

# The Paleo Times

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**The Official Publication of the Eastern Missouri Society For Paleontology**

## **EMSP SOAPBOX**

*By David Lukens & Don Howell*

If you have any articles, comments, or need to communicate with me please contact me by email or phone as contained in the membership list.

### **Next meeting**

Next meeting is **Friday, January 13th** at 7:30 pm in the New Earth and Planetary Sciences building at Washington University (see more details below).

### **PRESIDENT'S CORNER**

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I promise not to spend too much time nagging. However, I do plan to use this "bully pulpit", on occasion, to nag you, my fellow members. Our "Fossil Club", the Eastern Missouri Society for Paleontology, has prospered under the helm of our past President, Don. Our membership has doubled over the last four years. We have more families with children as active members. It will give our club more flexibility and allow us to try some new things. However we must guard against complacency; that was a problem in the club's past. Therefore, I ask each of you to come up with one new idea to help improve our club. Needless to say, I have a few of my own. Submit them to me or any of our board members any time. I plan to have a board meeting every other month prior to our meeting. We will keep minutes and have them published in the newsletter. Any club member is welcome to attend our board meetings. They will be held at our homes on a rotating basis with dinner (pizza, probably) provided. Our meeting this month is on January 11 at Rick's home at 6:00 PM. Let him know if you plan to attend.

Carl Campbell

President Eastern Missouri Society for Paleontology

### **Thanks / Congratulations**

Thanks to everyone came to the Christmas party and brought food to share. A big thanks to Bruce for sharing this house for the Christmas party. Also to Rick for running the party and also putting together so many grab bags. Thanks to Rich and Lisa for donating fossils for give away also.

### **NEXT MEETING (January)**

Items to be discussed during the January meeting

- Dues are due with the start of the new year.
- Plans for Spring field trips
- Results for the Affton White Show
- Plans for the Tucson Show

### **Upcoming Events/ Field Trips**

Fossil collecting at Lee Creek Mine, Aurora, NC has been suspended until Fall. PCS Phosphate is working in the collecting trip staging.

### **Notes from the Meeting**

#### **CHRISTMAS PARTY NOTES (thanks to Peg)**

Bruce's Geology House rocked during the annual EMSP Christmas Party, held December 10. Good traveling weather and even better food set the stage for a wonderful evening. After the meal, a program was emceed by Rick. A thank you was given to Bruce S. for hosting the event. All party goers gathered around Bruce's mastodon for a group party photo. Rich and Lisa Hagar contributed a couple large bone fossils and held drawings. The young club members that were in attendance were able to

vie for the fossils. After that, Rick presented the Annual L'Ecuyer Award. This award is a memoriam to Jacques L'Ecuyer's. Mr. L'ecuyer was a beloved past president of the EMSP. The award is presented to a member for outstanding service to the club during the past year. The recipient is chosen by the club's officers, for 2010 and 2011, two members qualified. The first of the two awards was presented to Marie. Marie is always willing to go the extra step to assist with the Club's activities. The second award will be presented at the January meeting. Next, Carl took the podium and made a special presentation of a gavel to outgoing President Don. The unique gavel was made from the top of a rib from a *triceratops* and a toe bone from a *tyrannosaurus*. Rick then recognized those who helped make the Affton Show one of EMSP's most successful shows to date. The club was able to reduce its entry fee by 50% due to member help. Rick gave special recognition to Casey and his father for the extraordinary effort they made during "table take down." Casey was given a fossil field guide in appreciation. Then, all party attendees drew for grab bags. Rick prepared fifty bags of fossils from the collection of Joe and Addie. The grab bags represented years of fossil hunting and the club is grateful to Addie for sharing. A thank you, too, goes to Rick for sorting through, and separating, boxes of fossils to prepare the grab bags. The drawing of the last grab bag concluded the end of the program. The partying continued into the evening. It was noticed, as the night ended, that a magical elf, or two, totally organized and cleaned the buffet table and kitchen. Thank you!

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- We are looking for volunteers to expand our list of people who can do explain our box at science fairs. We need people to sign up, even if you can only cover one show.

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.livescience.com/17615-ancient-fungi-plant-symbiosis-amber.html>

A 52 MYA piece of amber from India has been determined to be the oldest example of a symbiotic relationship ever found. Inside of the amber was a fungi attached to a plant root, the fungi's cells act to increase the surface area of the roots to allow it to get more food. Pollen in the amber identified the tree being from the Dipterocarpaceae family, common in rainforests. Melanin, a black pigment was also found in the amber, the first fossil of this that has been found.

<http://www.sciencecentric.com/news/11120221-archaeologists-find-new-evidence-animals-being-introduced-prehistoric-caribbean.html>

Scientists investigating the small island of Carriacou in the Caribbean have found the remains of a diverse group of non-native animals. At least 5 different species including pigs, armadillos, guinea pigs, and small rodents were brought to the island by humans between 1,000-1,400 years ago. Based on the limited locations where remains were found it is likely that the animals were used in rituals. The remains were found at 2 distinct sites and dated to between 600-1400 A.D., though some were present for shorter periods of time. Non-native remains have been found on other Caribbean islands before but not in this variety and never including guinea pigs. This combined with indications of trade items from other islands and South America indicate that this island may have been an important intersection point of a large trading system.

<http://www.sciencedaily.com/releases/2011/12/111221092001.htm>

Scientists studying evolutionary changes in fish after mass extinctions have determined that the head is the first section to change, before the body changes. This was determined by looking at the physical features and indicates that feeding pressures are the main drivers for changes. The diet and feeding habits cause changes such as crushing jaws, large teeth, etc. on bodies that have not changed. These changes show the adaptive radiations that occur after a large extinction within a group. There two models for adaptive radiations, one is single burst and the

other is a series of stages where habitats cause the body to change following by changes in the head. But neither has been verified by looking at fossils after extinctions before. The new study looked at two different types of fish, one after an extinction 360 MYA and another at the end of the age of dinosaurs. The scientists looked at different physical features but separated the analysis of the body versus the head. The two types cleared showed head changes before body changes.

<http://www.sciencedaily.com/releases/2011/12/111227093055.htm>

A study of mammals in North America over the last 65 million years indication that climate changes were one of the principal drivers of 6 waves of mammal diversification. While it was previously known that mammals change with climate, this is the first time it has been tied clearly to the climate change, but that it is also altered by other factors such as migration. Of the 6 diversification waves studied, 4 show significant correlations to large changes in temperatures, the other two episodes show a weaker connection but also related to immigrations of large numbers of mammals from other continents. This study looked at not only the change in species versus temperature but also showed that characteristics within a species also changed as the climate changed. Around 20 MYA when North America moved from a woodland to a grassland, the teeth of the herbivores changes to high crowned teeth more adapted to eating grasses.

<http://www.sciencedaily.com/releases/2011/12/111219102054.htm>

Paleontologists from Argentina have reported finding for the first time, the fossils of a large titanosaurs in Antarctica dated to between 65-99 MYA. Previously, large sauropod herbivores have been found on all continents except Antarctica. This group has more than 150 different species and were the largest land animals ever. Only a tail vertebra was found but the morphology shows it to be a titanosaur.

<http://www.vancouver.sun.com/technology/Yukon+permafrost+yields+answers+mysteries/5914237/story.html>

A Canadian scientist, with assistance from a miner in the Klondike has found important new Ice Age fossils. The scientist was contacted by a miner who assisted him in previous years in digging up

mammoths, cats, and bears. The miner was exposing a large wedge of permafrost that the paleontologist was interested in. In addition to mammoth bones, the skull of a giant horse was also found, something unique. The animal, the size of a modern Clydesdale, is rarely seen in North America but would have been better adapted to escaping from short faced bears and American lions. Previous excavations in the 1960's and 1970's found remains of mammoths, felines, and giant beavers indicating that they lived on a vast steppe clear of ice because the dryness prevented glaciers. But because of low sea levels, animals were able to migrate from Siberia. Various theories exist as to why these animals went extinct but none have been proven. But several years ago paleontologists found evidence indicating that some animals such as mammoths and giant horses continued for thousands of years past the periods of rapid warming. Possibly finding small refuges where they could survive. Evidence in that case was not in bones, but in DNA found in hair, feces, and urine found frozen in the permafrost.

[http://www.paleontologynews.com/link.asp?ID=1532049&Title=12:59 Turkish fishers find 10-mln-year-old whale fossil](http://www.paleontologynews.com/link.asp?ID=1532049&Title=12:59%20Turkish%20fishers%20find%2010-mln-year-old%20whale%20fossil)  
Fishermen in Turkey have found the remains of a 10 MYA whale fossil. While fishing, the men recovered some strange stones which they took to a University to identify. They were sent onto experts who identified them as whale bones including arm and rib bones. This is the first fossils of baleen whales found in Turkey.

## Upcoming shows

January 2012

1-31—QUARTZSITE, ARIZONA: Wholesale and retail show; Desert Gardens RV Park; 1055 Kuehn St.; I-10 Exit 17; Sun. 9-6 daily; free admission; crystals, minerals, rough, polished, jewelry Web site: [www.desertgardensrvpark.net](http://www.desertgardensrvpark.net)

January 2012-February 2012

28-11—TUCSON, ARIZONA: Arizona Mineral & Fossil Show; Martin Zinn Expositions; Ramada Ltd.; 665 N. Freeway; Thu. 10-6 daily; free admission; more than 400 dealers, free shuttle among locations, Artists' Gallery at the Hotel Tucson City Center; contact Martin Zinn Expositions, PO Box 665, Bernalillo, NM 87004-0665; e-mail: [mzexpos@gmail.com](mailto:mzexpos@gmail.com); Web site: [www.mzexpos.com](http://www.mzexpos.com)

March 2012

2-4—RICHMOND, INDIANA: Annual show; Eastern Indiana Gem & Geological Society; Wayne County Fairgrounds; 861 N. Salisbury Rd.; Fri. 10-6, Sat. 10-6, Sun. 11-4;

23-25—INDIANAPOLIS, INDIANA: 14th Annual Indianapolis Spring Gem, Mineral & Jewelry Show; Treasures of the Earth Gem & Jewelry Shows; Indiana State Fairgrounds - Agriculture/Horticulture Bldg.; 1202 E. 38th St.; Fri. 10-6, Sat. 10-6, Sun. 11-5; Web site: [www.toteshows.com](http://www.toteshows.com)

April 2012

28-29—MEMPHIS, TENNESSEE: Annual show; Memphis Archaeological & Geological Society; Memphis International Agricenter; 7777 Walnut Grove Rd.; Sat. 9-6, Sun. 10-5 Web site: [www.TheEarthWideOpen.com](http://www.TheEarthWideOpen.com)

### 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 Campbell

Vice-President: Faye Whobrey

Treasurer: Rick Poropat

Secretaries: David Lukens and Ryan Fairbanks

### DUES ARE DUE

Our treasurer, Rick Poropat 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.



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.

# 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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FIRST CLASS MAIL

