



Paleo Footnotes

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November 2015

President's Note

Erich Rose
PSoA President

Fossil Fest is upon us! If you haven't signed up to volunteer, there still may be time. Even if you are not able to sign up online, we can find something to do for those just stopping by for an hour or two to help make it all run smoother. If you don't volunteer, please remember to attend the show either way.

The rains have done their duty and freshened up the creeks and road cuts. Combine that with cooler weather and the collecting should be great. I am looking forward to getting out to spots around Austin.

Just a quick reminder: the December meeting will also be our annual holiday party and White Mammoth gift exchange. Look for more details in the December newsletter.

Volunteer Kudos

Suzanne Galligher
PSoA Vice President and Show Chair

Thank you to everyone who volunteered at our booth during the Austin Gem and Mineral Society's Gem Capers show. We couldn't have done it without you! Cathy B., Ed E., Melinda F., Rose F., Avery G., Gordon G., Riley G., Ryan G., Dax G., Paul H., James H., John H., Melvin N., Alan P., Ron R., Cathy R., Gary R., Mike S. and myself!

Big thanks to this month's public outreach volunteers: Gail B., Cathy B., Avery G., Dax G., Melvin N., Ron R., Erich R., Mike S., Mary S., Scott S., Gary V. and myself. Their help allowed us to participate in National Fossil Day at the Texas Memorial Museum, Do512 Family Fun Lab at FunFunFun Fest, and Rockin' Kids Club at the Round Rock Library.

Next Meeting

Tuesday, Nov. 17 – 7 p.m.
Austin Gem and Mineral Society Building
6719 Burnet Lane
Austin, Texas

Sign Up for Fossil Fest

We need your help!

Suzanne Galligher
PSoA Vice President and Show Chair

We are in the home stretch and really need EVERY MEMBER to volunteer! If every member volunteered for at least one two-hour shift, we'd have all the spots filled already! Seriously, we can't do this without you. Sign-up to be a Fossil Fest volunteer online at www.mysignup.com/fossilfest. (Password: paleo)

There are many different jobs from which to choose – whether you prefer the Admissions Desk, magnifying fossils under the Microscope, helping out in the Kitchen, talking to kids about the Touch Table fossils, spinning the Wheel of Fossils, watching kids at the Dig Pit or helping with the Make & Take craft – there's something for everyone! If you can't donate your time at Fossil Fest as a volunteer, please consider these other valuable options: donate funds to the Kitchen to offset food costs, purchase bottled water for volunteers/vendors, spread the word about Fossil Fest via e-mail or social media, post our flyer to local nature clubs or other related online forums, print the Fossil Fest Show Flyer (on our website at www.austinpaleo.org/fest) and tack to community bulletin boards (at your local coffee shop, restaurant, library, office break room, book store, etc.).

Got fossils? Bring your fossil donations to Fossil Fest on Friday, Nov. 13 from noon until 8 p.m. We need lots and lots of CLEAN fossils for the Dig Pit (small) and Spinning Wheel (bring what you would want to take home).

Please bring your marine reptile fossils to exhibit in our Club show theme cases during set-up on Friday, Nov. 13! E-mail showchair@austinpaleo.org if you have any we can use.

Please welcome our 2015 Fossil Fest Exhibitors: Dinosaur George (George Blasing), Natural Selection Enterprise (Joe Bone), John Fox, Jack Grant, Miriam Hall, Microfossils Et Cetera (Chase Jennings), Red River Paleontology (Wayne Mandrell), George & Marian McNabb, The Dig (Jason Petersen), Nature's Treasures (Karen Richards), The Paleo Pelagica Museum of Natural Science (Anna Stanley), and Teredo's (Doug Vanderford).

Field Trip Report

Ed Elliott

PSoA Field Trip Chair

Ten of us managed to make it to Eisenhower State Park Saturday morning. Paul Hammerschmidt, Melvin Nobel, John Hinte, Cathy and Gary Rylander, Rose Farmer, Ron Root, Dave Florin, and Ron DiPronio. There was a minor problem with a washed out road, but we all found ways around it. We waited longer than usual before heading out to the first stop. Ignoring the rain and mud, we couldn't wait to start collecting. This site takes in the Pawpaw, the Weno, the Denton, and the Ft. Worth formations of the Washita Group. The lake had not been kind to the shoreline this past year. While we recognized the place, it had changed dramatically. Rock had been really been moved and removed – the hills had been terraced by the high water and wave action. Much had been moved from west to much further east. Areas that I know had Ft. Worth at the shoreline were covered in Weno and Denton gravels moved from further west. A couple of spots where I had collected big slabs I could no longer find. Even with the water being a few feet higher than expected, none of this prevented us from having fun and picking up a lot of fossils. Lots of oysters: *Texigryphaea*, *Rastellum*, *Amphidonte*, *Peilinia*, *Lopha* and others. Several species of scallop (*Neithea*). I picked up a surprising number of bivalves this trip. Both Paul and I picked up Trigonias (*Scabrotrigonia*), his was large and with cleaning should be pretty. Quite a few small ammonites were found, though I didn't see any large whole ones. Many of us picked up echinoids, quite a few *Holasters* and a variety of *Macrasters*. John picked up the prettiest *Macraster* that I had seen come from here (*aquilerae*?). Both John and I picked up several nautiloids, *Paracymatoceras texanum*. The last thing that John picked up was a nice mortality slab of *Holasters*. One whole one and at least eight damaged ones and a lot of debris from destroyed others. There was a lot of other fossils found, but this was what I saw.

On Sunday we went to Highport Marina. The first section we hunted was (at least mostly) Duck Creek Formation. I came away with a couple of nice *Macraster pseudoelegans* and an *Idiohamites* ammonite. Not a lot of intact fossils. We then went to the other side which is Ft. Worth formation. A lot more *Holasters* and *Macrasters*. Paul picked up a really nice *Macraster subobesus* (?). There were lots of small (inner whorls) ammonites. Melvin knocked a nice *Mortoniceras* out of a big rock. And more bivalves, oysters and scallops.

It did rain off and on, and there was lots of mud. And the water was up. I didn't notice that anyone was really bothered by any of that. Everyone I saw was smiling and having a good time. Another weekend spent picking up good fossils with great people. See you at Fossil Fest and then at the next trip, which is still to be determined. Check your e-mail for an update on the next field trip.

Upcoming Presentation

Ron Root

PSoA Program Chair

Dr. Rowan C. Martindale is an Assistant Professor at The University of Texas at Austin in the Department of Geosciences. She joined UT in August of 2014 after getting her Ph.D. from The University of Southern California and doing post graduate research at Harvard University. The subject of her thesis was "Paleoecology of Upper Triassic reef ecosystems and their demise at the Triassic/Jurassic extinction, a potential ocean acidification event." Dr. Martindale will be presenting a summary of her studies, which can broadly be categorized into three areas: reef paleoecology, deposits with exceptional fossil preservation, and mass extinctions/large carbon cycle perturbations.

To date, her reef research focuses on Triassic and Jurassic reef ecosystems and the organisms that built them (corals, hypercalcified sponges, microbial communities, and large bivalves). She studies how and when corals acquired their photosymbiotic zooxanthellae as well as how these reef builders affected reef building when they appeared in the Middle Triassic. She recently traveled to Canada where she and some colleagues discovered a Jurassic site with exceptional fossil preservation. Such sites, termed Lagerstätten, are rare in the rock record and provide critical information about the paleobiology of fossil organisms since they preserve soft tissues (e.g. skin, feathers and organs).

She has been working on the ammonites, bivalves, squids and lobsters from this site to understand how these creatures lived and evolved. To tie this all together, she studies mass extinction events and similar carbon-cycle perturbation events that lead to lesser extinctions. She is particularly interested in understanding how the eruption of Large Igneous Provinces leads to environmental deterioration (e.g. warming, ocean anoxia, and acidification) and ecosystem collapse. She has been working on the end-Triassic mass extinction and the Toarcian Oceanic Anoxic event to understand how these events led to massive reef collapse and serious ecological turnover. These events can inform us about the changes that may occur in the near future.

Meeting Minutes

October 20, 2015

Austin Gem and Mineral Society Building

Dale Vargo
PSoA Secretary

Vice President Suzanne Galligher called the meeting to order at 7:04 p.m. She stated that tonight's meeting is to take place in reverse order, with our guest speaker going first before the break. And so our Program Chairman Ron Root introduced Adam Marsh, a Ph.D. candidate at The University of Texas, who has previously given presentations to our group. His topic tonight covers his recent activities of giving presentations in both Uruguay and Dallas, as well as his recent fieldwork in the Western U.S. and his research findings in association with it. Mike added the Adam is actually one of our society's recent scholarship recipients, for which we gave him applause and for which he thanked our society for his scholarship and touched on the events that the scholarship funding would help him to attend. Then, after taking us on an illustrated review of his recent travels, Adam began the presentation with the essentials of paleontological classification and how theropod dinosaurs fit into the scientific record. He explained a process of highly organized comparison of fossil specimens to other fossils and present-day animals to arrive at accurate descriptions of such ancient fossil remains and how this sketchy evidence likely fits within the dinosaur fossil record. He referred to "Gertie", an exciting Chinlesaurus discovery from the Petrified Forest National Park in the 1980s. And he presented some recent Dilophosaurus dinosaur finds from Arizona and Texas that he has worked to classify and he explained the methods that his group of scientists have used to draw a clearer picture of how these creatures fit into the fossil record. He then took questions from the audience, during which he described his fortunate re-discovery of an actual original site of a dinosaur discovery from an earlier scientific era. We then took our break.

After the break, Mike reported on his experiences at the recent FOSSIL conference with the Dallas paleo organization. He noted some of the accomplished attendees, including Linda and David from our club who were there. Among the various activities were a Sulphur River field trip, a trip to SMU, and a lecture by Paul Sereno, a renowned dinosaur scientist. Mike told us that Linda has created an outline of the conference attendees that points to how many varied contributions that private individual fossil enthusiasts make to the overall science by their involvement in paleontology. He also described some of the discussions which were taking place at the conference that can impact anyone who collects fossils, such as what types of fossil collecting are now permitted by law on the different federal lands, and there were comments by some of tonight's group regarding this. David also reported on his experiences of the varied presentations at the conference and from the Dallas club, such as a new Pennsylvanian fossil book soon to be published. There was mention of the new park facilities at Jacksboro and Mineral Wells.

Suzanne then showed us a slide of her Fossil Fest artwork for this year to our enthusiastic approval. Then the business portion of the meeting resumed, with Mike giving the Treasurer's report and Paul's meeting minutes being accepted. Suzanne discussed our involvement in AGMS' upcoming Gem Capers. She also described the outreach lectures that Erich is scheduled to give for a local kids' science activity group. Ed asked if we have contacted Rochelle to possibly include her Mosasaur fossil in Fossil Fest. Ed then gave details of the upcoming field trip to Lake Texoma. A discussion took place toward the possibility of having some t-shirts printed and delivered in time for Fossil Fest. Then Dale discussed this year's food lineup for Fossil Fest Café. And then the door prizes were won by Avery, Gary, Laurie, David, Doris, and Bill. The meeting then adjourned at 9:09 p.m.

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.

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