

The Paleo Times

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EMSP SOAPBOX

By Ryan Fairbanks & Faye Whobrey

If you have any articles, comments, or need to communicate with me I can be reached through the following: emsp.sec@mofossils.com.

Next meeting

Next meeting is **Friday, March 14, 2014** at 7:30 pm in the New Earth and Planetary Sciences building at Washington University (see more details below).

PRESIDENT'S BOX

We had a great presentation by Mr. John McLeod, S M Energy, on fossils from the Pennsylvanian Age, Lake Bridgeport, Texas. By the end of the program we were all primed and ready to go on a field there. Hopefully that can be accomplished.

Part of the March meeting will be devoted to Committees. So come prepared to participate. Your inputs and participation in the Committees are what helps make the club meaningful and resourceful for everyone.

One of the collecting sites on our club website is Silex, MO. A couple of us went there last Saturday and not only enjoyed the beautiful "spring-like" weather but did some good collecting. We went there to get larger specimens of the gray and black burrows for slicing. In addition to that, we found cephalopods, snails that looked like Worthenia (will have them verified), coral (favistina stillate), another coral to be identified, toritella, brachiopods, and trilobite tails. Then we went past Bowling Green and collected receptaculites. It may still be winter but there are some good collecting days.

Please submit pictures, articles, and stories about your collecting to share with other club members via the website and newsletters.

Carl Campbell will be our presenter for March on his trip last summer to Europe. Come enjoy, learn, and have a great time.

Welcome

The club members are on our website so if you want to check out some dubious characters, check out the website at

<http://mofossils.com/EMSP%20Web%20Members/index.htm>

Next Meeting (March)

Carl Campbell will be giving the presentation: "A Geological Journey Around Great Britain" Hopefully all the snow will be melted by then.

OTHER ITEMS

As most of you know, Steve Bynum runs the Outreach Program for the club and does an excellent job of it. But he cannot do it on his own. We need volunteers to sign up and let Steve know that you can help. This is a great opportunity to spread the news about the club and about fossils to people.

Please pick a day and time and let me know so I can coordinate with the Rockwood school system for confirmation.

Thank you,

Steve Bynum
emsp.outreach@mofossils.com

Paleo-shorts

I would like to see some old articles that people have written for past newsletters. The club has had a surge of new membership in the last few years and I think there are a lot of people now that would love to read those old stories for the first time. To start is off I'm digging up an old one that I actually wrote about Amber and Copal back in 2007. Has it really been that long...

Amber vs. Copal

At the last "rock" show I attended an attractive piece of amber caught my eye. This particular specimen had a multitude of insect inclusions; and insects being one of my fancies I just had to have it. So I stood and listened to the dealer's spiel about how great of a deal I was getting on this copal amber. "Copal amber, huh", I thought, "This just must be some other kind of amber, like Dominican." I really had no idea what he was talking about and had never really learned anything about amber other than it was fossilized resin. So I happily paid the man and went home to ogle at my find under a microscope with a considerably thinner wallet.

Later I found a little insert in my bag explaining that copal amber was anywhere from two hundred to one million years old. This made me a little more curious about this copal amber and I decided to research it a bit. And of course I found out that my piece was more than likely full of modern day bugs; ignorance was bliss.

Copal and amber are very similar in many ways. They are both resins, just at different points of fossilization; copal being the middle and amber the end of that process. Resin starts that process as a sticky viscous liquid full of free organic compounds. Under the right conditions of time, heat, pressure and environment those compounds will start to form bonds. As this happens the resin becomes more solid and is essentially now copal. The longer this process goes on the bonds grow stronger and begin to push out the volatile oils or turpenes. When the majority of these turpenes have been forced out of the copal then it can be classified as amber.

The timeframe for this process can vary significantly depending on the environment it was deposited in. Some South American copals are merely a thousand years old and yet in New Zealand

the kuari gum is ten times that old and still not even considered copal. So just being really old does not necessarily mean amber. Heat and pressure play a major role but staying in an anaerobic environment determines if that particular deposit will survive the millennia. Oxygen will attack and oxidize the surface of fossilizing resin slowly breaking it down into smaller and smaller pieces.

So finding a nice piece of amber can be hard and one with a good inclusion even harder still. The most common deposits of amber are the Baltic and Dominican, but there are many other places in the world it's found. Sicily has amber that comes in a blue and green variety. Canada actually has amber from the Cretaceous which is rare. Cedar Lake in Manitoba is famous for small pieces washed ashore. This amber highly included with flora and fauna.

Malaysia Unearths its First Dinosaur Fossils

Recently several fossilized teeth have been found in the interior peninsular of Malaysia. One of them has been identified as a Spinosaurid tooth. Malaysia is known to have lots of Jurassic and Cretaceous sediments and teams have started expeditions in 2012. Hopefully many more fossils will turn up with future searches. However, paleontologists are worried that the unprotected potential sites will be cleaned out by private collectors once the general public learns of them. But it is hoped the findings may spark interest in paleontology study in Malaysia and could eventually create a museum of their dinosaurs.

<http://www.sciencedaily.com/releases/2014/02/140224204737.htm>

Mammoth Tusk Found in Seattle Construction Pit

This February a mammoth tusk was found during construction of an apartment building. Crews hit the tusk about thirty feet below street level. They originally thought it may be a pipe or root; but once it was found to be an ancient tusk, scientists were let in to excavate it overnight. It's believed to be from a Columbian mammoth between 20 to 60 thousand years old. The extracted tooth is now on its way to its new home in the Burke Museum of Natural

History and Culture on the University of Washington's Seattle campus. Several other mammoth fossils have been found in the Seattle area, so much so that the Columbian mammoth is the states official fossil; but this is one of the largest and intact specimens found to date.

<http://www.newsdaily.com/article/751264cd991f011393d88b4704c39faf/scientists-prepare-to-lift-tusk-from-seattle-pit>

New Prolific Burgess Shale Site Found in Canada

Kootenay National Park in Canada could potentially rival Yoho National Park's Burgess Shale sites. Small outcrops have already been found in the area and team of researchers in 2012 wanted to see if there were any better areas in the park. Following the rock types in the mountain topography lead them this new site "Marble Canyon". The team was about to leave the site empty handed when Dr. Robert Gaines, a geologist from Pomona College, stumbled on arthropod remains on a rock. Breaking open another rock near it gave another arthropod with previously unseen details. Thus began the serious digging. The researches had a fifteen day field season in the park and were able to collect thousands of specimens from fifty different species. Some of which were in better shape than anything that had come out of Yoho National Park's Burgess Shale deposits. These new discoveries will help further the understanding of the Cambrian period.

<http://www.uu.se/en/media/news/article/?id=3200&rea=2,10,16&typ=artikel&na=&lang=en>

UPCOMING ROCK, GEM OR FOSSIL SHOWS

Machinist Hall - Gem, Mineral, Fossil and Jewelry Show. March 21-23

April 19th Earth Day Celebration at the Kirkwood Farmers Market. We need two volunteers to help out at our booth from 10am to 3pm. We will be showing off some Missouri fossils. We will also try to show some photos of our field trips and good MO fossils; so if anyone has any good ones you would like to show to the public, then bring them to the March meeting.

MAPS is April 4-6 this year, in Iowa City, IA. This is the biggest all fossil show in the country held every year. If you haven't been then I highly recommend going at least once. Plus later in the evening is the unofficial Travel Lodge hotel show where all the neat mineral specimens come out. Imagine a miniature Tucson show. More info here.

<http://www.midamericapaleo.org>

Meetings are held the 2nd Friday of every month (except July, August, and December) in room 203 of the new Earth & Planetary Sciences Building on the campus of Washington University. The building is on the southwest corner of Hoyt Dr. and Forest Park Pkwy. There is a large parking lot just across the street.

CONTACTS

Do you need to find out something about the next meeting or have questions on the next field trip? If so, please talk to or contact one of the EMSP officers. Please note that the e-mail contacts have changed

President: Fay Whobrey

(emsp.pres@mofossils.com)

Vice Pres: Abigail Fairbanks

(emsp.vp@mofossils.com)

Treasurer: Rick Poropat (emsp.tr@mofossils.com)

Secretary: Ryan Fairbanks

(emsp.sec@mofossils.com)

DUES ARE DUE

Our treasurer, Rick will accept dues payment for a full year. **Dues are \$20.00 per household per year-payable in January if receiving the newsletter by e-mail. The dues are \$25 for those receiving the newsletter by regular mail.** See Rick at the next meeting or mail a check (payable to Eastern Missouri Society for Paleontology) to:

EMSP

P.O. Box 220273

St. Louis, MO. 63122

Distribution of the Newsletter by email

Can't find your newsletter, just when you need it for a trip? Then sign up for the e-mail version. This also saves the club money so we can bring in speakers. E-mail requests to (emsp.sec@mofossils.com)



What is EMSP?

The Eastern Missouri Society for Paleontology (EMSP) is a 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 life on earth. The club membership includes professional paleontologists as well as amateur hobbyists. The EMSP provides an open forum for the exchange of information and 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 the Earth and Planetary Sciences Building on the campus of Washington University. Each meeting includes an informal exchange of information and speakers on a variety of fossil-related topics.

Weather permitting, field trips to fossil collection localities around the St. Louis area are held each month. Led by experienced collectors, these trips are a fun way to augment discussions at the monthly meetings. The club participates in joint field trips with other paleo clubs, visiting fossil sites throughout the United States. EMSP is also a proud to be involved in partnerships with the St. Louis Science Center and the Greater St. Louis Association of Earth Science Clubs, Inc.

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