

The Paleo Times

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The Official Publication of the Eastern Missouri Society for Paleontology

Rick Poropat, Editor

President's Corner

Thank you all for those that attended the fun picnic and brought some of your special dishes that I look forward to each year. We lucked out on a beautiful day! Thanks to Rick Poropat for carting in all of the fossils in for the silent auction and to our grill cooks-Tom, Carl, and Rick (and those I may have missed).

I want to extend a welcome back to our club members from our summer hiatus. I hope you all got out and enjoyed the summer which was overall pretty nice for the St. Louis area. I got a few hikes in around the rain but did not manage to get out collecting. Please bring pictures and fossils (digital or print) to show at the September and share your summer trip stories.

Abby

Thank You!

A huge **THANK YOU** to everyone who helped out at this year's Machinist Hall show by working the admission table and club demo booth or by putting in a display or taking down the show. Volunteers were Tom & Keri, Ryan & Abby, John & Dorothy, Paul & Peggy, Ronnie & Tyler, Rick, Faye, Marie, Carl, Bruce, Mike, Carlton, Tom, Joyce, Chris and Mark. Our fundraiser was a big success again this year and did you see those great displays!? The final fundraising event of the year will be the Afton Show in November.

Want to get more involved? Want to join the fun? Contact a club officer for more info.

September Meeting

Our next meeting is **Friday, September 9, 2016** at 7:30 pm in the second floor classroom of the Earth and Planetary Sciences building on the Washington University campus. The program will be: 'What I did on my Summer Vacation.' Members are asked to bring in their fossil finds and pictures (power point format) from summer trips.

Lost & Found

Several items were left behind at the park shelter after the August picnic, including a pyrex bowl with a plastic container used for chips & salsa, and a plastic (Rubbermaid?) container once containing brownies. If you are missing these items, please claim them at the September meeting.



We have received word of the recent passing of former EMSP member Jim Glick. Jim and his family were active members in the 1970's through the early 1990's. More recently, health issues prevented Jim from following his passion of rock collecting. Jim was also active in the Boy Scouts and helped many scouts complete the Geology merit badge. He will be missed by all who knew him.

Save The Date!

Be sure to watch the **Good Morning America** show on September 8th. Our young EMSP member, **Tyler Wright** will be under the spotlight. I don't want to spoil the surprise, but a world record has been mentioned.

Check it out!

Fossil of the Month



The fossil of the month is the Mississippian crinoid *Macrocrinus* sp. from the Burlington formation along the shores of Mark Twain Lake in northeastern Missouri. The specimen shows the internal structure of the calyx with a long anal tube, preserved within chert. The specimen was collected during an EMSP field trip and represents one of the many beautiful fossils to be found by breaking Burlington chert. The illustrated specimen is approximately 2 1/2 inches long.

Treasurer's Report

A detailed treasurer's report is available by request from the treasurer.

Calendar

Sept. 9-18	Denver Show (10 venues)
Sept. 24	Rock, Fossil, Quake St. Louis Science Center
Nov. 18-20	Mineral, Gem & Fossil Show & Sale Afton White Rogers Com. Center
Dec. ??	Fossil Club Christmas Party

Know of any special events our club members might be interested in? Email a club officer with the info and it will be put on the calendar.

Rick's Ramblings

Welcome back! I hope everyone had a great summer and took some time off to travel, visit a paleo museum or collect some of those elusive fossils. I attended a two-day seminar on the Ordovician geology and paleontology of the midwestern U.S. This well-attended, annual event was presented by the Falls of the Ohio State Park in southern Indiana and featured some of the top Ordovician experts in the region. A number of interesting talks were scheduled for the first day, including an amazing program on the Ozarkian fossil mollusks of Missouri by EMSP member Chris Cozart. New EMSP member, John Catalini, gave a great presentation on cephalopods. (welcome aboard John!) Other interesting talks were devoted to Ordovician crinoids, brachiopods and the paleoenvironment.

On the second day of the seminar, our group traveled to several localities in northern Kentucky and southern Indiana to learn more about the field geology and paleontology of the region. The trip was designed to climb up through the Ordovician sequence from the lowest beds to the youngest. It was interesting to track the size, type and quantity of fossils from site to site as the rocks got younger. Several species found in the lower beds were nonexistent in the upper beds. Overall, the size and quantity of some species increased as the sequence got younger. Of course, a few fossils were collected along the way, including crinoids, trilobites, cephalopods, corals, gastropods, bryozoans and brachiopods. Rain held off until the end of the day, making it a very enjoyable trip.

The Falls of the Ohio park holds the fossil seminar annually with each year covering a different geological period. The Devonian will be the focus in 2017. I highly recommend you attend this event!

I hope no one was adversely affected by the recent heavy rain as we were. The morning after returning from Falls of the Ohio, I awoke to find basement leaks where there had never been any before. There were a few damp boxes but no real damage, except in the fossil room where the carpet was soaked. In order to remove it we had to dismantle the display cases and move everything to higher ground. Mold & mildew were a concern so we also boxed up the geology library and carried 50 boxes of books to the first floor. Fortunately, no

overall collection. Check out my tables at MAPS next spring!

The *Fossil Project* is hosting a four-part webinar on fossil collecting. (see info. on page 4) While you will receive this issue after part one has been presented, I encourage you to log in to the website and check out the remaining lectures. They may be especially helpful to beginning fossil enthusiasts. There is no charge and you don't have to be a member of *Fossil*. *Fossil* members, however, can also log in to view the entire webinar presentation on their own at a later date.

Turtle Shell Research

A recent study on the oldest proto turtle, *Eunotosaurus*, suggests the broadening of the ribs in turtles was initially an adaptation for burrowing to escape the extremely arid environment of South Africa 260 million years ago. Later, the ribs were incorporated into the modern protective turtle shell as found in *Pelusios*.

It is common knowledge that the modern turtle shell is largely used for protection. No other living vertebrate has so drastically altered its body to form such an impenetrable protective structure as the turtle. However, a new study by an international group of paleontologists suggests that the broad ribbed proto shell on the earliest partially shelled fossil turtles was initially an adaptation, for burrowing underground, not for protection. Paleontologist Tyler Lyson from the Denver Museum of Nature & Science is among the scientists that helped make this discovery.

"Why the turtle shell evolved is a very Dr. Seuss-like question and the answer seems pretty obvious - it was for protection," said Dr. Lyson, lead author of *Fossil Origin of the Turtle Shell*, which was released today by *Current Biology*. But just like the bird feather did not initially evolve for flight, the earliest beginnings of the turtle shell was not for protection but rather for digging underground to escape the harsh South African environment where these early proto turtles lived." A big research breakthrough came with the discovery of several specimens of the oldest (260- million-year-old) partially shelled proto turtle, *Eunotosaurus africanus*, from the Karoo Basin of South Africa.

Credit: Luke Norton

Mark Your Calendar

Dig into the current research in seismology, geology and paleontology during *Rock, Fossil, Quake: A Celebration of Earth Science*, a free event at the Saint Louis Science Center.

This second annual event is scheduled for Saturday, September 24, 2016 from 10am-4pm. You can identify fossils, (bring your own to identify!) meet scientists and experience a volcanic eruption. See the latest projects being worked on by fellow club members in the prep lab and get a sneak preview of the new PBS NOVA series *Making North America*. Don't forget to check out the incredible 66-million-year-old fossils brought back from dig sites in Montana!

You'll also learn about Missouri's Supervolcano and the geology of southern Missouri, featuring Elephant Rocks, Johnson Shut-Ins and more. Don't miss this FREE, once-a-year event!



A young fossil enthusiast at the Machinist Hall show.

Did You Know?

Fossil fuels are not made of dinosaurs but are hydrocarbons, primarily coal, fuel oil or natural gas, formed from the remains of dead plants and microscopic animals such as diatoms. Because it took millions of years to make, this fuel is non-renewable. Fossilized diatoms are also used as abrasives and in toothpaste formulas to make the paste abrasive enough to clean our teeth.

Online Fossil Seminar

----- Forwarded message -----

From: **Gardner, Eleanor** <egardner@flmnh.ufl.edu>

Date: Mon, Aug 29, 2016 at 2:51 PM

Subject: Free FOSSIL Project Webinar Series!

To: flmnh-vp-fossil <fossil@flmnh.ufl.edu>

Hello, everybody!

As announced on FOSSIL Project social media accounts, we are excited to begin a free webinar series on the fundamentals of fossils. Our first webinar is this coming Wednesday, August 31, from 7-8pm Eastern. The speaker will be Mr. Jayson Kowinsky, a high school physics teacher from Pittsburgh, PA, who also happens to be an incredible amateur paleontologist and owner/operator at www.fossilguy.com. The title of his talk is "Fossil Collecting: Where, How, & When to Find Fossils."

In partnership with the Paleontological Society and with technical support from iDigBio, the FOSSIL Project is thrilled to be hosting a four-part webinar series throughout Fall 2016 (for future dates and speakers, see flyer inserted below & attached). All are welcome to attend these free webinars. Just connect at <http://idigbio.adobeconnect.com/fossil-webinars/>. Connect time will begin at 6:45pm ET, allowing for 15 minutes to address any technical problems. If you are unfamiliar with AdobeConnect online conferencing software, don't worry! All you need is an internet connection and the webinar link above. There is no sign-up or installation. (Unless you wish to use a mobile device – then you will have to download the AdobeConnect app for either Android or iPhone/iPad.) And here is a helpful "quick start guide" for connecting!

Please note that Continuing Education Units from the University of Florida are available for educators who attend all 4 webinars. To get CEUs, please register through the UF Conference Department at <http://reg.conferences.dce.ufl.edu/SSP/1400056716>.

Also, if you haven't yet, please consider joining the myFOSSIL community website at <http://community.myfossil.org>. As a member of myFOSSIL, you can view the recorded webinars at a later time, engage with other members in the dedicated webinar forum, and – best of all – receive a certificate of completion for attending all 4 webinars.

Fossil club/society officers, please feel free to forward this email to your members or include this info in your newsletters and bulletins.

Please contact me, Eleanor Gardner, at fossil@flmnh.ufl.edu with any questions or concerns. Hope to see you on Wednesday evening!

Eleanor E. Gardner, M.S.

FOSSIL Project Coordinator

Florida Museum of Natural History

Email: egardner@flmnh.ufl.edu | fossil@flmnh.ufl.edu

Website: community.myfossil.org

FOSSIL's free webinar series

Fall 2016

August 31 Finding Fossils with Jayson Kowinsky

September 29 Field Notes 101 with Bruce MacFadden

October 19 Excavating Fossils with Dava Butler

November 30 Fossil Prep Basics with Rachel Narducci

All webinars run from 7-8pm Eastern Time

Sponsored by:



The Eastern Missouri Society for Paleontology (EMSP) is a Missouri registered 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. 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 sites 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 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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