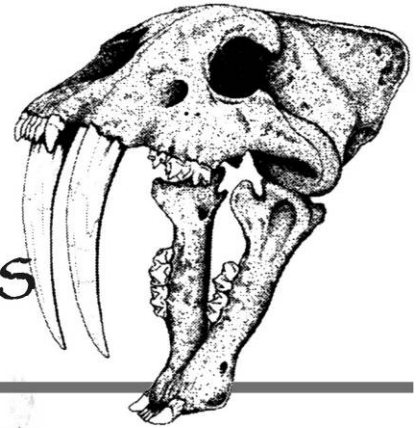


# NEWS

## Florida Fossil Hunters

Volume 19, Number 10

November 2009



### Prez Sez

Hello Fossil Fanatics!

Can you believe its already November? The time of year when we remember the things we're thankful for. We've accomplished a great deal as a club this year, with our great field trips to the Gillespie Museum, the Peace River, Ruck's pit and more. We are continually thankful for our dedicated members and volunteers (*Valerie, Sara, the Maios, the Kerrs, Ed, Kathy, and so many others*) who make our meetings fun and made the 18<sup>th</sup> Annual Fossil Fair a great success!

We are grateful to our speakers, (*Dr. Gordon Hubbell, Dr. Richard Hulbert, Florence Magovern, Marge & Marsha, Bonnie & Russell, and Ms. Miranda!*) who have taken the time out of their busy lives to share with us their snapshot of the prehistoric world in ways that few others see. And to the area schools (*Moss Park Elementary, Milwee Middle, Ocoee & Citrus Elementary*) that host our displays and further the cause of improving the understanding of life on early Earth.

I'd also like to extend a personal note of thank you to the folks who have worked hard behind the scenes, namely *Elise Cronin-Hurley, John Heinsen and John Jelks*. These folks have gone above and beyond in their efforts to bring our message to the community and to maintain a sense of pride and professionalism that is missing in other clubs. Thank you all!

This weekend is MAGMA's Diamond Hill Mine trip to South Carolina – *Shelley* worked hard to get us in for this one, so if you're due for a vacation, I hear the Quarz Mines are beautiful this time of year. Next weekend is also a Vulcan mine trip, so catch up with *Dave* for your chance to go! For this month's meeting, we are hosting our fall fossil auction, so bring your fossil bucks and let the bidding wars begin!

**See you on November 21<sup>st</sup>!**

Jimmy Waldron  
President  
Florida Fossil Hunters

### NOVEMBER CLUB MEETING

**November 21, 2009**  
3:00pm Meeting

### Coming Events

#### MEETINGS SATURDAY

at the Orlando Science Center

**November 21, 2009**

3:00pm Meeting and Auction

**December 19, 2009**

Party

**January 16, 2010**

3:00pm Meeting

**February 20, 2010**

2:00pm Kids Blast

3:00pm Meeting

For more info...

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

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# Fragments

## **Piece on the Peace**

Grab the kids, sifters and shovels and get to the river. Yippee!!!! The gauge station at Zolfo finally is back to under 5 ft. Now all you frustrated fossil hunters who have been waiting these long months during the summer rains can go and hunt fossils.



## **Vulcan Field Trip**

Saturday, November 14, 8:30 am  
Trip leader: Dave Dunaway, 407-786-8844

Meet at the circle driveway near the road to sign waivers before being escorted into the mine around 9 am. We're usually allowed to dig until around 12 noon when the group will be escorted back out.

You must be a member of the club for insurance purposes.

This is a great place for kids..and people who are kids at heart...to hunt for fossils.

This is mostly a surface collecting site although it's a good idea to have a screwdriver or rock hammer to pry finds out of the matrix. You can find: echinoids, shell molds, calcite crystals, and occasionally shark teeth, dugong bones, fish mouthplates, etc. You can also collect pieces of chert...one of the materials that the Native Indians used for points and tools.

You should bring: bucket for collecting, material for wrapping fragile items, hat, water, snacks, sturdy shoes and maybe a change of clothes/shoes in case you end up in the mud.

Directions: Take SR 50 west to Brooksville. Take Hwy. 98 north about 10 miles. Vulcan Mine is on the left (west) side of Hwy. 98. The street address is: 1313 Ponce De Leon Blvd.

*As always, you must be a member of the club to join us at Vulcan.*

## **Kids' Fossil Blast**

There will be no kids' meetings during the months of November and December. November is our fossil bucks auction where all of you can spend those hard-earned fossil bucks. December we will have our annual Christmas party instead of a meeting. So our next Kids' Fossil Blast will be on Saturday, February 20th, at 2 pm.

## **Fall Gem and Mineral Show**

The Central Florida Gem and Mineral Society will hold its annual show at the Central Florida Fairgrounds on Friday, Nov. 13th from 1 pm to 8 pm, Saturday, Nov. 14th from 10 am to 8 pm, and Sunday, Nov. 15th from 10 am to 5 pm.

There will be vendors with jewelry, gems, minerals, fossils and supplies. There will also be a special children's area with activities, silent auctions, demonstrations and lectures.

Admission is \$4 for adults, \$2 for students and children under 12 can get in free with a parent.

For more information contact them at [miller@cfl.rr.com](mailto:miller@cfl.rr.com)

## **Thomas Farm Fossil Dig, Fall 2009**

The Division of Vertebrate Paleontology of the Florida Museum of Natural History in Gainesville is seeking volunteers (ages 15 and older) to work with museum staff and students at this famous site. They will be working on Saturdays, Sundays, Mondays and Tuesdays starting October 24th and ending on November 24th. Digging hours are from 9 am to 5 pm. Volunteers are expected to work a minimum of three hours a day.

The Thomas Farm site formed 18 million years ago during the early part of the Miocene Epoch. Many species of animals had their bones washed into this old sink-hole. That makes this site a treasure trove of fossil bones.

Diggers will be instructed in the techniques of digging and screen washing so you don't have to have previous experience. All fossils will be kept by the Museum.

*This is an wonderful opportunity to be part of the discovery process!*

For more information and to fill out the application forms required go to: [www.flmnh.ufl.edu/vertpaleo/fall\\_2009.htm](http://www.flmnh.ufl.edu/vertpaleo/fall_2009.htm)

## **Fossil Woods Calendar**

Paleobotanist Elizabeth Wheeler Has created a calendar for 2010 with fossil woods from Yellowstone, Big Bend National Park, and other locations. It features photomicrographs of the distinctive anatomy of the ancient trees, which range in age from 100 to 15.5 million years ago. Cost is \$15.25 plus shipping and handling. The proceeds fund the fossil woods website.

Preview and ordering info can be found at <http://www.lulu.com/content/565290>

### **A Big Thanks.....**

to Paul Bordenkircher for borrowing the Mineral Club's sign for us to use, to Valerie for her work on the fair all through the year, to Jimmy and the Science Center for letting us use the Triceratops Skull as a showpiece, to the young volunteers for their help and enthusiasm at the Silent Auction, Kids' Pit & plaster jacket demos, to Mary Bordenkircher for her wrapping demos, to Sara for keeping us all well fed and smiling, to Dave Cass for hauling the Kids' Pit and sand, to the vendors who give us smiles and donate to our auctions and answer our questions, to our security volunteers so the rest of us and the vendors could sleep well, to all of you who donated fossils for the kids and Silent Auction, to everyone who brought in yummy food to share, to those volunteers who show up every year and give us hours and hours of help...some working the entire fair...and to the new members who volunteered their time.

Thanks to all of you for making this fair a success and so enjoyable.

### **Killer Algae Was the Final Straw in Mass Extinctions**

James Castle and John Rodgers of Clemson University have studied the fossil sea bed layers associated with mass extinctions and have found that each time a large die off occurred, there was a spike in the number of fossil algae mats called stromatolites strewn around the planet. They theorize that as the nutrient-rich fallout from the disasters lands in the water, it becomes food for the algae. They explode in population, releasing chemicals that can act as anything from skin irritants to potent neurotoxins. Even the plants on land can pick up the compounds by their roots and pass them on to herbivorous animals. If the theory is right, it answers a lot of questions about how marine animals were so lethally affected during these extinctions.

### **New Theory for Explosion in Complexity of Life**

Researchers from several universities have found that calcium is a main component in the cell adhesion of sponges. This has led them to postulate that the increase in dissolved calcium in sea water in the Cambrian allowed multi-cellular life to form.

The additional calcium is believed to be the result of volcanically active mid-ocean ridges at that time.

So we'd all still be one celled organisms if not for the calcium.

## Spider web confirmed as 'oldest'

The web is believed to have become trapped in amber during a forest fire

Spider webs encased in amber which were discovered on an East Sussex

beach have been confirmed by scientists as being the world's oldest on record.

The amber, which was found in Bexhill by fossil hunter Jamie Hiscocks and his brother Jonathan, dates back 140 million years to the Cretaceous period.

Professor Martin Brasier said they were the earliest webs to be incorporated into the fossil record.

He has published his findings in the Journal of the Geological Society.

Professor Brasier, who is a palaeobiologist at the University of Oxford, said: "This amber is very rare. It comes from the very base of the Cretaceous, which makes it one of the oldest ambers anywhere to have inclusions in it."

### **'Sticky droplets'**

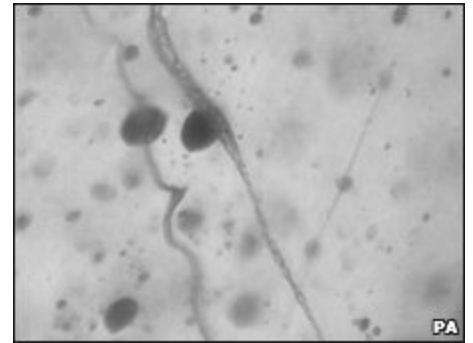
He added: "These spiders are distinctive and leave little sticky droplets along the spider web threads to trap prey.

"We actually have the sticky droplets preserved within the amber. These turn out to be the earliest webs that have ever been incorporated in the fossil record to our knowledge."

His studies revealed that the spider that spun the web is related to the modern day orb-web or garden spider.

Scientists think the web became trapped in conifer resin after a forest fire and then became fossilized inside the resulting amber.

Mr Hiscocks and his brother also found the fossilized remains of an anguonodon jaw bone on the coastline.



# Giant Impact Near India -- Not Mexico -- May Have Doomed Dinosaurs

*ScienceDaily (Oct. 15, 2009) — A mysterious basin off the coast of India could be the largest, multi-ringed impact crater the world has ever seen. And if a new study is right, it may have been responsible for killing the dinosaurs off 65 million years ago.*

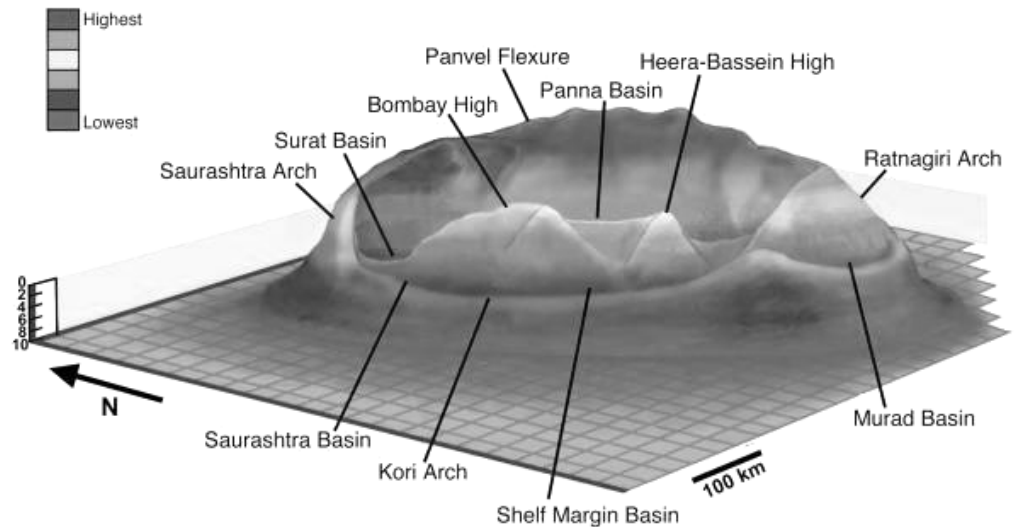
Sankar Chatterjee of Texas Tech University and a team of researchers took a close look at the massive Shiva basin, a submerged depression west of India that is intensely mined for its oil and gas resources. Some complex craters are among the most productive hydrocarbon sites on the planet. Chatterjee will present his research at this month's Annual Meeting of the Geological Society of America in Portland, Oregon.

"If we are right, this is the largest crater known on our planet," Chatterjee said. "A bolide of this size, perhaps 40 kilometers (25 miles) in diameter creates its own tectonics."

By contrast, the object that struck the Yucatan Peninsula, and is commonly thought to have killed the dinosaurs was between 8 and 10 kilometers (5 and 6.2 miles) wide.

It's hard to imagine such a cataclysm. But if the team is right, the Shiva impact vaporized Earth's crust at the point of collision, leaving nothing but ultra-hot mantle material to well up in its place. It is likely that the impact enhanced the nearby Deccan Traps volcanic eruptions that covered much of western India. What's more, the impact broke the Seychelles islands off of the Indian tectonic plate, and sent them drifting toward Africa.

The geological evidence is dramatic. Shiva's outer rim forms a rough, faulted ring some 500 kilometers in diameter, encircling the central peak, known as the Bombay High, which would be 3 miles tall from the ocean floor (about the height of Mount McKinley). Most of the



*Three-dimensional reconstruction of the submerged Shiva crater (~500 km diameter) at the Mumbai Offshore Basin, western shelf of India from different cross-sectional and geophysical data. The overlying 4.3-mile-thick Cenozoic strata and water column were removed to show the morphology of the crater. (Credit: Image courtesy of Geological Society Of America)*

crater lies submerged on India's continental shelf, but where it does come ashore it is marked by tall cliffs, active faults and hot springs. The impact appears to have sheared or destroyed much of the 30-mile-thick granite layer in the western coast of India.

The team hopes to go India later this year to examine rocks drill from the center of the putative crater for clues that would prove the strange basin was formed by a gigantic impact.

"Rocks from the bottom of the crater will tell us the tell-tale sign of the impact event from shattered and melted target rocks. And we want to see if there are breccias, shocked quartz, and an iridium anomaly," Chatterjee said. Asteroids are rich in iridium, and such anomalies are thought of as the fingerprint of an impact.

*Adapted from materials provided by Geological Society Of America.*

# Tiny Dinosaur Species Discovered

Dinosaurs are known for their huge size, but a new species discovered in Colorado, USA, is notable for being tiny. The miniature creature from the Jurassic period is described in Proceedings of the Royal Society B this week.

Weighing in at less than a kilogram and only 65 to 75 cm long, *Fruitadens haagarorum* is one of the smallest known dinosaurs and the smallest found in North America. It was identified by an international team of scientists, led by Dr Richard Butler of the Bavarian State Collection for Palaeontology, Munich, Germany, and the Natural History Museum in London.

It was found in a series of rocks called the Morrison Formation that has been studied for 130 years but still holds secrets. Dr Butler says 'It is still possible to discover completely unique and remarkable species. If dinosaur ecosystems were that diverse, who knows what astonishing beasts are waiting for us to discover?'

Painstaking examination of the leg bones allowed the team to work out the fossils were from young adults that were nearly fully grown. *Fruitadens* had an unusual smile, with canine like teeth in the lower jaw and leaf shaped teeth behind, suggesting it may have fed on both plants and animals.

Dinosaurs are traditionally divided into two groups, the carnivores which includes the very smallest species, and the predominantly plant eating ornithischians, which range from just over a metre to a lumbering 17 m length. *Fruitadens* cuts across these divisions, as the smallest known omnivore. It is a strategy that must have been successful, as the nimble *Fruitadens* was around for 100 million years.

*Source: The Royal Society*



# NOVEMBER FOSSIL BUCKS AUCTION

1. 4-1/2" Megalodon Shark tooth
2. Green Apophollyte with orange Stillite
3. Tapir tooth in partial jaw section
4. Shark tooth necklace
- N 5. Fossil fish
- J 6. Pterodactyl stuffed toy
7. "South Florida Fossil Seashells", autographed book
8. Florida Agatized Coral
9. Central Florida authentic projectile points
10. Green Apophollyte
- N 11. Small display case made by Dave Cass
- J 12. Three wrapped shark teeth for necklaces, donated by Mary Bordenkircher
13. Fern fossil
14. Fulgerite (heat-fused sediment created by a lightning strike)
15. Antique beer bottle, donated by Roy Singer
16. Medium display case made by Dave Cass

N= new members only

J= junior members only

# 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	Jimmy Waldron	(386) 212-5814
Vice President	Russell Brown	(352) 429-1058
Secretary	Glory Kerr	
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 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	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**

Paul Bordenkircher

**Directors:**

Russell Brown	(352) 429-1058
Melissa Cole	(407) 834-5615
Dave Dunaway	(407) 786-8844
Ed Metrin	(407) 321-7462
John Jelks	(407)568-5558
Roy Singer	(407) 645-0200

## 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

## ***Vulcan Field Trip***

Saturday, November 14, 8:30 am

## ***Fall Gem and Mineral Show***

Nov. 13th - Nov. 15th

## ***November 21, 2009***

3:00pm Meeting and Auction

## ***December 19, 2009***

Party

## ***January 16, 2010***

3:00pm Meeting

## ***February 20, 2010***

2:00pm Kids Blast

3:00pm Meeting

See page 2 for more information on events.

## **Be Green**

We are *emailing* the newsletter each month. If you want to participate, just email Bonnie at [bjrb48@netzero.com](mailto:bjrb48@netzero.com) or sign up at the meeting. If you want to continue to receive a paper newsletter in the mail, you don't have to do anything.



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)

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Florida Fossil Hunters News