

# 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](mailto:emsp.sec@mofossils.com).

### Next meeting

Next meeting is **Friday, September 12, 2014** at 7:30 pm in the New Earth and Planetary Sciences building at Washington University (see more details below).

## President's Corner

Did you go to all the great places and do all the things you planned to do over the summer? Well, if you fell short, don't worry as you are not alone. Be sure to plan on attending the great meetings that are lined up for the rest of 2014 and participate in all of the activities:

### Club Meetings:

September 12, 2014

Bring sample of your summer FINDS, anything that you want identified, and pictures or slide show of your trip (usb drive preferred).

October 09, 2014

November 13, 2014 (Yes, Friday the 13<sup>th</sup>!!)

December (Club Christmas Party – Date to be Announced)

### Possible Field Trips for this Fall:

Mark Twain Lake

Danville Quarry (allows minors with parent/guardian)

Ardeola (Dr. Stinchcomb's marine site)

Do you have suggestions for others?

### Shows:

November 21-23, 2014

This show is always the weekend BEFORE Thanksgiving (great time to start Christmas shopping for your fossil friends). It is at the White Rodger's Community Center, Afton, MO. Plan ahead to volunteer for ticket booth, EMSP's table, setup on Friday, and come, look, and buy those things that you want but haven't been able to find. There are a lot of vendors to choose from but be sure to check out your own EMSP table as these funds go toward the speakers we bring to the monthly meetings.

This is a great opportunity to INCREASE your knowledge as you can LEARN from the vendors and from the other attendees as well as adding to your personal collections.

### Membership Listing:

Copies will be available at meeting. Make sure your contact information is correct.

Also a three ring binder is missing from the fossil teaching kit. If anyone has it then please bring it to the next meeting.

## Paleo-shorts

If you happen to be in Mississippi this fall then check out The Dunn-Seiler Geology Museum at Mississippi State. They are featuring a dinosaur egg collection Wednesday [Oct. 12] as part of the second annual National Fossil Day observance.

Called "Fossil Extravaganza," the free 5:30-7:30 p.m. university event also involves tours and children's activities by museum staff and faculty, students, and others in the sponsoring geosciences department.

Located in Hilbun Hall on the east side of campus, the museum is joining others throughout the nation as part of a larger recognition of Earth Science Week.

"National Fossil Day is a great way to learn about what was here before us," said museum director Renee Clary, an assistant professor of geology and geoscience education. "We're fortunate to be in Mississippi where a treasure trove of fossils lies right beneath our feet."

The Dunn-Seiler Museum regularly features mineral and rock collections, meteorites and fossil displays to help visitors understand Earth's 4.6 billion-year history. A Triceratops skull replica, a crocodile skull from the Cretaceous period and many fossils from Mississippi and the Southeast are among popular items.

This year's event also will include fossilized dinosaur eggs found in southeastern Montana by earth and atmospheric sciences doctoral student John Paul Jones. He will have available for viewing CT scan images of the eggs' interior.

"Since I was a little kid, I've had a fascination with dinosaurs," said Jones, who has visited every continent but Antarctica. "Some things you never grow out of."

While currently unable to identify precisely the types of eggs, they are believed to be from a group called Hadrosaur that often is called "the duck-billed dinosaurs," he explained.

Along with the department of geosciences, the "Fossil Extravaganza" is supported by Teachers for a

Competitive Tomorrow, a multi-disciplinary grant program for undergraduate student workers.

## **Kooteney national park. New arthropods, 55 new species from Cambrian explosion. Burgess shale in Canadian Rockies**

<http://www.cnn.com/video/data/2.0/video/bestoftv/2014/08/22/dnt-fossils-unknown-species-discovered.cbc.html>

## **Evolutionary misfit: Misunderstood worm-like fossil finds its place in the Tree of Life**

One of the most bizarre-looking fossils ever found -- a worm-like creature with legs, spikes and a head difficult to distinguish from its tail -- has found its place in the evolutionary tree of life, definitively linking it with a group of modern animals for the first time.

University of Cambridge. "Evolutionary misfit: Misunderstood worm-like fossil finds its place in the Tree of Life." ScienceDaily. ScienceDaily, 17 August 2014.

<<http://www.sciencedaily.com/releases/2014/08/140817220058.htm>>.

## **Ancient shellfish remains rewrite 10,000-year history of El Nino cycles**

Piles of ancient shells provide the first reliable long-term record for the powerful driver of year-to-year climate changes. Results show that the El Niños 10,000 years ago were as strong and frequent as they are today. The study results question how well computer models can reproduce historical El Niño cycles, or predict how they could change under future climates.

University of Washington. "Ancient shellfish remains rewrite 10,000-year history of El Nino cycles." ScienceDaily. ScienceDaily, 8 August 2014. <<http://www.sciencedaily.com/releases/2014/08/140808163453.htm>>.

## **Burrowing animals may have been key to stabilizing Earth's oxygen**

Evolution of the first burrowing animals may have played a major role in stabilizing the Earth's oxygen reservoir, researchers hypothesize. The first burrowing animals significantly increased the extent to which oxygenated waters came into contact with ocean sediments. Exposure to oxygenated conditions caused the bacteria that inhabit such sediments to store phosphate in their cells. This caused an increase in phosphorus burial in sediments that had been mixed up by burrowing animals. This in turn triggered decreases in marine phosphate concentrations, productivity, organic carbon burial and ultimately oxygen.

University of Southern Denmark. "Burrowing animals may have been key to stabilizing Earth's oxygen." ScienceDaily. ScienceDaily, 6 August 2014.

<<http://www.sciencedaily.com/releases/2014/08/140806095117.htm>>.

## **Otzi Iceman had genetic predisposition for atherosclerosis: Much the same in ancient peoples as it is today**

While prevalence and types of risk factors for atherosclerosis have varied over time from ancient times to modern society -- such as levels of obesity, physical activity -- genetic predisposition/risk for the condition today appears to be very similar to that in ancient times.

World Heart Federation. "Otzi Iceman had genetic predisposition for atherosclerosis: Much the same in ancient peoples as it is today." ScienceDaily. ScienceDaily, 30 July 2014.

<<http://www.sciencedaily.com/releases/2014/07/140730203707.htm>>.

### **Upcoming Events**

The Falls of the Ohio State Park's Digging the Past is Saturday September 13 from 10:00 a.m. to 4:00 p.m.

It combines Archaeology Day and Earth Discovery Day into a single event that promotes interests in archaeology and earth science. Activities

for visitors of all ages are located around the parking lot behind the Interpretive Center.

You will enjoy learning about human history and the Earth's past with nearly 20 different activities.

- Archaeology – throw a dart with an atlatl and use primitive tools, make clay pottery, get dirty finding “artifacts” in a mock dig, play games, and more.
- Geology – Dig for fossils and minerals in our refreshed collecting piles\*, explore the fossil beds, examine micro-fossils with a microscope, make an egg carton geology collection, children's craft area to make gem trees, weather rocks, are some of the highlights.
- What do I have? Get your unknown artifacts and rocks identified by experts.

\*Collecting is prohibited at the Falls of the Ohio; however, local quarries donate 30 tons of fossil-bearing Silurian Waldron shale and Devonian limestone residuum. Dig for brachiopods, bryozoans, corals, crinoids, cystoids, snails, clams, and trilobites in our collecting piles. Search the mineral pile from Rosiclare, Illinois for fluorite, sphalerite, barite and calcite. We can direct your club to other localities in the area to collect fossils. This would be an ideal weekend field trip. We hope members of your group will be able to attend!

Regards,

Alan Goldstein

Interpretive Naturalist / Event Coordinator

Falls of the Ohio State Park

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[www.fallsoftheohio.org](http://www.fallsoftheohio.org)

[www.facebook.com/fallsoftheohio](https://www.facebook.com/fallsoftheohio)

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.

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## DUES

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 Ryan at [emsp.sec@mofossils.com](mailto: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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