

The Paleo Times

Volume 15 Number 4

April 2016

The Official Publication of the Eastern Missouri Society for Paleontology

Rick Poropat, Editor

President's Corner

I want to thank Dr. McDonald for a great talk at the March meeting. His large-fauna overview of the Cretaceous in South America and Laurentia greatly broadened my understanding of the diversity and forms of major animal families during that period. I did not know the crocodiles of South America looked so different from their North American cousins (which looked more like modern alligators) during that time period.

I will be out of town for the April and May meetings. Vice-president Tom Lee will lead those meetings.

Each April, Washington University holds a major carnival. In the past, it has fallen on the same night as our meeting, creating a terrific parking headache. This year the carnival will take place on the third weekend and will not be a problem for us.

Abby

Wanted: Display Fossils

Carl Campbell is looking for donations of good quality, local fossils for a display at Meramec College. Please contact him at CECampbell@stlcc.edu if you would like to make a donation.

Quotable Quotes

About dinosaurs....

"Being a paleontologist is like being a coroner, except all the witnesses are dead and the evidence has been left out in the rain for 65 million years."

Michael Brett-Surman

Smithsonian Institution, Washington DC



April Meeting

Our next meeting is **Friday, April 8, 2016** at 7:30 pm in the new Earth and Planetary Sciences building on the Washington University campus. The program for the evening will be a collaborative presentation of fossil preparation techniques given by our club "experts". If you want to learn what to do with those most excellent fossils after you have found them, please join us for what promises to be a great program.

Congratulations!

Congratulations to Dr. Andrew McDonald who is the new (and historically first) staff paleontologist for the St. Louis Science Center!

FIELD TRIPS

The field trip scheduled for Saturday March 12 to Bruce's K/P boundary site at Ardeola, Missouri was cancelled due to inclement weather; however, there will be other opportunities to visit this site. At the March meeting, Dr. Bruce began compiling a list of members wishing to visit this locality on short notice. Please contact him to add your name to the list.

There is currently no field trip scheduled for April, but who knows what may develop at the monthly meeting? Planning for May, John has scheduled a trip to Parson's Quarry in Tennessee. Stay tuned for more information.

Fossil of the Month



The April fossil of the month is the gastropod **Bellerophon sissile** from the Mississippian St. Genevieve formation near St. Genevieve, Missouri. Large for Paleozoic gastropods, this species can reach the size of a baseball. In the St. Genevieve limestone, the mineral jasper preserves these and other fossils. The best specimens are removed from limestone matrix using a mild acid. When cut in half and polished they often display growth whorls in bright red, yellow and orange, but who would want to cut one of these beauties?

The St. Genevieve Formation

The St. Genevieve formation is composed of a thick series of Mississippian-age limestone beds and is located in Missouri, Kentucky and Illinois. An unrelated formation of the same name is found in Indiana. The type locality for this formation is St. Genevieve, Missouri where outcrops occur north and south of town.

The main rock composing the formation is a medium crystalline limestone composed of crinoid stem fragments, ooids, brachiopods and bryozoans. Also present are thin, shaly beds and a fine-grained sandstone bed. A zone of algal pellets, mostly of the genus *Solenopora*, lies near the base of the formation above a thin limestone conglomerate.

A distinctive marker bed of the St. Genevieve formation is characterized by a unique, insoluble residue assemblage of silicified fossils, glauconite and red chert fragments. Fossils from this bed include brachiopods, bivalves and horn corals, but large *Bellerophon* gastropods are most impressive.

Rick's Ramblings

Several new members have asked me to recommend a good fossil resource book. At the March meeting, it was further suggested that book reviews become a part of the newsletter. I will be happy to create a new column devoted to this topic; however, I don't expect to do all the work. I am sure many members have favorite fossil books to share with others. Please take a moment to write a short review and email it to me. Meanwhile, I will pass on a couple of recommendations to those new to the hobby.

The first book I always recommend to beginners is *Fossils for Amateurs*, by Russell P. MacFall and Jay C. Wollin. Russell MacFall was an editor for the Chicago Tribune for many years. Jay Wollin taught earth science at Oakton Community College in Morton Grove, Illinois. The foreword was written by the late, great Eugene S. Richardson, former invertebrate curator at the Field Museum in Chicago and one of the founding fathers of MAPS.

Published in 1972, it is very outdated in some sections, especially maps (no GSP back then) and cleaning and preparation (no high tech tools or adhesives) but is still relevant in others. Overall, this book will give the beginner a great look at the many aspects of the hobby, from how and where to look for fossils to cataloging and displaying them.

This book has been out of print for years, however, used copies might be found on line at Abe's Books or at a local used bookstore if you are lucky. I have also seen copies for sale at MAPS Expo for less than \$10.

The second book I recommend for beginners is *The Practical Paleontologist* by Steve Parker. First published in 1990, it has been reprinted several times and is still available in some bookstores. New and used copies are also available on line.

This book will give everyone a good general overview of Paleontology. As stated on the cover, the book is a "step by step guide to finding, studying and interpreting fossils; from searching for sites to extracting, cleaning and restoring finds." The pictures in this book are in color! The one drawback I find is that most of the fossils pictured are from Great Britain and Europe, so, unless you happen to specialize in fossils from those places, the book is not very useful for identifying the critters we find in North America. Enjoy!

On another note, while working with the mailing lists, I discovered there might be some confusion as

to what dues must be paid as determined by the method of newsletter delivery preferred.

To reiterate: dues are \$20 per household for email newsletter delivery and \$25 per household for regular US postal service delivery.

I noticed that a few renewing members went from receiving email newsletters to snail mail delivery this year. Was this because you truly wanted the slower, more expensive service, or did you just forget what amount to pay?

There are advantages to receiving the newsletter by email that are not available to those receiving it by regular mail. First, it arrives to your house fast, giving you quicker notification of upcoming events such as field trips. Because some activity plans are announced at the monthly meeting, if you were unable to attend that meeting, email enables the club to give you short notice of a new activity, trip change or cancellation. We cannot give short notice by regular mail. Second, email newsletters are published in color, giving you full benefit of the photos (which are clearer) and diagrams featured in the articles.

I want to assure everyone that EMSP, its officers and its members are prohibited from using your email address or other personal information for any purpose other than club business. There is no reason to be hesitant about giving out your email address.

I realize we have a few members who do not own a computer and want to assure them that we will make every effort to notify them of any activity changes; however, this will not always be possible.

To keep informed, the best thing members can do is attend our monthly meetings. If you sign up for a field trip, be sure to print your name legibly and include your phone number or email address on the trip form.

Finally, I want to thank Ryan and Abby Fairbanks for hosting the fossil board-making party. The chili and homemade beer were great and we accomplished a lot! I also want to thank the dedicated club members who attended. You know who you are. Without your hard work and support, EMSP would not be possible.



Calendar

Apr. 9-10	S. Illinois Earth Science Show City Pavilion Marion, Illinois
April 30-May 1	Geofair Cincinnati, Ohio
May 6-8	Central Missouri Rock Show Hallsville Fairgrounds Hallsville, Missouri
May 28-29	40 th Annual Mineral & Fossil Show DuPage County Fairgrounds Wheaton, Illinois
June 3-5	FOSSIL Mini Conference Cincinnati Museum Center
June 10-12	Missouri Mines Rock Swap MO. Mines State Historic Site Park Hills, Missouri
June 24-26	Bedford Indiana Rock Swap Lawrence County Fairgrounds South of Bedford, Indiana
July 1-28	Paleotrek Jordan, Montana
August 7	Club picnic at Kirkwood Park
August 19-21	Greater St. Louis Association Show Machinist Hall, Bridgeton, Missouri
Nov. 18-20	Mineral, Gem & Fossil Show & Sale Afton White Rogers Com. Center

No Kidding?

Did you know that some fossils have magical healing properties? According to the book, *Crystal Enchantments*, by D. J. Conway, (given to me as a gag) the ritual use of fossils has a very ancient history. Shamans around the world still consider them valuable tools for amplifying magical energy. Fossils are generally associated with all five elements: Earth, Air, Fire, Water and Spirit. To dream of fossils can mean there is a static condition in life that keeps you from achieving your goals.

All fossils can help with past life regression and general protection. For example, **ammonites** are useful in finding your way down the spiritual path and in past life meditation. **Coprolites** aid in feeling a kinship with all other life forms. The **sponge** is helpful in getting emotions under control. **Turritella gastropods** help in combining the old and the new; aid in adjusting to changes in life and help neutralize fears. The **sand dollar** is helpful in rituals and spells where you want to call upon all of the elements. Believe it or not.

rp

New Federal Land Regulations

We are all concerned about government regulations regarding fossil collecting on public (federal) land, and with good reason. Laws are being enacted that will affect us all. The following is the first installment of an article from the *Association of Applied Paleontological Sciences (AAPS) 2016 Tucson Show Fossil Dealers and Events Guide*. rp

Death of Discovery

By Glade Gunther

For many of us, our earliest childhood memories are related to the things that we loved to do the most. Whether that be a trip to Disneyland, playing baseball with our Dad, fishing, or a special trip with our families. Often, it is those same things that we love to do today. For our family, that was collecting fossils. It was like a giant puzzle of the history of the earth. Constantly urging us to understand a little more.

Back in the mid 1960's, our family moved to Brigham City, Utah. My Grandfather, Lloyd Gunther, sought out advice from a paleontologist, Dr. Stewart Williams, and was directed towards the mountains to the north of town. It has been studied by some of the greatest minds of early paleontological research in the western United States. My Grandfather was cautioned though, that it had been collected out and that there was not much left to find. That did not discourage my Father and Grandfather from trying though, and we earnestly sought out fossil bearing rocks that they could see from the backyard of our home.

It wasn't long before we discovered the fossil-bearing rocks and learned that with a little or a lot of work, we could collect the vast exposures and find fossils. Not being familiar with everything that we might find, in our wisdom, we contacted Dr. Richard Robison. As a result, we began to learn more and more about what we were finding. Identifying the various fossils became an exciting adventure, even to the extent that we began to understand where different types of fossils came from in the formation.

With time, we found things that were not recognized by Dr. Robison. New species were found and the desire to search out these and more became an even greater attraction. Dr. Robison helped connect us with some of the foremost experts in the Various fields of paleontology that would be able to further our understanding. Some might think that we would covet these new species and not want to give them away to be studied, however, the opposite was true. There was never a thought of hoarding these for ourselves. Anything that might be of interest to science was freely given to those that were interested. Some of the finest specimens we had were happily given away.

By 1980, our family name was somewhat synonymous with fossil collecting in Utah. By that time, we had done so much to advance the knowledge of paleontology in Utah that we were nominated and awarded the first Strimple Award, given by the Paleontological Society to recognize outstanding achievement in paleontology by amateurs. There were few weekends when one of us wasn't anxiously engaged in furthering the science of paleontology, whether digging along with a university project or out exploring to find new exposures and new fossils somewhere in the western United States.

Between the years of about 1970 and 2015, this desire to collect and contribute permeated everything that our family did in relation to fossils. We continued to collect and donate specimens as readily as we could find them. We led professional academic paleontologists from all over the world to some of our best collecting sites and sent them away with anything that they wanted and more. During that time, well over 10,000 specimens were donated and dozens of scientific papers were written referencing contributions that were made. Two books were coauthored by the Gunthers, specifically about fossils from the middle Cambrian of Utah. Grandpa Lloyd passed away at the age of 95, largely because he could no longer get out in the field and collect. His desire to stay alive was directly related to his ability to get out and break rocks. When that became an impossibility, it wasn't long before he was gone. It kept his mind and body young.

One might ask, while this is all nice and good, what does this have to do with anything that I should care about today? On March 30th of 2009, President Barak Obama signed the Omnibus Public Land Management Act.

To be continued in the next issue.

Social Paleontology

Social paleontology has become a reality. EMSP members might want to investigate a relatively new fossil organization that originated at the Florida Museum of Natural History. Funded by the National Science Foundation, (DRL-1322725) *The Fossil Project* was created with the purpose of researching the creation of a national network of fossil clubs and professional paleontologists. It is believed that the knowledge gained from the project will enlighten formal and informal STEM educators about how to effectively engage the public with scientific data. The project has been in operation for about two years and may have been briefly discussed at a past EMSP meeting.

FOSSIL (*Fostering Opportunities for Synergistic STEM with Informal Learners*)

Throughout the U.S., more than 60 fossil clubs and societies hold meetings, host speakers, organize festivals, and run field trips; conduct outreach; work with scientists; build their own collections; and contribute to the study of paleontology, however, in contrast to other science hobbyist groups (e.g., birdwatchers), fossil clubs are not closely networked nationally. Moreover, some fossil clubs have only limited access to the resources of professional paleontologists and natural history museums. Together, these realities limit their opportunities for informal STEM (Science, Technology, Engineering, and Mathematics) learning in the field of paleontology. Based at the Florida Museum of Natural History, and with funding from the National Science Foundation, *FOSSIL* is cultivating a networked community (known as a community of practice) in which amateur and professional paleontologists collaborate in learning, the practice of science, and outreach. This national community is determining the scope of *FOSSIL* activities, tools, and resources, and collaborating in their development and implementation. Mediated by the myFOSSIL Web space (www.myfossil.org), *FOSSIL* includes opportunities to:

- (1) Communicate electronically and socially
- (2) Engage in training and development
- (3) Attend meetings and workshops (in person or virtually)
- (4) Conduct outreach to underserved audiences
- (5) Contribute to and have access to the growing digitized collections in U.S. natural history museums
- (6) Create and share personal digitized fossil collections.

FOSSIL includes research to better understand how this approach supports the development of a community of practice and influences participation in science. In addition, *FOSSIL* will build upon ongoing national “big data” initiatives that over the next decade will make millions of digitized fossil specimens available to diverse stakeholders, including fossil clubs and amateur paleontologists. The knowledge gained from *FOSSIL* will enlighten informal and formal STEM educators about how to effectively engage the public with scientific data. Membership for both individuals and organized groups is free and is available by simply filling out an online application. Join the interactive myFOSSIL community at <http://community.myfossil.org>.

The inaugural *FOSSIL Project* meeting took place in conjunction with the 10th North American Paleontological Convention in Gainesville, FL in February 2014. In June 2016, the Dry Dredgers fossil club will partner with *FOSSIL* for a mini conference at the Cincinnati Museum Center in Cincinnati, Ohio. Registration is required for this event. It would be great if EMSP could have a representative attend. In any case, EMSP should have some serious discussion about participating in this project. Please see their website for more details.

Thanks to Jim Collins for bringing *The Fossil Project* to our attention.

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.

Eastern Missouri Society for Paleontology (EMSP)
P.O. Box 220273
St. Louis, MO. 63122



FIRST CLASS MAIL