



# THE FOSSIL RECORD

## **UPCOMING MEETING: TRACKING DINOSAURS**

by Tom Dill

The DPS will meet on **Wednesday, January 11th**, at **7PM Central** time in the Boonesville Auditorium (Room 125) of the Ellison Miles Building (Bldg H) at **Brookhaven Campus of Dallas College** (3939 Valley View Lane, Farmers Branch). **Tom Vance**, retired professor of biology at Navarro College, will speak on “**Roland T. Bird's rare and/or lost photographs of the Paluxy Dinosaur Trackway**”. The Paluxy River has uncovered an incredible number of beautifully preserved dinosaur tracks in Dinosaur Valley State Park. But the river also covers them up with sediment, and flood events erode the tracks and can remove the track layer completely. So before the area was preserved as a park, parallel trackways of a sauropod and a following theropod were removed, and are now displayed in the American Museum of Natural History in New York. A smaller trackway is displayed outside the Texas Memorial Museum in Austin. But the tracks are also preserved in historic photographs that show the tracks as they were uncovered in the river bed.

Tom Vance was raised in Ennis, Texas, where he developed a life-long interest in herpetology and paleontology. He earned an Associate in Science degree from Navarro College in Corsicana, and then a BS in Biology and Earth Science and a MS in Biology with emphasis in zoology from East Texas State College (now Texas A&M at Commerce). One of his professors was Dr. Joan Echols who pioneered excavations and studies of the vertebrate fossils of the North Sulphur River. Tom had earned 30 hours towards a PhD when he began teaching biology at Navarro College in 1977. He is a long-time member of the Dallas Paleontological Society and a prolific author of articles in our Occasional Papers series. He was principal investigator of the excavation of Ellie May, a complete mammoth from Ellis County, now on display in the Perot Museum, and also led the excavation of a mosasaur from near Blooming Grove. The DPS awarded him Honorary Lifetime membership in 2015 and the William Lowe Lifetime Achievement Award in Amateur Paleontology in 2020. Tom often represents DPS at events



## UPCOMING MEETING (CONTINUED)

(from page 1) at the Waco Mammoth National Monument, and shows his fossil reconstructions and specimens at Fossilmania. He gave a shorter version of this talk at Fossilmania in 2022, but this presentation will include some more photographs made by the WPA of the tracks in the Paluxy River and the excavation project.



DPS meetings are always free and open to the public. We invite members to bring food to share, and everyone can bring fossils to show (and perhaps ask for ID help). Remote attendees can join our Zoom meeting at: <https://us06web.zoom.us/j/83765036222> (Meeting ID: 837 6503 6222 and Passcode: 618114). Please mute your audio until you are ready to speak, especially during the presentation. You can post questions for Tom in the chat box (start with uppercase QUESTION so they are easy to find) or you can unmute yourself at the end to ask your question directly. We hope to see you there.

## 2022 PRESIDENTIAL AWARD

by Estée Easley

I was delighted to choose Mick Tune as recipient of the 2022 Presidential Award for his continued support of the Society, education of visitors to the Ladonia Fossil Park, interesting books he wrote (and autographed), and knowledge of all things NSR. His humble post on Facebook was a joy. "I debated about putting up this post, but the truth is I am pretty tickled (and y'all know I got into fossil sciences pretty big). I very much appreciate the Dallas Paleontological Society for mentoring me. And I certainly love everything about fossil hunting and exploration at the North Sulphur River. I don't think I have gotten an award/plaque since maybe ... high school? (Which was MANY years ago). Anyway, the point is this. Make some time just to do some things you love. Keep learning stuff. Make new and interesting friends. Jump in all the way in and do good at it! Help out and help others where you can. The world is an interesting place -- find your interest(s). Get outside and enjoy! Once you start a trail, you never know where you might end up."



Congratulations, Mick, on an award well-earned!

## INTRODUCING THE OFFICERS ELECT FOR 2023

### President

Happy New Year to all in the Dallas Paleontological Society. I'm Michelle Kelly, the elected President for the coming year. About me, five years ago while searching for a way to help teach my daughter about paleontology, I searched the internet and DPS appeared. Since then we've attended meetings, field trips, PIT crew meetings, plus Fossilmania; and we have loved every minute of it.

For 2023, my goals as DPS President will be to build up our educational outreach resources. We are creating a new Educational Committee to write curriculum based on TEKS, and providing the necessary fossil kits for teachers and librarians to borrow. The Educational Committee will also be putting together fossil displays for local public libraries. I will be sharing ways for members to participate and donate in the near future, be sure to watch the website and Facebook page. One more note as I'm writing this, DPS is now on Instagram! Add us [dallas\\_paleontological\\_society](#).

Happy Fossil Hunting and may this new year be one of great discoveries.



From left:

Treasurer Paul Lowers,  
Secretary Dana Baggott,  
Editor Bill Weaver,  
Vice President Joseph O'Neil,  
President Michelle Kelly

### Vice President

My name is Joseph O'Neil.

Some of you may remember me from PIT Crew, or as the Education Chair, or FOSSILMANIA coordinator. I am pleased to be the new Vice President of the Dallas Paleontological Society.

I joined the DPS in 2015 when my kid was interested in becoming a firefighting paleontologist. We really had a great time becoming active with the PIT Crew. When the position of Education Chair became available, I volunteered. I had a lot of fun with the PIT Crew. I was able to meet a lot of interesting people and work with kids and adults in schools, scout groups and at live events. I am looking forward to an active future as VP. Thank you for the opportunity to serve.

### Editor

Hello to all the readers of the Fossil Record! My name is Bill Weaver, and I am looking forward to a great year as editor of the newsletter. I am new to the DPS but I've been in Texas for 42 years now, and I've been a paleo fan since birth. I cut my teeth, or at least my fossil hammer, in my high school years on the marine fossils of upstate New York. My career took me in a different direction, but now I have the time to get back to my original passion. I am fascinated by the wide range of

(continued from page 3) geological ages we have access to in this region. I expect to work with our society experts to bring you some unusual and interesting articles this year, as well as keep you abreast of the latest happenings in the DPS and the local paleo scene.

**Secretary**

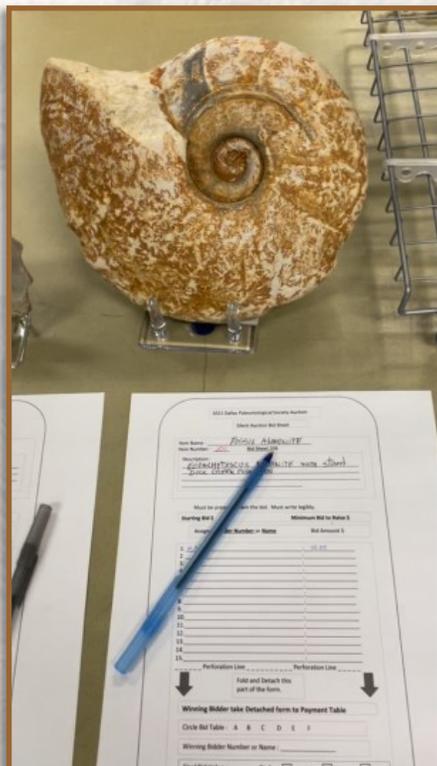
Hi,  
My name is Dana Baggott and I have been a member of DPS for about three years. I have been married to my husband, Mike, for 33 years and we have one child. I was born and raised in the metroplex and have been an avid rockhound since I was old enough to walk in a creekbed unassisted. As many rocks as I have collected over the years, I only found my first fossil a few years ago. Maybe I wasn't looking hard enough before? Anyways, since finding that first fossil, I have tried to learn as much as I could about the fossils that we find in our area. I greatly enjoy going out to "hunt" whenever possible and have found that the Dallas Paleontological Society has been a tremendous asset to my learning and ability to enjoy this hobby to its fullest. It is my hope that I will be able to contribute to the Society in many ways as your secretary.

**DECEMBER AUCTION RESULTS**

by Mercer Brugler

The December auction was a busy one, with a big donation of fossils from the estate of Irene Stemple. Kate Fenton washed, labeled and bagged multiple boxes of Cretaceous fossils from Texas. Several boxes of fossils were from other non-Texas locations, which required membership detectives to properly identify and sort them properly. Donations came in from long time collectors such as Charles Isbon ( mammoth bones, mineral specimens, books and Texas fossils ). Melissa Martin donated plant fossils on large sedimentary slabs. Frank Holterhoff donated books and fossils. Mark Randall donated books this year. Bill Lowe provided the DPS with 28 lots of books on geology, paleontology and other topics. Stephan Gozdecki donated a metal detector which created hot bidding activity.

Throughout the evening we saw many new donations come in which kept the bidders on their toes. Tickets to the Heard museum were offered for bidding. A big hit for the kids were the multiple donations of toy dinosaurs, both fuzzy dinosaurs and the plastic variety. Food and drinks were welcomed this year as bidders could eat and socialize between auction events. Congratulations go out to the volunteers who put the auction together, requiring setup, hauling fossils and food, labeling tables, and as the evening approached 9:00 PM, taking down the multiple tables and finally cleaning up the room. The DPS membership looks forward to next year's auction for 2023.



Bid Sheet (2021)



"The Meg" Strikes Again!

## **THE DAY THE DINOSAURS DIED**

by Roger Farish

The most significant lineage of terrestrial fauna, namely the dinosaurs, went extinct about 66 million years ago. Globally, there is a thin layer of debris, ash and soot that is preserved in our stratigraphic record that is recognized as the famed K/T boundary deposited when this event took place. In the late nineteen-seventies the father/son team of Luis and Walter Alvarez found that this layer contained an abnormal presence of the mineral 'iridium'. Iridium is rare on earth naturally but is found in volcanic areas and asteroids. Thus one could surmise that this extinction event was the result of an asteroid impact. So, the search was on for evidence of an impact.

Today, we're all aware of the Chicxulub asteroid impact theory of what ended the reign of dinosaurs. So far, it is the most plausible explanation of this event and is widely accepted by most in the scientific community.

In 2012 a graduate student discovered the remnants of a fresh-water pond in the Hell Creek Formation in North Dakota that geologically was right at the K/T boundary. Below is a link to a description of what has become, 'the most important paleontological discovery of the new century' as it captured the moment the tsunami from the asteroid impact reached North Dakota.

<https://www.newyorker.com/magazine/2019/04/08/the-day-the-dinosaurs-died>

Other good links are:

[https://scholar.google.com/scholar?hl=en&as\\_sdt=0%2C44&q=megaripples+KPg&btnG=#d=gs\\_qabs&t=1671818601651&u=%23p%3DTQXu\\_Cza3LwJ](https://scholar.google.com/scholar?hl=en&as_sdt=0%2C44&q=megaripples+KPg&btnG=#d=gs_qabs&t=1671818601651&u=%23p%3DTQXu_Cza3LwJ)

<https://www.livescience.com/megaripples-tsunami-dinosaur-asteroid.html>

See what you think.

## **SPINOSAURUS? FYI**

by Roger Farish

As part of the Charles Finsley Lecture Series, the DPS imported Dr. Nizar Ibrahim from the University of Chicago. He gave a wonderful and plausible evening lecture at SMU on February 28, 2015 on "*Spinosaurus*" followed by a well-funded reception with autograph signing, photos, etc.

Recently, his advisor in Chicago, Dr. Paul C. Sereno (who has also spoken to the DPS), released his own paper on *Spinosaurus*. A copy of his abstract can be found at:

<https://www.biorxiv.org/content/10.1101/2022.05.25.493395v1>

## HISTORICAL PERSPECTIVES

by Bill Weaver

200 years ago, the man who was to push geology and paleontology into the modern era was destitute and all but forgotten by history. His discoveries had been plagiarized and were bringing fame and profit to those more politically connected than himself.

William “Strata” Smith was a self-taught geologist and surveyor, born in 1769 in Oxfordshire, England. By 1795 he had become known for several successful canal projects and his expertise in coal mine inspection. Smith was also an ardent fossil collector and had observed a connection between the numerous strata and the unique fossils that they contained. Using the fossils as an index to the strata, Smith was able to identify and track individual stratigraphic layers over large regions, and to show that the layers were always found in the same order from lower to higher. He called the variation of fossils by strata the Principle of Faunal Succession, and it was about to “rock” the world!



By providing a way to dependably identify strata, in 1799 Smith was able to produce the first high quality geological map of the Sommerset region in which he worked. Such a map was extremely valuable for the mining and canal-building industries. This led him to start work on a map of Great Britain in its entirety. However, the daunting task of gathering the data for this map by himself required over a decade of travelling across the countryside, and put a considerable strain on his finances.

Meanwhile news of Smith’s 1799 map, his use of index fossils, and the Principle of Faunal Succession began to spread among the burgeoning scientific community. By 1808 the most famous naturalist of the time, Georges Cuvier, had adopted these techniques to produce a geological map of the area around Paris. The index fossils for the Paris region were nearly identical to Smith’s, demonstrating how widespread these strata were. The efforts by Cuvier and others reinforced the evidence that life had changed over time, which was directly in conflict with the Biblical narrative that was the prevailing view. Thus the revolution in our understanding of the geological column and the history of life had begun.

William Smith finally published his geological map of England and Wales in 1815, the first of its kind. He also published a book “Strata Identified by Organized Fossils” in 1816 which details the index fossils he used. Unfortunately for Smith, the Geological Society of London had seen previews of his maps and methods and they were using those to produce a map of their own. The preorders for the Geological Society’s map eroded the market for Smith’s map, and a couple of failed investments had drained the remainder of Smith’s resources. By 1819 he was no longer able to maintain the mortgage on his residences and was sentenced to King’s Bench debtors’ prison, where he remained for 11 months. Once released, Smith scraped out a living by working as a surveyor.

It wasn’t until 1831, when the leadership of the Geological Society passed to new hands, that Smith was finally recognized by that organization for his pioneering contributions. He was credited as being the Father of English Geology, was the first to be awarded the Wollaston medal, the Society’s highest honor, and received a yearly pension from the King. Smith lived the remainder of his life as an honored scientist. He designed a museum on the Yorkshire coast (which is now named for him), and was awarded an honorary doctorate from Trinity College, Dublin.

William Smith died of a sudden illness in 1839 at age 70. He has had several biographers, but in 2001 a popular book entitled “The Map That Changed The World” by Simon Winchester helped push Smith’s name back into the public consciousness. Smith’s original fossil collection and drawings are on display in London’s Natural History Museum.

## DONATION TO HEARD MUSEUM FOSSIL LAB

by Rocky Manning

The DPS has supported the fossil lab at the Heard Museum for many years. Recent donations have been an air scribe and oscillating saw. The air scribe is a mini-jack hammer used to remove matrix from fossil bones. The oscillating saw is used to cut plaster jackets away from bone and matrix.

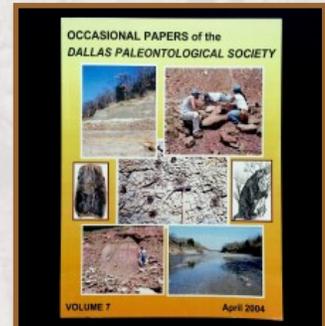
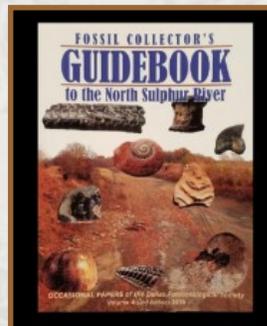
Long time DPS member, Darlene Sumerfelt runs the all-volunteer lab. See photos.



The Heard Lab Team

## SHOP THE DPS WEBSITE FOR GREAT GIFTS!

Visit the DPS Online Store at <https://www.dallaspaleo.org/Store> to shop t-shirts, mugs, and books.



## EARLY PALEO ART

A nostalgic look at how our knowledge and vision of ancient life has changed over time.



'The Primitive World' (1857) by Adolphe François Pannemaker



'Cretaceous Life of New Jersey' (1877) by Benjamin Waterhouse Hawkins

## DALLAS PALEONTOLOGICAL SOCIETY OFFICERS, COMMITTEE CHAIRS, AND ADVISORS



### Elected Offices:

President	Michelle Kelly	<a href="mailto:president@dallaspaleo.org">president@dallaspaleo.org</a>
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Programs Chair	Tom Dill	<a href="mailto:programs@dallaspaleo.org">programs@dallaspaleo.org</a>
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Social Media Coordinator	Michelle Kelly	

### DPS Advisors:

Estée Easley, Rocky Manning, Tom Dill

### 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](http://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](http://dallaspaleo.org/contact).

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Don't miss the *Dinosaurs Live!* exhibit at Heard Natural Science Museum in McKinney, Texas open through February 20, 2023.

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