

The Paleo Times

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Rick Poropat, Editor

President's Corner

Happy New Year club members! I was bummed to cancel the holiday party, but better safe than sorry when MODOT advises "emergency travel only" on the roads. We'll find a way to make it up this year.

We already have two great speakers lined up for the first half of this year with a third in the works. Thankfully, the weather gave us a little break during the holidays. I didn't get any collecting in but I did find time for a quick hike. Hopefully the weather will cooperate for our speakers traveling in January and February.

Hope to see you all on the 13th!

Abby

Fossil of the Month



In anticipation of the January meeting program, the fossil of the month is the Upper Cretaceous bivalve *Pterotrigonia thoracica* from Coon Creek Science Center in McNairy County, Tennessee. It is the state fossil of Tennessee. A smaller but similar bivalve, *Trigonia angulicostata* Gabb can be found in the Upper Cretaceous Owl Creek Formation in Stoddard County, Missouri.

DUES ARE DUE

The Treasurer is now accepting dues for 2017. Dues are payable in January and are \$20.00 per household per year if receiving the newsletter by e-mail or \$25 for those receiving the newsletter by regular mail. See Rick at the January meeting or mail a check (payable to Eastern Missouri Society for Paleontology) to:

EMSP

P.O. Box 220273

St. Louis, MO. 63122

Rick's Ramblings

Happy New Year everyone! I hope you all had a great holiday. Time to start getting ramped-up for the 2017 collecting season!

As stated above, **Dues are Due** in January. Whether you get your newsletter by email or by snail mail it is important to get your dues in on time. You don't want to miss out on the exciting fossil news, activities and field trips. It is EMSP policy that members, who have not paid 2017 dues by the close of the February meeting, be dropped from the membership list and will be ineligible to participate in club activities.

Regarding the newsletter: if you are currently receiving the newsletter by snail mail, but have an email account, I recommend switching membership to the email version. Not only will you save 5 bucks on the membership, but you will receive faster notification of club events, including short-notice field trips.

It's not too early to start planning for Paleotrek 2017. Carl Campbell asks that everyone who will be going to Montana this year, please contact him soon. He needs to know who is planning to attend and the dates that they will be in Jordan. There will also be a new collecting policy in place this year. Carl can give you all the details. Also, be advised that hotel rooms

may be at a premium on certain weekends in July due to several weddings in town.

The creation of the *Bear's Ears National Monument* in Utah (see page 4) illustrates what organized groups can accomplish in the face of state and local opposition. A similar situation is occurring with the publication and request for comment of the new Interior Department regulations regarding fossil collecting. I previously sent an email (another reason to switch from snail mail) outlining the situation. I encourage our club to write a comment letter as a matter of club interest. I also invite members to submit their own comments individually.

The Paleontological Resources Preservation Act (PRPA) is the U.S. law that calls for the preservation of paleontological resources on federal land. The comment period for the Department of the Interior's proposed regulation under the PRPA is open and will remain available for public comment until February 6, 2017. Anyone may submit comments via the Federal Register site until the February 6 deadline. For relevant links and additional information, please visit <http://vertpaleo.org/What-is-Vertebrate-Paleontology/Fossil-Preservation-Law-in-the-US.aspx> or <http://vertpaleo.org/Society-News/SVP-Paleo-News/Society-News,-Press-Releases/SVP-PRPA-Consultation-Begins-Today.aspx>.

Finally, a huge **THANK YOU** to Faye Whobrey for providing us with a report on December's field trip to Mississippi! I always enjoy reading about a trip I wasn't able to attend. Makes me want to go on the next one!

Calendar

Jan. 13	EMSP Meeting, 7:30 pm Washington, University
Feb. 17-19,	Cabin Fever Show Kirkwood Community Center
Mar. 4	Dinosaurs & Cavemen Expo. Columbia, Missouri
Mar. 10-12,	Greater Kansas City Show KCI Expo Center
Mar. 24-26,	Gem, Mineral & Fossil Show Machinist Hall, Bridgeton, MO.
Mar. 31-Apr.2,	MAPS Fossil Expo. Sharpless Auction Center, Iowa City, Iowa

January Meeting

Our next meeting is **Friday, January 13, 2017** at 7:30 pm on the second floor of the Earth and Planetary Sciences building on the Washington University campus. Our program for the evening is entitled: *TenneSeas: A Tale of Two Oceans* and will be presented by Dr. Michael A. Gibson, University of Tennessee, Martin. His presentation will feature the Devonian **Ross Formation** fossils from near Parsons, Tennessee and the Upper Cretaceous **Coon Creek** fossils from the famous Coon Creek Science Center locality. Please join us for an exciting and informative program! Business meeting to follow the program.

Dr. Michael A. Gibson is a University of Tennessee Alumni Association Distinguished Service Professor. He received his B.S. in Geology from the College of William and Mary in 1979 followed by an M.S. in Geology from Auburn University in 1983. Upon completion of his M.S. Gibson served as an instructor at Auburn for the 1983 academic year during which time he married. Gibson then moved to the University of Tennessee, Knoxville where he obtained his Ph.D. in Geology in 1988 studying fossils of the West Tennessee region for his dissertation and receiving the Chancellor's Award for Exceptional Professional Promise. Since 1988 he has been on faculty at the University of Tennessee at Martin, currently holding the rank of Full Professor since 1999.

Dr. Gibson's area of study is in paleontology and he teaches undergraduate and graduate courses on the Paleontology, History of Earth, Fossils: Life Through Time, Marine Geology, Oceanography, among many others. Gibson's research includes: 1) Silurian - Devonian paleoecology and taphonomy; 2) Paleocology of the Late Cretaceous of the Mississippi Embayment; 3) Floral paleoecology of the Claiborne Formation of West Tennessee; 4) Geology and paleontology of Belize, Central America and 5) Stromatolites of Quintana Roo, Mexico. Dr. Gibson teaches marine geology during the summers at the Dauphin Island Sea Lab in Alabama. He is an Associate Curator for the Memphis Pink Palace Museum & Coon Creek Science Center, director of the online Masters of Education Geoscience Education (GEDU) program at UT Martin, has published over 75 articles and book chapters, 130 published abstracts, and is currently working on a book about Tennessee fossils.

Field Trip Report: *Mississippi 2016*

By Faye Whobrey

We had a great trip to the “sunny”??? South. Had an uninvited guest – rain and then more rain. However, at times this added to the ability to SEE the fossils as we all know that WET fossils show up better. At other times, the raindrops got in the way, especially with my vision and when taking pictures

We all stayed at various hotels in New Albany, Mississippi. Our host for the trip, Dr. George Phillips, Jackson Museum of Natural Science, was unable to join the group for dinner on Friday but was there bright and early on Saturday to lead us on an adventure. He missed the great food and fun we had at the Tallahatchie Gourmet in New Albany Friday night.

Our first stop was the Coon Creek formation, Upper Cretaceous, at Blue Springs, MS. We were there a short time before the rains started but that didn't stop us. We found some great fossils:

- Whole crabs & partials of several types
- Oysters, *Exogyra costata* (some full of holes from sponges feeding on them)
- *Turritella* gastropods
- Scaphopod (tusk shell)
- Bi-Valve, *Pterotrignia thoracica*, (Tennessee State Fossil)
- Ghost Crabs (you only find the claws)
- Clams (various types)
- Nautiloid cephalopod (approximately 8" diameter)
- Shark Teeth (Casey Thater)

After lunch, George took us to the Union County Heritage Museum in New Albany, MS.



It is a small but excellent museum. They had a special display of many donated items from the Coon Creek locality plus many Pleistocene specimens from local areas as well as cultural items from the area (even some from the 1904 World's Fair in St. Louis). There is also a large display of game animals donated by a well-known local hunter.

Our second stop, also Upper Cretaceous, but of the Prairie Bluff formation, Nixon Member, was the Tenth Street Burrow Pit, Pontotoc, MS. It has changed dramatically since last year as the bedding is being dug out for road material. This is a shame because soon the whole locality will be gone. The slope was very steep and with the rain it was very slippery. But we were still able to find good fossils:

- Small Echinoids of several types
- Echinoid, (2in. diameter)
George is to identify
- Oyster, *Exogyra* (very large)
- *Pinna laqueata* Conrad (Razor Clam)

George was a great host and expressed a desire to come visit us again at Dr. Stinchcomb's site near Ardeola. We should coordinate his trip with either our May or June meeting and have him as our guest speaker.

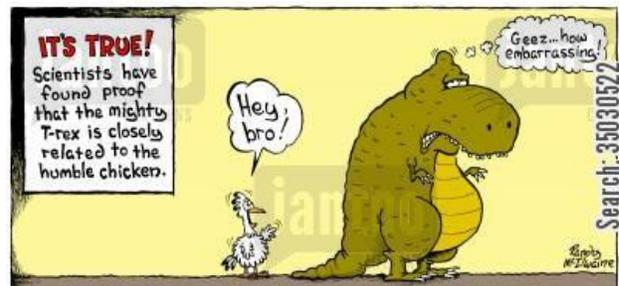
George also requested that anyone who still has items to be identified to send him pictures (up to 6 fossils on one picture) and he will put a tag on each item identifying them. His email address is:

George.Phillips@mmns.state.m

I do plan on getting this trip together again next year but at a different time, maybe May or June. We had 10 people on the trip and also had 10 that didn't come for various reasons (illness, rain, work, Christmas preparation). So hopefully those and others who didn't sign up will get to experience our Dixie trip next year.

Treasurer's Report

A detailed report is available by request from the treasurer.



“Bears Ears” National Park? (with ties to the new BLM rules)

More than three dozen paleontologists, both professional and avocational, called for President Obama to act swiftly to protect the Bears Ears region of Utah in a letter hand-delivered to the White House’s Commission on Environmental Quality on October 31st. The paleontology community has long seen the Bears Ears region as an important discovery ground that should be preserved for its scientific value. The letter again signifies a growing list of supporters calling for a national monument to better protect the invaluable resources, including millions of years of history embedded in layers of rock and soil. Thanks to Philip Newell for bringing this action to our attention. **Editor’s Note:** As I was writing this report, and without consulting me first, President Obama designated *Bears Ears* a national monument on Wednesday, December 27th, 2017. So much for being hot off the press.

The President

The White House 1600 Pennsylvania Avenue, N.W. Washington, D.C. 20500

October 31, 2016

Dear Mr. President,

As you are no-doubt aware, there is significant interest in protecting an area of federal public lands in southeastern Utah known as the Bears Ears region as a national monument. Much of this interest has come from Tribes with strong current, historic and prehistoric ties to the area, while recreationists, businesses, archaeologists and many others also have supported the Tribes’ proposal to establish a 1.9 million acre Bears Ears National Monument. These are all important interests in the protection of this landscape.

Our purpose in writing you is to add another highly significant factor into that equation; one that has received little attention in the media, but is among the most significant, certainly from the perspective of scientific impact. The Bears Ears area in southeastern Utah contains some of the richest and most significant paleontological resources in the United States. This area preserves rocks that have an unparalleled record of ancient seas that covered the continent, the rise of vertebrate life on land, the ascendancy of the dinosaurs, and even the remains of Ice Aged animals who once roamed the high plateaus and deep canyons that make the landscape of the Bears Ears area so visually stunning today. For example, work conducted in this area already has revealed new insights into the transition of vertebrate life from the sea to the land, with tetrapod fossils from the southern reaches of the proposed Bears Ears National Monument showing how the mosaic of characters present in fish and amphibians were evolving into the earliest true land vertebrates, the amniotes dating back to around 300 million years ago.

Currently teams from many different institutions across the country are engaged in fresh new research there, leading to a boom for paleontological exploration and knowledge that the region has not seen for almost 50 years. New species of plant-eating crocodile-like reptiles are being described, mass graves of enormous sauropods are being unearthed, and the fundamental changes from reptiles to mammals are being exposed within this remarkable area. The Bears Ears landscape also holds important clues about how environments respond to the increasing temperatures and decreased rainfall associated with climate change.

The geologic and fossil records in the proposed monument area allow us to see how the seasonal monsoon pattern that dominated during the Late Triassic Period, 205 million years ago, changed to a vast, dry desert system that smothered the old river systems over a period of less than 10 million years. Some of these finds are building off half-forgotten research from the 1940s and earlier. Other discoveries are being made in areas that have not been examined previously. Perhaps most startling, the vast majority of fossil-bearing rocks has yet to be scientifically examined or studied in any detail. Most previous work has been cursory without long-term goals in the region. Our work on this rich landscape has barely scratched the surface of the possibilities.

Hand-in-hand with this flurry of discovery and the preponderance of work that remains to be done in the area is the vulnerability of virtually all of the known sites, along with those sure to be discovered. Paleontological sites within the proposed monument have been damaged by both inadvertent and overtly malicious means. ATV tracks have been found running over the surface of the most productive microfossil site from the Triassic in Utah; fragile teeth less than a centimeter long that have survived over 220 million years being crushed beneath the wheels of careless individuals. Rock shops in nearby towns sell locally-sourced fossil bone and petrified plants that could only have come from public lands. Some of these areas have been proposed for oil, gas, and uranium leases. Others, including some of the few

published sites out there, have been suggested or offered up for sale, eliminating the possibility of future scientists testing previous work done in the area.

The proposal that recently was put forward in Congress would in fact remove some existing protections from over 300 known paleontological sites currently managed by the Bureau of Land Management, a major step backwards in this critically vulnerable area and resource. Increased visitation has brought many more people into contact with these resources, making it much easier for these important and irreplaceable resources to be irreparably damaged by even the most well-meaning visitor. The Bureau of Land Management has only one paleontologist and two law enforcement officers for this rich, diverse, rugged and extensive landscape. They do a heroic job, but it is simply not enough. It is for these reasons that the undersigned paleontologists urge you to use the authority Congress delegated to you through the Antiquities Act to proclaim the 1.9 million acres of public land, including its extraordinary objects of paleontological interest, as Bears Ears National Monument. This action, and a recognition of the paleontological resources within the proclamation, would allow for greater protection and research in this incomparable region. We are just starting to truly understand the complexity of Earth's history in this time and place. We hope that you also recognize how significant this region is for unraveling the natural history of our nation and how precious and vulnerable the fossil resources found in the Bears Ears area truly are.

Most respectfully, [The undersigned paleontologists, in their individual capacities]

Robert Gay, Museums of Western Colorado, Society of Vertebrate Paleontology
Hans Sues, Society of Vertebrate Paleontology (Member and former President)
Ryan Cooley, Utah Friends of Paleontology
Cliff Green, Society of Vertebrate Paleontology; Utah Friends of Paleontology
Julia McHugh, Museums of Western Colorado
Marissa Westerfield, Society of Vertebrate Paleontology; The Clariden School
Melinda Hurlbut, Utah Friends of Paleontology; St. George Dinosaur Discovery
Doug Shore, Denver Museum of Nature and Science
Dylan Dewitt, Denver Museum of Nature and Science
Edward Shelburne, Nonvertebrate Paleontology Lab, University of Texas (Austin)
Christopher Racay, Dinosaur Journey
Jason Testin, Society of Vertebrate Paleontology
Thomas Holtz, Department of Geology, University of Maryland; Society of Vertebrate Paleontology; Paleontological Society of Washington
Dalton Meyer, Society of Vertebrate Paleontology
Tracy Thomson, University of California (Davis)
Xavier Jenkins, Museums of Western Colorado
Ben Riegler, Earth Science Club of Northern Illinois
Teresa Pfister, Earth Science Club of Northern Illinois
A.B. Heckert, Appalachian State University
Taormina Lepore, The Webb Schools; Society of Vertebrate Paleontology
Ashley Hall, Cleveland Museum of Natural History
Gwen Daley, Paleontological Society
Kelli Trujillo, Society of Vertebrate Paleontology
Renee Faatz, Geological Society of America
Peter Holterhoff, Hess Corporation; Paleontological Society; Society of Sedimentary Geology
Joseph Sertich, Denver Museum of Nature & Science
Andrew Farke, The Raymond M. Alf Museum of Paleontology
Donald DeBlieux, Society of Vertebrate Paleontology
Amy Cairn, Utah Geological Survey
Sarah Morgan, Utah Geological Survey
Maddie Morgan, Utah Geological Survey
Gabriela D'Elia, Environmental Studies, Seattle University
Katie Knutson, Mount Holyoke College
Nathan Van Vranken, Society of Vertebrate Paleontology
Benjamin Burger, Utah State University
Dawn Reynoso, Society of Vertebrate Paleontology
Anthony Turner, Natural History Museum of Los Angeles County
Grant Boardman, Trivium Academy; University of New Mexico
James Lehane, Society of Vertebrate Paleontology
Khai Button, Ph.D. Candidate, University of Kansas
Sarah Gibson, Ph.D. Candidate, North Carolina State
Brian Engh, Professional Paleoartist

The Eastern Missouri Society for Paleontology (EMSP) is a registered Missouri 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. 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 on the second floor of the Earth and Planetary Sciences Building on the campus of Washington University. The building is located at the SW corner of the intersection of Forest Park Parkway and Hoyt Drive. Each meeting includes an informal exchange of information and speakers on a variety of fossil-related topics. Note: the building doors automatically lock at 7:30pm.

Club activities include field trips lead by experienced collectors and are a fun way to augment discussions at the monthly meetings. The club also 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; as well as STEM outreach to classrooms, community events and science fair special awards.

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First Class Mail