replicate paper field labels for specimens. Electronic recordkeeping brings a number of advantages such as ease of duplication, searching, and reporting. It also allows for annotations such as photographs, GPS, and RFID. The code I developed is copylefted and open source, and available to the world on GitHub.

Bio: Jim Rath's academic training was unrelated to paleontology and instead was in applied mathematics. He has a Bachelor's Degree from MIT and a PhD from the University of Texas in computational and applied mathematics. He spent the last decade working as a software engineer and data scientist in various capacities.

July Meeting Minutes

Gary Vliet

PSoA Secretary

PSA Monthly Meeting ... Sep. 18, 2018

President Erich Rose opened the meeting at 7 pm.

Paul Hammerschmidt introduced our speaker Christopher Torres, a U.T. doctoral student. Mr. Torres gave a very informative presentation on the Palaeognathae Family (ostrich, kiwi ... elephant bird, etc.)

After a break, the Business Meeting convened at 8:15.

- Mike Schmidt reported the club's bank balance. He also noted that for the upcoming Fossil Fest there will be 2 kinds of caps, but this year there will be no new tee shirts.

- Emelia Rose asked everyone to sign up to volunteer for Fossil Fest, which will be on Nov. 3 & 4 (Sat and Sun), with setup on Nov. 2 (Fri).

- Outreach: Emelia, Paul and Erich will be at an event at Old Settlers in Dripping Springs this weekend.

- Next Sunday (Sept 23) is Museum Day and there will be an event at the Texas Memorial Museum.

- **Mesozoic Crynoids: Dr. Sprinkle informed us that some researchers from the University of Michigan will be visiting Central Texas to search for information on Mesozoic Crynoids. If any of our members (or acquaintances) have good such specimen, you are encouraged to bring them to the next PSA meeting on Oct. 16th ... for these researchers to view.**

- Field Trip: Ed reported that the Clifton Quarry has a new policy that allows only employees on their site, so the planned field trip there this weekend (and in the future) is 'off'. This Sat the 20th the field trip is scheduled for the Pipe Creek (Bandera) area.

Meeting was adjourned at 8:45pm.

Fossil Fest Update

Emelia Rose

PSoA VP/ Show Chair

Fossil Fest is coming up soon on Saturday and Sunday, November 3 and 4. Show hours will be from 9 a.m. to 5 p.m. The theme is 'Cretaceous Sea.' The sign-up sheets have time slots of 3 hours, but please sign up for multiple shifts in a day. To make Fossil Fest a success, it is important to have help from as many members as possible.

Hats! This year hats are replacing the Fossil Fest T-Shirts. They will be available for purchase at the next meeting and Fossil Fest. Pricing is \$10 for Fossil Fest Volunteers / \$12 for members / \$15 to the public.



Needed: Fossils from the Cretaceous period for display cases. Please email showchair@austinpaleo.org or contact Erich at the upcoming meeting if you have fossils to display.

Finish combing through your fossil collection and start pulling out the ones you want to use to create an exhibit case at Fossil Fest this year. 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

Outreach Update

Emelia Rose

PSoA VP/ Show Chair

Upcoming Outreach

Gem Capers is the weekend after the October meeting and volunteers are still needed. All members are encouraged to volunteer, as it's a great way to give back to the Club. New members have the added advantage of learning new things about fossils at a fun event. All of our activities, such as the dig pit and spinning wheel, will have one veteran member, so please don't think that you may not know enough to volunteer. I have created sign-up sheets, and will be bringing a spreadsheet to the next meeting if you prefer to sign up that way. Thank you!

Gem Capers is October 19-21 at the Palmer Event Center in Austin. Please sign up at <http://signup.com/go/scnRSQJ>. We will be needing volunteers Friday through Sunday, as well as setup on Thursday. For more information go to: <http://agms-tx.org/gem-capers/>.

Fossil Fest is November 3 and 4 at Old Settler's Heritage Center in Round Rock. Sign up to volunteer at <http://signup.com/go/RtUZqjm>. For more information, go to: <http://austinpaleo.org/fest.html>.

Upcoming Field Trip

Ed Elliott

PSoA Field Trip Chair

Here we are again for another field trip change. Just like the Brazos River, Lake Texoma is at a level that has the shoreline covered. I asked for suggestions and the answer was Lake Bridgeport. There are two sites there and many more within an hour's drive. This will be a Pennsylvanian weekend. Most fossils will be small, so sectional containers or something similar will be useful. I always carry a hammer and chisel, but really don't expect to use it. I would watch the weather and bring appropriate gear. All the usual stuff: food, water, hat, etc. The people who show up will decide where we go next.

The easiest approach to me is to drive north on I35, take I35 west and go to Fort Worth. In northern Ft Worth exit US 81 and drive north to Rhome. In Rhome, take 114 north to Bridgeport. Go through Bridgeport until you get to US 380, take a right and see a McDonalds ahead on your left. Meet at 8:00, Saturday morning for a lot of fun.

Field Trip Report

Fossil hunting in Bandera, September 2018 (Ed Elliott)

It was a bit of a hairy drive down to Pipe Creek, at least for me. Heavy rains on I35 is never a good thing. But it all stopped a little after 7am and we faced a great day. In the parking lot with me were Mike Smith, Melinda and Frederick Falk, Margaret Russell, Paul Hammerschmidt, Grady Parker, Di Gazdar, Robyn Ulrich, John Hinte, Cathy and Gary Rylander, Andrew Dunham, and Rose Farmer.

Both of our stops were in the bottom of the upper member of the Glen Rose Formation, Trinity Group. Our first stop was a Leptosalenia site, though not in the "Salenia zone" beds. Though not that abundant, I remember at least ten were found. I know of

at least five echinoid species that have been found there. There are many kinds of bivalves, gastropods, several types of crab claws, bryozoans and the occasional coral, but our interest this day was to find the comatulid crinoids that are unusually abundant there. Around a dozen were found. At most Glen Rose sites they can be found, but only at this site is it not a rare thing. We stayed all morning and I could have stayed longer.

Our second site also had *Salenias* in more abundance. I'm convinced someone had collected there recently as only a few were found. All of the other Glen Rose fauna was there in abundance. It was a beautiful day to hunt with friends at a site we haven't gone to in a while. Hope to see you at the next one.

Special Notice

(Ed Elliott)

As mentioned earlier & one more reminder, Dr. James Sprinkle has found two paleontologists who want to work on describing and naming the comatulid crinoids we've been finding in the Glen Rose. To that end, if you would bring them to the next meeting to give or loan to him, they will be looked at during the following week. We are a club dedicated to science and helping to advance a paper written on this subject is the kind of thing we should be doing. I would love to know more about them and just having a name to call them would be great. Hope everyone participates. Thanks!

Odds and Ends

Nuclear Technology May Help Bring Early Mammal Evolution Into Focus

Using a neutron scanner at Los Alamos, paleontologists are generating high-resolution imagery of early mammal fossils. Read more at <https://www.smithsonianmag.com/innovation/nuclear-technology-may-help-bring-early-mammal-evolution-into-focus-180970263/#Gm5bFu5MLLwRcLZ7.03>

Spectacular ice age wolf pup and caribou dug up in Canada

Two mummified ice age mammals – a wolf pup and a caribou calf – were discovered by gold miners in the area in 2016 and unveiled at a ceremony in Dawson in Yukon. It is extremely rare for fur, skin and muscle tissues to be preserved in the fossil record, but all three are present on these specimens, which have been radiocarbon-dated to more than 50,000 years old. Read more at <https://www.theguardian.com/science/2018/sep/14/spectacular-ice-age-wolf-pup-and-caribou-dug-up-in-canada>

558m-year-old fossils identified as oldest known animal

Oval-shaped *Dickinsonia* lifeform existed at least 20m years before the 'Cambrian explosion' of animal life. The new fossils, of the genus *Dickinsonia*, are the remains of an oval-shaped lifeform and part of an ancient and enigmatic group of organisms called Ediacarans. Read more at <https://www.theguardian.com/science/2018/sep/20/558m-year-old-fossils-identified-as-oldest-known-animal>

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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