

# The Paleo Times

Volume 8 Number 10

October 2009

The Official Publication of the Eastern Missouri Society For Paleontology

## 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](mailto:dmslukens@yahoo.com) (personal).

NOTE: Hope that everyone had a good summer. My computer is working so newsletter is back to normal. Hope to see you at the picnic or at the next meeting.

### Next meeting

Next meeting is **Friday, October 9th** at 7:30 pm in the New Earth and Planetary Sciences building at Washington University (see more details below).

## PRESIDENT'S CORNER

Hi all, the September meeting was great. It was fantastic to see everyone. ParkPalooza went extremely well, with the club meeting over 1200 people! We gave many fossils to youngsters and hope to get some new club members out of the event. I look forward to seeing each one of you at the October meeting.

Don Howell III

## **Thanks / Congratulations**

. To all the people who showed slides of their summer trips. Thanks to everyone who bought raffle tickets and made the raffle a success. Thanks to Abby & Ryan for their donation of fossils they bought in Montana.

## Treasurer's Report

Club members may hear the treasurer's report at the monthly meeting.

## Upcoming Events/ Field Trips

**October Field Trip** – This will be to central Missouri lake on October 10, 2009 (Saturday). We will be meeting at the Marina at 10:00am with departure promptly at 10:30. We are usually out on the lake for at least 3-4 hours so you will need to bring lunch & drinks for yourself. Cost of the boat rentals will be split between the people taking the trip; typically the cost for the rental is between \$10-15 per person. This is a great family trip. Again, we would like to know ahead of time how many people would be going so we know if we need to reserve 1 or 2 boats.

**October 31, 2009 – Field Trip** – There will be a field trip to the Danville Quarry on 10/31/2009. John Stade has obtained permission for EMSP to look for fossils in the Danville MO. Quarry on October 31 (Saturday). This quarry has Ordovician, primarily Decorah, with some Devonian outcrops. We will meet at 9:00 am at the rest area on the North side of Interstate 70 just west of Wright City. We will drive, as a group, to the quarry parking lot and stop there. **NO ONE WILL BE ALLOWED TO DRIVE INTO THE QUARRY** unless the quarry operator is there and gives us permission at the time. Otherwise the cars may be locked in until Monday with no way to get them out. **BE PREPARED TO WALK IN.** It's a long walk, but as those who have been there before know it can be worth while. Bring backpacks, 2-wheel carts, wheelbarrows, whatever to carry your finds. As usual since it is a quarry you will be required to bring hardhats, boots, and gloves. You will need rock hammers, chisels, water and lunch. More details at the October meeting

## Notes from the Meeting

Early November – Rick is checking into the possibility of doing a field trip to the Hannibal Quarry. He will hopefully know more by the October meeting.

**November 27-29** - 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. As date gets closer we will need people to sign up for this show to help man the table. Holiday Inn, 10709 Watson Rd. (I-44 and Lindbergh Blvd.); Fri. 4-8, Sat. 10-7, Sun. 10-5; adults \$2, students \$1, children 12 and under and Scouts in uniform free; dealers. Due to the small number of tables, people will need to sign up on a first come first serve opportunity to man the tables. Sign up list will be available at the Oct and Nov meetings or my contacting myself or Rick. We will probably be limited to more than 2-3 people at a time.

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

**December, 2009 – Christmas Party** – We will need to start making plans for a Christmas party for early December. We will also need to see who is willing to host a party this year. Generally the club supplies meat and drinks. Club members bring something to share. Also we look for fossils we can toss into a bag for drawings for the kids attending the party.

**January 16, 2009 – Fossil Board Put Together** - In January we will need to get together to build up our supply of fossil boards that we have for sale for the show. Date is tentative and plan is to have this at David's house.

Early 2010 – John is checking into the possibility of a trip to Parson's quarry in Tennessee in Spring 2010 to see if it is possible.

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 1<sup>st</sup>, your newsletters will stop.

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.

The club picnic at the end of August was a success with over 30 members in attendance. We had so many people show up that we ran out of food. Lots of trading of fossils went on and I thought that I got some great deals. Carl C and Marie Shoemaker opened a bunch of geodes with help from Henry Porter and gave a number of these away to the kids.

Parkapalooza – At the Arch on Sept 12 & 13<sup>th</sup>. I am not sure how Sunday went but Saturday was an excellent day. Between 10am-2pm when I left, 490 people had visited our table. Don Howell was there from 10am-4pm and likely saw 100-200 more after I left. Don and Carl were covering the tables on Sunday. On Saturday we passed out well over 100 flyers about the club and Paleotrek and had several people that seemed to be interested in the club. Marie Shoemaker's idea from last year, to let kids clean rocks with MO. Fossils and keep them was a huge hit. We gave away between 100-120 lbs of rocks with fossils.

The Meg Tooth raffle was won by Bob. We raised \$102 with this raffle. Start looking among your things for something to donate early next year in Feb or March when we will start our next raffle.

Current membership stands at approximately 47 e-mail + 17 letters. Last meeting the room was completely full with no empty seats. We had 9 new members or guests at the meeting.

Carl Campbell both gave a great presentation on Paleotrek to Jordan Montana and the work that was done this year and on the things that were found. Abby also gave an excellent presentation (with great photos by Ryan) of their trip to and from Jordan and fossils found along the way in addition to photos of various EMSP trips and the picnic.

During discussions of the upcoming Viking show, it was decided to look into buying some custom made

tablecloths to cover the tables and make them look better. Rick will also lend us some lights to illuminate our fossils. We probably need to think about buying some lights after the show for future shows.

### **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.

Submitted by Jenny Gallagher

[http://www.brightsurf.com/news/headlines/21450/Of\\_Colorado\\_researcher\\_identifies\\_tracks\\_of\\_swimming\\_dinosaur\\_in\\_Wyoming.html](http://www.brightsurf.com/news/headlines/21450/Of_Colorado_researcher_identifies_tracks_of_swimming_dinosaur_in_Wyoming.html)

Paleontologists from Colorado have found 165 million year old tracks from a swimming dinosaur in Wyoming. The 6 ft meat eating dino, about the size of an ostrich left tracks at a number of sites including the Bighorn Mountains. The tracks indicate that it both walked along the shore line and swam. It is likely that it had a diet of either fish or carrion. While evidence of swimming dinosaurs have been found in other parts of the world, these are the first from North American for the middle Jurassic Bajocian Gypsum Spring Formation, which is 165- to 167-million years old, At this time the animal, similar to a Coelosaur, lived along the shore and tidal flats of the Sundance Sea. This sea was warm and shallow and similar to the Gulf of Mexico. The dinosaur had 4 limbs but only walked on the 3 toed hind legs. They also fade as it went into deeper water showing it was buoyant. Other tracks were also found including crocodiles with 5 toes on 4 legs and markings of marine worms. Many other dinosaur tracks have been found in the same formations indicating that many traveled in packs and varied in size.

<http://www.wired.com/wiredscience/2007/12/glacialisaurus/>

A new 190 million year old dinosaur has been found in Antarctica. Named *Glacialisaurus hammeri*, it was discovered by paleontologists from Argentina & the Chicago Field Museum. The 25 feet long herbivore weighed about 5 tons and was in the same family as Diplodocus, Apatosaurus, and Supersaurus, all with long necks. This find indicates they were more wide spread than previously realized.

[http://www.wired.com/wiredscience/2007/06/scientists\\_disc/comment-page-2/#comments](http://www.wired.com/wiredscience/2007/06/scientists_disc/comment-page-2/#comments)

### **Scientists Discover 3,000-Pound Gigantoraptor Dinosaur in Mongolia**

A large 70 million year old bird like dinosaur has been discovered in Inner Mongolia, China. This one is unusual as that it is bird-like and weighed around 1 ½ tons. Previously all bird like dinosaurs were small usually less than 90 pounds. Named Gigantoraptor, studies of the bone structure (check out the photos on the website) show that it grew at a faster rate than tyrannosaurs in North America. It was estimated to be 24 feet long but study of the bones indicate that it was still a young adult would have likely gotten larger. It has been classified as a new genus: *gigantoraptor*, and species: *erlianensis*.

Submitted by Tom Sutterfield

Tom sent me a copy of the October 2009 St. Louis Mineral & Gem Society newsletter, which has an excellent article on Missouri in the Ordovician Period.

Submitted by David Lukens

<http://news.bbc.co.uk/2/hi/science/nature/8233797.stm>

Paleontologists in China have found 100 million year old fossils of Brachiosaurid sauropods. The fossils found include vertebrae and parts of a pelvis. The bones were found in 2007 in Gansu province. The dinosaur, which is both a new genus and species, has been named *Qiaowanlong kangxii* and are the first ones of this group of dinosaurs found outside of North America and Europe. The paleontologists estimate the small animal to be about 40 feet long and 10 feet high and weigh about 10 tons.

<http://news.bbc.co.uk/2/hi/africa/8230511.stm>

When people thing of Angola they think of oil diamonds, and war, but normally not as a place to look for fossils. But due to the three decades of war, very little study has been done. But for the paleontologists who have been going recently, it is the final frontier. In 2005, the "PaleoAngola" project made its biggest find, the front leg bone of a sauropod dinosaur. In the years since fossils found include sharks, mosasaurs, plesiosaurs, and an angolasaurus (type of mosasaur). Some of the scientists claim that

it is some of the best fossil hunting in the world. Plus the fossils can help to show how animals migrated when Africa and South American split apart.

[http://news.bbc.co.uk/2/hi/uk\\_news/england/devon/8253091.stm](http://news.bbc.co.uk/2/hi/uk_news/england/devon/8253091.stm)

Ice age fossils including deer, woolly rhinos, and hyenas have been found in a cave in Devon England. In addition, a 15,000 year old spear point, the first complete one found in the United Kingdom, which was made from reindeer antler was found. The excavation is being done as part of a study to determine when Neanderthals became extinct. Some of the bones are believed to be as much as 25,000 years old. The finds were in the Kents cave, which is recognized by the British government as the oldest human dwelling in Britain.

<http://news.bbc.co.uk/2/hi/science/nature/8188601.stm>

In another article about the same cave, paleontologists studying a 9,000 year old human bone have found evidence of possible cannibalism because of cut marks on the bone. The human bone, which is rare in Britain, was found in the 19<sup>th</sup> century but was only recently found to have the cut marks. The lower arm bone, from an adult, had cut marks indicating that it can be cut right at the elbow indicating that a stone tool was used to dismember the body. It is impossible to know if the dismemberment was done for a funeral ritual or a more grim reason. The bone also had a fresh break, possibly lending support to the idea of cannibalism. It is hoped that additional searches of the Kents Cave may reveal other bones to prove or disprove the idea of cannibalism. Cut marks on human bones does not prove cannibalism said scientists as sometimes it is part of a ritual practice such as scalping or dismembering. Other human bones with cut marks about 14,000 years old were found in another location known as Gough's Cave, in Somerset

<http://www.cnn.com/2009/TECH/science/09/14/china.fossils.returned/index.html>

A number of fossils smuggled out of China have been seized by US customs. Among the items seized were bones from a 100 million year old dinosaur and the skull of a saber tooth cat. In addition, 60 million year old dinosaur eggs were also found. The dinosaur skull, which was 7 inches in size was from a Psittacosaurus lujiatunensis. Some of the items

were seized in December 2006 and October 2007 when they were shipped by mail to the US and were found when passing through O'Hare airport and the cat skull and dinosaur skull were valued at \$30,000. The 24 eggs, which were seized from a passenger arriving at Washington Dulles airport were valued at \$40,000. No criminal charges were filed but the people carrying them lost the value they paid for them.

<http://www.foxnews.com/story/0,2933,549441,00.html>

For many years, scientists have studied the fossils of Haast's eagle, a 40 pound bird from New Zealand which went extinct 500 years. They have tried to determine if it was a predator or a scavenger. New computer scans have helped to find the answer. A CAT scan was used to determine the size of the bird's spinal cord, eyes, ears, and brain. By comparing this to modern birds, they were able to determine that it was a predator that could have eaten giant moas or even humans. They also determine that it increased its size approximately 10 times between 1.8 million and 700,000 years ago though its brain did not grow as fast as its body. The scans help because the fossils are very fragile and can see into parts humans cannot see. Scientists believe the birds went extinct due to the destruction of the environment and elimination of prey have the early Polynesian settlers. Maori folk tales include stories of a huge bird called the pouakai or hokioi, that was capable of killing small children.

<http://www.foxnews.com/story/0,2933,549442,00.html>

A 67-million-year-old Edmontosaurus has become a hit in Japan. The fossil from North Dakota, which had mummified skin has been on display in Japan since July. But getting him there was an adventure. Dakota is the centerpiece of over 260 fossil specimens in a show called "Dinosaur 2009 — Miracle of the Desert". The main body of the animal weighs 8,000 pounds with the tail and arms adding another 2,000 pounds bringing it to 5 tons. It required the biggest forklift in Bismarck to load it. While other dinosaurs such as Leonardo have been found with mummified skin, Dakota's is the most well preserved. The moving costs were paid for by companies in Japan. The presentation has been a

success with over 500 people showing up for a speech by the discover. The dinosaur will return next month and his tail and arm will go on display at the North Dakota Heritage Center while prep work continues on the body. The eventual hope is to send Dakota on a worldwide tour and eventually build a museum in Marmath where he was found.

<http://www.livescience.com/animals/090914-velociraptor-claws.html>

In the movies like Jurassic Park, the velociraptor uses its claws to tear open its prey. But now paleontologist think that they may have had another use, climbing trees (?). X-rays of the dinosaurs, which existed between 65-144 million years ago, allowed him to make models of the huge claws and compare them with modern owl claws. Velociraptors stood on two legs and were light weigh according to a study in 2007 had feathers. The study showed that the claw was designed to take forces in one direction and that the tip worked well for gripping and puncturing. The claw moves the stresses to bones also. Previously studies by the same scientists in 2006 used a hydraulic model of dromaeosaurid limbs to bring into doubt their use for disemboweling prey. The study of Velociraptor claws show them to have a high stress failure level indicating that that they could have climbed and perched in a tree. (That makes a pretty weird image). But the claws would have worked to capture prey also. The dromaeosaur claws rotate to allow them to sink to the prey and hold it thus using their weight to hold they prey while they killed it with their jaws.

<http://www.sciencecentric.com/news/article.php?q=09091121-archaeologists-discover-oldest-known-fibre-materials-used-by-early-humans>

In a cave in Georgia (Asia) palaeobiologists and archaeologists have found flax fiber, which are 34,000 years old, making them the oldest fibers every used by humans. The fiber, collected from the wild and not cultivated, could have been used to make cloth and thread which could have been used to packs, sew clothes or many other uses. The fabrication of cloth would have been very important to early humans. It better there chances to survive by providing clothes and shoes, for making packs to carry items, and other advantages. Some of the

fibers found were twisted and probably used to make ropes while others were dyed. The fibers themselves can not be seen by the human eye but were found by examining clay layers from the cave under a microscope. Previous the oldest known fabric was 28,000 years old and was from the Czech Republic. Originally the scientists were studying the clay to find pollen and determine information about the environment and temperature at the time of these early humans. Carbon dating was used to determine the age of the fibers. Fibers were also found in the same cave in other layers dated to 13,000 and 21,000 years ago. The scientists have been going to the cave every year since 1996 hoping to gather additional information on early hunter-gatherers including the food they ate, tools they made and used, what adornments they used, etc.

<http://www.sciencecentric.com/news/article.php?q=09082752-tiny-ancient-shells-point-earliest-fashion-trend>

Indications of the first human jewelry dated to between 70-85,000 years ago have been found at 4 sites in Morocco. This finds, combined with similar findings in areas in the middle east going back as far as 110,000 years ago indicate that humans have been wearing and trading jewelry for a long time. The 25 shell beads had man-made holes, were colored, and appeared to have been worn for a long time. All the shells found at various locations are from the Nassarius genus. Some of the locations where they were found were far inland where they could only have been brought deliberately. The fact that the same shells reoccur indicate that this must have been a cultural tradition passed down for generations. Either people went to the sea to collect the shells or more likely set up trading to get them. Which likely let to other exchanges and intermarriages. To scientists the beadwork exchange indicates advanced thinking and signifies the development of culture. Previously scientists though that body decorations only began to happen about 40,000 years ago until discoveries in Africa in 2006 pushed it back to 75,000 years ago. Strangely the beads, along with engravings and refined bone tools vanish from the archaeological records in Africa 70,000 years ago and reappear 30,000 years later simultaneously in many different area including Africa, Europe, and Asia. This may indicate a fast increase in population

or immigration after a period of population decrease due to harsh climate conditions.

<http://www.sciencecentric.com/news/article.php?q=09082601-scientists-find-evidence-iridescence-40-million-year-old-feather-fossil>

Scientists have found indications of vivid iridescent colors in 40 million year old feathers. Iridescence is when an object changes color depending on the angle of viewing. This effect is produced when light reflects off the smooth surface of the feather. The fossil feathers were found in the Messel Shale from Germany. Study of the feathers show them to have a black background with a greenish or bluish metallic color. The structures have been known for 25 years but were believed to be bacteria that was eating the feathers when they fossilized. But the scientists determined that the structures were melanosomes, which allowed them to find the original color patterns. The finding of these structures has opened up the possibility of looking for other details in fossils such as fur or internal organs. It could also allow the determination of color of other birds or even dinosaurs.

<http://www.paleontologynews.com/link.asp?ID=494520&Title=Prehistoric%20Theopetra%20Cave%20opens%20to%20public%20on%20Friday>

Recently a prehistoric cave in Greece was opened to the public. The Theopetra Cave was first excavated in 1987 and indications of human occupation has been found from the Middle Paleolithic until 3000 BC. The thing that makes the cave unique is that it contains the records of both the transition from Neanderthal to modern humans and also indications of the later change from hunter gathering to farming. The cave includes a 500 square meter chamber and a large entrance over 50 feet wide and 10 feet high. Among the items found including coal and human bones prove that the cave was occupied from 50,000 to 4000 BC and then used sometimes during both the Bronze age and during modern times up to 1955. The stratigraphic record show that the cave was occupied during three cold periods including 27,000 years ago, during the Upper Palaeolithic and during the final Upper Palaeolithic. Among the items excavated have included pottery, shell objects, and skeletons from 15,000, 9,000, and 8,000 BC and traces of plants and seeds. In 2008 a series human

footprints dated to 137,000 years ago were found. The footprints were from 4 people believed to have been children.

<http://www.paleontologynews.com/link.asp?ID=493378&Title=Giraffe%20of%20the%20Mesozoic%20Discovered>

A new small species of brachiosaurs has been found in China that is only 10 feet tall and 40 feet long. The dinosaur, named Qiaowanlong kangxii, was found in Gansu province in north west china. This brachiosaur is unusual in that it has a bifurcated (2-part) spine similar to sauropods. Sauropods were believed to hold their necks straight out and move them side to side. But these bones may indicate that they have been able to hold their neck straight up. This would have allowed them to reach higher up for food than other animals. It was previously thought that sauropods had declined by the Cretaceous period but new findings in China indicate they were still common. Also similarities between Chinese and North American brachiosaurs may indicate that land bridges still existed between the two continents for longer than thought.

<http://www.paleontologynews.com/link.asp?ID=492732&Title=Highlands%20Prehistoric%20Museum%20Making%20History>

A new dinosaur has been added to the Highlands Museum in Cookeville, TN. A 40 feet long T-rex with a complete head has been put on display. The museum also has a Daspletosaurus named Bob (bag of bones) that they are working on, one of only 8 in the country. The museum includes hands on displays and some local college students have a chance to work on some of the dinosaur preparation. There is also a competition to name the T-rex.

<http://www.paleontologynews.com/link.asp?ID=492583&Title=World's%20Biggest%20Pterosaur%20Footprint%20Discovered>

A 100 million year old footprint, the largest ever found, of a pterosaur has been uncovered in Korea. The print is 14 inches x 6 inches. This print combined with a previous large pterosaur print found elsewhere in Korea gives them the records of the two largest prints of this reptile ever. Only 9 countries in the world have found pterosaur prints before. The site may be registered as a UNESCO World Natural Heritage site.

<http://www.paleontologynews.com/link.asp?ID=492>

[538&Title=Cobourg%20paleontologist%20releases%20guide%20on%20region's%20fossils](http://www.bbc.co.uk/2/hi/science/nature/8259902.stm)

A local fossil collector in Ontario Canada has used his hobby to write a book. Mr Hessin began collecting rocks and fossils before he was 10 years old and collected his first trilobite at 10. His book is a comprehensive guide to fossils for the area he lives in. It is titled 'South-Central Ontario Fossils: A Guide to the Ancient Marine Life of the Region' and discusses over 300 fossils and has over 600 photos (Has a ways to go to catch up with Bruce S.). The book discusses fossil outcrops along rivers, lakes, and road cuts. Much of the rocks are from the Ordovician Period about 450 million years ago. The limestone exposures include trilobites, gastropods, and crinoids. Mr. Hessin worked for the Royal Ontario Museum. "South-Central Ontario Fossils: A Guide to the Ancient Marine Life of the Region" is available on CD-ROM and printed copies are available on request. Look for it at local bookstores or contact 905-372-7833 or geo-biologist@hotmail.com.

<http://news.bbc.co.uk/2/hi/science/nature/8259902.stm>

**A 3m-long dinosaur fossil from China which predates *T. Rex* by 125 million years is a blueprint for the mighty carnivore, say researchers.**

A new species of dinosaur named *Raptorex kriegsteini*, which measured 10 feet tall and weighed 130 pounds may be an ancestor to T-rex. Paleontologists believe it may be the link between the Rex and earlier species. Indications are that the typical T-rex large head and small arms (arms!, I've got arms!) may have been unchanged for millions of years. Previous finds of more primitive species have been found dating to between 100-176 million years ago in Europe, North America, and China. This new dinosaur had large olfactory bulbs in the brain indicating a excellent sense of smell like the T-Rex. This fossil may completely change the previous belief in the evolution of the tyrannosaurs. Previously it was thought that the size came first, the strange features came as a result. This new fossil points to the shape coming first and then the size coming later. The T-Rex only became huge during the last 20 million years of the Cretaceous. Some

they were small for about 80% of their existence. Based on the study of the fossil, it is believe to have been a young adult and to have had feathers. It was found near a lake and likely fed on small animals in the area. It came from North eastern China and was removed illegally from there. It was bought by a private collector who took it to Dr. Paul Sereno to identify it. He has since agreed for it to be returned and placed in a museum in Inner Mongolia.

[http://news.bbc.co.uk/2/hi/uk\\_news/england/bristol/omerset/8256270.stm](http://news.bbc.co.uk/2/hi/uk_news/england/bristol/omerset/8256270.stm)

New research has indicated that reptiles started walking with their legs beneath their bodies as much as 250 million years ago. This is a large advantage as the direct support of the body allows them to become very large. The footprints indicate that upright walking reptiles quickly replaced the sprawling ones from previous time periods.

[http://www.sciencenews.org/view/generic/id/47391/title/Dino-era\\_delivery\\_at\\_sea](http://www.sciencenews.org/view/generic/id/47391/title/Dino-era_delivery_at_sea)

Sea reptiles succeeded because they used genetics instead of incubation temperature to determine the sex of their babies. Now, only sea snakes are the only reptiles that give birth at sea. All other reptiles including turtles and crocodiles return to land to lay eggs. The other difference is that sea snakes determine their babies sex by genetics. Land based reptiles determine the babies sex by incubation temperature. Fossil records indicate that ichthyosaurs, plesiosaurs, mosasaurs all gave birth at sea. Scientists, looking at the family tree for reptiles, have determined that reptiles that give live birth as have sex hormones which determine the sex of the offspring. Looking at the family tree, all three of the sea reptiles are on branches near animals that determine offspring gender genetically. Without the ability to give live birth at sea they would never have been able to adapt to the sea as well as they did.

<http://www.paleontologynews.com/story.asp?ID=497321&Title=Sharks%20Swarmed%20on%20Ancient%20Sea%20Monster>

**Sept. 17, 2009** -- Remains of a shark-bitten, 85-million-year-old [plesiosaur](#) reveal that around seven sharks likely consumed the enormous dinosaur-era marine reptile in a [feeding frenzy](#), leaving some of their shark teeth stuck in the plesiosaur's bones, according to a new study.

85 million year old fossilized remains of a plesiosaur that was mauled by at least 7 sharks has been found. Five teeth from *Cretalamna appendiculata*, a relative of the great white, were found embedded in the bones of the victim along with 80 other associated teeth found with the skeleton. Attackers were a mixture of adults and juveniles and provide the first evidence of the feeding behaviour and diet of these sharks. The plesiosaur, *Futabasaurus suzukii*, was found in central Japan and are at the natural history museum in Tokyo. Plesiosaurs' lived in shallow seas near the shore and was found in a belly up position and appears to have been covered quickly by mud and sand. But not before being partially eaten by the sharks which were likely between 5-14 feet long. It is unsure of the sharks attacked their victim before or after its death. If they did attack, death must have come quick as none of the bones show signs of healing. Previously evidence of shark attacks on plesiosaurs has been found, but never from this species.

[http://blogs.discovery.com/news\\_animal/2009/08/sea-monster-found-with-289-stones-in-its-gut.html](http://blogs.discovery.com/news_animal/2009/08/sea-monster-found-with-289-stones-in-its-gut.html)

A plesiosaur has been found in southern Utah with 289 stones in its gastric track. The *Dolichorhynchops* is believed to have swallowed the stones to use in helping to break up food, in the same way that birds do. While gastroliths are common, the number, 289 is unusual. It is also unusual as most gastroliths in plesiosaurs have been found with the long necked types but *Dolichorhynchops* was a short necked type. It was also noted that the stones in this one are much lighter and smaller than the stones found in long necked plesiosaurs. It was been thought previously that the stones might have also served as ballast for keeping them underwater. But this may not been true based on the type of stones found.

<http://www.paleontologynews.com/story.asp?ID=497069&Title=Spelunker%20finds%20mammoth%20tooth%20in%20cave>

A Texas man has found a mammoth tooth while exploring in a cave named Snookies Cave at Specht Crossing Ranch. The tooth, from a Columbian mammoth, is at least 12,000 years old and was found in a newly charted passageway.

<http://www.paleontologynews.com/story.asp?ID=496941&Title=SUNY%20students%20discover%20rare%20seal%20bones>

A rare find has been uncovered in upstate New York. The remains are 15 bones from a 10-12,000 year old harbor seal which include the tibia, vertebrae, ribs, jaw, and a tooth. Even though the NY state museum has 15 million specimens, only one was from a seal previously. This increased the seal collection by 15 times the previous amount. The find was made by a group of geology students at SUNY who were working at the site of an old Air Force Base. It is likely that the seal lived in the ancient Champlain Sea which extended from its present location to Lake Erie to the west and the Atlantic on the east. Seals were common at the time and existed with whales, fish, huge beavers and other animals.

### Around Town

#### FOR SALE

**Club member Addie has some equipment for sale. If you are interested you can get contact information at a club meeting.**

### Upcoming Gem & Fossil shows

- Colorado Mineral & Fossil Show (Fall), September 16–20, 2009, Denver, CO.  
Colorado Fossil Expo, September 18–20, 2009, Denver, CO

- Arizona Mineral & Fossil Show, January 30–February 13, 2010, Tucson, AZ

MAPS 2010 – Western ILL University, Macomb IL  
March 26-28, 2010.

#### 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](mailto:donhowelliii@sbcglobal.net), cel 314-954-6922)

Vice-President: Bruce Stinchcomb

Treasurer: Pete Smith

Secretaries: David Lukens

([dmslukens@yahoo.com](mailto:dmslukens@yahoo.com), cel 636-751-8746) 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](mailto:dmslukens@yahoo.com), [motirek@gmail.com](mailto:motirek@gmail.com) or [abfactor@gmail.com](mailto: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.



