

# NEWS

## Florida Fossil Hunters



Volume 16, Number 3

March 2006

### Prez Sez.....

Last month the members voted and approved the budget for 2006 as presented by our Treasurer Sara Morey.

The club members also voted and approved this year's fossil fair theme. It's "Fossils in Your Backyard" which was originally Joy Fox's idea for one of our fossil fairs in the early 1990's. Russell Brown will modify the design for the T-shirts this year.

This month the club meeting will be a "Mineral Display Night". Please bring some of your minerals to show everyone.

In April we will have three club field trips. One will be to Gatorland on one of the Saturdays. The second will be to Brevard Zoo. Chris DeLorey doesn't have a date yet but check the website later for the information for it.

On Saturday, April 29th at 1:00 pm, Zach Zacharias will take us on a "behind the scenes" tour at the Daytona Beach Museum of Art and Natural History. It will include the Mummy exhibit as well as their usual exhibits.

Then the first weekend in May will be the annual club camp-out and fossil hunt on the Peace River. We will camp on the island as we did last year.

See you at the meeting on March 15th.

Dave Dunaway.

### Coming Events

March 11-12th: Tampa Bay Fossil Fest

March 11-12th: Ruck's Pit

**March 15th: 7:00pm Meeting**

March 17th: Tampa Bay Mineral & Science Club (see page 3)

March 25th: Dr. Kelly Day at Rock Springs

April 1st and 2nd: Central Florida Mineral and Gem Show

April 7th, 8th and 9th:  
Venice Shark Tooth Festival

**April 19th:  
6:00pm Kids' Blast  
7:00pm Meeting**

April 22nd: Fossil Trip Aurora, NC

April 29th: Behind the Scene at Daytona Beach Museum of Art & Natural History

**Watch for more info on the Annual  
May Fossil Hunt & Camping Trip**

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## Fragments

### Dr. Howard Kelly Day

The Ninth Annual Dr. Howard Kelly Day will be held on Saturday, March 25th from 11 am to 3 pm, at Kelly Park/Rock Springs. There will be ecological, cultural, environmental and historical exhibits as well as family activities.

Florida Fossil Hunters will have a booth displaying fossils and handing out information during this event. Please feel free to volunteer. (you can get some more of those fun fossil bucks) Sign up at the February or March meeting or email Ben Shaddrick at [just2ofus@cfl.rr.com](mailto:just2ofus@cfl.rr.com)

### Venice Shark Tooth Festival

The Annual Shark Tooth and Seafood Festival in Venice will be held this year on April 7th through April 9th. This festival is a lot of fun and includes shark tooth and fossil vendors and well as artisans and crafts and good food. There are special exhibits and activities for the kids and you can take this opportunity to hunt for sharks teeth on the beach. Who could ask for more?

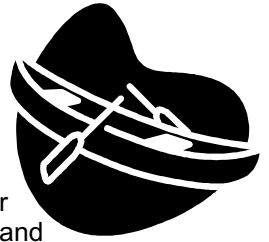
The festival is held near the municipal airport across from Sharkey's Pier. There is a small fee to get into the festival (can't remember exactly how much but I think it's \$3). Hours are as follows:

Friday, April 7th: 5 pm to 9 pm  
 Saturday, April 8th: 10 am to 9 pm  
 Sunday, April 9th: 10 am to 5 pm  
*For directions see the article on fossil hunting at Venice Beach.*

### Mineral & Gem Show

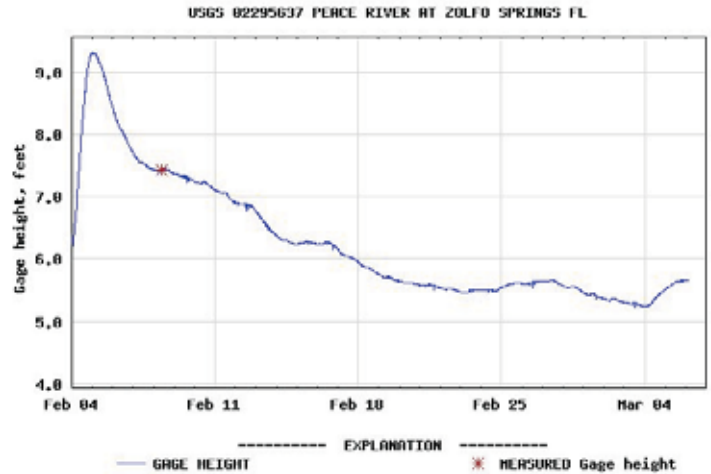
The Central Florida Mineral and Gem Society will hold its 37th annual show on Saturday, April 1st and Sunday, April 2nd from 9 am to 5 pm at the Central Florida Fairgrounds on West Colonial Drive. There will be custom jewelry, beads, mineral specimens, fossils, artifacts, books, etc. There will also be demonstrations, silent auctions and children's activities. Cost is \$4 for adults, \$2 for students and kids under 12 are free with paying adults. See the membership table at our club meeting for discount flyers.

## A Piece on the Peace



### It's low, so GO !

Russell and I went digging in the river on March 4th and the water was low and slow enough to make fossiling very pleasant. There is still quite a bit of silt floating in the water so visibility is poor making snorkeling or diving difficult. Stick to the dig-and-sift method and you'll find fossils to make you smile again.



## Kids' Fossil Blast

Our next Kids' Fossil Blast is on Wednesday, April 19th at 6:00 pm.

The Kids' Fossil Blast is a fun, hands-on way to find out about fossils for kids mainly ages 4 to 14 yrs. Each meeting we focus on a different type of fossil using real fossils, replicas and printed materials. Sometimes the kids even get to take real fossils home. We meet every other month at 6 pm in the cafeteria at Lee Middle School before our regular club meeting.

Bonnie Cronin

## Field Trips

### **Ruck's Pit, Ft. Drum Crystal Mine**

When: Saturday, March 11th and Sunday, March 12th, 8 am to sundown

Cost: \$20 per adult per day; \$8 for kids 15 and under (must be accompanied by an adult at all times)

Directions: Take the Florida Turnpike (or 441 south) to Yeehaw Junction. Turn right off the exit ramp and then turn left onto 441 and continue south to Ft. Drum. Turn left and go east on 304th St. After approximately 3 miles, you will see the mine on your left.

What you will need: rock hammers, shovels, buckets and materials and containers to wrap fragile specimens. Wear long pants, sturdy shoes, hat, and gloves. *Protective eye-wear is recommended.* Expect to get muddy and bring a change of clothes. You'll need lots of water and your own food.

The hunting is surface and shallow digging although some people do brave the wall of the pit and dig into the layer where the crystals are found. Some even use picks. This is a working mine and the sides can be steep and the water is deep in some places so keep a close eye on those kids.

What you can find: fossil shells, calcite crystals, fossil coral, and occasionally shark teeth and vertebrate material.

Sign up at the February mtg or call Shelley at 407-891-1260.

For additional information you can contact Eddie Rucks, the owner, at 863-634-4579 or email: [fortdrumcrystalmine@yahoo.com](mailto:fortdrumcrystalmine@yahoo.com)

### **Fossil Trip to Aurora, N.C.**

There will be a trip into the Aurora, N.C. fossil mine on Saturday, April 22, 2006. There are also several other fossilizing places nearby that are available to make it a longer fossilizing weekend. For those unfamiliar with this mine, it is one of the places famous for large megalodon shark teeth, among other things. There is also a wonderful museum in the town along with piles of material from the mine to search through.

Participants must be 18 years or older, wear long pants, full shirts, steel-toed boots and hard hats. You will be taken into the mine by bus at 7:30 am and brought out around 3 pm.

There will be sign-up sheets at the March meeting. In the event that more people sign up than there are slots for, names will be drawn.

For more information email Marge Fantozzi at [mfantozzi@aol.com](mailto:mfantozzi@aol.com) or call her at 407-295-3891.

## Tampa Bay Mineral and Science Club

will have their annual jewelry, bead & mineral show on March 17th through March 19th. Hours on Fri. and Sat. are 10 am to 6 pm; Sun. 10 am to 5 pm.

It will be held at the Florida State Fairgrounds in Tampa. Admission is \$5.00 per person. Parking is extra.

### "Scienceteers" Wanted

The Orlando Science Center's Gee Whizdom program is recruiting volunteers (especially retirees) with backgrounds in science and math disciplines, such as: Science teachers, Biologists, Engineers, Chemists, Geologists, Meteorologists, Doctors, Nurses, Astronomers or those with a strong avocation for these types of disciplines, to become "Scienceteers" - special volunteer science presenters in the exhibits of the Science Center! Are you a retired Paleontologist, Geology Professor or avid fossil collector? You would make a perfect fit for the Center's "Dino Digs" exhibit. Are you a retired Doctor, Nurse or EMT? You would make a perfect fit for the Center's "Body Zone" exhibit.

The Gee Whizdom program will be training our Scienceteers to use their knowledge and expertise to help spread the wonders of science through the magic of Oral Storytelling. Scienceteers will work in the OCS exhibit halls giving scheduled presentations, impromptu talks and hands-on learning experiences for the guests.

The Gee Whizdom training program will include workshops on assessing values and priorities and using past experiences to help shape your future as well as instruction by a professional storyteller in the skills of Oral Storytelling.

Training classes will be held at the Orlando Science Center. Participants will meet for a two hour class once a week for a total of eight weeks. Gee Whizdom Scienceteers will be asked to commit four volunteer hours a week for a period of four to six months after completing training.

Training Class: 10 am to 12 noon

Apr. 5th, 12th, 17th, 26th, May 3rd, 10th, 17th, 24th

Sound interesting? Contact Dale Rogers, Gee Whizdom Project Coordinator to see if you qualify.

Ph: 407-524-2227 or email [drogers@osc.org](mailto:drogers@osc.org)

# Scientists Discover First Swimming Mammal From The Jurassic

A team of international researchers have discovered a new species of primitive mammal capable of swimming in the Middle Jurassic lake beds of China.

In a cover article published in *Science*, the team of researchers from Carnegie Museum of Natural History, Nanjing University, and Chinese Academy of Geological Sciences describe a fossilized skeleton of *Castorocauda lutrasimilis* ([Castoro] - Latin for beaver, [cauda] - Latin for tail, [lutra] -Latin river otter] and [similis] - Latin for similarity). *Castorocauda* had a beaver-like tail, strong arms for digging, and sharp teeth specialized for aquatic feeding, similar to the modern river otter.

*Castorocauda* is a new taxon of docodonts, an extinct mammal group that existed from the Middle Jurassic to Late Cretaceous. But this Mesozoic group has no modern descendants, and is not directly related to modern placental mammals.

Uncovered from the Middle Jurassic Jiulongshan Formation of the Inner Mongolia Region, dated approximately 164 million years ago, *Castorocauda* is the earliest-known mammal that had specialized skeletal and soft-tissue features for swimming and teeth for eating fish. This significant fossil offers the first evidence that some Mesozoic mammals occupied the semi-aquatic niche and that Mesozoic mammals as a whole had a much greater ecological diversification than previously thought.

*Castorocauda* is preserved with a pelt (guard hairs and under furs), making it the most primitive-known mammal to be preserved with hairs. Carbonized in the fossil, the short and dense under-furs were to keep water from the skin; the longer guard hairs are preserved as impressions on the fossil slab. Fossilized furs of this animal provide fresh evidence on phylogenetic evolution of mammalian fur. "This kind of specialized pelt developed well before the rise of modern mammals. All previously discovered fossils with fur belong to the more derived taxa within the Mammalia or mammalian crown group.

"Its lifestyle was probably very similar to the modern day platypus," said Dr. Zhe-Xi Luo, curator of Vertebrate Paleontology at Carnegie Museum of Natural History. "It probably lived along river or lake banks. It doggy-paddled around, ate aquatic animals and insects, and burrowed tunnels for its nest."

Dr. Luo pointed out that, perfectly shaped for aquatic life, *Castorocauda* had a broad and scaly tail that propelled it through water just like the modern beaver. Its tail vertebrae are also similar to those of beavers and otters. Because

*Castorocauda* is not related to modern placentals, its adaptation for swimming is a convergent evolution to the modern beaver and modern river otter, both of which are placentals.

Modern semi-aquatic placental mammals (such as beavers and otters), and fully-aquatic placental mammals (such as whales and manatees) did not appear until Eocene to Oligocene (55 - 25 million years ago). By comparison, *Castorocauda* is at least 164 million year old. So it indicates that primitive docodont mammaliaforms evolved the semi-aquatic swimming independently in the Mesozoic, almost 100 millions years earlier than the Cenozoic placental mammals (beavers, otters, whales and manatees).

Other interesting features of *Castorocauda* include its teeth and size. *Castorocauda* developed molars specialized for feeding on small fish and aquatic invertebrates, similar to modern seals or the river otters.

It is also the largest known Jurassic mammaliaform (including mammals).

Most Mesozoic mammals are small (less than 50 grams) and generalized ground-living (terrestrial) mammals. Limited by their small size, and living in the shadow of much larger dinosaurs, most Mesozoic mammals are insectivorous. However, *Castorocauda* is a significant exception and very different from the typically small and terrestrial Mesozoic mammals. *Castorocauda* is at least 42.5 cm in body length and more than 6 cm in skull length. Scientists estimate that it weighed about 500 to 800 grams.

"So far, it is the only semi-aquatic mammal from the Jurassic," said Dr. Luo, "and it is also the largest-known Jurassic mammal. Partly because of its larger size, it was possible for *Castorocauda* to develop fish-eating and swimming adaptations."

The research team was led by Dr. Qiang Ji of Chinese Academy of Geological Sciences (Beijing, China) and Dr. Zhe-Xi Luo of Carnegie Museum of Natural History (Pittsburgh, USA). The art for the *Science* Magazine cover was created by Mark A. Klingler, scientific illustrator at Carnegie Museum of Natural History.

Their research was supported by funding from the National Science Foundation (USA), National Natural Science Foundation (China), Ministry of Science and Technology (China) (973 project), Ministry of Land Resources (China), National Geographic Society (USA) and Carnegie Museum of Natural History (USA).



# New Fossil Find In New Mexico Named After Artist Georgia O'Keeffe

Two Columbia scientists have discovered the fossil of a toothless crocodile relative that looks like a six-foot-long, two-legged dinosaur, but is actually a distant cousin of today's alligators and crocodiles.

Adjunct professor of earth and environmental sciences Mark Norell and his graduate student Sterling Nesbitt, both of whom also work as paleontologists at the American Museum of Natural History, have named the fossil *Effigia okeeffeae*.

*Effigia* means "ghost," referring to the decades that the fossil remained hidden from science. The species name, *okeeffeae*, honors the artist Georgia O'Keeffe, who lived near the site in northern New Mexico where the fossil was found.

The discovery was announced last month in a technical paper in *The Proceedings of the Royal Society* and covered in the *The New York Times*. [Click here to see.](#)

Scientists say *Effigia* is a striking example of "convergence," when two lineages evolve the same body plan.

"It is astounding to see so many advanced dinosaur features in an animal so closely related to modern crocodiles, Norell said. Obviously, this group of crocodiles and dinosaurs must have had similar habitats and probably fed in the same way, accounting for the similarities of the limbs and skull."

## Utopian Myth Shattered

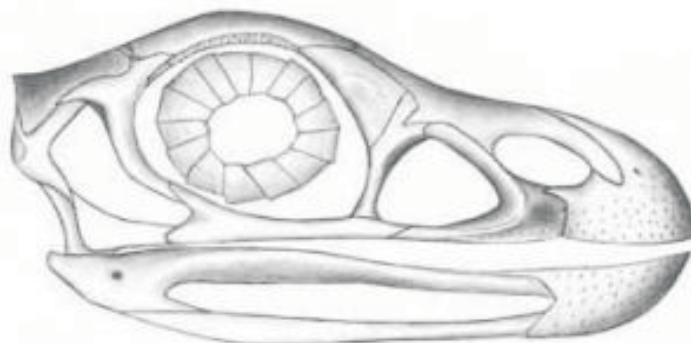
The early European colonists spoke of North America as teeming with wildlife and so we always imagined that the native Indians had achieved a wonderful balance with nature.

Recent research by Utah archeologist Jack Broughton has discovered otherwise. He compiled statistics on bird bones at a site on San Francisco Bay and found that over a period of 1900 yrs from 2,600 to 700 years ago,

Other examples of convergence include marsupial mammals related to kangaroos and opossums that evolved into creatures resembling lions and wolves.

The features of *Effigia okeeffeae* also were unexpected. "It has large eyes, a beak, it walked on two feet and had small hands," Nesbitt said.

**Editor's Note:** The original news release



*Two Columbia scientists have discovered the fossil of a toothless crocodile relative that looks like a six-foot-long, two-legged dinosaur, but is actually a distant cousin of today's alligators and crocodiles. (Sketch courtesy of Sterling Nesbitt)*

native peoples hunted many species to extinction in that locality.

This leads him to believe that the birds and other wildlife rebounded only after the early Europeans came into contact with the native people, infecting them with smallpox, malaria and influenza and killing off as much as 90% of the Indian population.

For the entire article go to:

[www.sciencedaily.com/releases/2006/02/060213090658.htm](http://www.sciencedaily.com/releases/2006/02/060213090658.htm)

Florida Fossil Hunters is a fun and educational group whose goal is to further our understanding of the prehistory of Florida. We encourage family participation and welcome explorers of all ages.

Membership is \$17 per year. Other household members may be included at no charge.

Meetings are held the third Wednesday of each month at 7:00pm, Lee Middle School Cafeteria (Maury Road, two blocks West of Edgewater Drive, Orlando).

**Officers:**

President Dave Dunaway (407) 786-8844  
 Vice President Paul Bordenkircher (407) 687-3843  
 Secretary  
 Treasurer Sara Morey (407) 834-0281

**Chairs:**

Education Melissa Cole (407) 834-5615  
 Field Trips Shelley Zimmerman(407) 891-1260  
 Fossil Fair Valerie First (407) 699-9274  
 Sharon Reagan (407) 246-8848  
 Fossil Auctions Dave Dunaway (407) 786-8844  
 Fossil Bucks Dave Dunaway (407) 786-8844  
 Fossil ID Table Andreas Kerner: intlfossils@msn.com  
 Fossil Lotto Ed Metrin (407) 321-7462  
 Auctioneer Roy Singer (407) 645-0200  
 Historian Valerie First (407) 699-9274  
 Librarian Bob Angell (407) 277-8978  
 Membership Sharon Lynes: momba10@aol.com  
 Newsletter Bonnie Cronin (352) 429-1058  
 Elise Cronin-Hurley (407) 929-6297  
 Photography John Heinsen (407) 291-7672  
 Webmaster Elise Cronin-Hurley (407) 929-6297  
 elise@liseydreams.com

**Board of Directors:**

Dave Dunaway (407) 786-8844  
 Jeremy Smith (407) 293-9391  
 Roy Singer (407) 645-0200  
 Ed Metrin (407) 321-7462  
 Tom Tomlinson (407) 290-8474

## Florida Fossil Hunters Membership Application

Names: \_\_\_\_\_

Associate Members: \_\_\_\_\_

\_\_\_\_\_  
 \_\_\_\_\_

*Associate members are people in the same household, included at no extra charge, 2 adult votes per household.*

Address: \_\_\_\_\_

City: \_\_\_\_\_

State: \_\_\_\_\_ Zip: \_\_\_\_\_

e-mail: \_\_\_\_\_

New  Renewal

Please list any interests, experience, talents or just plain enthusiasm, which you would like to offer to the club:

\_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Membership is \$17 per year. Our membership year runs from January to December. All renewals are done in December and January.

**Please make your checks payable to:**

Florida Fossil Hunters  
 Post Office Box 540404  
 Orlando, Florida 32854-0404

### Newsletter Policy

Articles must be submitted by the first of the month to be included in that month's newsletter. These can be mailed to the above Post Office Box or e-mailed to: elise@liseydreams.com. Articles can be sent as text messages in the e-mail or in Microsoft Word files (\*.doc).

# FOSSILFEST 2006 BRINGS the ICE AGE BACK to Florida!

**The ICE AGE returns to Florida when the Tampa Bay Fossil Club** presents the 19th annual FossilFest! On March 11th and 12th, 2006 the Florida State Fairgrounds Special Events Center will go back in time to an era when mammoths, saber-toothed cats, giant wolves, sharks the size of school buses, and cavemen ruled Florida's peninsula.

FossilFest features educational activities for both children and adults geared towards teaching the public about Florida's wonderful prehistoric past. Vendors will be on hand to sell and trade fossils found here in Florida and from all over the world. Artifacts from Florida's prehistoric people, gems, minerals, and shells will also be displayed.

"Our goal is to teach Floridians about the animals and prehistoric people that were here long before us," says president Michael Searle. "These mammoths and lions and camels lived right here where we live today. Their fossil remains are everywhere in Florida."

There will be presentations both Saturday and Sunday on Florida's Ice Age and Florida's cavemen, the prehistoric people. There will also be seminars on hunting for Florida fossils and collection, identification, and preservation techniques.

One of the highlights of FossilFest is the children's "fossil mine." Kids will have the opportunity to dig through a sand pit to recover authentic fossils donated by club members.

But it doesn't end there, club members will then accompany the children to a "learning table" where they will have their fossils identified and bagged for the ride home. That's right, the kids will get to keep everything they find! "It's a wonderful learning experience for the children," says Tampa Bay Fossil Club Director and Hillsborough County school teacher, Patrick McGirk. "You just can't believe how excited these kids get over fossils."

There will also be door prizes, raffle prizes, and a silent auction.

"So many people these days are hooked on the Discovery Channel and the History Channel and the Learning Channel. Well, that's what we're all about," says Dr. Bob Sinibaldi, a former president of the Tampa Bay

Fossil Club and Pinellas County school teacher. "FossilFest will appeal to anyone who frequents the Discovery Channel, loves science and nature, or has a penchant for history and adventure."

The Tampa Bay Fossil Club is a family oriented organization focused on paleontology, archaeology, and the natural sciences. Meetings are held monthly at the University of South Florida and feature prominent speakers from many areas of science. The Tampa Bay Fossil Club awards two annual scholarships to University of South Florida students working in the field of paleontology and geology. The 19 year old club hosts numerous field trips and gatherings throughout the year.

FossilFest will host Florida Blood Services who will be on hand to accept donations for the community's blood supply on Saturday, March 11th.

FossilFest hours are from 9am until 6pm on Saturday, and 9am until 4pm on Sunday. Admission is \$5.00 for adults, children 12 and under are free.

The Tampa Bay Fossil Club brings the ICE AGE back to Florida!

Please visit us at [www.tampabayfossilclub.com](http://www.tampabayfossilclub.com)

Members of the media can take a "sneak peak" of FossilFest on Friday evening, March 10th.

Contact Information:

Michael Searle, President

Tampa Bay Fossil Club

(813) 909-9358

[FOSSILNERD@MSN.COM](mailto:FOSSILNERD@MSN.COM)

# Mark Your Calendar

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Visit our website [www.floridafossilhunters.com](http://www.floridafossilhunters.com)

Articles and comments should be sent to: [elise@liseydreams.com](mailto:elise@liseydreams.com)

Florida Fossil Hunters

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Florida Fossil Hunters News