

PALEO FOOTNOTES

NEWSLETTER OF THE PALEONTOLOGICAL SOCIETY OF AUSTIN

VOLUME 20 | NUMBER 03

MARCH 2025



President's Note

I had a fantastic time on the side trip to Archer City this past month!

I think I can speak for most of the attendees when I say: we really lucked out with the weather that day. I haven't had the time to yet, but I cannot wait to go through my bag of matrix to see what's inside.

We are looking for a few members that would like to help with tasks associated with planning and holding Fossil Fest. Please reach out to Eric Jones (vicepresident@austinpaleo.org) if you are interested.

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This Month's Speaker

Early Texas Geologists + Paleontologists

Speaker: **Christopher Garvie**

Christopher Garvie is our Speaker for March and he will be talking about early Texas geologists and paleontologists - mainly from the 19th century.

Christopher was born in Aberdeen Scotland and grew up between London and Hamburg Germany. While working on a degree in applied mathematics from Aberdeen University, he took his first geology course - mainly hard rock stuff..

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March 2025

PSoA Regular Meeting
Tuesday March 18th - 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
Whiskey Bridge
Saturday, March 22nd - 8am
(see page 2 for details)

President's Note

(continued from page 1)

Remember that our April auction and potluck will be on April 19th from 12:00 pm – 3:00 pm at Westcave. This is a very fun event where members can bring fossils or fossil related items to donate to the auction. During the auction other members can bid on those items (you could even buy your own item(s) back). We also get to enjoy potluck dishes and BBQ prior to the auction so don't forget to bring something to share. All auction items sold help fund our Society's activities. I hope to see you there. If you'd like to attend the April auction and potluck sign up [here](#). (We will need an accurate headcount so that we order enough BBQ.)

Looking forward to seeing you all at the monthly meeting!

Heather Aziz

PSoA President

Minutes of the February Meeting

Heather Aziz opened the meeting at 7 pm and welcomed the members and visitors.

Our speaker this month was Jared Cooke who is a Texas fossil hunter, paleontologist and Zoology student at Texas A&M University. He is also a social media content creator where he shares his finds and adventures in the field.

Jared spoke about his start in paleontology, documenting his progress as he transitioned from an amateur fossil hunter to a paleontologist. The focus was on some of his most significant finds - some mosasaur specimens from animals that may be new to science. They are currently in the process of preparation that should reveal more information about each specimen.

Heather next opened the floor for the society's monthly business meeting. The following items were discussed:

- Members were encouraged to speak with Eric Jones - Vice President & Fossil Fest Chair, about helping him with development of this year's Fossil Fest event.
- Jamie Shelton informed the membership that the club interested in volunteering for Dino Days held at Zilker Park Botanicals Gardens March 15 and 22. Please let Jamie know,
- Jamie Shelton and Melvin Noble - Field Trip Co-Chairs discussed this month's field trip - Saturday March 1 at Harker Heights meeting at the HEB on Indian Trail at 9:00 am.
- Bill Thompson talked about a museum in Germany he is donating a selection of fossils to and encouraged others to do the same.

The president closed the meeting at 8:10pm

Paul Hammerschmidt

PSoA Secretary

March 2025 Field Trip:

Whiskey Bridge

Date: **Saturday 22nd**
Time: **8:00am**
Meet-up: **At the Bridge**
Bridge crossing the Brazos on Hwy 21
Formation / Era: **Middle Eocene - Stone City Formation**

We are not able to access some of our East Texas sites this year, so club trip will be going to Whiskey Bridge! This is a well known and published location just outside Bryan TX, so we will meet at the site at 8 a.m. on Saturday, March 22nd.

To get there look for an old train bridge crossing the Brazos River at Texas State Highway 21. From Austin, take either US-290 or TX-71 east and turn left onto TX-21 heading north toward Caldwell. Eleven miles past Caldwell, just after FM-50 on the right and County Rd-221 on the left, you will see a rusty railroad bridge. SLOW DOWN and prepare to turn left across the highway and onto a small pull-off along the left side of the road just before the bridge. If you miss the turn, cross the bridge, make a U-turn, and come back to the pull off. DO NOT PARK near the railroad equipment, but instead park along the small road/grass above the river. We will be collecting along the west bank of the river just below the parking area, so if you get there late just walk down to the river and you will find us. This is a middle Eocene marine site, gastropods, bivalves, shark teeth, fish ear bones can be found. Most of the finds will be small and only a knife or small screwdriver is required. Sectional boxes can be useful. It can be muddy and slippery if it has rained so be prepared. This is an easily accessible site with easy picking - a great spot to bring the kids!

If you have any questions, feel free to email Melvin at fieldtripchair@austinpaleo.org before the weekend or you can reach him at (512) 468-8914 the day of. See you there!

Melvin Noble

Field Trip Co-Chair

This Month's Speaker

(continued from page 1)

He worked about half his career in aerospace (NASA, Boeing, etc), the remainder in business (IBM, Compaq, etc). He has been interested in fossils and the books about them since about 1970, and has amassed a large library. He is member of the PSoA and Houston Gem & Mineral Society, and was Field Trip Chair for many years and the President for two.

Christopher has written 25 peer reviewed papers -14 as sole or first author - on mollusks, crabs and other invertebrates as well as two environmental papers and one mathematics paper. He has lived in the Austin area off and on since 1994, lived permanently here since 1998. Mr. Garvie's collection at one time was c. 1/2 million specimens, and has recently donated about half of that to the Invertebrate Paleontology lab at UT.

Volunteer Opportunity:

Texas Science & Natural History Museum - 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](#)

Liam A Norris

Graduate Research Assistant
Texas Science & Natural History Museum



General Announcement:

Austin Gem and Mineral Society Celebrates 75 years!

This year is the 75th Anniversary since AGMS was founded! To mark the celebration, we are hosting a year-long celebration culminated by our Gem Capers Show in October with "Diamonds" as the theme.

The kickoff event is our General Club Meeting which will be held on Saturday, March 22 starting at 2:30 PM at the clubhouse (6719 Burnet Lane, Austin). We are planning a cookout with hamburgers and hot dogs, speakers, presentations, etc. Dan Shurtz, SCFMS President will be attending as well as representatives from ACC and other community partners.

Please extend our invitation to your club members to join us for a fun afternoon and help us celebrate our Diamond Jubilee! If any of you would like to say a few words about AGMS, our history together, remembrances, etc, please email [me](#) or [Mark Barber](#) so we can include you in the event.

We look forward to seeing you in March!

John Connors
AGMS President

Become a Gallery Guide at Texas Science & Natural History Museum!

- Join the Education Team
- Engage & inspire visitors
- Lead guided tours
- Learn more about natural history of Texas

Volunteers needed!

Scan me to learn more and apply!

Outreach Opportunity:

Wild Basin

The past two years for spring break we have provided an outreach table for a spring break event at Wild Basin called Wild by Wild Basin (WXWB). They provide a pop up tent at the trailhead and we interacted with guests before or after they hike. They are looking for us to host a tabling event from 9:30-12:30pm or 10-1pm on Tuesday March 18th, Wednesday March 19th or Thursday March 20th. They only need us one day and are open to afternoons as well - but mornings are popular at this time of the year.

Please reach out to our president Heather if you are interested in participating in these or future events: president@austinpaleo.org



Outreach Report:

Dino Days at Zilker Botanical

On March 8th I represented the club at the annual Dino Days event at Zilker Botanical Gardens. We had a usual touch table set up and I was able to speak to a variety of folks interested in paleontology and fossils in general. It was a lot of fun, lots of very small dino enthusiasts came by, plus some adults as well. We may get a few new members out the effort and definitely attendees as Fossil Fest.

Mike Smith
PSOA Treasurer

Club Accolades: AISD Science Fair 1st + 2nd Place!

Two of our young members were awarded with high honors as the AISD District Science Fair this year!

Emerson Bedrosian experimented with various acidic fluids to determine how best to remove matrix from echinoid tests found at Harker Heights (a very timely subject) - a topic that arose from a trip we took to the area with Eric Jones. Working with various solutions of lemon juice, white vinegar, muriatic acid, and rainwater - he determined that the low acidity of rain water was the most effective at removing the stone while not damaging the fossils. For this project he received First Place at his school and was in the First Place group at District!

Anders Bedrosian took inspiration from a visit to the Witte Museum in San Antonio and the cave paintings of the Pecos peoples. Anders experimented with natural mineral pigments he collected on hikes - ochre, charcoal, soils, and clay - and various mediums - water, acrylic medium, etc. He eventually even led a demonstration and workshop for his 3rd grade class. Anders received First Place at his school and was in the Second Place group at District!

Congratulations to our young members!

The Micro Matrix

Most fossil hunters love shark teeth...myself included! But my favorite are Ptychodus. And in one spot in one Austin Creek I have been lucky to find quite a few very small Ptychodus teeth. Most are "lateral" - or small teeth from the outside edges of the tooth paving, but a few are more "regular". Here are a few of my favorites.

1. *Ptychodus atcoensis*
2. *Ptychodus latissimus*
3. *Ptychodus mortoni*
4. *Ptychodus sp.*

Jamie Shelton

PSoA Member, Programs Chair, Field Trip Co-Chair

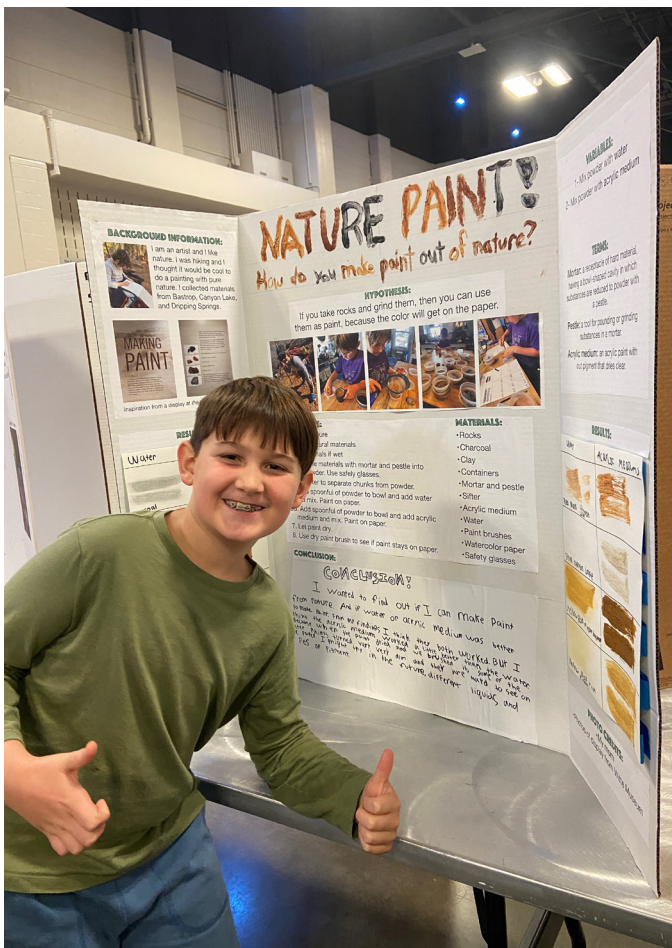
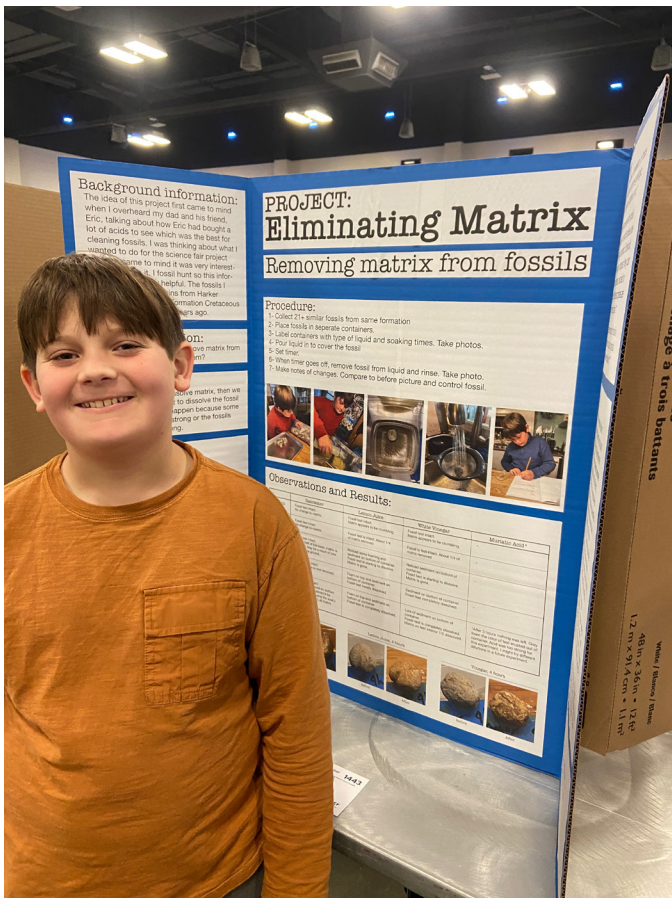
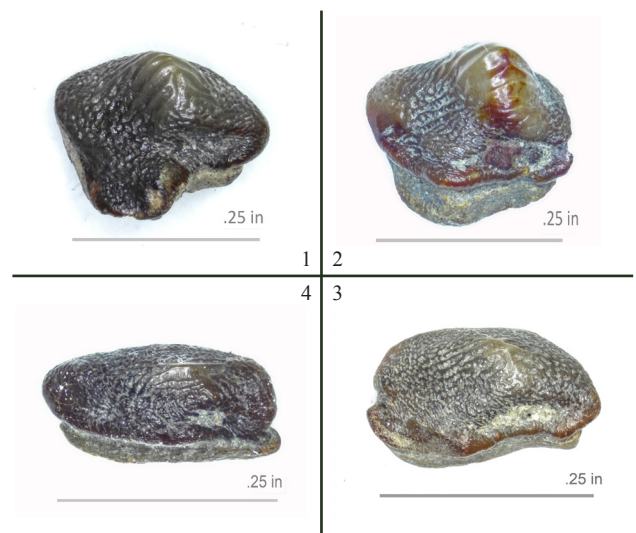




Fig. 1 Phymosoma in situ (Jamie Shelton)

Field Trip:
Harker Heights



February in Texas is a roll of the dice as to the weather – what seemed like a rainy, cold and frankly miserable sounding forecast, actually ended up incredibly nice up in Harker Heights! While there were some freezing temperatures in the morning I took a gamble that the weather said it was not rainy/ drizzly further north and fortunately, it was accurate. It turned into a beautiful sunny day in Harker Heights, while apparently, in Austin and further south....it was not nearly as nice! So lesson learned....always go fossil hunting if you can go fossil hunting, the weather might just surprise you!

We had a surprisingly good turn out – James McCafferty, Ray Atkinson, Zeke Currey and daughters Isabel and Capri, Paul Hammersmidt, Raoul Daniels, Adrian Johnson, Andy Peters, and Mike Zimmer all showed up for some good Walnut Formation fossil hunting.

It was pretty obvious that no-one had been at the site in a while, we started finding some good finds almost immediately. Paul found a lovely *Phymosoma* echinoid first thing. (Sorry, Paul, the picture was blurry!) and I think just about



Fig. 2 *Engonoceras* sp. (Adrian Johnson)



Fig. 3 Crab Claw (Jamie Shelton)

everyone ended up with at least one Phymo (fig. 1). But what was really surprising was the amount of Engonocerid and Oxytropidoceras ammonites we found. Most were “kits” as Erich Rose liked to call them – mostly broken up, but a fair number of complete ones were found. Adrian found the first nice whole one (fig. 2), then Andy found a really well preserved one (fig. 4) and later I found one that had a few of the chambers and sutures crystalized! I’d never seen that preservation before.

Of course there’s more to the Walnut Formation than just ammonites and echinoids (although that’s one its best attributes!) and I was happy to find some crab fossils – two nice sized crab claws (fig. 3) and another smaller one. James found a beautiful little *Neithea* bivalve (fig. 5) and Andy found a nice *Anchura* Gastropod with some of the wing still on it. Coral *Parasimilia*, Oysters *Texigryphaea* and *Ceratostreon* and a part of a *Pinna comancheana* rounded out the cool finds.

I was really pleased to hear that Zeke and his daughters had a good time. They were new to fossil hunting so we helped them all find some nice things – a few heart urchins, some ammonite pieces etc. They were excited to learn about fossils and really caught on quickly as to what to look for amongst the rocks. As I told them, it’s all about “learning to see”!

So another fine day in the Walnut Formation in Haker Heights. It is always one of my favorite locations to go hunting. I am already looking forward to next time!

Jamie Shelton
Field Trip Co-Chair



Fig. 4 *Egonoceras* (Andrew Peters)



Fig. 5 *Neithea* (James McCafferty)

Field Trip:
Archer City

Fig. 1 *Dimetrodon* (?) toe bone (Heather Aziz)





Fig. 2 **Tooth** (Eric Jones)

Occasionally, in addition to our regular field trips, members have the opportunity to pay to dig at sites that are not open to the public. This march a group of members were able to access a site near Archer City in the Permian Red Beds of Texas. This site is being worked by the Texas Through Time Museum in Hillsboro, TX - led by Director Andre Lujan and they invited a small group of folks from the PSoA to come out for the day. If you have not yet been to this museum - it is worth the drive out to Hillsboro. They have a fantastic collection and are very focused on engaging the public in all things paleontology - from field work, to lab prep, to mounted specimens.

So on what looked like it could be a blustery and cold day, 11 members of the PSoA headed out to Archer City to search thorough permian deposits for the fossilized bones and teeth of amphibians, reptiles, and fresh water sharks. To our great surprise, the day ended up being sunny and gorgeous and we wasted no time getting down on our knees and exploring this rareified soil. All of the fossils here are quite small and likely collected in the calm waters at the bottom of a body of water. While Andre and his team have found articulated fossils here in the past, we focused on the isolated remains that covered the surface. And I mean COVERED the surface. Of most frequency are the dual cusped teeth of *Orthocanthus* - a fresh water shark - though fully intact specimens were largely limited to the micro sized (see the image on Tailings, page 11). That said, toe (fig. 7) and partial limb bones, vertebra



Fig. 3 **Diadectes sp. tooth** (Mike Smith)



Fig. 4 **Tooth plate**



Fig. 5 **Orthocanthus** fin spine (Brian Bedrosian)



Fig. 6 **Jaw fragment**



Fig. 7 **Toe bone** (Brian Bedrosian)

(fig.8), nueral spines, toe claws, teeth, jaw fragments (fig. 6), amphibian skull fragments, fin spines (fig. 5) and tooth plates (fig. 4) were found by all throughout the day. Though quite small in area, it truely is a spectacular site.

Our guide Noah - the most sassy one in the group photo on the cover sheet - did a fantastic job identifying all of our finds, spreading unending enthusiasm, and celebrating finds that were unusual or rare. The first of these was a shovel shaped tooth of the reptile-like amphibian *Diadectes* sp. found by Mike Smith (fig. 3). Shortly their after Heather Aziz found a nearly complete *Sagenodus* sp. lungfish tooth that looks like an unfolding fan and shimmered in the sunlight (fig. 9). While many of us found many nice teeth, many of which displayed the heavy use they saw in life, Eric Jones found a particularly notable specimen - both in it the lack of wear and the color of its enamel (fig. 2).



Fig. 8 **Archeria** vertebra (Brian Bedrosian)

Tallying the largest single find of the day was a toe bone - possibly from a *Dimetrodon* - found by Heather Aziz (fig.1). Much larger than the other foot bones found and very much intact - it stands in sharp contrast to the largely marine invertegrate material the PSoA typically hunts for. Shortly afternoon the whistle blew and we all packed up our finds, already looking forward to the next opportunity to hunt these expsours.

Brian Bedrosian

PSoA Editor

(Editor's Note: Please forgive the general nature of the descriptions of many of the specimens and incomplete attribution - time is short and memory is limited - I, along with many of my colleagues, will be spending the next months IDing our finds.)



Fig. 9 **Sagenodus** sp. lungfish tooth (Heather Aziz)



Tailings...

In The News

Amazing Fossil Preserves Teenage Tyrannosaurus's Last Meal

Stomach contents from a juvenile Gorgosaurus reveal it feasted on small, bird-like species 75 million years ago

Brian Handwerk, [Smithsonian Magazine](#), December 8th 2023

See Stunning Illustrations of Prehistoric Life From One of the Most Renowned Paleoartists in the World

A new book highlights the beautiful work of Jay Matternes, an accomplished artist who drew everything from mammoths to early humans

Riley Black, [Smithsonian Magazine](#), March 4th 2025

Oldest Known Neanderthal Engravings Were Sealed in a Cave for 57,000 Years

The art was created long before modern humans inhabited France's Loire Valley

Brian Handwerk, [Smithsonian Magazine](#), June 21st 2023

Fossil Tour Guide Discovers Giant, Purple Dinosaur Footprint While Walking Along a U.K. Beach

The roughly three-foot-long, clay print speaks to the Isle of Wight's rich paleontological history, but it will probably disappear within a couple of months due to exposure

Margherita Bassi, [Smithsonian Magazine](#), February 24th 2025

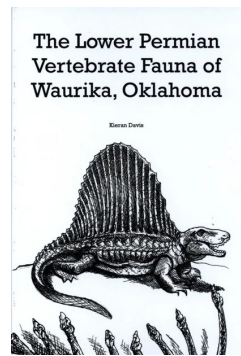
2025 Field Trip Schedule

March	Whiskey Bridge
April	PSoA Picnic and Auction
May	Ada, Oklahoma
June	Midlothian Quarry
July	Loop 360
August	Texas Through Time Museum <i>Evant/Moody</i>
September	North Sulfur River
October	Lake Texoma / Post Oak Creek
November	Brownwood
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 newsletter or come to our monthly meetings for updates.

Great Resource for TX Redbed Fossils!

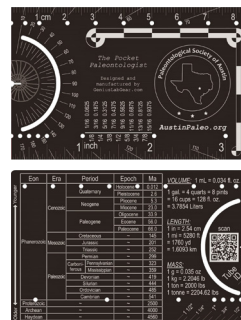


The Lower Permian Vertebrate Fauna of Waurika, Oklahoma

by Kieran Davis - January 2012

This is a fantastic resource for identifying the vertebrate fossils we find in the Texas Redbeds - especially those around Archer City. While not currently in print or available from online sellers - Kieran does sell the books on ebay. He also has a fantastic website (ddfossils.co.uk) that includes papers on other Oklahoma sites.

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. Available 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 flop 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. While 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](https://twitter.com/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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