

The Paleo Times

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EMSP SOAPBOX

By David Lukens & Don Howell

If you have any articles, comments, or need to communicate with me I can be reached through the following: dmslukens@yahoo.com (personal) or contact me at 636-751-8746 (cell).

PRESIDENT'S CORNER

The March meeting went extremely well. We had the largest attendance I can remember at a meeting in a long time. The trend of adding new visitors and members continued! Thank you very much Marie and Marissa for your very interesting presentations on fossils in St. Louis buildings and gar fossils. Don't forget to sign up to volunteer at Missouri Fossil Days on June 13th at Mastodon State Historic Site. We will have tables for displaying and selling fossils. I hope to see everyone at the April meeting.

Don Howell III

Next meeting

Next meeting is **Friday, April 10th** at 7:30 pm in the New Earth and Planetary Sciences building at Washington University (see more details below).

Our April speaker will be?

Thanks / Congratulations

Thanks to Peggy for the excellent notes from the last meeting (again) since I was not able to be there.

Thanks to Marie for her presentation "Fossils around Town" on fossils in St. Louis area buildings. Thanks also to Marissa for her presentation on "The Evolution of the Gar".

A special thanks go out to Glori for all her years of work handling the clubs involvement in the Science Fair judging. She has done an excellent job and made the club very proud.

Thanks to Bob for the following web site the includes fossils from the Speed quarry field trip last month.

<http://www.kyanageo.org/Devonian.html>

Upcoming Events/ Field Trips

April Field Trip –

Jan 17-May 3, 2009 – Tusks – An exhibit at the Center for History in South Bend Indiana which features displays of over 80 bones, tusks, and skulls from Mammoths and Mastodons. More information at <http://www.centerforhistory.org/>

Carl Campbell is providing an opportunity for travel and collecting this summer (separate from Paleotrek). "Geologic Field Experiences in North America" will run from Jun 8 – June 21. He needs 18 participants at a minimum and sign up is by March 26th. The cost is \$1,400 (pretty much all inclusive – hotel and most meals). Brief itinerary is travel to Grand Tetons, Yellowstone, and then digging in Jordan Montana.

We are planning on having a table with items for sale at the Mastodon State Park Fossil Days on June 13th. We will need volunteers to answer questions and staff the tables for sales. Please let someone know if you can be there to help staff the table.

Date is set for the club picnic, it will be August 30, 2009. Put it on your calendar.

Date has been set for the next Viking show. Location will be the same as last year. Dates will be November 27-29, 2009. The price will be \$75/table. We will be getting 2 or 3 tables.

At the next meeting Bruce will have his newest book for sale. This one will cover the Mesozoic time.

Remember that annual dues were due starting in January. If you have not paid, please get your money in. If it is not paid by March 1st, your newsletters will stop.

Notes from the Meeting

Collections are still ongoing for the Joe Bolser Scholarship Fund. If you want to donate please bring your donations to the next meeting or put them in the mail.

Carl Campbell presented a Powerpoint on the Tuscon Gem & Fossil show including experiences by club members that were there.

Reminder the new club membership rolls are being updated. The April mailing will be based on this new membership list and who has paid dues. If there are problems or concerns after the April mailing please contact me (dmslukens@yahoo.com).

Several new members were in attendance at the meeting as were guests from the St. Louis Gem and Mineral Society.

As previously announced, our condolences go out to Bruce on behalf of the death of his wife Karoline. Bruce stated that a memorial is being planned for Karoline, probably at the Chronister dinosaur site. Carl suggested that perennials or a tree to accompany the memorial site would be a good idea. Donations should be given to Pete or mailed to the club address with a note that it is for the memorial. We will provide additional information as it is available.

Glori requested a handover of the Science Fair Duties. Abby offered to accept the responsibility for

this. Glori offered to continue to help with the judging. Abby also volunteered Tom to help.

The raffle for the composite Meg tooth has started (tickets were not on sale last month as Tom & Keri were out of town). The tooth will be on display at the April meeting and will likely be at future ones also (See Tom) we are selling raffle tickets for a 4" Megalodon tooth from Florida. This tooth was originally broken and has been restored, estimated value is \$30-\$50. Tickets will be \$1 each or 6 for \$5. The drawing will probably be during the August Picnic meeting. You will not need to be present to win.

Items for the April meeting:

- Continue the Meg tooth raffle
- Possible update on the Mastodon Park Show
- Possible update on Park-a-Palooza – we will be there this summer? Is it going on?
- Do we need to have a get together to make more fossil boards and arrange what we have?
- April field trip

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://news.bbc.co.uk/2/hi/uk_news/england/sussex/7925629.stm

A 140 million year old spider web has been found in England. The web, enclosed in amber, was found to 2 brothers fossils hunting along a beach. They also found part of an Iguanodon jaw. Because charcoal was found in the same fossil layer as the amber, it is believed that the web was caught in the resin after a forest fire and was fossilized.,

<http://www.livescience.com/history/090226-ancient-modern-feet.html>

Human footprints dating back 1.5 million years old have been found in Kenya. The footprints (a size 9) were from Homo Ergaster and were found in 2 distinct layers. One layer has two different sets of prints along with scattered others while the lower layer has several prints including one from a small juvenile. The print were very similar to modern footprints with an arch and the big and small toes being parallel unlike apes footprints or even those

from *Australopithecus* from 2 million years ago. The location of these footprints is across a lake from remains of "Turkana Boy", a near complete homo erectus found in 1984. These new findings provide evidence to the belief in drastic changes in humanoids in a short period of time between *Australopithecus* and *Homo erectus* including changes in stride, size, and the shape of feet. Changes in climate and the land may have been the cause for the changes forcing our ancestors to travel farther for food and the resulting changes may have let them hunt larger animal. The rock layers at this site may hold other secrets as its was near a muddy water source and may have preserved other prints, both human and animal.

<http://www.livescience.com/animals/090302-oldest-brain-fossil.html>

Not every fossil is empty headed. A 300 million year old fossil fish from Kansas was found with brain fossilized. The fish is an ancestor to ratfishes (also known as chimaeras). These are a weird extinct fish with huge skulls filled with shark-like teeth, tails with clubs, and spikes and hooks on the ends of their fins. They would make sharks look friendly but they only reached 6" in length. The preservation includes the optic nerve and ear details and show that the ear canals were horizontal showing that the fish could only detect side-to-side motion and not up or down. The brain also did not show a symmetry between the shape of the brain and the shape of the skull, which brings into question the assumption that they are related.

<http://www.livescience.com/history/090225-ice-age-camels.html>

A cache of 13,000 year old stone tools has been unearthed in Boulder, CO. The Clovis points were analyzed using new technology that showed they had been used to butcher camels and horses. This technology is new and was the first time it identified residue from camels and only second time from horses on human tools. Other tools showed evidence of sheep and bear blood. The cache of 83 stone tools was found by a landscaping crew in May 2008 included a variety of tools including knives, small blades, and a unique two headed axe. All were packed tightly into a small hole the size of a shoebox. The find is unusual as few caches from the Clovis age have been found and even rarely to find so much as one location. The tools were located in sandy soil covered over with clay indicating it was

once at the edge of a stream. It appears that someone buried them with the plan to come back but never did. One of the most spectacular pieces is a large oval bifacial knife sharpened completely around which is almost identical to a Clovis knife from another cache found near Yellowstone NP. Except for the material they might have been made by the same person. The owner of the site said the pieces will likely go to a museum except for a few smaller pieces which will be reburied at the site.

<http://www.sciencedaily.com/releases/2009/02/090216131450.htm>

Debate over rocks with some of the oldest evidence of life on Earth from Greenland has started again. Studies in 1996 indicated that the rocks had low levels of carbon 13, this is usually an indicator of life as 12C builds up in living organisms resulting in reduced 13C. At issue is the dating of the intrusions into the main rock, which were dated at 3.85 million years old. But skeptics argue that the rocks have been heating, deformed and moved over the years and the dating is inaccurate. They argue that the rocks are no older than 3.67 billion years old. If the age of the rocks is really 3.8 billion it would indicate that life started even earlier even though the Earth is only 4.5 billion years old.

<http://www.sciencedaily.com/releases/2009/02/090209075822.htm>

Over the past 4 years, a paleontologist from England has identified 48 new species from 130 million year old mud deposits from the Isle of Wight. The discoveries include 8 new dinosaurs, reptiles, amphibians, and 6 different mammals. Instead of doing surface collecting looking for float, he collected 3 ½ tons of mud washed out from the formations and then sieved and washed the dirt looking for small bones. While numerous fossils of large animals from the period exist, fossils of smaller animals are rare. The Isle of Wight is richest source of dinosaur remains in all of Europe.

<http://www.sciencedaily.com/releases/2004/10/041018084253.htm>

A paleontologist working in Canada's northern Arctic Provinces have determined that dinosaurs as well as trees and ferns survived in the area between 65-240 million years ago. Previous to his finds, scientists thought that dinosaurs likely existed in the area but no proof had been found. Previously Dr. Larsson has traveled to western Africa for

paleontology research 5 times. He has also traveled with Paul Sereno and helped to discover 8 new dinosaur species and 5 new crocodile species in Niger.

<http://www.sciencedaily.com/releases/2008/02/080206193723.htm>

Remains a pygmy dinosaur Thecodontosaurus, have been found near Bristol England. Remains a larger variety (33 ft long) (Plateosaurus) have been found on the mainland but this subspecies, which lived on subtropical islands only reached 6 ft long. This is similar to many of island species such as pygmy mammoths off the coast of California, pygmy elephants from Malta, and the "hobbit" humans from Flores. These dinosaurs were one of the earliest dinosaurs identified, first found in 1834. In 1975 remains of 11 individuals were found in a quarry near Bristol. The habitat at the time (200 million years ago) between the mainland which was an dry upland and the offshort islands which were lush, subtropical, and frequently swept by fires was very different. Cooperation been paleontologists specialized in vertebrates and other specializing in pollen helped to identify the differences. The fossils from the islands, which are now part of the mainland, were unusual. They were found in fossil caves. The rain and seawater 200 million years ago formed the caves and sediments containing the dinosaur bones and other remains were washed in.

<http://www.sciencedaily.com/releases/2006/06/060608090207.htm>

Small dinosaur bones found in 1998 in the Harz mountains in Germany were thought at the time to be bones from young dinosaurs. But study of the microstructure has revealed them to be from adults weighing about 1 ton. The unusual aspect of this is that their nearest relatives are the giant brachiosaurs weighing 50 times as much. The age of the dinosaurs was determined by looking at growth rings on the bones, which are far apart when young due to rapid growth but are closer together in adults. The 150 million year old bones are also rare due to the location. Most of Germany at the time was underwater with only a few scattered islands. These 18 ft / 1 ton animals were likely a dwarf species related to their cousins who were over 130 ft /80 tons. Dwarf species have been found before (see story above) both in dinosaurs and mammals. Fossils from the island of Flores (land of the Hobbit) proved the existence of a miniature elephant only 3 ft

tall when full grown, the size of a dog. The species of herbivore dinosaur has been named 'Europasaurus holgeri'. Additional excavations at the quarry have found over 1000 dinosaur fossils. These include a skull which is the only sauropod skull ever found in Europe. See (<http://www.dino-park.de/>) for images (Site is all in German). The quarry has been a gold mien for fossils. The finds have including flying dinosaurs, turtles, reptiles, and footprints of meat eating dinosaurs.

<http://www.sciencedaily.com/releases/2004/07/040716081844.htm>

A trackway with 90 million year old dinosaur prints has been found on the island of Hvar in Croatia. The trackways, which were made along side the ancient Tethys Sea include tracks from at least 3 dinosaurs including titanosaurs. The prints from both the front and back feet with allow scientists to estimate the length and walking speed of the dinosaurs. The paleontologists originally went to the island to look for lizard fossils but instead found the footprints and other fossils.

<http://www.sciencedaily.com/releases/2006/12/061222093009.htm>

Fossil from one of the first giant sauropods from Europe have been found in Teruel Spain. Previously similar 150 million year old fossils have only been found in Africa and N/S America. Paleontologists have found dozens of bones from the new species named Turiasaurus riodevensis. It weighed between 40-50 tones and was between 30-37 meters long, which makes it comparable to the largest known sauropods including Argentinosaurus. Some of the bones recovered included the humerus, skull fragments, femur, teeth, and ribs. Analysis of the bones shows it to be similar to bones found in Portugal, France, and England, all of which are much more primitive than comparable sauropods from the New World. The same formation also contained bones from other sauropods, theropods, fish, and turtles.

<http://www.sciencedaily.com/releases/2005/04/050414145107.htm>

Researchers in Niger, Africa have identified two new species of meat eating amphibians. These animals, from 250 million year ago, are the first and oldest meat-eating amphibians from Niger. The animals are similar to crocodiles in form with large fang like

teeth. The species, *Saharastega moradiensis*, also have horns on the back of their heads.

<http://www.sciencedaily.com/releases/1997/10/971010063025.htm>

Studies of the physiology of dinosaurs show that there was a significant improvement in their breathing ability when comparing dinosaurs from 220 million and those from 65 million years ago. But the change varied depending on location with North American dinosaurs improving faster than their Southern counterparts. The study is based on how the ribs are attached to the spinal column. This determines how efficiently the chest could expand and how much air they could take in. By 140 million years ago, dinosaurs from North America had evolved to allow each rib to move individually allowing up to 40% more air per breath.

Comparatively, Argentinean dinosaurs from the same period had a more primitive breathing system. This may be related to hunting styles where the NA dinosaurs involved pursuits (think pack animals) whereas the SA dinosaurs may have used short bursts of speed (think lion) to capture prey). Similar studies also show a similar difference in the respiratory systems of herbivorous dinosaurs also.

<http://www.sciencedaily.com/releases/2007/06/070629091349.htm>

Studies of a bone bed in Edmonton Canada have proven that two dinosaurs, previously thought to have lived at different times actually coexisted. Excavations at the time, known to have been a feeding ground for carnivores revealed bones of both *Edmontosaurus* and *Sauroplophus*. While their bones have been found at the same localities previously they were always in distinct layers. Researchers also found teeth from *Daspletosaurus*, an ancestor of the T-Rex. The teeth on these animals typically were replaced every couple years. The paleontologists are hoping to eventually find teeth from *Albertosaurus* at the site also.

<http://www.sciencedaily.com/releases/2009/02/090219140546.htm>

Studies of a certain algae (*Volvox*) show that it changed from a single celled to multicellular organism in less than 35 million years. The study of these 200 million year old fossils may provide evidence of how plants and animals evolved from single cell organisms. The most important factor was for the cells to cooperate amongst themselves.

The scientists used DNA sequences from various species of the algae to determine when the common multicellular ancestor developed. One of the earliest characteristics to emerge was a clear – gel substance between the colonies, which holds the colonies together. While producing the gel too resources, it also made the colony larger and so provided protection from predators.

<http://www.sciencecentric.com/news/article.php?q=09022559-devonian-embryos-the-origin-internal-fertilisation-vertebrates>

Fossils from Australia of placoderms (primitive jawed vertebrates) from 380 million year old formations show that they reproduced from internal fertilization. They show that live birth was more common than previously thought. The evidence consisted of fossil embryos inside the extinct armored fish.

<http://www.sciencecentric.com/news/article.php?q=09030217-geologic-findings-undermine-theories-permian-mass-extinction-timing>

New information is bringing into question some of the most popular theories about the Permian extinction, which occurred 252.6 million years ago. This was the greatest extinction in the history of the Earth. Most of the study of events that that time come from study of geological record from rocks on land located in the southern hemisphere, especially the Karoo Basin in South Africa. The original studies to support this data showed that the sedimentary layer above the Karoo Basin (which has fossils of the last Permian reptiles) was devoid of fossils and was labeled a “dead zone”. But recent studies show conflicting stratigraphic data. The “dead zone” is not found at the same physical location in the rock at all places and therefore may not be reliable. Within the valley there are variations of as much as 25 feet. While several hundred miles away, the reptile fossils are found above the dead zone, indicating it does not mark the end of the Permian Period.

<http://news.nationalgeographic.com/news/2009/03/photogalleries/new-natural-monuments/index.html>

The US government has made several fossil sites into national natural monuments. These include the Chazy Fossil Reef located in Vermont and New York. The 450-million-year-old reef is the oldest diverse reef in the world. Another site added was Big Bone Lick in Kentucky. This site is referred to

as the birthplace of vertebrate paleontology in the US.

<http://www.paleontologynews.com/link.asp?ID=400699&Title=Giant%20seabird's%20fossilized%20skull%20found%20in%20Peru>

The rare fossilized skull of an 8-10 million year old sea bird has been found in Peru. The sea bird, from the pelagornithid family has bony teeth in its jaw to help hold onto squid and fish and had wingspans of up to 20 feet. Few fossils of these birds have been found previously as they had extremely thin bones, which were generally destroyed before they could fossilize. The skull is almost 1 ½ feet long and was uncrushed. Evidence of these birds has been found in several continents and scientists are unsure why they died off 3 million years ago. The formation in which they were found are known for fossil of whales, dolphins, and other marine line and date back as much as 14 million years ago.

<http://www.paleontologynews.com/link.asp?ID=398984&Title=New%20stegosaur%20is%20quite%20a%20stretch>

Paleontologists in Portugal have found the 150 million year old remains of a new type of stegosaurs. The unique feature is that this one, in addition to the typical dorsal plates and tail spikes had a long neck. Early stegosaur's (170 MYA) had 9 neck vertebrae, the typical ones we are used to had 12 or 13 neck vertebrae, but the news find, known as *Miragaia longicollum*, have 17 neck vertebrae. The neck, between 4 ½ - 5 ½ long was 30% of the total body length or about 2X as longer as other stegosaurus.

<http://www.paleontologynews.com/link.asp?ID=397809&Title=Dinosaur%20first%20'patient'%20for%20hospital's%20new%20CT%20scanner>

Dinosaur goes to the hospital (but will the insurance pay?). A hospital in Claremont CA has its first patient, but it was not typical. It was the skull of a *Gryposaurus monumentensis*, a duck-billed dinosaur. The skull was brought in so it could be examined with a state of the art CT scanner. This allowed the fossil to be examined without having to open it up. The fossil was excavated in 2002 in southern Utah. Resulting are pending.

<http://www.paleontologynews.com/link.asp?ID=397794&Title=Peru%20to%20Build%20Its%20First%20Paleontology%20Museum>

The first paleontology museum in Peru has been opened in Trujillo. This is only the 3rd paleontology museum to be opened in South America and will have over 800 fossils on display in the 21,500 sq. foot building. The organizers received support from the Prehistoric Institute in Hanau, Germany, and the Wyoming Dinosaur Center. Fossil finds are found along Peru's northern coast, southern desert, and the Amazon area.

<http://www.paleontologynews.com/link.asp?ID=397758&Title=Collect%20a%20rock,%20lose%20your%20car>

A recent bill that passed through the US Senate and was headed for the house may make it illegal to collector rocks and could threaten paleontologists and rock collectors with arrest and seizure of there cars and equipment. (UPDATE – This became law on 3/25/09). The following is taken from the website <http://www.gop.gov/bill/111/1/s22>

S. 22 includes the Paleontological Resources Preservation Act, which would federally prohibit damage or removal of "paleontological resources" (fossils) from federal lands. This provision would outlaw fossil collecting on public lands and impose criminal and civil penalties of up to ten years in prison on individuals that violate the statute. In the letter of dissenting views that accompanied [House Report 116-670](#), 19 Members stated that "Paleontological research on our public lands should be encouraged, not punished and regulated with a bureaucratic iron fist." This provision is also opposed by the Association of Applied Paleontological Sciences, which stated in letter regarding the bill, "Our government does not need to put scientists in jail and confiscate university vans. We can visualize now a group of students unknowingly crossing over an invisible line and ending up handcuffed and prosecuted."

The forfeiture provision of the bill would allow the government to confiscate vehicles or equipment of any person who digs up or removes a bone or rock from federal land under its broad interpretation. Subtitle D of the bill makes it illegal to remove or excavate paleontological resources on Federal land (resources are defined as fossilized remains, traces, or imprints of organisms that provide information about the history of life on earth. Some experts state

that the forfeiture provision is effective before trial making you guilty into proven guilty.

The exact impact that this will have on the ability to collect is currently unknown.

<http://www.paleontologynews.com/link.asp?ID=396340&Title=Giant,%20meat-eating%20raptor%20dinosaur%20discovered%20in%20Argentina>

A new carnivorous dinosaur names "Austroraptor cabazai" has been found in southern Argentina. The dinosaur, which lived 70 million years ago, which was 16 feet long had a long flat skull, sharp teeth, and short arms. The same formations have also yielded bones of several species of plant eating dinosaurs.

<http://www.paleontologynews.com/link.asp?ID=396340&Title=Giant,%20meat-eating%20raptor%20dinosaur%20discovered%20in%20Argentina>

Other news from Argentina. Fossil remains of an omnivorous dinosaur have been found in the Ischigualasto (Valle de la Luna) national park in central Argentina. This dinosaur may be the missing link between meat eating and plant eating dinosaurs.

<http://www.paleontologynews.com/link.asp?ID=396340&Title=Giant,%20meat-eating%20raptor%20dinosaur%20discovered%20in%20Argentina>

Paleontologist in Canada are closer to finding the parents of a 77 million year old abandoned dinosaur nest. It is likely that it belonged to either a ceanognathid (ostrich like dinosaur) or a dromaeosaurid (raptor). Both were meat eaters. The nest originally held about 12 eggs though only fossilized fragments remained. Nests of carnivorous dinosaurs are very rare, only one other example has been found. The most recent nest was found by commercial fossil hunters and was originally thought to belong to a hadrosaur.

<http://www.paleontologynews.com/link.asp?ID=395322&Title=Lecture%20on%20rare%20'vampire'%20fossil%20unearthed%20here>

An amateur fossil collector picking through a highway construction site found something unusual in a concretion. In the 80 million year old rock was an ancestor of what is termed "The Vampire Squid from Hell". He took the fossil to the location

museum, the Courtenay and District Museum and Paleontology Centre on Vancouver Island. They couldn't ID it so a photo was sent to an expert in Japan. He identified it as the lower jaw of a unknown species of vampyromorph - weird deep sea creature. It is a type of squid with wings between its tentacles (go to You Tube and type vampire squid). When the expert from Japan arrived, it was discovered that the museum had numerous examples that had been wrongly identified as parts of ammonites. This previously unknown species has been named "Nanaimoteuthis jeletzkyi". It is estimated that the jaws are from a 3 ½ foot, 120 pound animal. In addition, the search of the museums fossils has led to the identification of two new species of fossil octopods. These are ancient ancestors of a group known as cirrotopods and are the first documented fossils of this group.

<http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0002243>

Very little is known of the animals that existed on the Arabian Peninsula from the Mesozoic time due to a lack of fossils. But the recent discovery of multiple dinosaur tracks in Yemen is adding to this information. These are the first dinosaur tracks on the Arabian Peninsula and the only multi-track site in the Middle East. Previous to this the only dinosaur remains found are a few isolated bones found in Oman and Yemen and scattered teeth or other parts in other countries. The first set of tracks was found by a local journalist, additional investigation revealed several other trackways in the same area. Analysis of the formations showed the to be from a costal mudflat. Within the trackways there are prints from both bipedal (ornithopod) dinosaurs and from quadrupedal (neosaurpods) dinosaurs. The latter tracks include both adults and juveniles traveling together. The exact species of dinosaurs that made the prints is not currently known, the several likely candidates have been identified.

<http://www.msnbc.msn.com/id/29677219/>

An almost complete fossil of a 4-5 million year old ancestor of the great white shark, complete with 222 teeth has been found in the Pisco formation of Peru. The fossil points to the fact that great whites evolved from ancestors of mako sharks and did not evolve of Megalodon sharks. It appears that the shark may have shared the ocean with the Megalodon. The remains of the fossil shark are similar to modern great whites but still have some mako characteristics.

It does not share the ultra-thick teeth with chevrons like the Megs had. The investigators determined that the 17-foot shark was 20 years old when it died based on counted the growth rings on the vertebrae. It is estimated that when full grown it could have reached 30 feet. On another side, the Megatooth sharks have recently been moved from the genus Carcharodon to the genus Carcharocles, a group which has no living descendents.

<http://www.paleontologynews.com/link.asp?ID=407361&Title='Peking%20Man'%20Older%20Than%20Thought;%20Somehow%20Adapted%20to%20Cold>

New studies of the “Peking man” indicate it is 200,000 years older than previously thought. This indicates that the homo erectus was able to adapt to the cold of the glacial period of the time. The site in China has now been dated to between 680-780,000 years old. The new methods use the deterioration of radioactive isotopes found in quartz, which is more accurate. The biggest problem with this method is that it requires pure bits of quartz and there are only two labs in the US capable of performing the analysis. To obtain the samples, it took the scientists 8 hours to separate 2 grams of quartz and each sample required 40-60 grams of quartz.

<http://www.greatfallsribune.com/article/20090310/NEWS01/903100303/1002>

Nate Murphy, a Montana paleontologist who helped to discover the famous mummified dinosaur ‘Leonardo’ has plead guilty to state charges of stealing a raptor fossil from a Malta area landowner. Separate federal charges are still pending. Originally Murphy stated that he found the dinosaur under a fossilized turtle and did not realize it was there when the site was excavated. He had a permit dig on the land from the people running the ranch but the ranch actually belonged to someone else who was leasing it to the ranchers. Finding a well – preserved raptor fossil is rare due to the small bones. Plans had been made to make casts of the fossils for sale. Currently the fossil remains in state custody but will eventually be returned to the original landowner. There are hopes it may end up at the Great Plains Dinosaur Museum in Malta.

Around Town

Sue is coming to the St. Louis Science Center, at least a cast. From Jan. 17 to April 12, 2009 Sue will be on display. See the web site www.slsc.org for

more details. Time is almost over to see Sue, go now.

Reports

If you have suggestions for field trip locations, please e-mail them to me and I will begin putting together a list.

NEEDED

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.

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.

President – Don Howell

donhowelliii@sbcglobal.net

Vice-President: Bruce Stinchcomb

Treasurer: Pete Smith

Secretaries: David Lukens

dmslukens@yahoo.com) and Peggy Cole

DUES ARE DUE

Our treasurer, Pete Smith 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 Pete 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 (once we pick some...) E-mail requests to dmslukens@yahoo.com, motirek@gmail.com or abfactor@gmail.com



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.