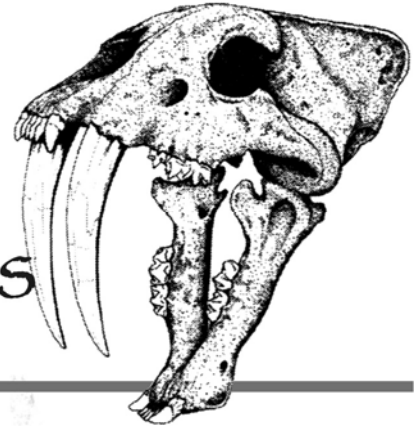


# NEWS

## Florida Fossil Hunters

Volume 18, Number 4

April 2008



### Prez Sez:

We had a fun meeting thanks to Paul Bordenkirker and the samples of gemstones we discovered in the goodie bags he gave us!! Don Munroe will speak in April on amateur archeology and fossil collecting over the last 30 years. He also is our advocate for fossil collecting laws and attends all the meetings concerning legislation that could affect us.

I am still working on field trips to the Brevard Zoo and Gatorland. People just don't answer me back. An update will be on the web site or you'll find out at the meeting.  
Happy Spring!!!

Shelley Zimmerman

### Coming Events

**Meetings held at the  
Orlando Science Center**

**April 16, 2008**

6:00pm Kid's Blast and  
7:00pm Meeting

May 21, 2008

7:00pm Meeting

*June 18th*

6:00pm Kid's Blast and  
7:00pm Meeting

*For more info...*

[www.floridafossilhunter.com](http://www.floridafossilhunter.com)

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## Annual Peace River Campout

Canoe, Camping and Fossil Hunt  
More info on Page 2.

# Florida Fossil Hunters News

# Fragments

## **Venice Shark Tooth Festival**

Join us April 11th through 13th. The Sharks Tooth Festival takes place each spring against a backdrop of Venice's best shark tooth hunting beach, where fossil collectors from around the Southeast display and sell sharks teeth and other prehistoric fossils. In addition artists market their original works, vendors serve dishes from seafood to BBQ, and children are entertained with the Shark Tooth Scramble and the Mote Marine's hands-on exhibit.

Hours: Friday - 4 pm to 9 pm  
Saturday - 10 am to 9 pm  
Sunday - 10 am to 5 pm

Where: Airport Festival Grounds, Airport Ave., Venice, FL

Directions: Take I-75 south to exit 193. Turn right and take Jacaranda Blvd. to Center Rd. Turn right onto Center Rd. and go 2.5 miles (crossing over by-pass 41) then turn right onto Tamiami Trail. Cross over the waterway bridge then turn left onto Avenida del Circo, then turn left onto Airport Ave. Follow signs to the Festival Grounds.

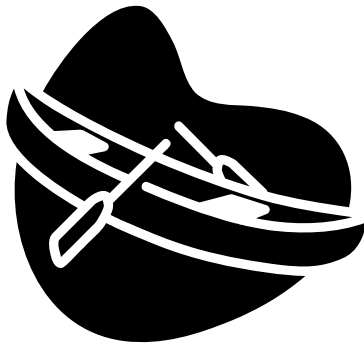
**Black Bear Festival** will be held in Umatilla on Saturday, April 12th. This is a great environmental festival featuring exhibits on animals, ecology, nature, and there is food, of course.

If you'd like to volunteer at our booth contact Ben Shaddrick at [just2ofus@cfl.rr.com](mailto:just2ofus@cfl.rr.com)

**Kelly Park 81st Anniversary Festival** Kelly Park/Rock Springs is holding their festival on Saturday, April 19th. If you would be willing to volunteer at our booth contact Ben Shaddrick at [just2ofus@cfl.rr.com](mailto:just2ofus@cfl.rr.com)

## **Piece on the Peace**

The river is still low enough that fossils can be found almost anywhere you want to dig along the Peace River. Lets hope that it stays low for our camping and fossil hunting trip there on the weekend of May 2nd through May 4th.....although we may end up having to drag the canoes over some spots.



## Orlando Science Center **FOSSILFEST**

A big **THANKS** to all who volunteered at the Fossil Fest. Everyone brought in great collections of rocks, fossils and knowledge.

We would like to make this our second biggest event of the year. Like the education days we had before our Fossil Fairs in previous years, the OSC Fossil Fest is a great way to reach the public, educate them about Florida's past and help out the Orlando Science Center at the same time. We will be scheduling another Fossil Fest before our own Fossil Fair this fall. We'll have more on that as the year progresses.

Thanks again, Russell

**Thank You Fossil Fest Volunteers**  
Valerie First, Ed Metrin, Dave Cass, Paul Bordenkircher, Elaine Howard, Dave Dunaway, Marge Fantozzi, Art Greeves and Russell Brown.

## Kids' Fossil Blast

This month we will be exploring the strange world of phosphorescent minerals. We will have lots of different rocks and fossils to check out. Our next meeting of the Kids Fossil Blast will be on Wednesday, April 16th, at 6:00 pm before our regular meeting.

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 6:00 pm at the Orlando Science Center.

# Annual Peace River Campout

## Annual Peace River Canoe, Camping and Fossil Hunt

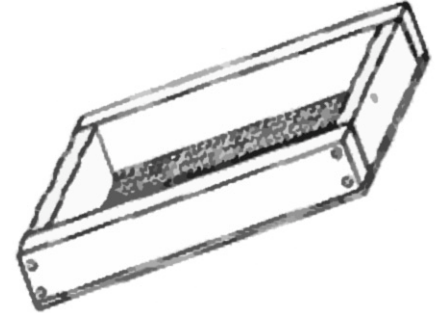
The club camp out and fossil hunt will be based at the island that is on the river between Bowling Green and Wauchula. You can park your vehicle at **Paynes Creek Park** for \$2.00 per day.

**Directions:** Take Route 17 south to Bowling Green, turn east onto Main Street then turn right onto Lake Branch Road. Follow Lake Branch around curve. The park entrance will be on the right before the bridge. The park opens at 8 am and closes at sundown. You can launch your canoe from the park area. Remember that fossil hunting is not permitted within the park boundaries, so make sure that you are downriver of the sign before hunting.

**When:** the first weekend in May as usual, starting Friday, May 2nd and ending Sunday, May 4th. You can come for the whole weekend or just for a day. We'll be putting in at Bowling Green and camping at the island again this year.

Those of you who don't own a canoe, can rent one from Canoe Outpost (800-268-0083).

*Dave will have more information at the April meeting or call Dave Dunaway at 407-786-8844.*



**What to bring:** Canoe and gear OR rent a canoe, sifter, shovel, fanny pack or bag for collecting, bucket for larger items or scrap for the kids' pit. Optional: probe, stand, enough food and drinks for the time you'll be there.

Water(1 gallon per day per person for drinking and cooking) Cooler with ice to last two days. A 1 gallon milk jug filled with water and frozen works real well along with a bag of ice. Remember to drain melted water daily to keep food dry. Change of clothes in waterproof packaging(canoes do overturn at times so bag and secure all items) plus swimsuits, hats, water shoes, dry shoes, towels.

Sunscreen and insect repellent, plus personal hygiene supplies including toilet paper! This is primitive camping, folks; there are no portable toilets. First aid kit.

Cups, plates, & eating utensils.

Sleeping Bag, tarps, tent, flashlights

**Optional:** Camera, fishing pole, bait & license; chair; mask & snorkel, wet suit, marshmallows.



# New sea crocodile fossil hints at transatlantic migration

RIO DE JANEIRO (AFP) - A fossil of a new species of prehistoric crocodile found in Brazil and presented here Wednesday has led scientists to believe the reptile benefited from the extinction of dinosaurs to migrate from across the Atlantic.

Guarinisuchus munizi -- the "warrior of the seas," as the crocodile has been dubbed -- is believed to have had its origins in Africa some 200 million years ago.

But the remains of a jaw, skull and vertebra discovered in Palaeocene deposits of northeastern Brazil suggests the species set off for new territory 62 million years ago, according to researchers.

"They left the African continent and are believed to have occupied zones in South America, and later regions in North America," paleontologist Maria Somalia Viana told a media conference in Rio de Janeiro.



She added that, back then, "Africa and the northeast point of Brazil were much closer than today."

The reptile, which grew to around three meters (10 feet) and was perfectly adapted to living in the ocean, apparently took advantage of the extinction of bigger marine lizards called mosasaurs to dominate the waters, another paleontologist, Alexander Kellner, said.

The *Guarinisuchus munizi* became "the main predators, together with sharks, in shallow marine Palaeocene environments" the researchers from the federal universities of Pernambuco and Rio de Janeiro theorized in their paper published in the Proceedings of the Royal Society B.

They said further study and fossil correlation were needed to corroborate the hypothesis.

The fossil was the most complete of the species ever found in Latin America.

# European Roots: Human ancestors go back in time in Spanish cave

Bruce Bower

Fossil finds in Spain have yielded the earliest known skeletal evidence of human ancestors in Europe, according to a new report. A fossil jaw and tooth from the same individual, found during excavations of a cave called Sima del Elefante in northern Spain's Atapuerca Mountains, date to between 1.2 million and 1.1 million years old, say anthropologist Eudald Carbonell of Universitat Rovira i Virgili in Tarragona, Spain, and his colleagues.

The investigators assign the new discoveries to the species *Homo antecessor*. A decade ago, they identified 800,000-year-old fossils from another Atapuerca site as *H. antecessor*. In the Spanish scientists' view, *H. antecessor* was an evolutionary precursor of European Neandertals and modern humans.

Many scientists remain skeptical of that proposal and classify the Spanish fossils as the oldest examples of *Homo heidelbergensis*, a roughly 600,000-year-old species first found in Germany a century ago.

However this debate plays out, the Sima del Elefante fossils "provide the oldest direct evidence, to our knowledge, for a human presence in Europe," Carbonell says.

Anthropologist Bernard Wood of George Washington University in Washington, D.C., agrees that the find provides the first solid evidence that human ancestors reached Europe more than 1 million years ago. "Before this report, the evidence for an early occupation of Europe had substantial and important caveats," he says.

The newly unearthed specimens were found in sediment that also contained stone tools, stone flakes produced during toolmaking, and numerous animal bones bearing butchery marks.

Carbonell's team describes its work at Sima del Elefante in the March 27 *Nature*.

Several lines of evidence provided an age estimate for the Spanish fossils. Reversals in Earth's magnetic field recorded in fossil-bearing sediments bracketed the fossils' age at between 1.78 million and 780,000 years old. The decay rate of certain radioactive isotopes in rock buried near the fossils—along with analyses of the types of now-extinct animals strewn among the finds—narrowed the age estimate down to 1.2 million to 1.1 million years old.



*CAVE SAVE.* Researchers who retrieved this fossil jaw from a Spanish cave conclude that human ancestors reached Western Europe more than 1 million years ago.—EIA/Jordi Mestre

The new finds strengthen earlier, contested evidence from other European sites—mainly consisting of stone implements, not fossils—that suggests human ancestors occupied the region at least 1 million years ago, Carbonell says. A broad anthropological consensus holds that large groups of human ancestors lived in Western Europe by 500,000 years ago.

The Atapuerca investigators suggest that Western Europe was settled between 2 million and 1 million years ago by a *Homo* species that trekked out of Africa, perhaps into central Asia, and then moved westward. That species then evolved into *H. antecessor*, in their view.

One possible ancestor of the ancient Atapuerca population has been found at the Dmanisi site in the central Asian nation of Georgia. Excavations there have yielded 1.77-million-year-old remains that may come from an early, highly mobile form of *Homo erectus* ([SN: 9/22/07, p. 179](#)).

The Sima del Elefante fossils show no obvious anatomical links to the Dmanisi remains, Wood says. Still, an evolutionary connection between Dmanisi and Atapuerca is plausible, he says.

It's unknown whether enough human ancestors entered Western Europe before 1 million years ago to establish a permanent presence in the region so that they could evolve into later European *Homo* species, Wood notes.

# Scientists Discover 356 Animal Inclusions Trapped In Opaque Amber 100 Million Years Old

**ScienceDaily (Apr. 2, 2008)** — Paleontologists from the University of Rennes (France) and the ESRF have found the presence of 356 animal inclusions in completely opaque amber from mid-Cretaceous sites of Charentes (France). The team used the X-rays of the European light source to image two kilogrammes of the fossil tree resin with a technique that allows rapid survey of large amounts of opaque amber. This is the only known method to discover inclusions in detail in fully opaque amber.

Opaque amber has always been a challenge for paleontologists. Researchers cannot study it because the naked eye cannot visualize the presence of any fossil inclusion inside. In the Cretaceous sites like those in Charentes, there is up to 80% of opaque amber. It is like trying to find, in complete blindness, something that may or may not be there.

However, the paleontologists Malvina Lak, her colleagues from the University of Rennes and the ESRF paleontologist Paul Tafforeau, together with the National Museum of Natural History of Paris, have applied to opaque amber a synchrotron X-ray imaging technique known as propagation phase contrast microradiography. It sheds light on the interior of this dark amber, which resembles a stone to the human eye.

“Researchers have tried to study this kind of amber for many years with little or no success. This is the first time that we can actually discover and study the fossils it contains”, says Paul Tafforeau.

The scientists imaged 640 pieces of amber from the Charentes region in southwestern France. They discovered 356 fossil animals, going from wasps and flies, to ants or even spiders and acarions. The team was able to identify the

family of 53% of the inclusions.

Most of the organisms discovered are tiny. For example, one of the discovered acarions measures 0.8 mm and a fossil wasp is only 4 mm. “The small size of the organisms is probably due to the fact that bigger animals would be able to escape from the resin before getting stuck, whereas little ones would be captured more easily”, explains Malvina Lak.

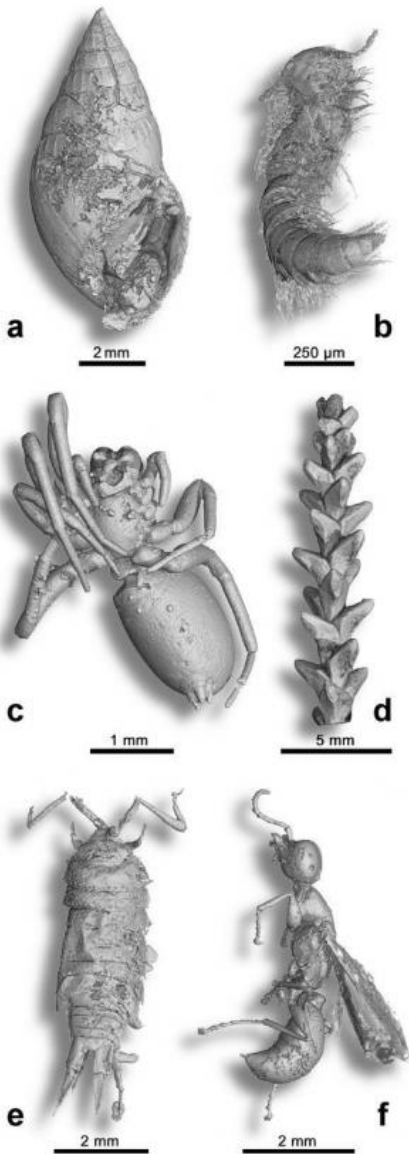
## Water to see tiny fossils better

The surface features of amber pieces, like cracks, stand out more in the images than the fossil organisms in the interior when using synchrotron radiation. In order to solve this problem, scientists soaked the amber pieces in water before the experiment. Because water and amber have very similar densities, immersion made the outlines of the amber pieces and the cracks almost invisible. At the same time, it increased overall inclusion visibility, leading to better detection and characterization of the fossils.

## Classification of species

Once discovered on the radiographs, some of the organisms were imaged in three dimensions and virtually extracted from the resin. The high quality of these 3D reconstructions enables paleontologists to precisely study and describe the organisms. The success of this experiment shows the high value of the ESRF for the study of fossils. “Opaque amber hosts many aspects of past life on our planet that are still unknown, and the use of third generation synchrotron sources will continue to play an important role in unveiling them”, asserts Malvina Lak.

Adapted from materials provided by [European Synchrotron Radiation Facility](#).



# 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, check the website for the location.

**Officers:**

President	Shelley Zimmerman	(407) 891-1260
Vice President	Paul Bordenkircher	(407) 687-3843
Secretary		
Treasurer	Sara Morey	(407) 353-8675

**Chairs:**

Education	Melissa Cole	(407) 834-5615
Field Trips	Shelley Zimmerman	(407) 891-1260
Fossil Fair	Valerie First	(407) 699-9274
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	Kathy Munroe	(407) 846-7382
Membership	Melissa Cole	(407) 834-5615
	Joanne Maio	(407) 375-3635
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

## Membership Application

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

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

\_\_\_\_\_

\_\_\_\_\_

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

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

## 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 in the e-mail or in Microsoft Word files (\*.doc).

# Florida Fossil Hunters Mark Your Calendar

April 11th through 13th  
**Venice Shark Tooth Festival**

Saturday, April 12th  
**Black Bear Festival**

Saturday, April 19th  
**Kelly Park 81st Anniversary Festival  
at Rock Springs**

Wednesday, April 23rd  
**Next Kid's Fossil Blast Meeting 6:00pm Florida  
Fossil Hunters Meeting 7:00pm**

May 2nd through May 4th  
**Annual Peace River Canoe, Camping  
and Fossil Hunt**

Wednesday, May 21st  
**7:00pm Meeting**

June 18th  
**6:00pm Kid's Blast and  
7:00pm Meeting**

Visit us online at [www.floridafossilhunters.com](http://www.floridafossilhunters.com)

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

Florida Fossil Hunters

Post Office Box 540404

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Florida Fossil Hunters News