

#### **VULCAN MINE - DECEMBER 13TH**

#### From the President.....

Hello, everyone.

Summer's over and before you know it, Christmas will arrive. Hope you came and got your gifts at the club's fantastic Fossil Fair. Once again, our Fossil Fair chairwoman, Valerie First, filled our fair with our favorite vendors, plus some new vendors, and tons of cool stuff. She always outdoes herself. Thank you, Valerie.

This year we had lots of club members who came to make this event a great time for all. I'd like to thank everyone who volunteered and made this one of the most enjoyable that I've attended for a long time. It's a lot of work but with all of you that helped, it didn't seem like much work at all. Thanks you very much. Sara Morey picked out some really good items for our auction in December, so all those Fossil Bucks you earned will come in handy.

This month Dr. Bruce MacFadden from FLMNH will be giving a presentation at our meeting. There are so many things he is involved in at the museum from outreach with the Fossil project, to his work with students and teachers, and the Thomas Farm Dig. But I asked him to speak about a favorite of mine - Megalodon. The museum has a wonderful exhibit of this giant shark going on right now. So if you like sharks, especially Megalodon, join us at Orlando Science Center for his talk.

There is plenty of other fossil related news inside this newsletter, so read on...

But I definitely want to thank all who came out to help at the club's Fossil Fair.

See you around. Russell Brown President

Join Our Facebook group, Search: Florida Fossil Hunters



## Coming Events

### **UPCOMING MEETINGS** at the Orlando Science Center

# Saturday, November 15th 2 pm Kids' Fossil Blast 3 pm Meeting & Bruce MacFadden, speaking about Megalodon! Founders Room at OSC on the 3rd floor

#### Saturday, December 20th 3 pm Meeting at OSC & Fossil Bucks Auction

#### More events listed on back page

For more info...
www.floridafossilhunters.com

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## Fragments

## Kids' Fossil Blast

This month we will be checking out the fossils of horses and looking at their long history in North America from the dog-sized early ones to the modern day species. Bring any horse fossils you have to show the other kids, too.

The Kids' Fossil Blast will start at 2 pm on Saturday, November 15th before our regular meeting. Kids' Fossil Blast is an informal hands-on experience with real fossil, casts, etc. aimed at kids ages 5 through 14.

#### Neanderthal Ball

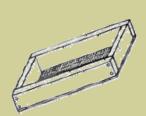
The Florida Fossil Hunters' Valerie First, Ed Metrin, Dave Dunaway, Bonnie and myself, once again had a ball at the 8th Neanderthal Ball at the Orlando Science Center. This is a fund raiser for OSC and our club donated items for their auction: agatized coral, ammonites, a petrified wood bowl, a couple a authentic Neanderthal stone tools. Bonnie & I donated a saber-cat skull cast.

There were folks dressed up in their finery and others dressed as Neanderthals. Joy Fox (she's a FL. Fossil Hunter from way back) won the ladies' best dressed Neanderthal award. The team talked with guests and ate a lot of yummy food (thank you, Sonny's BBQ).

Science certainly isn't boring. Next year you may want to come to the 9th Neanderthal Ball..... get involved and have a ball!

#### PEACE RIVER

Well, this is the time we have waited for - the Peace River is low enough for diggin' and siftin'. Yippee! Dust off your screens, grab your shovel and head down to the river for a day of fossil hunting and fun. Then bring your treasures back to show all your friends at your fossil meetings.



In the meantime you can always check on the water level via our website floridafossilhunters.com

#### FL Museum of Natural History

On Sunday, Oct. 26th, FLMNH had a Celebration Day for the "Megalodon: The Largest Shark That Ever Lived" exhibit. Our club took part and had 2 tables of shark fossils, etc. to wow and do educational outreach. The Sharpe family- Steve, Carol, Christopher, and Michael) along with Bonnie & myself did the outreach and all had a wonderful time. It's always a good time at FLMNH. If you haven't been up lately and are interested in going, check their website ( <a href="www.flmnh.ufl.edu">www.flmnh.ufl.edu</a>) for more info on the exhibits as well as upcoming events that you and your family may enjoy.

#### Fair Door Prizes

Thanks to Jim Tatum, PhD. of Paleo Enterprises for his gracious donations, not only for the Door Prizes this year, but also for the bringing a lot of scrap fossils for the Kids' Dig Pit. — Thanks, Jim.

#### The winners were:

Saber-cat Smilodon fatalis replica - Peggy Higgins Giant Bear-Dog jaw replica - Mane Green Congratulations from the Florida Fossil Hunters.

#### Marcia Wright - Our Award Winner

Each year the Howard Converse Award is presented to recognize and individual from the non-professional paleontological ranks who have made outstanding contributions to Florida paleontology. At the FPS Fall

meeting, our own Marcia Wright was awarded this prize. Marcia has volunteered an untold number of hours at the Museum as well as with the Florida Fossil Hunters and is extremely willing to share her extensive knowledge with others curious about the world. Congratulations, Marcia!





#### Saturday, Nov, 15th Meeting

Orlando Science Center, 777 E. Princeton Street , Orlando, Florida 32803 | Phone: 407.514.2000

Our speaker at the Nov. 15th meeting will be Dr. Bruce MacFadden, Distinguished Professor & Curator of Vertebrate Paleontology at Florida Museum of Natural History. His presentation will be on Megalodon: the largest shark that ever lived.

### His research interests have ranged far and wide, including

- Fossil vertebrates, stable isotopes, and global change, with emphasis on paleobiology, macroevolution, and paleoecology of Neogene mammals (particularly herbivores) of the Americas
- Diagenesis of fossil bones and teeth, including sharks and edentates
- Informal science education and broader impacts of natural history museums

#### Collection-related Activities

- Field work related to active collection-based research projects in Florida, Nebraska, Panama and South America
- Educational outreach to Florida fossil clubs

The Meeting at the Orlando Science Center, will start at 3 pm, after our Kids' Fossil Blast at 2 pm. Look for signs directing you to the meeting room.

REMEMBER: Parking in the OSC garage costs \$5 unless you are a member. There is free parking at the medical office building just west of OSC and near the theater. You do NOT have to pay admission to OSC just to attend the Fossil Club meeting.

#### National Fossil Day Report

October 4th at the South Florida Museum was this year's site for the annual National Fossil Day celebration in Florida. Not only did the Florida Fossil Hunters participate but a slew of others were set up with fossils and information as well. Roger Portell, Alex Kittle, Richard Hulbert and others from FLMNH, Harley Means with the Fl. Geological Survey, Paul Roth and a bunch of volunteers from FPS, Southwest Florida Fossil Society, and Fossil Club of Lee County had tables set up with fossils and answered questions and delighted the guests. Park rangers from DeSoto National Memorial held a Junior Paleontologist badge workshop. There was a kids' dig pit and vendors, too.

A big thank you goes out to the ones who set up this great event: Paul Roth III and Pam Plummer. They are both leaders in public outreach for all interested in our State's past.

- Russell Brown

#### Mineral, Gem, & Fossil Show

The Withlacoochee Rockhounds will be holding their annual show on Dec. 5, 6, &7, at a new venue: Veterans Memorial Park, 14333 Hicks Rd., Hudson, FL 34669.

Admission: Adults \$3, Teens \$1, kids 12 & under free.

Directions: From Central Florida, take 50 west to US 19. Turn left and go south for 21 miles. Then turn left onto New York Ave, which becomes Hicks Rd. as it curves around. For more info email Ralph at info@withlacoocheerockhounds.com

Mosaic Mine Dig, Saturday, December 6th This might be the only time that Mosaic will let us in this season.

To sign up, call Cindy Roll at 904-571-4258. or email her at croll59@cs.com
There are thirty spots...
no one under the age of 13 is permitted.

Once Cindy gets who the attendees are, she will email the waivers out to them and get them all the info on what to wear and bring. Mosaic won't let her know where we are going until right before the dig.

She will keep two sign up lists for the first two weeks - one for people who have never been to Mosaic and one for repeat offenders (ha ha)... after two weeks, if there are not enough newcomers to fill all the spots, she will take the repeat offenders in the order they signed up- this means that even the repeaters need to contact her asapif they want a better chance of going. This process seemed to work well last time.

If you have to cancel out of the trip, you must let her know as soon as possible... and absolutely no later than 3 days before the trip takes place - so we can let people on the waiting list have the opportunity to go. If you make no attempt to let her know you can not make the dig and just do not show up - you will not be allowed to sign up for the next dig.

Megalodon: Largest Shark that Ever Lived Exhibit Oct. 4, 2014 - Jan. 4, 2015, Florida Museum The largest shark ever known is returning to Gainesville! Be consumed with awe at Megalodon, the gigantic prehistoric shark that once cruised the world's oceans. Walk through the full-scale jaw of a 60-foot-long shark sculpture to learn the story of this fantastic ancient creature, including its size, structure, diet, lifespan, relatives, neighbors, evolution, extinction and new science that continues to reveal Megalodon's tale. The object-rich exhibit features fossil specimens from several collections and life-size, scale models of other fossil and modern sharks. Tooth-shaped display units include actual Megalodon fossils, and the exhibit is rich in hands-on,

See more at: <a href="http://www.flmnh.ufl.edu/calendar/grid/megalodon-celebration/?elD=1121#sthash.NRYu6hYA.dpuf">http://www.flmnh.ufl.edu/calendar/grid/megalodon-celebration/?elD=1121#sthash.NRYu6hYA.dpuf</a>



family friendly activities.

## **Groundhog of the Cretaceous**

A newly discovered 66-70 million-yearold groundhog-like creature, massive in size compared to other mammals of its era, provides new and important insights into early mammalian evolution. Stony Brook University paleontologist David Krause, PhD, led the research team that unexpectedly discovered a nearly complete cranium of the mammal, which lived alongside Late Cretaceous dinosaurs in Madagascar. The findings, which shake up current views on the mammalian evolutionary tree, will be published in the journal *Nature* on November 5.



"We know next to nothing about early mammalian evolution on the southern continents," said Dr. Krause, a SUNY Distinguished Service Professor in the Department of Anatomical Sciences at Stony Brook. "This discovery, from a time and an area of the world that are very poorly sampled, underscores how very little we know. No paleontologist could have come close to predicting the odd mix of anatomical features that this cranium exhibits."

The new fossil mammal is named Vintana sertichi. Vintana belongs to a group of early mammals known as gondwanatherians, which previously were known only from isolated teeth and a few scrappy jaw fragments. The well-preserved skull allows the first clear insight into the life habits and relationships of gondwanatherians.

"The discovery of Vintana will likely stir up the pot," added Krause. "Including it in our analyses reshapes some major branches of the 'family tree' of early mammals, grouping gondwanatherians with other taxa that have been very difficult to place in the past." The skull is huge, measuring almost five inches long, twice the size of the previously largest known mammalian skull from the entire Age of Dinosaurs of the southern supercontinent of Gondwana. At a time when the vast majority of mammals were shrew- or mouse-sized, living in the shadows of dinosaurs, Vintana was a super heavyweight, estimated to have had a body mass of about 20 pounds, twice or even three times the size of an adult groundhog. Adding to the intrigue is

the fact that the cranium of Vintana has a peculiar shape, being very deep, with huge eye-sockets, and long, scimitar-shaped flanges for the attachment of massive chewing muscles.

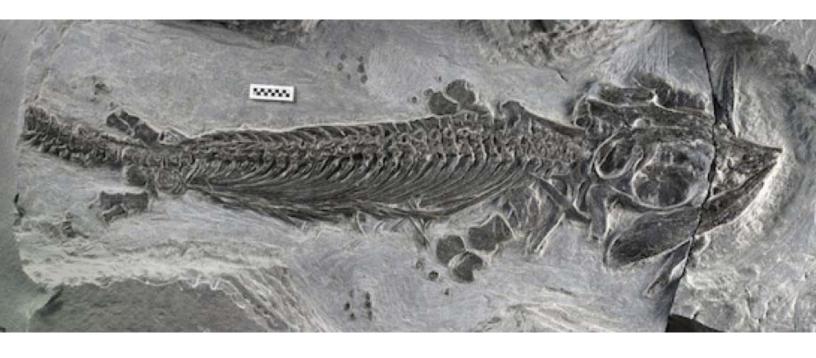
Various features of its teeth, eye sockets, nasal cavity, braincase, and inner ears revealed that Vintana was likely a large-eyed herbivore that was agile, with keen senses of hearing and smell.

Dr. Krause emphasizes that a major question remains for scientists: How did such a peculiar creature evolve?

With its long-term isolation from the rest of the world, Madagascar had been an island for over 20 million years prior to the time in which the strata containing Vintana were deposited. Dr. Krause and his team theorize that the very primitive features of the cranium are holdovers from when the ancient lineage that ultimately produced Vintana was marooned on the island. It was this isolation, first from Africa, then Antarctica/Australia, and finally the Indian subcontinent, that allowed for the evolution of unique and bizarre features amidst Vintana's primitive foundation of characteristics.

The research by Dr. Krause and colleagues on Vintana sertichi is supported by the National Science Foundation and the National Geographic Society.

For the entire article, go to http://www.sciencedaily.com/releases/2014/11/141105131904.htm



## **Ichthyosaur Missing Link**

The first fossil of an amphibious ichthyosaur has been discovered in China by a team led by researchers at the University of California, Davis. The discovery is the first to link the dolphin-like ichthyosaur to its terrestrial ancestors, filling a gap in the fossil record. The fossil is described in a paper published in advance online Nov. 5 in the journal Nature. The fossil represents a missing stage in the evolution of ichthyosaurs, marine reptiles from the Age of Dinosaurs about 250 million years ago. Until now, there were no fossils marking their transition from land to sea.

"But now we have this fossil showing the transition," said lead author Ryosuke Motani, a professor in the UC Davis Department of Earth and Planetary Sciences. "There's nothing that prevents it from coming onto land."

Motani and his colleagues discovered the fossil in China's Anhui Province. About 248 million years old, it is from the Triassic period and measures roughly 1.5 feet long.

Unlike ichthyosaurs fully adapted to life at sea, this one had unusually large, flexible flippers that likely allowed for seal-like movement on land. It had flexible wrists, which are essential for crawling on

the ground. Most ichthyosaurs have long, beak-like snouts, but the amphibious fossil shows a nose as short as that of land reptiles.

Its body also contains thicker bones than previously-described ichthyosaurs. This is in keeping with the idea that most marine reptiles who transitioned from land first became heavier, for example with thicker bones, in order to swim through rough coastal waves before entering the deep sea.

The study's implications go beyond evolutionary theory, Motani said. This animal lived about 4 million years after the worst mass extinction in Earth's history, 252 million years ago. Scientists have wondered how long it took for animals and plants to recover after such destruction, particularly since the extinction was associated with global warming.

"This was analogous to what might happen if the world gets warmer and warmer," Motani said. "How long did it take before the globe was good enough for predators like this to reappear? In that world, many things became extinct, but it started something new. These reptiles came out during this recovery.

## **VULCAN MINE** Field Trip

#### Vulcan Mine Field Trip near Brooksville

If you did not sign up at the September meeting, please call or email the trip leader at:

Saturday, **December 13th**Trip Leader: Steve Chambers,
Email: stchamb1@outlook.com

Cell number: 321-806-0763

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.

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.

THERE ARE
NO RESTROOM
FACILITIES AT VULCAN,

other than the boulders and the hills.

**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.

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.

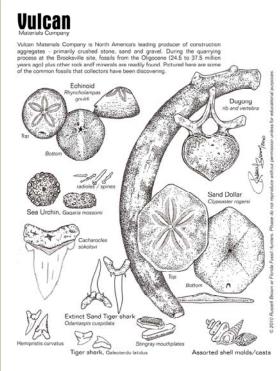
If you follow the truck route for Hwy. 50, you have to turn right onto 41, and then take the fork to the left to hook up with Ponce De Leon Blvd/98. There are several fast food places on 41 where you can take advantage of the bathroom facilities. Be sure NOT to keep following 41 north. You want to take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



Join Us December 13th

ID Sheet above is available on the field trip and website. floridafossilhunters.com/Field\_Trips.htm

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

## 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 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) 786-8844
Secretary	Bonnie Cronin	(352) 429-1058
Treasurer	Sara Morey	(619) 302-4863

Chairs:		
Education	Bonnie Cronin	(352) 429-1058
Field Trips	OPEN	
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
Membership	Bonnie Cronin	(352) 429-1058
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.co	om

#### **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	
Cindy Lockner	

## Membership Application

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

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: bonnierussell62 @gmail.com . Articles can be sent as text in the e-mail or in Microsoft Word files (.doc or .docx).

Please note in subject of email 'FFH'.

Florida Prehistorical Museum, Inc. dba/ Florida Fossil Hunters

## Florida Fossil Hunters Mark Your Calendar

#### Saturday, November 15th

2 pm Kids' Fossil Blast 3 pm Meeting & Bruce MacFadden, speaking about Megalodon! Founders Room at OSC on the 3rd floor

December 5, 6, & 7
Withlacoochee Rockhounds Show

Saturday, December 6th Mosaic Mine Dig

Saturday, December 13th Vulcan Mine

Saturday, December 20th 3 pm Meeting at OSC & Fossil Bucks Auction Oct. 4, 2014 - Jan. 4, 2015
Megalodon: Largest Shark that
Ever Lived Exhibit

#### Be Green

*Email* Bonnie at bonnierussell62@gmail.com to receive the newsletter via email.



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## Florida Fossil Hunters

Post Office Box 540404 Orlando, Florida 32854-0404



