



PALEO FOOTNOTES

NEWSLETTER OF THE PALEONTOLOGICAL SOCIETY OF AUSTIN

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JANUARY 2022



President's Note

Welcome, PSA Members, to a brand-new year!

I hope you all had a good holiday season and you and your families are safe and healthy. We are back to stage 5 here in Travis County and obviously will not be going back to in-person meetings too soon. But in the meantime, we are getting some great speakers lined up for our monthly Zoom meetings. This month Joshua Malone will be telling us all about how gastroliths (gizzard stones) are being used to better understand dinosaur migration. Should be very interesting.

(continued on page 2)

This Month's Speaker

Title of talk

Presented by: Joshua Malone

My talk this month will focus mainly on our recent work using dinosaur gastroliths to determine possible migration routes of dinosaurs. This was recently covered in the New York Times, Smithsonian Magazine, LiveScience and many more media outlets. Time permitting, I may discuss my graduate research (separate from the gastrolith research) and my recent field work in Argentina understanding how the Andes were formed.

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JANUARY 2022

PSoA Regular January Meeting
Tuesday January 18th - 7pm

Join Zoom Meeting
<https://us02web.zoom.us/j/89089623535?pwd=K29IZIFEMDcwS0VDSzBBbFFUbmJuUT09>

Meeting ID: 890 8962 3535
Passcode: 998390

PSoA January Field Trip
Saturday January 22nd
9:00am in Harker Heights
(see page 2)

President's Note

(continued from page 1)

We also have a pretty good field trip schedule in the works. As always, the locations are tentative until we get closer to the date as things like water levels and other conditions can require a change of plans. Watch for updates in the newsletter and always keep one's eyes open for last minute email blasts to know for sure what is going on. Our first trip of the year will be closer to home at our favorite sites in Harker Heights. See details in this newsletter.

One other very important item that has slipped through the cracks and needs to be addressed ASAP is election of club officers for 2022. We normally hold the election at the December Holiday Party. We had a small picnic instead and not too many showed up. We need to get back on track with this. Currently almost all of our officers are happy to stay on in their current positions. The one exception is the position of Secretary. Currently that post is held by Emelia Rose and she has expressed the need to drop out because of a gazillion other things happening in her life right now. The position of Club Secretary is fairly easy. Take notes at all monthly, board and Fossil Fest meetings and provide the notes to the Newsletter Editor in a timely fashion. We can now record our Zoom meetings as well so the Secretary does not have to be always attend the meeting. A small perk we get from this new meeting format. If you are interested and willing to volunteer for the position, or any other, then please let me know and we will get your name into the February newsletter. We will then hold an election during the February meeting. If you have questions about the various officer positions and duties please contact me (president@austinpaleo.org) and I can fill you in.

As far as the rest of the year goes we are looking forward to getting back to some semblance of in-person meetings or events. We have scheduled the April Auction and potluck and we are moving forward with Fossil Fest planning. In addition we plan to add one more group event this June: A tailgate fossil swap. Come trade your extra fossils with other collectors. Hopefully you'll snag something cool. We will have more on that closer to June.

So I hope you all can attend this next meeting as well as the Field Trip. See ya there!

Erich Rose
PSoA President



This Month's Talk

(continued from page 1)

This month's speaker: **Joshua Malone**

Joshua is currently a 2nd year PhD student at the Jackson School of Geosciences at the University of Texas at Austin studying sedimentary basin development and mountain building processes in the Andes and Rocky Mountain regions. He is originally from a small town in central Illinois, but lived in Rock Island, IL until he completed his Bachelor's degree from Augustana College in 2020 with a double major in Geology and Geography. He spent a couple years during his undergrad working for the US Army Corps of Engineers where he assisted with mitigating flood hazards along the Mississippi River and its associated tributaries.

Fossil Fest 2022 Update

We are hopeful that the COVID climate will improve before November and allow us to hold Fossil Fest on 11/5 & 11/6 of this year. The success of Fossil Fest largely depends on members volunteering to help with the event. We will start holding planning meetings in March. All members are invited to join in on the planning and partake in making Fossil Fest a success!

Heather Radford

Show Chair

January 2022 Field Trip:

Harker Heights

DATE: Saturday January 22nd - 9:00am

Harker Heights - Walnut Formation

We will meet in the HEB Parking lot on Indian Trail Drive off of 190 as you come into Harker Heights. The site is easily accessible, facilities and shopping are within driving distance but a sack lunch is a good idea. Lots of good finds here – gastropods, echinoids, the occasional ammonite. Some finds can be tiny, so small containers are a good idea. No digging required, but a screwdriver or some other implement is always useful. Also, please wear masks when gathering initially, once we get to the site it is at your discretion, but we do ask that if you are interacting with another club member (to show off something you found or see what someone else has found) do please put that mask on! We want to make sure all our members are safe!

Please pay attention to the weather - the temperature can be unpredictable this time of year - and dress appropriately. This is an easily accessible site with easy picking - a great spot to bring the kids! Look forward to seeing everyone there!

Melvin Noble

Field Trip Co-Chair

December 2021 Field Trip: Christmas Picnic!

Moody skies, fossil shows, and surprise finds!

The club picnic Christmas party was a fun event held at the Westcave Preserve, with a small number of die hard collectors in attendance. After socializing and eating our meal, a few new people pull out some fossils to show in the hopes of having them ID'd. Edward Elliot showed off his giant pecten scallop find from a site in North Texas. Erich showed a father and his son the fossils that are in the stone work on side of the building. It was a beautiful day even if the temperature was a little chilly but a good time was had by all and it was good to socialize with other people that enjoy fossil collecting. West Cave is a beautiful place I hope we can have an auction and picnic there again soon!

Melvin Noble Field Trip Co-Chair





Side Trips:

Lake Texoma

I had just about given up on going to Lake Texoma. I had talked to several people about a personal trip but due to Thanksgiving and Christmas holidays coming up, people were too busy. It just so happened that my buddy Edward Elliott had a little time and we decided to do a trip up that direction. We drove into Denton, got a hotel, and headed out to Lake Randall. Eddie had found a different road that goes into the lake on Google Earth and we decided to give it a try, but eventually the road just came to a dead end. We got out to look but did not find anything. Lake Randall is one of the great ammonite collecting places in North Texas, but apparently all the good stuff is at the other end of the lake and we needed a kayak...which we did not have. In the past I have found some great heteromorph ammonites there. For you who are who are new to ammonite paleontology, heteromorphs do not curl around in a circle like regular ammonites do. There are several variations on the shape but the ones at Lake Randall come around and are curved like a “U”. One of my favorite fossils to collect, but this time we won’t have a chance to see any.

Waking up on Day 2 we decided to go head off to another location around the shore. The water was a little high but it wasn’t too bad to get around. The going was slow, but once we got further down it got a little easier. We dug through several piles of gravel, picking up a particular type of oyster that seems to be exclusive to this area. They are real small but the shell kind of goes out in different directions - they just look so neat I just can’t help but pick them up! We haven’t seen a lot in the last few years and even Ed pocketed a few. We also found some irregular echinoids, a few sharks teeth, and some stereocidarid echinoid plates. This type of echinoid was pretty good size and they are always broken up into the plates were the spine attached. You usually find just single plates, or maybe two together if you are lucky, but Ed skunked me and found one that had five plates on it!

As we traveled further down we started getting into the area will you find macrasters, some of my favorite echinoids. They can be large, fat and bigger around than your fist! We started to find them here and there but you really have to look hard and be careful where you step. Of course Ed had to find a couple Nautilus along with a razor clam which I have never found. At



Fig. 1 *Washitaster rioviste*



Fig. 2 *Washitaster longisulcus*



Fig. 3 *Trigononia*
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Fig. 4 *Macraster elegans washitie*

one point I thought I found an echinoid named Longisulcus, but it turned out to be a Washitaster rioviste (fig. 1) - pretty worn but I did not have one yet, so I was happy. Later, when I was back home going through my stuff, I remembered I had picked up some echinoids in the gravel. I was going through these and there it was - the Washitaster longisulcus I had hoped to find (fig. 2). It wasn't perfect but I didn't have one yet and any time you find something new it's a great day and that day I found two new echinoids! Some of you may have seen me showing off another big find of the day - a beautiful complete Trigonina. (fig. 3) I actually found three of them but two need to be cleaned up. I love trigonias but you always find just the impression and these were in great shape!

We picked up several species of ammonites, including some Mortoniaceras. Most of these were small and Ed said they're probably inner whorls but they're still really cool. Loaded down, our packs heavy with precious rocks, we started heading back around 4:30 - hoping to get back to the truck before the sun set and the gate closed. The going back is always a little rough and you have to watch your step because it's easy to trip, especially with a heavy pack on. It was a good thing we drank most of the water up - the added weight would have slowed us down even more! When we got back to the truck I filled a five gallon bucket full of the gravel from that area to go through on a rainy day. While we were packing up, one of the locals, who was out walking his dog, came down and talked to us a little bit about fossils, gave us a compliment on our beards, and offered the name of a few good local restaurants to try later. Later that night we took his recommendation and went to a little mexican restaurant in town. We wore masks around the restaurant and sat at a table a bit away from other folks, but it's always nervous with the covid around, even if you've been vaccinated.

The next day we woke up early and headed to Lowe's High Port. We started down towards the area we usually find ammonites. On the way I saw a really nice one that I should have claimed. It would have been light and easy but I looked right past it and saw this big ol honker, an Eopachydiscus, which I decided right away: "that's the one!" So Ed took the lighter one. (fig. 5) We look around a bit more and I found an



Fig. 5 Ed's cleaned ammonite

almost perfect shaped Macraster elegans washitie (fig. 4). As we had scoured the area it was about time to head back, but I was dreading carrying that big old ammonite back. Ed offered to carry my backpack for me and I picked up that monster and gave it a bear hug. It was slow going, but I would a pick a spot in the distance, walk over to that spot, set it down, breathe hard, and do it again till I finally got back to the truck. Ed took a picture of me holding it and I was dead dog tired.



I was tired, but that does not stop fossil collectors on a mission, so after a light lunch of trail food we went to the other side of Lowes High Port. The water was still a little high but there was an exposed area on the other side - we had to crawl over a big old pipe to get there, but we managed in short order. Unfortunately, I didn't have as much luck on this side as I have in the past. I was looking for Holasters but the ones I found were pretty ate up. Ed founds a few better ones and I came back with a collection for the spinner wheel and a nice turtle shell with out the turtle.

On the way back we got to the pipe and I tried to slide back over it and instead went down in the water and hit the side of my right knee really hard on a rock. It still hurts when it's cold but I'm glad I didn't hit the front of it. It was a bit on the rough side to get there and not sure it was worth the effort. That night at the hotel I watched the club meeting on zoom on my phone while Ed sorted fossils.

We woke up the next day and decided to check out the other side of the lake. Some years ago Ron and Janet Root went over to the Oklahoma side and found a creek that had some really cool stuff in it. Ed drove to boat ramps in several of the county parks in the area, but all we found was sand and more sand. Apparently there's just not much over there. Next we went down below the dam to an area that Ed new about, but the water was up too high and that was out of the question. We found another road that took us to the Oklahoma side by the river bed were it was dry - we did some looking there but did not find anything, so we decided to head home while the sun was still up. We had a great time and it was fun to spend three days just collecting and being out in the sun. The lake was beautiful and I hope we'll be able to take the club to Lake Texoma soon!

Melvin Noble
Field Trip Co-Chair



Tailings...

In The News

The Top Ten Dinosaur Discoveries of 2021

The key finds and moments in a year packed with amazing stories about the terrible lizards

Riley Black, [Smithsonian Magazine](#), December 27th 2021

This Ancient, Nine-Foot-Long, 100-Pound Millipede Could Be the Largest Invertebrate to Ever Live

This critter roamed Earth around 326 million years ago, and it's genus survived for 45 million years

Rasha Aridi, [Smithsonian Magazine](#), December 23rd 2021

Seven New Things We Learned About Human Evolution in 2021

Paleoanthropologists Briana Pobiner and Ryan McRae reveal some of the year's best findings in human origins studies

Briana Pobiner + Ryan McRae, [Smithsonian Magazine](#), December 28 2021

An Evolutionary Timeline of Homo Sapiens

Scientists share the findings that helped them pinpoint key moments in the rise of our species

Brian Handwerk, [Smithsonian Magazine](#), February 2nd 2021

2022 Field Trip Schedule

January:	Harker Heights
February:	Jacksboro
March:	East Texas / Whisky Bridge
April:	Oklahoma Trip (Spring Branch as backup)
May:	Johnson City
June:	Brazos Float Trip (Bandera as backup)
July:	Austin Loop 360 (or Brazos backup)
August:	Houston Museum of Natural Sciences
September:	Brady / Santa Ana Sites
October:	Texoma (Moody/Evant as backup)
November:	Brownwood
December:	Christmas Party!

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.

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 pop 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.

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 Society's website or another publically accessible venue as benefits the goals of the club listed above.

Membership Information

2021 Officers

<p>Annual Dues: \$18/individual \$24/family \$12/associate (non-voting, receiving newsletter)</p> <p>Pay on-line at: https://www.austinpaleo.org/newMembership.html</p> <p>Send payment to: Treasurer, Paleontological Society of Austin, P.O. Box 90791, Austin, TX 78749-0791</p> <p>PSoA Web Site: www.austinpaleo.org</p> <p>Webmaster: Gordon Galligher, webmaster@austinpaleo.org</p> <p>Facebook: https://www.facebook.com/austinpaleo</p> <p>Twitter: @Austin_Paleo</p>	<p>President Vice President Treasurer Secretary Field Trips Programs Editor Webmaster Show Chair</p> <p>Science Advisors:</p>	<p>Erich Rose Heather Radford Mike Smith Emelia Rose Melvin Noble & Jamie Shelton Paul Hammerschmidt Brian Bedrosian Gordon Galligher Heather Radford</p> <p>Pamela R. Owen, PhD. James T. Sprinkle, PhD.</p>	<p>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</p> <p>powen@mail.utexas.edu echino@mail.utexas.edu</p>
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