

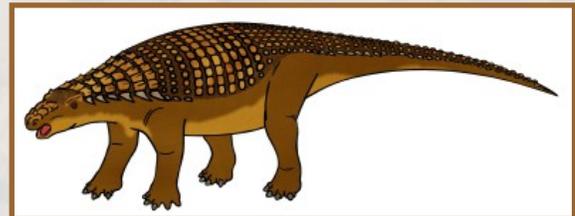


THE FOSSIL RECORD

AUGUST MEETING: DID IT FLOAT?

By Tom Dill

The next meeting of the DPS will be on Wednesday, August 10th, at 7PM Central time, **virtually on Zoom**. We will **NOT** be holding a face-to-face component of the meeting this month. Dr. Matt Clemens, formerly of SMU, will talk about “The Holland Farm Nodosaur: An armored dinosaur from the Cretaceous of Texas”. The last fossil you would expect in the Eagle Ford Shale would be dinosaur. Those shales have ammonites in them, and were therefore deposited in the sea. When bone fossils were found in those strata in Mansfield, we might have expected fish, turtle, or perhaps a plesiosaur (mosasaurs hadn’t evolved yet). But a dinosaur? Dave Letterman on the Late Show used to toss some large object in a giant tank of water to see “Will it Float?”. But an organic object, such as a bloated dinosaur corpse, might float but will eventually decay and sink. Could a “bloat and float” scenario explain the Holland Farm nodosaur?



A drawing of a nodosaur. From Wikimedia Commons, by Conty - Own work, CC BY 3.0, <https://commons.wikimedia.org/w/index.php?curid=10009277>



The retrieved skull of the nodosaur. Scale bar is 10 cm long. Photo from Matt Clemens.

Matt earned a BA in Anthropology (concentration in Archeology) and Evolutionary Biology from Case Western Reserve University in 2012. He then earned a MS in Geology from Southern Methodist University in 2014, with a thesis on frog fossils from Mush, Ethiopia, supported with a DPS scholarship. He then continued on to earn his PhD in Geology from SMU with three research projects - the endothermy of mosasaurs from the Late Cretaceous of Angola, description of a new piped frog from Mush, and this nodosaur from north central Texas. Matt is currently lecturer in comparative anatomy / dinosaur paleontology at Paul Smith’s College in Adirondack State Park of New York.

Join our Zoom meeting by clicking on this link: <https://us06web.zoom.us/j/83765036222> or start the Zoom app and enter the **Meeting ID: 837 6503 6222**. You then need to enter the **Passcode: 618114**. Please mute your audio until you are ready to speak, especially during the presentation. You can post questions for Matt in the chat box, starting with the uppercase **QUESTION** so they are easy to spot, for him to answer at the end. We hope to see you online.

COMMUNITY NATURE EXPO WRAP-UP

By Philip Scoggins

The Community Nature Expo on July 23rd was at the J. Erik Jonsson Central Library in downtown Dallas. Exhibitors included Texas Parks & Wildlife / Cedar Hill State Park, Native Plant Society of Texas, and a dozen others. The event got us some exposure with a light turnout. Well, compared to Gem & Mineral shows or diverse public events.

DPS' first time at the Expo in 2019, and I was not sure what to expect. This time, there is more to learn. One thing is to have something to attract people. The DPS booth could not compete with the live chickens for petting, a Madagascar Hissing Cockroach to hold, and other live animals. I didn't notice the snakes, not for petting or holding, that were there in 2019. Exhibitors had stickers, water bottles, and plenty of things to touch. Our free fossil give away was hit with the kids and a few adults. A library employ stopped by the booth and said she grew up in Glen Rose. She talked a couple of families into going to FOSSILMANIA. I hope to recognize some of the faces from the Expo there. Many people took PIT Crew and Mineral Wells Fossil Park flyers, and FOSSILMANIA rack cards. I was surprised at how many people took membership trifolds and of all things business cards.

I have some ideas and am looking forward to next year. For next year, more free educational materials are on the list and possibly something showier that moves.



YOU'RE INVITED TO JOIN THE LEADERSHIP MEETING

by Estée Easley

Leadership meetings are via Zoom the third Wednesday of each month with social time at 6:30 and official business starting at 7:00pm. The Leadership meeting Zoom ID is 882 2320 3521 and is open to all current DPS members. If you have an item for the business portion of the meeting, please email me in advance at president@dallaspaleo.org, so I can add you to the agenda.

I'm looking forward to continuing a wonderful year full of fossil hunts, safety, guest speakers, hand sanitizer, educational tables, and social distancing. I invite you to join us, and hope to see you soon!



SHERMAN CREEKS FIELD TRIP WRAP-UP

PART ONE: JULY 16

By Roger Farish

It was only the 38th day of >100F this summer AND the 43rd consecutive day without rain (9.1" below normal) AND BA.5 more infectious Covid strain, BUT out they came to look for Cretaceous shark teeth. Thirty-two hardy souls signed hold harmless agreements and attacked the creek at the Travis Street access. Fortunately, there was an expanse of shaded gravel bars to collect. Some families brought their 'cheaters' – kids. This group is closer to the ground and with keener eyesight and find most of the treasures, though many measured in the millimeters.

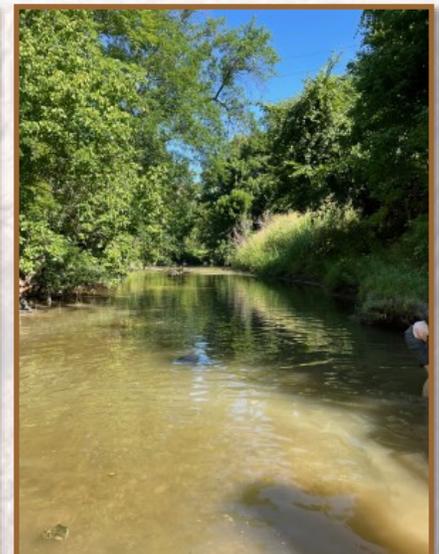
I stopped counting after 82 the times I heard, 'Is this one?' – most were teeth or pieces of them. Attached is a shot of Derek Frye who found the most significant tooth (IMHO), a cool little *Scapanorynchus raphiodon* **symphysial tooth**. There are usually a few very compressed teeth found at the jaw symphysis – where the left and right jaw halves meet in the front of the mouth. Of course, many people found the usual *Ptychodus* (most *whipplei*), *Cretalamna*, *Cretodus* and many *Squalicorax*, mostly small (those kids again).

Most people stayed near where the entry path led onto the creek where hundreds collect, but people kept finding teeth. As Laura Peterson said though, "the creek's pretty yucky" upstream and down. Even though the creek was flowing a bit, most pools were pretty stagnant. Persistence paid off for most with the Schoen party of 5 screening right up until we blew the whistle for lunch producing dozens of teeth. The tag team of Chris Reh fuss and Amy Schultz accumulated the most teeth I saw with at least half dozen *whipplei* but I didn't get the full record of their finds.

The Dickies BBQ lunch and trip out to Ron Bassermann's home went according to plan as his collections continue to WOW visitors. Seven cars then proceeded to a site on Post Oak Creek where we spent another several hours – until Dana Baggett finally found a *whipplei!* (Her exclamation does echo).

Already on the creek was Melissa Eason, administrator of the Sherman Library system. She has been working with city officials to develop an extensive park system along Post Oak Creek with displays showing the shark teeth and other fossils to be found there. She also arranged for Ron Bassermann's collections to be displayed at the library. Member Jenny Song is also interested in his teeth for the Plano Library system.

Thanks to Butch Halberstadt and others who helped with the coolers of drinks and water and to Beth Schoen for helping the leader keep up with his tools.



SHERMAN CREEKS FIELD TRIP WRAP-UP PART TWO: JULY 31

By Roger Farish

Amazing how Post Oak Creek can keep producing shark teeth despite incredible collecting pressure. This outing about half of the group of 23 entered the creek at the old nursing home site while an amazing assemblage of very brave people followed their silly leader to a stretch of creek that is little collected ...and we found out why.

Beth Schoen led sons Thorsten, Franz and Matthias, while Michelle Fry led sons Dylan and Derek. Svetlana and Alexandr Earnest joined me on our quest for unlimited accumulations of shark teeth on a remote stretch of creek. Instead, we found only long, deep pools through steep walls which made us bushwhack through several hundreds of yards through woods of briar tangles, poison ivy, steep slopes, fallen trees and dense undergrowth. We eventually had to bail out back to Hwy. 75.

The worse news is that we didn't find a single complete tooth. Even the famous Kubota gravel bar was barren which was so surprising as it has historically been very productive and a destination unto itself.

Fortunately, the conservative group produced some nice teeth. Philip Scoggins found the best *Cretodus* while Linda Farish found a couple of *Ptychodus whipplei*, one quite large (see photos).



PALEONTOLOGY IN THE NEWS

Compiled by Andrew “Dino Dad” Stück & Laura Peterson

Fossils of 30-foot prehistoric marine lizard unearthed by Perot paleontologists

An exciting find by Stephen Kruse made headlines in the Dallas Morning News this month. Perot Museum paleontologists recently assisted with excavating parts of the mosasaur’s skull, lower jawbones and several vertebrae from its spine found by Kruse near the North Sulphur River in Fannin County.

“An amateur enthusiast, Kruse has been interested in dinosaurs and prehistoric creatures since he hunted for rocks with his brother as a kid. That afternoon, he was hiking by himself near the North Sulphur River, about 80 miles northeast of Dallas. It’s an area he’d combed several times.

He was getting tired. As the day got longer, Kruse searched for a way back to his white Chevy Suburban. He decided to look for a shortcut a quarter mile farther out. “Best decision I ever made,” he said.



(From left) Mariah Slovacek, the Paleo Lab collections manager at the Perot Museum of Nature and Science, Ron Tykoski, the Perot Museum’s director of paleontology and curator of vertebrate paleontology, and Dori Contreras, a curator of paleobotany at the Perot Museum, excavates part of the mosasaur. Image courtesy of www.DallasNews.com

Just 100 yards down the rocky stream bed, he saw it: a 5- to 6-inch black vertebra, a piece of a prehistoric creature’s spine.

Kruse followed the path upstream, searching for the rest of the creature. “When I turned this corner,” Kruse recalled, “he was just sitting there, coming right out of the wall.”

Read more about Kruse’s adventure and the excavation process in the article via the link below:

https://www.dallasnews.com/news/2022/08/02/fossils-of-30-foot-prehistoric-marine-lizard-unearthed-by-perot-paleontologists/?mibextid=keu0s2&fbclid=IwAR072fahUF7q3NCsD29E-PozdpHLiw_0ylHSudfuPifUXKGhrIOqvskYNsY



Luke Sullivan (right) helps Ron Tykoski move bones excavated from the mosasaur.

“Game of Thrones” Carcharodontosaur

Carcharodontosaur fossils originally discovered in 2012 have finally received a proper description, and found to represent the most complete remains of this family ever found in the Southern Hemisphere (surpassed only by the smaller Concavenator from Spain). Named Meraxes after one of the dragons in the popular fantasy series “Game of Thrones”, it sported highly reduced forelimbs similar to tyrannosaurs and abelisaurids, as well as an enlarged inner toe claw. This claw was not retractable and should not be compared to the enlarged toe claws of dromaeosaurs like Velociraptor, but can perhaps be more directly compared to the similarly enlarged inner claw of modern cassowaries.

<https://doi.org/10.1016/j.cub.2022.05.057>

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PALEONTOLOGY IN THE NEWS CONT'D

Compiled by Andrew "Dino Dad" Stück & Laura Peterson

Love of dinosaurs, origami fold together

SMU student Travis Nolan is earning international attention for his origami dinosaurs and ancient reptiles.

"Nolan is an earth science major at SMU, specializing in geology. He's also an international origami champion, and combines his interests to create intricate models of prehistoric creatures. His original design of a 500 million-year-old predatory "unusual shrimp" called Anomalocaris took first place in the 2021 International Origami Internet Olympiad's Own Design category."



Read more in the article via the link below:

https://edition.pagesuite.com/popovers/dynamic_article_popover.aspx?artguid=fc0bc486-51a7-468d-884a-3c9de615a60d&appcode=DMNUAT&equid=a32aa575-7d4e-4502-8d9f-e5c6b58c8c96&pnum=31#

WARNING TO FOSSIL HUNTERS DURING EXTREME TEXAS HEAT

By Murray Cohen

I got a \$5,000 mini vacation in Baylor ER in June 2022. Yep, heat related. So how did I go from "I'm hot and need to quit" to nearly passing out in a 75-yard walk? The day I went to the ER was my second day in the sun. I was drinking both water and Gatorade and the first few hours were relatively pleasant in the shade. At about 11 AM I called the day due to heat. I have a rule: when the water is done, I am done.

When I got to the end of the site, I felt like I was going to pass out. My brain went from two brain cells to zero. I didn't even consider the lake that was 30 meters away. If I had just gone for a swim, maybe several swims during the morning, I would have been fine. The paramedics took my blood pressure at 160, 95 and my heart rate at 135. In the ER my kidney values were out of the normal range, even though I had fluids. One liter of fluids from an IV and three hours later, I was released.

The one thing that I didn't calculate...direct sun exposure. It appears that just 5 to 10 minutes in direct sun pushes me into the "Don't Do This" range.

I never hear people talking about this factor when discussing heat related health issues. And it is usually advised to:

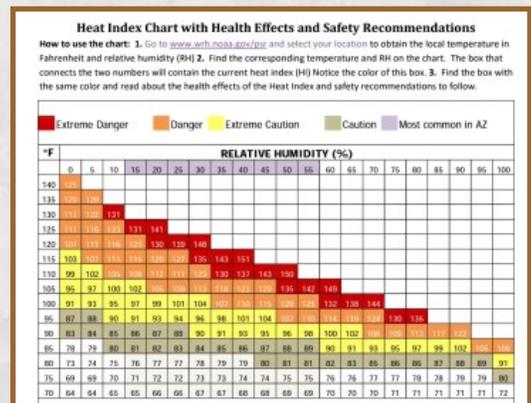
- Stay hydrated
- Don't stay out too long

However, it is rarely advised to:

- Limit activity
- Avoid direct sun exposure

If you question the direct sun effects, take the temperature of something in the shade and compare it with the direct sunlight. Yep, it will be hotter.

Please take care of yourself. The difference between feeling mostly OK and a trip to the ER was less than 10 minutes for me that day.



DALLAS PALEONTOLOGICAL SOCIETY OFFICERS, COMMITTEE CHAIRS, AND ADVISORS

Elected Offices:

President	Estée Easley	president@dallaspaleo.org
Vice President	Kate Fenton	vp@dallaspaleo.org
Secretary	Genevieve Freix	secretary@dallaspaleo.org
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Editor	Laura Peterson	editor@dallaspaleo.org

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Historian Chair	Bob Williams	historian@dallaspaleo.org
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Scholarships Chair	Roland Gooch	scholarships@dallaspaleo.org
Website Manager	Linda Farish	webmaster1@dallaspaleo.org
Social Media Coordinator	Diane N. Tran	

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Philip Scoggins, Rocky Manning, Tom Dill, Roger Farish

Professional Advisors:

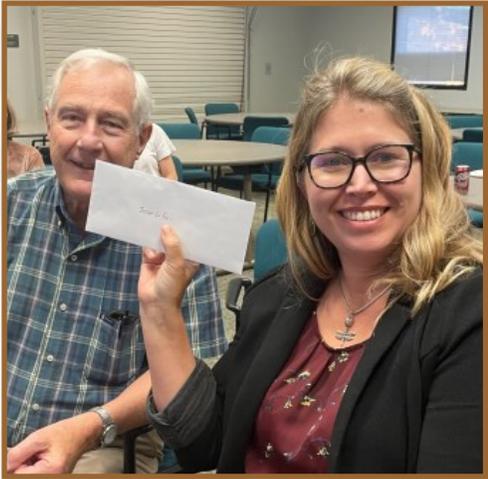
Dr. Tony Fiorillo, SMU Shuler Museum
 Dr. Louis Jacobs, SMU Shuler Museum
 Dr. Merlynd Nestell, University of Texas at Arlington
 Dr. Ron Tykoski, Perot Museum of Nature and Science

The Dallas Paleontological Society was founded in 1984 for the purpose of promoting interest in and knowledge of the science of paleontology. It was intended by the founding members that the Society would be a network for the exchange of data between professionals and serious amateurs in this field.

dallaspaleo.org

The Dallas Paleontological Society meets the second Wednesday of every month at 7:00pm at Brookhaven College, unless we have something special happening that month. Please [check our calendar](#) for exact dates. Original versions of minutes and treasury reports will be available upon requests. Come meet with us, hear a speaker, learn about paleontology, and bring your unidentified fossils and unique finds to share with the group. You will be welcome, and we will enjoy meeting you. For a map of our meeting location visit dallaspaleo.org/contact.

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Scholarships Chair Roland Gooch presents DPS Scholarship Award to recipient Jessica Lefors.

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Dallas Paleontological Society
PO Box 223846
Dallas, TX 75222-3846

