PALEO FOOTNOTES

NEWSLETTER OF THE PALEONTOLOGICAL SOCIETY OF AUSTIN

VOLUME 19 | NUMBER 12

DECEMBER 2024

President's Note

Happy Holidays, everyone!

I wanted to let you know that I will not be attending the White Mammoth & Potluck this year. Eric Jones will be running the event in my place, and I can't wait to hear all about the gift-stealing drama when I return from vacation.

A huge thank-you to all our members who volunteered and served as officers and chairs throughout 2024. Your dedication makes our society run smoothly. And also, a special thanks to those stepping up to volunteer and serve as officers and chairs for

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This Month's Speaker

NO SPEAKER THIS MONTH

White Mammoth + Potluck Details

Remember the December meeting on Tuesday 12/17 at 7:00 PM will be a White Mammoth Gift Exchange and Potluck. Please bring a dish to share with your fellow PSoA members! If you'd like to participate in our annual White Mammoth Gift Exchange, please bring a wrapped fossil, or fossil themed gift. Do not include a gift tag/ information about who the gift is from. The value of the gift should be around $20.00. You can RSVP and include the food item you will be bringing here.

December 2024

PSoA White Mammoth + Potluck
Tuesday December 17th - 7pm
AGMS Clubhouse
6719 Burnet Lane

Join Zoom Meeting
https://us02web.zoom.us/j/88451710052?pwd=Uy9hV05BTy9rUmIzYlMzdVVnNTVjdz09
Meeting ID: 884 5171 0052
Passcode: 603270

PSoA Club Field Trip
NO CLUB TRIP THIS MONTH

Happy Holidays!

President's Note

(continued from page 1)

2025 - we're looking forward to another great year with your leadership.

I hope that you all have had a fossil-filled 2024 and are as excited as I am about the field trips and speakers we have lined up for next year. Wishing you all a joyous holiday season and a fantastic start to 2025!

Heather Aziz
PSoA President

Volunteer Opportunity:

Texas Science & Natural History Musuem - Texas Memorial Museum

Texas Science & Natural History Museum is looking to expand its volunteer team. Are you or someone you know passionate about informal science education?

Volunteers at Texas Science & Natural History Museum are part of the Education Team and are called Gallery Guides. Gallery Guides interpret up-to-date and engaging scientific information to visitors to the museum's exhibit galleries, lead guided tours, participate in museum events, and provide identifications of local fossils. Join us by applying to be a Gallery Guide. Please send your resume to **TMMEducation@austin.utexas.edu** and complete the following application form.

Apply Now

Feel free to share this information with dedicated individuals who are passionate about science outreach! Thanks!

Liam A Norris
Graduate Research Assistant
Texas Science & Natural History Museum

Minutes of the November Meeting

At the November meeting we voted in the following slate of Officers and Board Members for 2024.

President	**Heather Aziz** (Board Member)
VP & Show Chair	**Eric Jones** (Board Member)
Treasurer	**Mike Smith** (Board Member)
	(Frederick Faulk to shadow Mike)
Secretary	**Paul Hammerschmidt** (Board Member)
Editor	**Brian Bedrosian** (Board Member)
Co-Field Trip Chair	**Jamie Shelton** (Board Member)
Co-Field Trip Chair	**Melvin Noble** (Board Member)
	(Ed Elliot to assist Jamie and Melvin)
Webmaster	**Trevor Ray Thompson**
Program Chair	**Jamie Shelton**

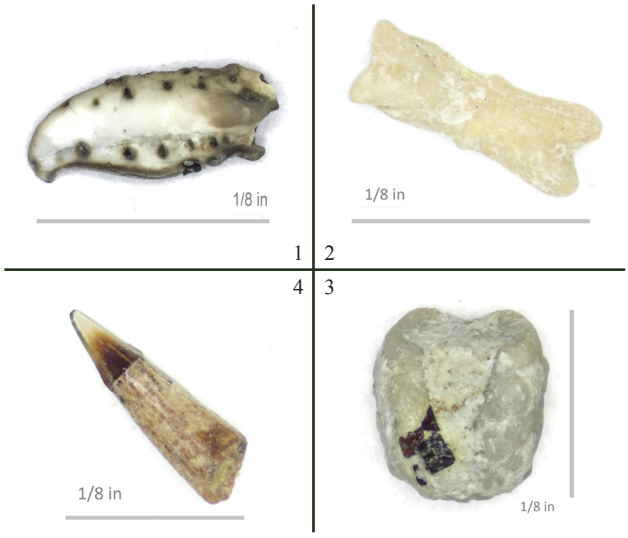
Our speaker this month was Ben Rodwell from UT who gave an excellent talk about the Graveyard Formation near Big Bend NP in West TX and the rodent teeth he is studying from that site. He additionaly spoke about re-discovering Bone Hash Hill from citings in Dr. Jack Wilson's field notebooks and the search for additional primate fossils to compliment the Rooneyia viejaensis skull that Dr. Wilson found in the 60's.

The Micro Matrix

Walnut Formation tiny finds! Unknown Crab Claw, Echinoid mouthpart Rotula, Starfish ossicle, and Fish Tooth Amia sp.

1. **Crab claw**
2. **Rotula** - part of echinoid aristotles lantern (mouth part)
3. **Starfish ossicle**
4. **Amia sp. fish tooth**

Jamie Shelton
PSoA Member, Programs Chair, Field Trip Co-Chair



November Field Trip Report:
Brownwood Sites

Fig. 1 **Petalodus** sharks tooth in matrix (Eward Elliot)

On a fall collecting day, with perfect weather, a large group of the Paleo Society of Austin met to collect in the Pennsylvanian Period outside Brownwood Texas. Edward Elliot, Eric Jones, Frederick and Melinda Faulk, John Herron, Rick Golgen, Kevin Bills, Ray and Polly Atkinson, Paul Hammerschmidt, Cindy Collins, Tyler Stoviak, Santiago and Guadalupe Ozuna Gamez, Allen Keith, Leia Pfaff and me, Melvin Noble met at the meetup point then caravanned to the collecting site with Ed leading the pack while I brought up the rear. As we got close to the creek that was just before the collecting site, everybody stopped. Apparently there was water going over the low water crossing. Allen Keith waded across it turned out to only be about 6 inches deep. After a little debate everybody decide they could make it and would not try to take the long way around. This was good news because apparently it had rained up here so that made the collecting better. Perfect weather and good collecting, you can't get any better than that. When we got there, somebody before us had left the gate open. It is really more of a barbed wire removable gate than a regular gate. We keep it closed and we made sure the gate was closed when we left. This is very important because sometimes they run cattle in here. After the group picture

Fig. 2 **Petalodus** sharks tooth (Eward Elliot)

Fig. 3 **Glikmanius occidentalis** sharks tooth (Tyler Stoviak)

everybody spread out so I went to the left on a hill that's been known for rare shark's teeth. I found bits of Petalodus sp. and some really nice bivalves but nothing to spectacular. Tyler spent his time looking for shark tooth rarities in that area. He found what looked like a species of Helotus sp. or Orodus sp. shark tooth (fig. 4). After a lot of research and taking to my friend Ed who showed me some papers on Helotus, I found an image of one found in Russia that was almost a exact copy. This one could always be a new species of Helotus or not. Pennsylvanian sharks can be hard to ID. Very Nice!

Fig. 4 **Helotus sp.** sharks tooth (Tyler Stoviak)

Frederick Faulk found the first trilobite pygidium (fig. 8). Melinda found a piece of Deltotus shark tooth (fig. 7). I drifted off to a different area to see what other people were up to and what I could find. We should call this the trilobite trip because of all the trilobite pygidiums found. All in all, I think about 7 or more people found them - Eric, Frederick, Tyler, Kevin, Melinda, Cindy and Ed all found trilobite pygidiums with good detail. I found a star shaped crinoid basil plate. Eric Jones found a nice trilobite that was enrolled with just part of the cephalon missing. Kevin Bills found a nice crinoid cup.

The find of the day went to Tyler for finding a Goniatite ammonite chunk (fig. 6). Pretty rare and I have not seen one like this at this site. They were an early ammoniod from the Middle Devonian thru the Pennsylvanian and died out at the end of the Permian, that look a little like a Nautilus. Ed and I each thought we found a piece, but Tyler's is the only for sure piece. Tyler also found some really interesting tooth species later. He found a Hybodont lissodus (fig. 5) and a nice Glikmanius occidentalis (fig. 3). Glikmanius was a cladodont tooth shark from the Carboniferous that could reach a length of 20 feet. Lissodus was a shark-like cartilaginous fish

Fig. 5 **Hybodont lissodus** sharks tooth (Tyler Stoviak)

Brownwood (continued)

from the late Devonian through late Cretaceous that shared an ancestry with sharks and rays. We need more finds of Pennsylvanian shark teeth and more research papers done on them. It is good to see young people like Tyler looking for specimens and researching these species.

Rounding out the day were to archeological finds - Cindy Collins found a nice scraper (fig. 9) and Eric Jones found a very cool point (fig. 10(- not quick complete, but still very exicting. While this site is know to be comprised of spoil piles, clearly some of the canyons are exposing layers of previous occupation on the site.

Unfortunately, I had to leave early and I don't know what else anybody else found but I know everyone had a good time. It was a great day for collecting with great weather. For me its always good to be back home in my old stopping grounds with the mesquite and cactus. We all look forward to more trips here.

Melvin Noble
Field Trip Co-Chair

Fig. 6 **Goniatite** ammonite fragment (Tyler Stoviak)

Fig. 7 **Deltodus** sharks tooth (Melinda Faulk)

Fig. 8 **Trilobite** pygidium (Frederick Faulk)

Fig. 10 **Stone Scraper** (Cindy Collins)

Fig. 10 **Stone Point** (Eric Jones)

Side Trip:

Fossil Room Field Trip for Cambrian Trilobites

I was unable to go on my planned fossil hunting trip this past summer to collect Cambrian trilobites, Cretaceous dinosaur material, and opalized ammonites. As a consolation, I saw online that for a reasonable price ($105 including shipping!) I could order 40# of Cambrian shale from the U-dig fossil quarry west of Delta, UT. This is Wheeler Shale and Marjum Formation from the Middle Cambrian. Per Wikipedia, the Wheeler Shale also represents a Konservat-Lagerstätten.

Fig. 1 **Right out of the box!**

Fig. 2 **Unprepped slab of trilobites**

I decided to order the 40# package and go on a fossil Field trip in my Fossil Room. Their website was easy to navigate and informative and I received the shipment in less than 10 days after ordering it. When my shale arrived it was in a nice and sturdy box, well-packaged & contained some hefty sized pieces of shale. Also, some pre-prepared and identified trilobites were sitting on top from the U-dig folks!

Included with the shipment were data sheets describing & identifying the fossils that could be found in this shale and a guide for splitting the shale. Online there is a video from U-dig demonstrating shale splitting.

I laid out all the pieces of shale & looked for any obvious fossils & then started splitting. For some pieces of shale, I could split it down to 1/8" thickness. It's quite messy when splitting and I suggest using a tarp or splitting it outside. I kept pieces that still looked promising to set out in the weather & reduce the shale to hopefully uncover additional fossils.

The fossils I found range in size from 1-1/2" trilobites to fossils less than 1mm. I found 1 enrolled trilobite so far. Most of the trilobites are flat and many are moults although there are surprising number of complete specimens. The shale is full of small pieces of fossils if you're interested in microfossils.

I've thoroughly enjoyed my fossil room field trip and recommend trying the U-dig shale if you can't get to their site in Utah. I have spent many happy hours splitting the shale, and cleaning and preparing the specimens. I still have identification to do - with most of the specimens being Elrathia kingii trilobites.

Ron DiPronio
PSoA Member

Fig. 3 **Sample of found and provided trilobites**

Fig. 4 **Cache of trilobites!**

Tailings...

In The News

A Paleontologist Cracked Open a Rock and Discovered a Prehistoric Amphibian With a Clever Survival Strategy
Named “Ninumbeehan dookoodukah” by Eastern Shoshone students and elders, the creature burrowed in riverbeds to stay moist during extreme droughts
Eli Wizevich, Smithsonian Magazine, December 11th 2024

Footprints Reveal Two Early Human Species Walked the Same Lakeshore in Kenya 1.5 Million Years Ago
A new, “mind-blowing” discovery reveals evidence that Homo erectus and Paranthropus boisei stepped at the same site within days—or hours—of each other
Sarah Kuta, Smithsonian Magazine, December 2nd 2024

Paleontologists Discover a New Pterosaur, Filling a Key Gap on the Evolutionary Timeline for These Flying Reptiles
Revealed by a German fossil, the newly described species sheds light on questions that scientists have been puzzling over for nearly two centuries
Margherita Bassi, Smithsonian Magazine, November 25th 2024

Italian Hiker Discovers Animal Tracks From a Time Before Dinosaurs, Hinting at a Prehistoric Ecosystem
Revealed by melting snow in the Alps, the imprints in rock were left by reptiles and amphibians during the Permian period, which ended with the world’s largest mass extinction
Alexa Robles-Gil, Smithsonian Magazine, November 20th 2024

These Fossil Teeth From an 11-Year-Old Reveal Clues to Why Humans Developed an Unusually Long Childhood
Roughly 1.77-million-year-old teeth show that slow development in hominids may have had an earlier start than previously thought, according to a new study
Alexas Robles-Gil, Smithsonian Magazine, November 15th 2024

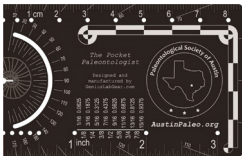
2024 Field Trip Schedule

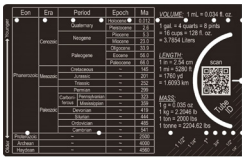
December **White Mammoth and Pot Luck**

Locations in italics are alternates depending on weather and availability.

Important Note: Please refrain from visiting sites the club is scheduled to access as part of a scheduled field trip. Doing so can clear a site of quality fossils and negatively impact the experience folks will have, especially new members, if the site suddenly feels “picked over”. We do our best to carefully space out trips to allow them to recover, so please be respectful of the club and stay off these sites within 3 months of a planned trip. Please note that dates and locations are subject to change - check the monthly newletter or come to our monthly meetings for updates.

Austin Paleo Gear!





The Pocket Paleontologist
Eric Jones, on behalf of the PSoA, produced this awesome laser etched card that includes handy scales and other information for use in the field. The size of a credit card, it fits neatly in you walet so you always have it with you. Availble for sale at our meetings or by contacting Mike Smith. Makes a great gift!

WhatsApp for PSoA Members

This would be handy for folks to have on their phones for Fossil Fest - or just an easy way for the board to communicate with you when email is not practical.

We are not setting this up for random interactions, like “anyone know what this fossil is”. The goal is to have something we can use to broadcast last minute field trip changes, emergency notifications (like “we are locked out of AGMS, meeting cancelled”), pleas for help at Fossil Fest, etc.

To start you need WhatsApp installed on your phone. If you don’t already know, WhatsApp is an app similar to normal texting and will show up as a text message on your mobile devices. If you want to get real-time information without having to check the app, then make sure to allow push notifications when you set it up. Then just scan the QR code and an Admin will approve your joining the group.

Good Field Trip Etiquette

1. Arrive on time or early. At the prescribed meeting time (often 8AM) you should be out of your car standing with the field trip leader, signed in and ready to hear the day's schedule, directions and helpful pointers.

2. Do your homework. Use one of the online mapping programs to determine travel time and directions from your home the day before. Take the map with you and leave at least 15-30 minutes early. This is critical when we are going to quarries, private property or if the first stop is a meeting-point, not the collecting site. The field trip leader will not wait more than 15 minutes beyond the scheduled time.

3. Make sure you have the field trip leader's phone number. Their number will appear in the field trip notice. Bring a copy of the notice from the newsletter or e-mail blast so you have the information. That is the best way to find the group if you do get delayed or lost. But do not count on it. Some of our remote sites have poor cell reception. We have no way to guarantee you will get there if you miss the meeting spot.

4. The first stop is not breakfast. Please do not expect the rest of the group to wait while you order food or take care of business. If you need to do that, arrive 30 minutes early and then be ready to go at 8:00AM sharp!

5. The field trip leader sets the schedule. Gather near the leader at the beginning of every trip and listen carefully. The leader will describe where and when things will happen. That will include directions, plans for breaks and everything else you need to know about how the day will unfold. If you are not sure about directions or the schedule speak directly with the field trip leader. Do not count on hearsay.

6. Do not ask the entire group to stop for unscheduled breaks. If you need to take a break during the day, do it after you know where the collecting site is located. The field trip leader will usually schedule a break around lunch but not between every stop. Follow the group to the site and then circle back for food or facilities. This is why we suggest bringing your own food and beverages. Also being prepared with TP, or whatever else, for "emergencies".

7. Sign in and don't forget to report to the leader when you leave. This is not critical, but he or she will greatly appreciate those two things. Having everyone's name let's him know how well attended the trip was and we like to list everyone in the follow up reports. Secondly, getting a chance to hear and see what you found that day and being able to keep track of who is on site at the very end is just a good thing.

8. Be prepared. Make sure you have the materials you need to collect safely. In particular, water, hat, sunscreen and food.

9. Don't crowd the next guy. Please be courteous of your fellow collectors space. If someone says "Hey I found a good one!" don't come rushing over and crowd into their collecting zone. Let them offer to share the space. You can ask them where they found it and then move off to one side or the other, but don't just plop down next to them.

10. Be safe. If someone is working an area on a slope do your best not to pass above them. If you need to do so, please let them know you are passing and do your best not to send any debris down on top of them. If someone is working above you and you must pass below, please alert them for the same reasons. Generally speaking, if someone is working a spot respect that they "own" that area and your passage through or around that location should only be done with their permission and/or invitation.

11. Over the past year we have had several new members joining the club from all walks of life - it is important to remember that we may have differing views on the world. However, we are all united by our common appreciation of paleontology and science. When meeting in the field or at the clubhouse, please be respectful and refrain from topics that may be alienating to others - such as religion and politics - as we want all people to feel welcome and a part of the club.

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, our monthly meetings are currently held in a hybrid format, with in person gatherings at the AGMS Clubhouse which can also be attended virtually via Zoom. Please see information provided on page one of this newsletter each month. Whlie we are not currently requiring masks at any in person gatherings, we ask that you maintain a safe distance from others when socializing. 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 Society's website or another publically accessible venue as benefits the goals of the club listed above.

Membership Information

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**
Facebook:	**https://www.facebook.com/austinpaleo**
Twitter:	**@Austin_Paleo**

Current Club Officers

President	**Heather Aziz**	president@austinpaleo.org
President Emeritus	**Erich Rose**	
Vice President	**Eric Jones**	vicepresident@austinpaleo.org
Treasurer	**Mike Smith**	treasurer@austinpaleo.org
Secretary	**Paul Hammerschmidt**	secretary@austinpaleo.org
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The Paleontological Society of Austin is a member of and affiliated with:

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