

The Paleo Times

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EMSP SOAPBOX

By David Lukens & Carl Campbell

If you have any articles, comments, or need to communicate with me I can be reached through the following: dmslukens@yahoo.com (personal).

Next meeting

Next meeting is **Friday, June 14, 2013** at 7:30 pm in the New Earth and Planetary Sciences building at Washington University (see more details below).

PRESIDENT'S BOX

It's almost time to break for summer. As usual no fossil is safe with EMSP on the loose! Please take lots of pictures of your summer trips and discoveries to share with club members at the September meeting.

Rick's son, Matt, is at home and doing physical therapy. He still plans on buying a Harley though.

Ron has asked for the Club's help again with fossil identification for the St. Louis Science Center Fossil Days on June 15, from 10 – 3. We did this last year and it was OK. Not too many from the public with fossils for us to ID but it was another form of outreach. My impression was that SLSC didn't do that great of a job publicizing the event. Hopefully it will be better this year. Anyway, they set us up at a table in front of the prep lab. It seemed to me that we had too many club members at certain times.

Accordingly, if we could have ten people join me for two hour shifts that should cover our part. Please e-mail me (EMSP.Pres@mofossils.com) with your

preferred times and I will get back to you. I will arrange for free parking for each volunteer.

The Club Picnic will be on August 11 at Kirkwood Park. We usually arrive around 11 AM and eat about 12 noon. Bring your summer discoveries for show and tell. Hopefully Dave and Rick will have another fossil auction.

The GSLAESC Machinist Hall show will be August 16 -18. Our Club is responsible for the Special Exhibit section. This year the plan is to have a display box for each of several "famous" fossil sites. I will not be in St. Louis most of the summer so someone else will need to take the lead on this project.

We can discuss each of these items at the June meeting.

For those of you interested in finding dinosaurs, the Paleotrek schedule has changed. It will now start June 22 and finish July 15. Better weather than anyway. We have five sites to excavate and KU will be one of our repositories along with Johnston Geology Museum at Emporia State University. The St. Louis Science Center has elected not to remain as a Federal Repository. The Prep Lab will remain but the collection will eventually be moved. I guess this is a "sign of the times" at SLSC.

Carl Campbell

HELP NEEDED

EMSP will be staffing a table at the St. Louis Science Center on June 13 from 10 am to 3 PM for

the Festival of Fossils. We need members to help identify fossils and promote the club. We are looking for people to volunteer for 2 hour shifts during the day. If you can help, please contact Carl Campbell.

Thanks / Congratulations

Thanks to everyone who brought snacks to the meeting. Congratulations to Mike for his appearance in Prehistoric Chicago.

Welcome

We had another good meeting with 39 members and guests in attendance.

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 (June)

Items to be discussed during the March meeting

- Plans for Summer 2013 field trips

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Upcoming Events/ Field Trips

1. Dates are set for the 2013 Board of directors meetings, dates are the following, if you want to attend let any of the officers know and we will provide directions:
6/10/2013, 8/11/2013, 10/21/2013, December 2013 at the Christmas party.
Meetings start at 6 PM, club members are welcome but need to RSVP to club officer.
For addresses, please contact myself or another club officer.
2. June 15, 2013 – Festival of Fossils (10-3) at St. Louis Science Center. Volunteer to help if you can, stop by and visit, and spread the word to people you know that would be interested.
3. Missouri Mines State Historic Site Rock Swap – June 14 to June 16, **Event times:** 9 a.m. - 6 p.m. Friday and Saturday
9 a.m. - 4 p.m. Sunday, 4000 State Hwy. 32, P.O. Box 492, Park Hills, MO | Tele: 573-431-6226

Missouri Mines Rock Swap - Call for Volunteers – The Missouri mines and Greater STL Association of Earth Science Clubs has the following announcement.

We need some people from our clubs to help at the Welcome tent. If you can take a break from the show for an hour or two, please contact Boneta (573-760-0488 in advance or tell the folks at the tent that you can help. See the [Facebook page for the Swap](#) for more information, including Boneta's phone number.

4. 8/11/13 (Sunday)- EMSP annual club picnic and fossil raffle at Kirkwood Park (NE corner near the tennis courts). Same shelter as previously. Reserved from 9 am to 9 pm, with food usually served around 11 am. B of D meeting prior. We will have fossil trading again this year.
5. Aug 16-18, 2011 - Machinist Hall Show - We will have a table to sell and demonstrate. We will need volunteers so please contact Carl Campbell, Marie Shoemaker or myself. We will start sending out the signup sheets in July, this is a major money maker for us and we will need your help.

The hours of the show are Friday Aug 16th – 3 PM-8PM, Sat. Aug 17th 10 AM-6PM, and Sun Aug 18th 11 AM-5 PM. Address is 12366 St. Charles Rock Road (Bridgeton) St. Louis County. Just off I-270 and St. Charles Rock Road. EMSP will have 4 tables for selling and we must be demonstrating also. We will also be responsible for setting up and making displays for 4 tables and 4 cases which will show the fossils from famous fossil locations in the USA. Famous Fossil Sites in the USA: there will be 5 displays: Green River formation (WY & UT), Lee Creek (NC), Hell Creek (MT, SD), Ice Age (MO, KS), and Kitty Litter Site (MO).

Notes from the Meeting

Steve (leader of the Outreach committee) reported on visits to local schools and scout meetings that were covered this spring (5). Pat has also been giving talks and with Dorothy S. has made up form and posted it on the website for people who would like to have an outreach program done. The Outreach

Committee will be working on a guideline for the talks to kids to make it easier for people to present. EMSP awarded two awards at the annual Science Fair this year with a first prize (Minerals and Fossils around STL) and 2nd prize (classification of Mesozoic dinosaurs). Carl discussed the plans for Paleotrek to Montana this year. There was a shirt giveaway (1) and a book auction at the meeting. We viewed the DVD "Prehistoric Chicago" which included our own Mike Fix. Discussions were also held on the 5/25 field trip to the Hwy 21 road cut.

We are always looking for more donations of small fossils (quarter size or smaller) for the fossil boards. We are especially in need of small trilobites (the Utah ones are best) were also looking for horn corals, other corals, gastropods, bryozoans, and other donations. Please bring to the next meeting so we can meet later and work on putting more fossil boards together for the upcoming show.

Paleo-shorts

-Original and summary articles provided by members of EMSP. Where possible, I have tried to add in website where you can read more.

<http://www.sciencecentric.com/news/13050701-new-species-dinosaur-from-alberta.html>

Paleontologists in Alberta Canada have discovered a new species of pachycephalosaurid dinosaur which has been named *Acrotholus audeti*. The animal weights about 100 lbs and is 6 feet long and existed around 85 MYA. This makes is the oldest member of this species, known for their thick heavily boned skulls ever found. *Acrotholus audeti* walked on two legs and had a greatly thickened, domed skull above its eyes, which was used for display to other members of its species, and may have also been used in head-butting contests.

<http://www.sciencecentric.com/news/10100609-oldest-evidence-dinosaurs-found-polish-footprints.html>

Evidence of the closest ancestors to dinosaurs has been pushed back to 246 MYA with the discovery of a fossilised trackway in Poland. The prints left originally in mud were made by an animal no bigger than a house car only 1-2 million years after the Permian-Triassic extinction. At 3 other sites in

Poland dating to 246 MYA, prints have been found of a large bipedal dinosaur. The prints at all 3 sites show distinctive prints with indisputable dinosaur-like features, including three prominent central toes and reduced outer two toes, a parallel alignment of these three digits (a bunched foot), and a straight back edge of footprints, additional evidence of a dinosaur-like simple hinged ankle. The oldest prints (250 MYA) show a small dinosaur walking on 4 limbs though the front limbs are smaller. The newer prints (246 mYA) are from a dino walking on two limbs that is much bigger.

<http://www.sciencecentric.com/news/13050501-new-species-small-theropod-discovered-china.html>

A new species of small fossil theropod have been discovered in northwestern China by a team of international researchers. They found the dinosaur specimen in a remote region of Xinjiang in China in 2006. The new theropod was about 1 metre long and probably weighed about 3 pounds. It is named *Aoron zhaoi*. The theropod lived more than 161 million years ago. Its small, numerous teeth suggest that it would have eaten prey like lizards and small relatives of today's mammals and crocodilians.

<http://www.sciencedaily.com/releases/2013/05/130528143756.htm>

The widespread disappearance of stromatolites, the earliest visible manifestation of life on Earth, may have been driven by single-celled organisms called foraminifera.

Stromatolites ("layered rocks") are structures made of calcium carbonate and shaped by the actions of photosynthetic cyanobacteria and other microbes that trapped and bound grains of coastal sediment into fine layers. They showed up in great abundance along shorelines all over the world about 3.5 billion years ago.

The disappearance of the stromatolites has been a mystery as has been the the sudden appearance of different formations called thrombolites. Like stromatolites, thrombolites are produced through the action of microbes on sediment and minerals. Unlike stromatolites, they are clumpy, rather than finely layered. It is thought that foraminifera might have played a role. They are abundant in modern-day oceanic sediments. The researchers examined modern stromatolites and thrombolites from the Bahamas for the presence of foraminifera, they

found forams in both kinds of structures. Thrombolites were home to a greater diversity of foraminifera and were especially rich in forams that secrete an organic sheath around themselves. These "thecate" foraminifera were probably the first kinds of forams to evolve, not long (in geologic terms) before stromatolites began to decline. They started with chunks of modern-day stromatolites collected at Highborne Cay, and seeded them with foraminifera found in modern-day thrombolites. Then they waited to see what effect, if any, the added forams had on the stromatolites. After about six months, the finely layered arrangement characteristic of stromatolites had changed to a jumbled arrangement more like that of thrombolites. Even their fine structure, as revealed by CAT scans, resembled that of thrombolites collected from the wild. "The forams obliterated the microfabric," said Bernhard. They seeded foraminifera onto freshly-collected stromatolites as before, but also treated them with colchicine, a drug that prevented them from sending out pseudopods. "They're held hostage," said Bernhard. "They're in there, but they can't eat, they can't move." After about six months, the foraminifera were still present and alive -- but the rock's structure had not become more clotted like a thrombolite. It was still layered. The researchers concluded that active foraminifera can reshape the fabric of stromatolites and could have instigated the loss of those formations and the appearance of thrombolites.

http://www.laprensasa.com/309_america-in-english/2066650_pre-historic-tortoises-lived-in-amazon-before-migrating-to-galapagos.html

A pre-historic tortoise that lived in the Brazilian Amazon is the most likely ancestor of the tortoises that live in Ecuador's Galapagos archipelago today, paleontologists said. The pre-historic tortoises lived in the Amazon about 8 million years ago and were similar to those inhabiting the Pacific islands off Ecuador today. Giant chelonoidis fossils were found in other countries in South America, but none were as large as the ones discovered in Acre, a state in Brazil's extreme west that borders Bolivia, Guilherme said. The animal was a member of the genus chelonoidis that lived in the Miocene period and was twice the size of today's Galapagos tortoises, the zoologist said.

<http://www.sci-news.com/paleontology/article01092-crocodile-venezuela-globidentosuchus-crocodylus.html>

Two new prehistoric species of crocodile have been found in fossils found in the region of Urumaco, Venezuela. At least 7 crocodile species lived in the Urumaco region, Venezuela, during the late Miocene and 14 crocodile species existed in South America 9 to 5 million years ago during the late Miocene, and at least 7 of them lived in the same area at the same time. The deltas of the Urumaco, a river on the Gulf of Venezuela that no longer exists. *Crocodylus falconensis* was over 39 feet long. The two new species – *Globidentosuchus brachyrostris*, a creature that belonged to the caiman family and had spherical teeth, and *Crocodylus falconensis*, a crocodile that grew up to over 13 feet (4 m) long. With its spherical teeth *Globidentosuchus brachyrostris* most likely specialized in shellfish, snails or crabs. Giant crocodiles, which grew up to 39 feet (12 m) long, fed on turtles, giant rodents and smaller crocodiles. The unusual variety of species in the coastal and brackish water regions of Urumaco and Amazonas came to an end around 5 million years ago when all the crocodile species died out. The reason behind their extinction, however, was not temperature or climate changes – temperatures in the Caribbean remained stable around the Miocene-Pliocene boundary. The extinction was caused by a tectonic event. The Andean uplift changed the courses of rivers. As a result, the Amazon River no longer drains into the Caribbean, but the considerably cooler Atlantic Ocean.

[http://www.paleontologynews.com/link.asp?ID=1742846&Title=Ice Age bison remains found in Fallbrook](http://www.paleontologynews.com/link.asp?ID=1742846&Title=Ice%20Age%20bison%20remains%20found%20in%20Fallbrook)

The fossilized remains of an Ice Age bison were found during the construction of the new Interstate 15/ State Route 76 interchange in Fallbrook. The scattering of the bones indicate that the bison was scavenged after death. Although the complete skull was not found, it is the most complete set of bones of a bison found in this region.

The fossils consist of a series of upper back, lower back, and sacral vertebrae articulated with the pelvic bones. The skull of the bison was discovered buried about eight feet away. The area where the bison was found is part of the ancestral San Luis Rey River Valley, which was heavily forested at that time.

UPCOMING ROCK, GEM OR FOSSIL SHOWS 2013

August 16-18, Bridgeton, MO (St. Louis area) ,
Greater St. Louis Association of Earth Science Clubs
Show. See details at

<http://www.stlearthsci.org/Show/Flyer.aspx>

September 6-8 Greenfield, IN, Greater Indianapolis
Gem & Mineral Show - Hancock County 4-H
Fairgrounds, U.S. 40 and Apple St.; Fri. 10-7, Sat. 9-
7, Sun. 10-4; free admission. Put on by the 500 Earth
Sciences Club. See details at

http://500earthsciencesclub.org/Annual_Show.html

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 – Carl (EMSP.Pres@mofossils.com)

Vice-President: Faye (EMSP.VP@mofossils.com)

Treasurer: Rick (EMSP.Tr@mofossils.com)

Secretaries: David (dmslukens@yahoo.com), and
Ryan (EMSP.Sec2@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**

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a trip? Then sign up for the e-mail version. This
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dmslukens@yahoo.com



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 Earth &
Planetary Sciences building is on the southwest
corner of Hoyt Drive and Forest Park Pkwy. There
is a large parking lot just across the street.