

The Paleo Times

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Rick Poropat, Editor



Janu

ary Meeting

Weather permitting, our next meeting is **Friday, January 12, 2018** at 7:30 pm in Room 203 on the second floor of the Earth and Planetary Sciences building on the Washington University campus. Our program for the evening will be presented by EMSP Member *Tom Lee* who will talk about soft tissue preservation in dinosaurs and other animals. Members are asked to bring examples of soft tissue fossils if you have them.

2018 Officers

Elections were held during our holiday party in December. Congratulations to our officers for 2018! They are:

President- David Lukens
Vice-President- Tom Lee
Secretary- Paul Thater
Treasurer- Rick Poropat
Member-at-Large- Chris Braught
Member-at-Large- John Christensen
Outreach- Steve Bynum

Thanks for Volunteering! Your hard work keeps our club functioning at its best.

Calendar

Jan. 12	Monthly EMSP Meeting Washington University
Jan.27-Feb. 10	Tucson Gem, Mineral & Fossil Show Multiple Venues, Tucson, Arizona
Feb 16-18	Cabin Fever Show Kirkwood Community Center
Feb 16-18	Geofest Show Indiana State Museum Indianapolis, Indiana
Mar. 23-25	Rock Hobby Show Machinist Hall Auditorium Bridgeton, Missouri
Apr. 6-8	MAPS Fossil Exposition XL Sharpless Auction Facility Iowa City, Iowa
Apr. 14-15	S. Illinois Each Science Club Show Marion, Illinois Pavilion
Aug. 12	EMSP Picnic Kirkwood Park
Dec. 15	Holiday Party Kirkwood Community Center

DUES ARE DUE

Dues for 2018 are payable in January and are \$20.00 per household per year if receiving the newsletter by e-mail or \$25 for those receiving the newsletter by regular mail. See Rick Poropat at the January meeting or mail a check (payable to Eastern Missouri Society for Paleontology) to:

EMSP
P.O. Box 220273
St. Louis, MO. 63122



Rick's Ramblings

It was great to see so many of you at our holiday party! I hope everyone had fun playing fossil bingo for cool prizes, bidding on the silent auction items, taking home the giveaway fossils and indulging in all that fantastic food! The multiple fire alarms were a bit of a distraction, however.

Thanks to everyone who helped set up the room and clean up afterward! Our 2018 party will be held in the same room. See the calendar for the date.

Plans are progressing for the club to have display space at the St. Louis Science Center. The case(s) will be located across from the Paleo Prep Lab on the lower level. The idea is for our members to loan theme-based specimens with accompanying information and the Science Center staff would create the signs/labels and set up the displays. The main focus is to promote Missouri's fossils, but will not be limited to that theme. There are still details to be worked out, such as how long the fossils would be on loan, how their ownership will be documented and how they would be insured against theft or damage. The display space may be available as early as the end of January.

Parking remains an issue for our meetings. The best solution is to park in the garage and do the long walk. A portion of the street in front of our building remains open (from the Forest Park Parkway end) for drop off and pickup. A campus map was provided in a 2017 fall newsletter. I will include another copy next month.

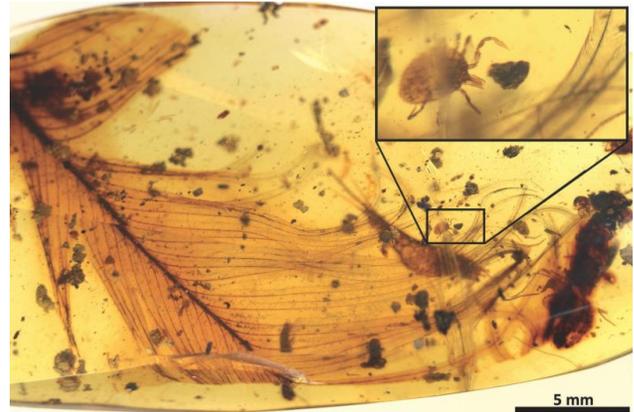
If you are planning to travel to Tucson this year for the big show, now is the time to be making your reservations. It was 82 degrees there yesterday! Kind of makes you want to go, doesn't it? We still have a good stock of fossils to sell at our show booth, so we won't need to make any purchases in Tucson. I will not be going this year, so I look forward to a report from those who do attend.

If you are planning to attend the MAPS Fossil Expo in early April, it isn't too early to make reservations for that. If you plan to have table space at the show, now is the time to make those reservations. The Expo information has been posted on the MAPS website, so take a look.

While the current weather does not make a fossil collecting trip an attractive idea, there are still plenty of fossil-related things to get done. This time of year, my time is spent cleaning, identifying and labeling specimens found this past year. This is also a great time

to begin cleaning up your tools and other equipment; repairing or replacing items if necessary. You might also use your cold-weather time to cull out the unwanted material for donation to the club.

National Geographic: Ticks That Fed on Dinosaurs Found Trapped in Amber



National Geographic has a story straight out of Jurassic Park. The story is about the recent discovery of blood-filled ticks trapped in Burmese amber. The amber dates to the Cretaceous period, about 99 million years old. This places the fossil firmly into the age of dinosaurs and implies that these ticks probably feed on feathered dinosaurs. The paper describing this discovery appeared in the journal *Nature Communications*.

One of these parasites is tangled up in a possible dinosaur feather found encased in a lump of amber. Another was found in a separate piece of amber from the same region and had swollen to eight times its original size, suggesting that it had been engorged with blood when it died.

The preserved plumage likely belonged either to a feathered dinosaur or a primitive type of bird known as an enantiornithine. These early and abundant birds still had small teeth in their beaks and went extinct along with the nonavian dinosaurs 66 million years ago.

"We are not able to pinpoint the exact host," says study coauthor Ricardo Pérez-de la Fuente, a paleo-entomologist at the Oxford University Museum of Natural History in the U.K. "But we can rule out modern birds, as they only appeared about 25 million years later than the age of the Burmese amber."

Credit: ESCONI December 2017 Website Post

Treasurer's Report

The end-of-December club account balance is available by request from the treasurer.

NY Times: Hundreds of Fossilized Pterosaur Eggs Uncovered in China



Fossilized eggs and bones from the new discovery. Credit: Wang et al.

The *New York Times'* Trilobite blog has a story about the discovery of a more than 200 fossilized Pterosaur eggs. The species of pterosaur is known as *Hamitpterus tianshanensis* and it lived in the early Cretaceous period in what is now north-western China. Xiaolin Wang discovered the eggs in a 120-million-year-old bone bed in the arid Gobi Desert. Wang, a paleontologist at the University of the Chinese Academy of Sciences in Beijing, is the lead author of a paper which was published in the journal *Science*.

Pterosaurs terrorized the skies for more than 160 million years until they went extinct alongside the dinosaurs some 66 million years ago. They are the largest animals to have ever flown, with some like the colossal *Quetzalcoatlus* having wingspans as large as fighter jets.

The species that laid the recently discovered eggs is known as *Hamipterus tianshanensis*. It lived during the early Cretaceous period and its wings stretched about 11 feet long. It also sported a thick forehead crest and had a mouth full of pointy teeth for snatching fish.

Xiaolin Wang, a paleontologist at the University of Chinese Academy of Sciences, Beijing, and lead author of the study, discovered the eggs in a 120-million-year-old pterosaur boneyard in the arid Gobi Desert in northwestern China. When the pterosaurs thrived, the place was most likely a lush lakeshore. The team suggested that a strong storm most likely washed the eggs into the lake, where they were buried alongside pterosaur bones and preserved for millions of years.

When Dr. Wang discovered *H.tianshanensis* at the same site in 2014, he had only unearthed a handful of eggs. Later he found the motherlode.

Credit: ESCONI December 2017 Website Post

Fossil of the Month

The fossil for the month of January is the interesting marine bivalve *Allorisma* sp. from the Upper Pennsylvanian Marmaton Group, Higginsville formation near Kirksville in Adair County, Missouri. This genus is found throughout the Carboniferous period. At this locality, the fossils are preserved as limestone casts in living position with both valves present. They are associated with a variety of common Pennsylvanian brachiopods, gastropods, bivalves and the occasional coiled cephalopod, all preserved as casts. The illustrated specimen is 2 1/4 inches long, but some specimens grow to more than 4 inches in length.



Did You Know?

Most geologists grew up learning the Mississippian, Pennsylvanian and Permian periods of the geologic time scale. The USGS now designates these rocks as the Carboniferous system and divides this system into the Mississippian, the Pennsylvanian, and the Permian series. The Marmaton Group is applied to the Middle Carboniferous (Pennsylvanian) strata outcropping in a narrow belt from southern Iowa, across Missouri to Linn and Bourbon counties, Kansas, and across southeastern Kansas and northeastern Oklahoma to the Arkansas river valley. The Marmaton Group in Missouri consists of two subgroups, the lower Fort Scott Subgroup and the upper Appanoose Subgroup, and includes all strata from the top of the underlying Cherokee Group to the base of the overlying Pleasanton Group. J. B. Knight (1933) identified the Fort Scott limestone, Labette shale, and Pawnee limestone in an outlier of Pennsylvanian beds in north St. Louis County.

The Eastern Missouri Society for Paleontology (EMSP) is a registered Missouri not-for-profit organization dedicated to promoting the enjoyment of fossil collecting. It is open to all individuals interested in learning about the history of ancient life on earth. The club membership includes professional paleontologists as well as amateur hobbyists providing an open forum for the exchange of information as well as access to expertise on collecting, identifying, preparing and displaying fossils.

EMSP meetings are held on the second Friday of every month (except July, August and December) at 7:30pm in Room 203, on the second floor of the Earth and Planetary Sciences Building on the campus of Washington University. The building is located at the SW corner of the intersection of Forest Park Parkway and Hoyt Drive. Each meeting includes an informal exchange of information and speakers on a variety of fossil-related topics. Note: the building doors automatically lock at 7:30pm.

Club activities include occasional field trips led by experienced collectors, a great way to augment discussions at the monthly meetings. The club also participates in joint field trips with other paleo clubs, visiting fossil sites throughout the United States. EMSP is also proud to be involved in a partnership with the St. Louis Science Center as well as STEM outreach to classrooms, community events and science fairs.

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