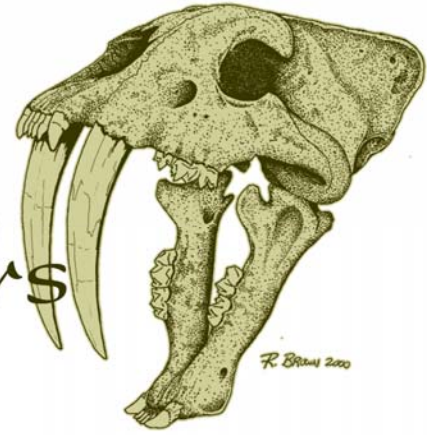


# NEWS

## Florida Fossil Hunters



Florida Prehistorical Museum, Inc. dba/ Florida Fossil Hunters  
Volume 21, Number 8

September 2011

## FOSSIL FAIR Edition

*From the desk of the President...*

Our September meeting will be held at the Orlando Science Center.

Along with our usual business, we will be discussing and voting upon using some of the club's money to make an annual donation to the Gary S. Morgan Student Research Award that the Florida Paleontological Society (FPS) gives out. This is a huge step for our club. Sara Morey, the club's treasurer, has assured me and the Board members that we have enough to make this happen without affecting our yearly expenses. There will be open discussion, so please let your voice be heard. Details of the outcome will be in the next issue.

At our meeting this month, bring in any fossil shark teeth you need identified and we'll do our best to ID them and help you learn how to sort them out. Along that theme, the Kids' Fossil Blast will help the kids wrap a shark's tooth and make necklaces.

Our 20th Fossil Fair is fast approaching. Volunteer sign-up sheets will be available. Please volunteer to help out your fellow club members. Working at the Fair is really more fun than work. Plus you'll earn Fossil Bucks for the next auction.

Russell Brown  
President

**2011 FOSSIL FAIR**  
**October 8th and 9th**

Check out pages 3 and 4 for more information

## Coming Events

### UPCOMING MEETINGS at the Orlando Science Center

#### September 17, 2011

2:00pm Kids' Fossil Blast  
3:00pm Meeting and shark  
tooth ID

#### Fossil Fair

**October 8th and 9th**  
*October - No Club Meeting*

#### November 19th, 2011

2 pm Kids' Fossil Blast  
3 pm Meeting and Chris  
DeLorey, speaker

*For more info...*

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

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# Florida Fossil Hunters News

# Fragments

## **Piece on the Peace**

The Peace River has been at it's "normal" summer heights for the past month. Which means that mostly it has been too deep to dig and sift. Keep checking the level. It will be good for fossil hunting as soon as the rainy season is over.

## **Smithsonian Day in Geneva, FL**

Our club members have been invited to the Smithsonian Day at the Rural Heritage Center in Geneva, FL, on Saturday, September 24th from 11 am to 3 pm. At 1:00 pm Don Jacobs will speak on his local fossil finds. Come see Don's fossil collection and bones of a Geneva Mammoth on display all day.

There is no cost for enjoying the Center for this event. They will be serving homemade BBQ sandwiches for \$4 and drinks for \$1. The Center' address is 101 East Main St., Geneva, 32732. Directions: From Orlando: I-4 to 434. Go east to 426. Take 426 north to Geneva. For more info go to [www.ruralheritagecenter.net](http://www.ruralheritagecenter.net)

## **OSC Neanderthal Ball**

This event, which is one of the main fundraisers for the Center, is being held on Saturday, November 5th from 7 to 11 pm. Tickets to the Ball are \$125 each. For more information go to [www.osc.org](http://www.osc.org) and click on "events".

## **Good news!**

*We have a date for our first  
Vulcan field trip of the season.  
See page 6 for all the details.*

## **Kids' Fossil Blast**

Bring your favorite shark tooth - or use one of the ones we'll supply - and make a necklace with it. We'll have the materials and help to wrap your tooth and add beads (suitable for girls and boys) if you'd like. Parents are encouraged to help with this session.

We'll meet at 2 pm at the Science Center on Saturday, Sept 17th.  
The next one will be on Saturday, November 19th.

## **Morgan Student Research Award Info**

This is awarded and funded by the Florida Paleontological Society (FPS). The purpose of the award is to promote a better understanding of Florida paleontology through new research discoveries. Eligible fields of relevance within paleontology include invertebrates, vertebrates, microfossils, and plants. This award is open to any student, undergraduate or graduate, in good standing at any Florida University or College.

The grant's purpose is for expenditures such as (but not restricted to) field work, museum research travel, laboratory analyses, research materials, etc. It is not intended to fund travel to scientific meetings, indirect (overhead) costs, salaries or wages.

The screening/award committee shall consist of both professional and avocational paleontologists.

It is expected that, during or after completion of the research, the recipient(s) will present results of their discoveries in the form of (1) a short article of a non-technical nature to be published in the FPS newsletter and/or (2) a talk presented at an FPS meeting.

## **National Fossil Day, October 12, 2011**

No, this is NOT a day to take your grandma to lunch....although we grandmas do like that. The National Park Service, Bureau of Land Mgmt., & the American Geological Institute came up with this to spread the news that fossils are a national resource that have lots of educational value.

Unfortunately, I couldn't find any Florida National Parks that have a program for this day. so I guess we'll each have to find a way to celebrate it.... give a school talk, show some friends fossils you've found, etc.

This day was chosen to coincide with Earth Science Week. For more info go to <http://nature.nps.gov/geology/nationalfossilday/index.cfm>

## **Fossil Fair 2011 - Share the News**

Be sure to pass out flyers to your friends, your kid's classmates, and post them where you can. You can download a copy from our website or use the one in this issue to make copies, or pick up some at our meeting on September 17th.

## 2011 FOSSIL FAIR, Saturday, October 8 and Sunday, October 9

### Our 20th Fossil Fair - Coming Soon

There are so many ways to take part in this fun-filled, fossil-packed weekend.

First of all, volunteer some time to help out in one of the areas during the Fair.

- You can be one of the smiling, helpful people at the admissions table where people arrive.
- You could help out at the Kids' Dig Pit and help the kids discover the fun of finding their own fossils.
- You can help folks bidding on treasures at the Silent Auction.

Or you can volunteer at the Membership table, answering questions and helping folks get started in their own quest to find fossils.

Each position offers plenty of opportunities to share your excitement of fossiling and the joy of learning more about the world.

Of course, we usually need help setting up for the Fair on Friday and in the hour before it opens on Saturday, as well as clean-up help on Sunday after the Fair closes.

Please give a few hours.... or more if you can. You will be rewarded, not only in Fossil Bucks, but also with the fun of sharing your interests with other folks.

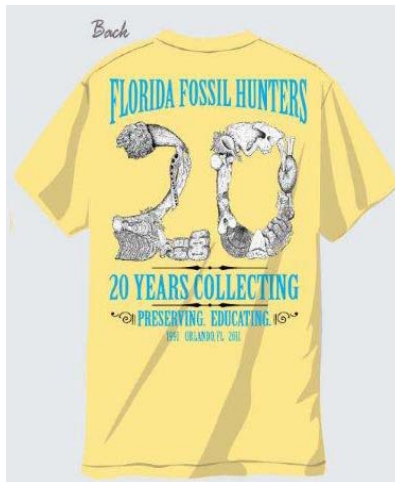
Secondly, donate those extra fossils you've found that are sitting in the back of the

closet or in the bottom of that box, that you don't look at much anymore. Or maybe you've just found better specimens since those first fossiling expeditions. Those donated fossils bring smiles of joy to the kids who get to find them in our Dig Pit.

Finally, bring some food to share with the other volunteers and the vendors. Thanks to Sara's work and organization, we've managed to feed the workers at our past Fossil Fairs which really makes it feel like a big family reunion... a really strange but funny and intellectually stimulating one.

You can sign up to volunteer at our September meeting or email us via [info@floridafossilhunters.com](mailto:info@floridafossilhunters.com) or call Sara.

To donate items to the Kids' Dig Pit or the Silent Auction, just bring them to the Fair with you.



### Do you want a Fossil Fair T-Shirt?

Then you MUST order it before Sept. 20th. You can use the form here or on the website, or email the sizes, numbers, and whether you want a pocket shirt to me at [bjrb48@zero.com](mailto:bjrb48@zero.com) or you can call me at home before 8 pm at 352-429-1058.

## 2011 Fossil - 20th Anniversary - T-Shirt Order Form

Russell has come up with incredible design for this year's shirts (see pg 2).

**IF YOU WANT A SHIRT, WE MUST RECEIVE YOUR ORDER FORM BY SEPTEMBER 20TH.**

Name: \_\_\_\_\_ Email or phone#: \_\_\_\_\_

**Mark the number of shirts you want per size.**

**Kid** Small \_\_\_\_\_ Kid Med \_\_\_\_\_ **Adult** Small \_\_\_\_\_ Med \_\_\_\_\_ Lg \_\_\_\_\_ XL \_\_\_\_\_ 2X \_\_\_\_\_ 3X \_\_\_\_\_

**Adult w/Pocket-** Small \_\_\_\_\_ Med \_\_\_\_\_ Lg \_\_\_\_\_ XL \_\_\_\_\_ 2X \_\_\_\_\_

Total number of shirts ordered \_\_\_\_\_ @ Adult shirts & youth shirts: \$10 ea. Shirts with pockets: \$12.





# Discovery of a 160-Million-Year-Old Fossil Represents a New Milestone in Early Mammal Evolution

*ScienceDaily* (Aug. 24, 2011) — A remarkably well-preserved fossil discovered in northeast China provides new information about the earliest ancestors of most of today's mammal species -- the placental mammals. According to a paper published August 25 in the journal *Nature*, this fossil represents a new milestone in mammal evolution that was reached 35 million years earlier than previously thought, filling an important gap in the fossil record and helping to calibrate modern, DNA-based methods of dating the evolution.

The paper by a team of scientists led by Carnegie Museum of Natural History paleontologist Zhe-Xi Luo describes *Juramaia sinensis*, a small shrew-like mammal that lived in China 160 million years ago during the Jurassic period. *Juramaia* is the earliest known fossil of eutherians -- the group that evolved to include all placental mammals, which provide nourishment to unborn young via a placenta. As the earliest known fossil ancestral to placental mammals, *Juramaia* provides fossil evidence of the date when eutherian mammals diverged from other mammals: metatherians (whose descendants include marsupials such as kangaroos) and monotremes (such as the platypus). As Luo explains, "*Juramaia*, from 160 million years ago, is either a great-grand-aunt, or a 'great-grandmother' of all placental mammals that are thriving today."

## The "Jurassic mother from China"

The fossil of *Juramaia sinensis* was discovered in the Liaoning Province in northeast China and examined in Beijing by Zhe-Xi Luo and his collaborators: Chong-Xi Yuan and Qiang Ji from the Chinese Academy of Geological Sciences, and Qing-Jin Meng from the Beijing Museum of Natural History, where the fossil is stored. The name *Juramaia sinensis* means "Jurassic mother from China." The fossil has an incomplete skull, part of the skeleton, and, remarkably, impressions of residual soft tissues such as hair. Most importantly, *Juramaia*'s complete teeth and forepaw bones enable paleontologists to pin-point that it is closer to living placentals on the mammalian family

tree than to the pouched marsupials, such as kangaroos.

## Resetting the evolutionary clock

"Understanding the beginning point of placentals is a crucial issue in the study of all mammalian evolution," says Luo. The date of an evolutionary divergence -- when an ancestor species splits into two descendant lineages -- is among the most important pieces of information an evolutionary scientist can have. Modern molecular studies, such as DNA-based methods, can calculate the timing of evolution by a "molecular clock." But the molecular clock needs to be cross-checked and tested by the fossil record. Prior to the discovery

of *Juramaia*, the divergence point of eutherians from metatherians posed a quandary for evolutionary historians: DNA evidence suggested that eutherians should have shown up earlier in the fossil record -- around 160 million years ago. Yet, the oldest known eutherian, was *Eomaia*\*, dated to 125 million years ago. The discovery of *Juramaia* gives much earlier fossil evidence to corroborate the DNA findings, filling an important gap in the fossil record of early mammal evolution and helping to establish a new milestone of evolutionary history.

*Juramaia* also reveals adaptive features that may have helped the eutherian newcomers to survive in a tough Jurassic environment. *Juramaia*'s forelimbs are adapted for climbing; since the majority of the Jurassic mammals lived exclusively on the ground, the ability to escape to the trees and explore the canopy might have allowed eutherian mammals to exploit an untapped niche.

Luo supports this perspective: "The divergence of eutherian mammals from marsupials eventually led to placental birth and reproduction that are so crucial for the evolutionary success of placentals. But it is their early adaptation to

exploit niches on the tree that paved their way toward this success."

\**Eomaia* was originally described in 2002 by a team of scientists led by Zhe-Xi Luo and Carnegie mammalogist John Wible.



*Juramaia sinensis* - the earliest-known eutherian  
Photo: Dr. Zhe-Xi Luo / Carnegie Museum of Natural History

*New Jurassic eutherian mammal Juramaia sinensis: The original fossil (type specimen) is preserved on a shale slab from the Jurassic Tiaojishan Formation. The fossil belongs to the Beijing Museum of Natural History (BMNH PM1143) and is being jointly studied by Chinese and American scientists. (Credit: Zhe-Xi Luo/ Carnegie Museum of Natural History)*

## Vulcan Field Trip

There will be a field trip to Vulcan Mine near Brooksville on Saturday, **September 10th**. **Trip leaders: Bonnie Cronin and Russell Brown.** To sign up email Bonnie at [bjrb48@netzero.com](mailto:bjrb48@netzero.com) or call her at 352-429-1058 before 8pm. Cell phone number for the day of the trip ONLY is 321-279-2592 (do not leave message). This is one of the few places where kids are allowed in to fossil hunt. Be sure to stay with them since there are steep cliffs, sharp rocks, and small sinkholes.

***You MUST be a member of the club for insurance purposes to participate in this field trip.***

Meet on the driveway loop near the entrance to the Mine by 8:30 am to sign releases before we are escorted into the mine around 9 am. We get to drive our vehicles in so you can have your coolers, snacks, and equipment handy while you hunt. They usually allow us to dig until noon and sometimes people can stay till 2 pm.

All participants MUST be escorted into and out of the mine. Do not leave on your own since it is easy to become lost.

Directions: The trip will take approximately 2 hours from Orlando to Vulcan Mine. Be sure to allow for extra time to stop at a restroom before you get there. **THERE ARE NO RESTROOM FACILITIES AT VULCAN**, other than the boulders and the hills.

From Orlando take Hwy. 50 west (or the 408 west to the FL Turnpike, take exit 272 and then continue west on Hwy. 50) to Brooksville. Follow 50A/98 North through Brooksville and turn right on Ponce De Leon Blvd. (Hwy 98 North). Go approximately 10 miles. Vulcan/Cemex will be on your left. The address is 16313 Ponce De Leon Blvd, Brooksville, for those of you who want to download a map.

If you follow the truck route for Hwy. 50, you have to turn right onto 41, and then take the fork to the left to hook up with Ponce De Leon Blvd/98. There are several fast food places on 41 where you can take advantage of the bathroom facilities. Be sure NOT to keep following 41 north. You want to take 98 north from Brooksville.

This is mostly surface collecting with occasionally a little digging to pry out a specimen. Bring a small trowel or screwdriver or rock hammer, and a bucket to put your fossils and rocks into. You may want to bring small containers and tissue for fragile fossils.

Wear a hat, sturdy shoes, long pants (some of the rocks are sharp), and sunscreen. Bring lots of water and/or drinks and some snacks or lunch to eat.

We find mostly echinoids and sometimes sea urchins, pieces of bone, or other fossils are found. We also find chert rocks. This is the material that the Indians used to make their arrowheads and tools.

## Summer Discoveries

Geologists analyzing rocks in the Franklin Mtns. in Texas found that they match a rock outcropping in Antarctica. They have deduced that Laurentia (ancestral North America) was joined to Coats Land, Antarctica one billion years ago when all the land was joined in the super-continent Rodinia.

Geneticists have found that the DNA of modern humans (except for indigenous Africans) consist of about 5% Neanderthal DNA.

The jaw of a 9 ft bird was found in China that lived at the same time as the dinosaurs.

The oldest textile in the America's was found in Peru. It's dated to around 12,000 years ago. The earliest art in the Americas was found here in Florida recently. It's a bone fragment with the image of a mammoth (or mastodon) incised into it. It's dated to around 13,000 years ago.

You can find the whole stories of these discoveries at [www.sciencedaily.com](http://www.sciencedaily.com)

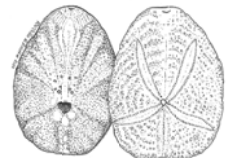
## Yankeetown Report

Saturday morning, the 20th of August, came early for those attending the Yankeetown Island trip. There were about 25 adults and 10 kids. Dave Dunaway and Dave Cass did another outstanding job with their boats ferrying members over to and back from the island.

We set up our tarps and grilling material on the first island. We had a beautiful area cleared out on the island and a nice breeze kept things comfortable. Echinoids were on the main menu of the day and Yankeetown delivered. Everyone found plenty of Eupatagus antillarum. Smaller "coin" echinoids were also readily found. The children discovered all kinds of treasures from bird and fish bones (modern but cool), crabs, driftwood, shells, etc. As the day went on, members spread out to the other islands close by while some swam in the water to cool down a little. About 1:00-ish we grilled hot dogs and had our yummys.

I believe everyone who attended had a great time. If you didn't make it out on this trip, the islands are still there. Ask anyone who was on the trip about it. There's a family day-trip you may want to plan later.

Again, these wonderful times are due to members who take the time to volunteer and this club would not be the club it is without them. I thank all who helped make this and other events possible.



# Florida Fossil Hunters

# Membership Application

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 usually held on the third Saturday of the month but may vary with club activities. Check the website for the date and location of the next meeting or call one of the officers.

### Officers:

President	Russell Brown	(352) 429-1058
Vice President	Dave Dunaway	(407) 493-4253
Secretary	Bonnie Cronin	(352) 429-1058
Treasurer	Sara Morey	(619) 302-4863

### Chairs:

Education	Bonnie Cronin	(352) 429-1058
Field Trips	<b>OPEN</b>	
Fossil Fair	Valerie First	(407) 699-9274
Fossil Auctions	Dave Dunaway	(407) 493-4253
Fossil Bucks	Dave Dunaway	(407) 493-4253
Fossil Lotto	Ed Metrin	(407) 321-7462
Auctioneer	Roy Singer	(407) 645-0200
Membership	Bonnie Cronin Nicole Barr	(352) 429-1058
Newsletter	Bonnie Cronin Elise Cronin-Hurley	(352) 429-1058 (407) 929-6297
Photography	John Heinsen	(407) 291-7672
Webmaster	Elise Cronin-Hurley	(407) 929-6297 elise@lisedreams.com

### Board of Directors:

Melissa Cole	(407) 834-5615
Ed Metrin	(407) 321-7462
Dave Cass	(407) 409-9095
Shelley Zimmerman	(407) 891-1260
Marge Fantozi	
Marcia Wright	

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

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

\_\_\_\_\_

\_\_\_\_\_

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

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

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

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

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

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@lisedreams.com. Articles can be sent as text in the e-mail or in Microsoft Word files (.doc or .docx).

# Florida Fossil Hunters Mark Your Calendar

See page 2-3 for more information on events.

## September 17, 2011

2:00pm Kids' Fossil Blast  
3:00pm Meeting and shark tooth ID

**October** - No Club Meeting

## November 5th, 2011

Neanderthal Ball at OSC, 7 to 11 pm

## November 19th, 2011

2 pm Kids' Fossil Blast  
3 pm Meeting and Chris DeLorey, speaker

## 2011 FOSSIL FAIR

October 8th and 9th

## 2011 FOSSIL FAIR FLYERS

Available on the website.

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

*Download, print and pass them out to your friends and favorite Businesses  
Or just make copies of page 4.*

### Be Green

Email Bonnie at [bjrb48@netzero.com](mailto:bjrb48@netzero.com) to receive the newsletter via email.



Join Our Facebook group, Search:

[Florida Fossil Hunters](#)

facebook

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

Orlando, Florida 32854-0404



# Florida Fossil Hunters News