



PALEO FOOTNOTES

NEWSLETTER OF THE PALEONTOLOGICAL SOCIETY OF AUSTIN

VOLUME 16 | NUMBER 10

OCTOBER 2021



President's Note

Ahhhh Fall.

Fall is so beautiful with all the trees in red and yellow and orange.... Oh wait, I don't live there anymore. One of the very few things I do miss here in Texas. But the trade-off is that here the collecting season is about to get going big time. Where as back north as soon as we get them leaves all raked up the snow will be covering the ground and field trips screech to a halt. And I can still get some hot apple cider and a slice of pumpkin pie and there is no snow to shovel.

(continued on page 2)

This Month's Talk

Paleofloras: Using Fossil Floras to Reconstruct Past Terrestrial Environments

Presented by: Lisa Boucher

This presentation will be an overview of the paleobotanical record, summarizing key time intervals and the nature of plant fossil preservation. Plant fossils from Texas as well as other locations will be used to illustrate how the record contributes to our understanding of plant evolution and past terrestrial environments.

(continued on page 2)

OCTOBER 2021

PSoA Regular August Meeting
Tuesday October 19th - 7pm

Join Zoom Meeting
<https://us02web.zoom.us/j/85868125645?pwd=TzN2YTB1bkVjdXNiU0tC>
[N3IyalpYOT09](#)

Meeting ID: 858 6812 5645
Passcode: 280219

PSoA October Field Trip
Saturday October 23rd
8:00am in Moody
(see page 2)

President's Note

(continued from page 1)

Austin is just about back to stage three and I foresee real meetings starting again next year and hopefully an auction in the spring.

I had a great time on the last field trip. We had some new members, young and old, and I had a chance to meet and speak with a few of them. I probably spent too much time jabbering because when I got home I realized I had barely collected anything. Just a handful of nice bits, but nothing outstanding. Going to have to put my nose down this next time and find a real keeper.

Looking forward to the meeting and the field trip. Hope to see yall at one or the other, or better yet, both.

Erich Rose

PSoA President

This Month's Talk

(continued from page 1)

This month's speaker: **Lisa Boucher**

Lisa Boucher is currently Director and Curator of the Non-vertebrate Paleontology Lab at UT-Austin. She is a paleobotanist specializing in Cretaceous macrofloras and has collected fossils in several regions in the U.S. as well as conducting field research in Antarctica and Madagascar. Prior to her position at NPL, Lisa served as a Research Fellow and Lecturer with the College of Natural Sciences at UT-Austin and was an Associate Professor at the University of Nebraska-Omaha and a postdoc with the Smithsonian Institution. She earned a doctorate in plant biology from the Ohio State University and a bachelor's degree in biology from Cornell University.



Minutes from September's Meeting

We had an excellent speaker at our meeting this month. We covered upcoming field trips and mentioned that the Austin Gem and Mineral Society is still hosting their show 'Gem Capers' which is set to run October 22nd through the 24th at the Palmer Events Center. For more information on admission costs and event times please check out the AGMS website.

We look forward to seeing you at the next meeting.

Emelia Rose

PSoA Secretary

October 2021 Field Trip:

Moody + Evant Road Cuts

DATE: Saturday October 23rd - 8:00am

Moody Road Cut - Edwards and Walnut Formations

Evant Road Cut - Comanche Peak

We'll be visiting two large Road Cuts near Moody and Evant this month. The first is Edwards and Walnut formation, the second is Comanche Peak. We will meet at the Conoco Gas Station one block south of the intersection of FM 107 and 317. You can see the gas station to the left while sitting at the light after you cross the railroad tracks coming in on 107 from I-35. If coming from Austin, take I-35 just past Temple and look for the Moody/Marlin FM 7/ 107 exit. Exit Number 314. You will also see a sign for Mother Neff State Park. Go West on 107 to Moody. We will caravan from there to the Road Cuts.

Hill Country
FOSSIL & MINERAL
EXPO

AT HISTORIC CITY HALL
127/129 E. FRANKLIN ST, HILLSBORO, TX 76645

OCTOBER 22 10 AM - 6 PM	OCTOBER 23 10 AM - 6 PM	OCTOBER 24 1 PM - 5 PM
--	--	---

FEATURING MULTIPLE FOSSIL AND MINERAL VENDORS FROM ACROSS TEXAS AND BEYOND!

AUCTION, RAFFLE AND DOOR PRIZES

THE TEXAS THROUGH TIME MUSEUM WILL HAVE AN EDUCATIONAL BOOTH WITH ACTIVITIES FOR CHILDREN, PREPARATION AND RESTORATION DEMOS, AND MORE ACTIVITIES TO BE ANNOUNCED

Free Admission!

Poster for the Hill Country Fossil & Mineral Expo in Hillsboro Tx

Afterwards join us at the **The Hill Country Fossil and Mineral Expo** at the Hillsboro City Hall from 10-6pm. Hillsboro is about an hour and a half from our last roadcut stop. If you need directions we will provide them before we all break from the site.

Jamie Shelton

Field Trip Co-Chair

September 2021 Field Trip Report: Brady and Santa Anna

From the Pennsylvanian to the Permian in one day!

On a cool fall morning under a beautiful blue sky Ed Elliott, Gary and Cathy Rylander, Brian Bedrosian, Diane Bedrosian, Michael Treves, Jean, Keran Goldstean, Vaughn, Eric, Rick Goldgar, Gary Vleit, Alan Keith, Melinda and Fredrick Falk, Bob Sanders, Bob McDonald, Alejandro and his friend Julia, Alyson Dixson and her 2 children Haily and Rudy, Grady and me, Melvin Noble made it out to the road cut to collect. The morning weather was perfect. We had a large turn out and there was plenty of room to spread out and find specimens.

Bob McDonald brought some of the fossils he had found at the site over the years to show us, a beautiful whole Crinoid crown with arms still on it in the matrix (fig. 1). A beautiful specimen. He also had some large Spirifer Brachiopods and a big fat Derbyia Brachiopod. Several people tried collecting at the top of the cut in the Adams Branch limestone Canyon Group formation. I did also but mostly found a lot of cactus and mesquite thorns, but the view was spectacular.

Melinda found a nice crinoid cup. She also found a Myalina oyster, they are fairly common but mostly found in pieces, this was a particularly nice one and about 98 percent complete.

Fredrick found some nice Brachiopods, a really nice coral and a nice Ammonite, according to Ed, a Liroceras (fig. 3). Gary Vleit found the nicest Meeklla Striatocostata Brachiopod I have ever seen, both halves, the picture does not do it justice (fig. 2). I am jealous, been looking for a specimen like that for years. People found a lot of cool stuff and the children had a good time playing and were enthusiastic at collecting also.

About 11:45 we made a decision to go to the other site before it got too hot. The next stop was a Permian site that we had not collected for 5 years or more, so we were excited to get going. As they say in the old westerns "Wagons Ho!", so I lead the caravan toward Brownwood, then on to the Santa Anna area site. We pulled up to the locked gate and had to walk down a road then across the dam - but we are a hardy outdoorsy group and we finely arrived at our destination excited and anxious to get picking.

Melinda Falk called me over and she had something I might want to get a picture of. Were she had sat her collecting box down, she found a fully intact enrolled Amerura Missouriensis trilobite - just beautiful (figs. 4+5). A really nice specimen



Looking over the Pennsylvanian road cut near Brady, TX

we were all immediately jealous of and gave use renewed energy to set out to find our own. Ed Elliott said there two species in this formation, the other being a Ditomopyge Scitula. On the Ditomopyge, the raised ridge that runs down the middle of the posterior two lobes is covered with small nodes. Ameura is smooth. Another Trilobite was found just after that and Michael Treves also found a nice opened one in matrix. There were five found that I know of. Michae page 6 l, one our newest members, also found a gorgeous large cup about two inches across. Nice find. It was getting quite hot and late in the afternoon, so several people decided to mosey back to our vehicles. It turned out to be a good trip, everyone had fun and found some great stuff and I hope we get to collect both places again soon. Maybe after we have some good rain storms!

Melvin Nobel
Field Trip Co-Chair



Fig. 1 Full Crinoid Crown
Found by Bob McDonald previously at the site.



Fig. 2 Meekella Striatocostata brach
Found by Gary Vleit



Fig. 3 Liroceras ammonite
Found by Frederick Falk



Fig. 4+5 Amerura Missouriensis trilobite - Found by Melinda Falk



Tailings...

In The News

How Steller's Sea Cows Impacted the Environment They Left Behind

A new paper explores the ways these extinct megaherbivores would have reshaped kelp forests across the North Pacific

Devon Bidal, Hakai, [Smithsonian Magazine](#), October 15th, 2021

The Oldest Airborne Animal Was a Reptile With 'Weird' Wings

Paleontologists describe a 255-million-year-old weigeltisaurid fossil that likely glided through the air with the help of expansive winglike membranes.

Tess Joesse, [Smithsonian Magazine](#), October 13th, 2021

Modern Crocodiles Are Evolving at a Rapid Rate

Despite their reputation as "living fossils," crocodiles have changed dramatically in the last two million years.

Riley Black, [Smithsonian Magazine](#), October 7th, 2021

Puzzling skull discovery may point to previously unknown human ancestor

The remains were found with tools often associated with modern humans, but have features of archaic hominins who had been around for much longer.

Tim Vernimmen, [National Geographic](#), June 24th, 2021

Fossilized Footprints Reveal an Ancient Elephant Nursery in Spain

Straight-tusked elephants as young as two months old trampled around the area with their mothers.

Elizabeth Gamillo, [Smithsonian Magazine](#), September 20th, 2021

New Zealand Kids Discovered This Fossil of New Giant Penguin Species on a Field Trip

Paleontologists say the bird would have been roughly the size of a ten-year-old child.

Corryn Wetzel, [Smithsonian Magazine](#), September 17th, 2021

Female Spiders' Maternal Instincts Captured in 99-Million-Year-Old Amber

Four amber pieces are the earliest evidence of maternal care in spiders.

Elizabeth Gamillo, [Smithsonian Magazine](#), September 17th, 2021

2021 Field Trip Schedule

November: **Brownwood or Jacksboro - Pennsylvanian**

December: **TBD**

Side Trips:

Texas Red Beds

Our day in the Permian sun!

We had a very special opportunity to fossil hunt the Texas Permian Red Beds near Archer City with the director of the Texas Through Time Museum in Hillsboro (which we visited in August). This area is on private land and is leased by Andre LuJan and the Museum for their own research and fossil recovery, but he also occasionally will allow a small group of people (maximum of 10) to attend a paid expedition to collect vertebrate material from an era that is not typically available to collect – the Permian.

Most of us decided to make a "weekend" of it and met in Jacksboro on Friday. I made it a triple stop on Friday by hitting a spot in Fort Worth on the way up, then Bridgeport and THEN over to Lake Jacksboro! I met up with Kathy and Gary Rylander, Melvin Nobles, Gene Wu and Ron de Pronio who had already been at the Spillway site for quite some time! (David Lindberg had been there too, but left before I got there). It was a hot day (94 was the high), but totally worth it. There at least was a nice breeze at Lake Jacksboro so everyone got some pretty good hunting in....Gene especially because he found a complete *Tainoceras* nautiloid! Lucky Duck. I was happy to find a goniatite *Uddenites* and the most "complete" *Gonioloboceras* I've found so far...3/4 is better than nothing! That evening most of us had a nice picnic on the courthouse lawn on the Jacksboro square. Melinda Falk drove in that evening and joined us just as the sun was setting into a spectacular sunset. (Continued on page 5...)



The lucky Red Bed Hunters on site. Photo by Jamie Shelton

Texas Red Beds - Continued from page 4

We met at 8:30 in Archer City on Saturday mornZVing – with a couple of the crew driving in from Austin/San Marcos that morning. . . .an early early morning for Brian Bedrosian and Alejandro Mejia! We all caravanned to the ranch which was about 15 minutes south of Archer City. We drove way into the ranch and my little car only bottomed out a couple of times and Kathy only had to close half a dozen gates or so (thanks Kathy!) before we made it to the site, an old quarry with a pond and a steep surrounding cliff and two giant windmills on top. According to Andre, the site was originally discovered by Mr. Romer in the late 30s. The spot itself is not large, only 30x30 feet approximately, but with large spoil piles dotted around where they had scraped material off to get to more fossils. But the FOSSILS WERE EVERYWHERE. When you looked on the ground, it was just littered with small white fragments. . . all of which were bones of amphibians and reptiles, fish and shark teeth and spines. Some were just fragments, but scattered amongst the fragments were vertebrae, toe bones, claws, teeth, and jaws. As Andre said, one person could sit in a 10 foot radius circle and be busy all day picking up all the bits. And interestingly, you could switch places with someone and STILL find stuff they had missed! I think we all pretty much hit every area of the spot, finding stuff at every area. I know that Melinda had a box full of good stuff!

The most abundant fossil by far were the Orthocanthus shark teeth with a weird double bladed tooth. Most of the larger ones were broken but occasionally you'd find a fairly decent one. I found a perfect blue one which I was super happy with. The colors in these fossils is absolutely amazing. . . lots of pale blue, lots of oranges and reds to almost purples. Most of the fossils are small, with the occasional big thing found – I think Gary found the biggest vertebra of the day – it was about an inch in diameter, maybe more.

This is an area where the Texas Through Time team found a full Dimetrodon skeleton (possibly two if I remember correctly) so we were all on the lookout for Dimetrodon material. There are at least two different Dimetrodons found at this site. Their sail spines are distinct – one has a double barrel



View of red rock site, windmill in the distance

look and the other has spiny spurs every few inches. Kathy found a nice example of the spiny noded one (*Edaphosaurus*) and Melvin found one of the lower neural spines, with a kind of club like end on it. Toe bones were the most common *Dimetrodon* fossil found out there. . . I found four of them. But Gene found “the claw”. I think he found the only claw that day!

The other fossils that were abundant were the amphibians – *Eryops* and *Archereon*, as well as a variety of other amphibians. These animals could be quite small to really big (9 to 10 feet). We found toe bones (David found a really nice big one), vertebrae and dermals with the occasional tooth and jaw fragments. Alejandro found a nice *Eryops* skull fragment with a bit of jaw and tooth sockets visible. One of the most (Continues on page 6. . .)



Fig. 6 *Eryops* jaw fragment showing visible tooth sockets



Fig. 7 *Eryops* tooth which would fit into jaw on left

Texas Red Beds Continued from page 5

interesting things were the “tooth plates” - smooth on one side with tiny tiny “hersheys kisses” like teeth on the other. Brian said that was this was his favorite “take-away”.

After four hours of collecting (mostly on hands and knees!) we all had collected a nice selection of Permian fossils. But then the shovels came out and we got to fill up sand bags of matrix to take home and sort through at our leisure! So not only was the fossil hunting spectacular at the site...now we still have some fossil hunting from home to look forward to! Oh, and PS....Andre said he REALLY enjoyed having our group out there, that we were fun, appreciative of the opportunity and courteous and he would be happy to have us out there again... which apparently he does not extend that invitation to all groups because some have been....not so courteous! So we WILL do this again sometime. I'll keep you posted!

**Jamie Shelton
Side Trip Report #1**



Team with eyes focused on the ground, grateful for the breeze that fed the neighboring wind farm



Fig. 8 Orthocanthus shark doubled bladed tooth with amazing blue pigment



Fig. 9 Dimetradon bone

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 normally 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.

Please note, due to COVID 19, in person meetings have been temporarily paused, and monthly meetings are instead being held on Zoom. Please see instructions above to attend the meetings virtually. Please note all virtual meetings are recorded and the Society may elect to publish the video of these meetings, in part or in total, to the Societie's website or another publically accessible venue as benefits the goals of the club listed above.

Membership Information

2021 Officers

Annual Dues: **\$18/individual**
\$24/family
\$12/associate (non-voting, receiving newsletter)

Pay on-line at: <https://www.austinpaleo.org/newMembership.html>

Send payment to: **Treasurer, Paleontological Society of Austin,**
P.O. Box 90791, Austin, TX 78749-0791

PSoA Web Site: www.austinpaleo.org

Webmaster: [Gordon Galligher, webmaster@austinpaleo.org](mailto:Gordon.Galligher@austinpaleo.org)

Facebook: <https://www.facebook.com/austinpaleo>

Twitter: [@Austin_Paleo](https://twitter.com/Austin_Paleo)

President
Vice President
Treasurer
Secretary
Field Trips
Programs
Editor
Webmaster
Show Chair

Erich Rose
Heather Radford
Mike Smith
Emelia Rose
Melvin Noble & Jamie Shelton
Paul Hammerschmidt
Brian Bedrosian
Gordon Galligher
Heather Radford

president@austinpaleo.org
vicepresident@austinpaleo.org
treasurer@austinpaleo.org
secretary@austinpaleo.org
fieldtripchair@austinpaleo.org
programchair@austinpaleo.org
editor@austinpaleo.org
webmaster@austinpaleo.org
showchair@austinpaleo.org

Science Advisors: **Pamela R. Owen, PhD.** powen@mail.utexas.edu
James T. Sprinkle, PhD. echino@mail.utexas.edu

Permission to copy material printed herein is granted provided proper credit is given to the author and source.
The Paleontological Society of Austin is a member of and affiliated with:

South Central Federation of Mineral Societies & American Federation of Mineralogical Societies

