



Paleo Footnotes

Volume 15, Number 7

July 2020

President's Note

Erich Rose

PSoA President

Okay here we are in the second half of one year that no one will ever forget. I know some of you have been out collecting and maybe others are just sticking safely close to home. I have been doing a bit of both.

We have a very interesting lecture by UT Ph.D. student Sinjin Sinha lined up for this month's virtual meeting. See the description in this newsletter.

Jamie Shelton is working on the field trip. Something close to home I believe. I'm excited to learn where we will be headed. And once again we will ask all who attend to wear a facemask and maintain at least six feet or more from others beyond their immediate family. We can then post photos to the member's-only PSA Facebook page for IDs and other questions after.

I hope some of you have been watching the Prehistoric Road Trip on PBS. It's a wonderful series on professional and amateur fossil collecting here in the US. If you missed it you can get it thru the PBS streaming channel if you have a Roku or similar device.

So stay COOL, stay SAFE and stay HEALTHY!

Erich

Next Meeting (ONLINE)

7/21 – 7 p.m.

Austin Gem and Mineral Society Building
6719 Burnet Lane Austin, Texas

Next Field Trip

Saturday, July 25 – 8 a.m.

Field trip to little walnut creek

See directions in Upcoming Field Trip Report section.

Upcoming Meeting Program

Paul Hammerschmidt

Programs Chair

'Taphonomy of the Early Jurassic Strawberry Bank Lagerstätte and its relationship to the Toarcian Oceanic Anoxic Event' - Sinjini Sinha

Speaker Bio: Sinjini Sinha is a Paleontology Ph.D. student at the Jackson School of Geosciences, UT Austin, working with Dr. Rowan Martindale. Her current research focuses on taphonomic pathways that lead to exceptional fossil preservation in the Early Jurassic. Her previous research focused on the systematics and paleoecology of Late Cretaceous sharks from central India and southern England as well as on the diversity of Paleocene bony fishes from Canada.

By education, Sinjini holds Masters degrees in Geology from the University of Delhi in India and Biology (with specialization in Systematics and Evolution) from the University of Alberta in Canada. She was awarded the Commonwealth Shared Scholarship to pursue a Masters of Research in Vertebrate Paleontology at the University of Southampton, UK..

Synopsis: I am investigating the taphonomic pathways of the fossils from the Early Jurassic Strawberry Bank Lagerstätte in the UK, which is a shallow marine lagoonal deposit. I will be comparing the taphonomy of the Strawberry Bank fossils to fossils of a similar age from the Ya Ha Tinda Lagerstätte in Canada and the Posidonia Shale Lagerstätte from Germany, which were both deposited in deep marine settings, which often experienced dysoxia. Comparative studies of coeval deposits will aid in inferring whether the global anoxic event was the major contributor towards the preservation of the fossils in these three Lagerstätten or whether regional influence such as depositional environment had a more effect on the preservation of these deposits.

Konservat-Lagerstätten deposits vary geographically and temporally due to changing global and local environmental conditions, but were more common in the Paleozoic than during the Mesozoic. That said, Lagerstätten from Jurassic and Cretaceous open marine settings have been reported only during global anoxic events. Recent research suggests that fluctuations in oxygen levels (dysoxia/anoxia) was the crucial factor in the preservation of an Early Jurassic Lagerstätten in Canada.

PSoA Virtual July Meeting Information

Topic: **Paleontological Society of Austin July Meeting**

Time: **July 21, 2020 06:45 PM Central Time (US and Canada)**

Hey everyone, I have scheduled a zoom meeting. See below. I will post that to the PSA Members only Facebook Page this coming Tuesday, one week before the meeting.

Erich Rose is inviting you to a scheduled Zoom meeting.

Join Zoom Meeting

<https://us02web.zoom.us/j/88012167450?pwd=cnNteE4yS1B6L1hld3pPQXpIU0cvZz09>

Meeting ID: 880 1216 7450

Password: 957219.

REMINDER: A bit about Zoom and how we would like the meeting to proceed.

First off you have several options for joining the meeting. You can do it from a smart phone or tablet but it will be best on a larger screen such as a computer. You will see that there are options for what you have on your screen. You can fill a window or the whole screen and you can pick how you view the other participants, as a gallery, just the speaker, or not at all.

You have the option of turning on your camera, or not, and the same goes for your microphone. You only need a camera if you want us to see your lovely face or are actually presenting. Otherwise you can sit thru the whole meeting in your bathrobe if you choose. In general it is best to keep microphones off until the Q&A &/or the business meeting. But feel free to use it to ask questions before the meeting and later after the speaker.

Zoom also has a Chat function that allows you to type messages or questions. If you have questions that come up during the talk, the best thing is to type them as you think of them and then I will read them to start the Q&A. From there we will open mics and you can ask questions directly. PS the chat function also means if you don't have a device with a working microphone you can still interact.

June Meeting Minutes

Emelia Rose

PSoA Secretary

We had our first meeting via Zoom and it went fantastic. Mike S. presented on georeferencing at UT Austin.

For the foreseeable future all meetings will be on Zoom.

A YouTube channel has also been created and can be found by searching "Paleontological Society of Austin" or by going to the following link:

- https://www.youtube.com/channel/UCTB_pDcXJGprz3yhlWc_H_Q.

The YouTube channel has a recap of the June Meeting.

We look forward to seeing you on Zoom soon!

Upcoming Field Trip

Melvin Noble

PSoA Field Trip Leader

July 25, 2020 – 8:00 am

Field trip to little walnut creek, Austin TX

Directions:

July's field trip will be in Austin Texas at little walnut creek. Normally we go to a Museum or the non vertebrate or vertebrate lab, but due to the virus this is not possible at this time. Since it is in town and close we will met at **8am**. Bring lots of water. Watch out for poison ivy as you go in but there is a clear path and it can be avoided.

This mostly an oyster site but ammonites have been found and some types of other fossils. *Exogyra tigrina* oysters are abundant and they have some nice striped colorations on them. A rock hammer and/or chisel is recommended, but the matrix is very soft and sometimes fossils pop off the surface.

From I 35 take 290 or frontage road toward Manor. If you are on 290 get off on frontage road ASAP and go east till you cross little walnut creek and Immediately turn right on Geneva Dr. We will meet at the corner of the 290 frontage rd and Geneva Dr. Look for Melvins blue Toyota truck. We should be able keep a distance from each other in the creek. Please keep a mask with you to wear around others. We ask that people please maintain social distancing procedures and please respect others and wear a mask if getting close to others.

Melvin

June Field Trip Report

Whiskey Bridge - Eocene (Jamie Shelton)

A very stormy morning turned into a delightful day of Fossil Hunting at the Eocene site at Whiskey Bridge near Bryan. I woke up wondering if the trip was going to happen and after some early morning texting with Erich, we decided to "assume" the storms would push on through. And I am glad we did because after some nice downpours on the way to the site, it was perfect fossil hunting weather...even cool enough for a bit to wear a jacket! In June! In Texas! It definitely warmed up and got humid by afternoon, but the morning was fantastic. We had a nice small group, easy to social distance! And Grady Parks, of course, brought donuts! (Thanks Grady! Always appreciated!) On this little hunt was Alison Dickson and her daughter Haley (who made one of the best finds of the day....a HUGE *Conus* gastropod...biggest I've seen). Heather and Adam Aziz, Gene Wu, Kevin Bills, Erich Rose and me, Jamie Shelton.

We hiked down to the river banks and spread out...everyone pretty much had a cliff face all to themselves! Many of the fossils there are just so easy to find....the white shells against the dark brown dirt....they just stand out like fireflies. But I learned a few things (as I always do when going out with the PSoA)- look for the glint of sunlight reflecting off of the darker fossils that are barely distinguishable from the dirt! Heather and Adam, Gene and Erich were all finding fish, shark and ray teeth and such. So I looked closer and was rewarded! It always pays off to look even closer - the main thing I have learned from the PSoA! So a good day was had by all at Whiskey Bridge. I look forward to seeing you at the next Field Trip! Jamie



The Group



Haley and her *Conus*



The Clouds moving off



The 1-1/2 inch tooth I found



A few favorite fossils

Special Notices

Georeferencing at the Non-vertebrate Lab Presentation - Follow-up & Information

Mike Smith, June 2020

The slides from the presentation at the June meeting are available on the club website at

- <https://austinpaleo.org/papers.html>

The NPL Wiki pages on Georeferencing are at

- <https://wikis.utexas.edu/display/specify6/Specify+Database%3A+Geo-reference+localities>

That page has links to information on

- Georeferencing Resources - Links to numerous online resources
- Georeferencing Tasks - How-to. Approaches to solving specific georeferencing problems.
- Found Places - Some of the trickier locations that we have tracked down.

The Resources page include links to all of the tools I discussed.

From the Chat

Jim Sprinkle mentioned the Travis County Historical Commission as a helpful resource.

- <https://www.traviscountytexas.gov/historical-commission>

I have used the Austin History Center for historical maps and aerial photos

- <https://library.austintexas.gov/location/austin-history-center>

Jim mentioned Macrostrat as being pretty great for bedrock maps (US and world wide). It turns out they also produce the RockD apps for iPhone and Android.

- <https://macrostrat.org/map/>
- <https://macrostrat.org/#apps>

Other phone apps were mentioned.

- Theodolite is the iPhone app I use to record a location.
- Dioptra and GeoCam seem to be equivalent apps on Android

Odds and Ends

PREHISTORIC ROAD TRIP - Welcome to Fossil Country

3 episodes online but not sure how long they will be available. Travel with Emily through billions of years of Earth's history to meet some of its earliest life forms, from primitive bacteria to giant reptiles and many surprising creatures in between.

See <https://www.pbs.org/video/welcome-to-fossil-country-mpoq6h/>

<https://www.pbs.org/video/we-dig-dinosaurs-i7jvq>

<https://www.pbs.org/video/tiny-teeth-fearsome-beasts-axy0yx/>

WHY THE JURASSIC COAST IS ONE OF THE BEST FOSSIL-COLLECTING SITES ON EARTH

Along a famed stretch of English coastline, amateurs and professionals collect 200-million-year-old treasures before they are reclaimed by the waves.

Read more at <https://www.smithsonianmag.com/travel/why-jurassic-coast-is-one-best-fossil-collecting-sites-on-earth-180975003/>

Exquisitely Preserved 'Mona Lisa' of Dinosaur Fossils Reveals Prehistoric Creature's Last Meal

Fossil plant matter found in the gut of the exquisitely preserved herbivore reveals its diet and even the season of its death.

Read more at <https://www.smithsonianmag.com/smart-news/last-meal-mona-lisa-dinosaur-fossils-180975030/>

Fossil Footprints Suggest Ancient Crocodile Walked on Two Legs

The lumbering crocodylomorph lived during the early Cretaceous period, about 106 million years ago.

Read more at <https://www.smithsonianmag.com/smart-news/fossil-footprints-suggest-ancient-crocodile-walked-two-legs-180975098/>

Egg from Antarctica is Big and Might Belong to an Extinct Sea Lizard

An analysis led by researchers at The University of Texas at Austin has found that the fossil is a giant, soft-shell egg from about 66 million years ago. Measuring in at more than 11 by 7 inches, the egg is the largest soft-shell egg ever discovered and the second-largest egg of any known animal.

Read more at <https://news.utexas.edu/2020/06/17/egg-from-antarctica-is-big-and-might-belong-to-an-extinct-sea-lizard/>

Footprints reveal giant carnivorous dinosaurs the length of a bus wandered Australia

Researchers say the Queensland dinosaur predates its more famous 'cousin' the T rex by about 90 million years

Read more at <https://www.theguardian.com/australia-news/2020/jun/18/footprints-reveal-giant-carnivorous-dinosaurs-the-length-of-a-bus-wandered-australia>

Study finds asteroid impact, not volcanoes, made the Earth uninhabitable for dinosaurs: 'Only plausible explanation'

A new study confirms that an asteroid impact 66 million years ago – not volcanic eruptions – killed off most of the dinosaurs on Earth.

Read more at <https://www.usatoday.com/story/news/nation/2020/06/30/dinosaurs-earth-killed-asteroid-impact-new-study-confirms/5350191002/>

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.

PSOA Web Site: www.austinpaleo.org
Webmaster: Gordon Galligher, webmaster@austinpaleo.org
Facebook: <https://www.facebook.com/austinpaleo> Twitter: @Austin_Paleo

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Lisa Izzi
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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.
James T. Sprinkle, PhD.

powen@mail.utexas.edu
echino@mail.utexas.edu

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