# Florida Prehistorical Museum, Inc. dba/ Florida Fossil Hunters Volume 21, Number 9 October 2011

From the President....

#### The BIG Event is here... better than Christmas. It's time for the Fossil Fair!

This is the Florida Fossil Hunters' 20th Fossil Fair. Looking for a unique gift idea, have some extra money to burn, have fossils to be ID'd? Tell your friends, and come to the Fair and volunteer to help your club. Like clockwork each year, members - long-time and new, young and old - get together to host this event. No, it's not all work and the more members that pitch in, the more fun everyone has. There's Friday night pizza and during the event club members are asked to bring in yummies to share. Believe me, we may not have a mastodon there, but we could feed one! Even if you haven't signed up to volunteer, just show up and we'll put your hands to good use. Don't forget to bring your extra fossils for the Kid's Dig Pit, too. In addition to the fun, you'll earn Fossil Bucks to use at the club auction in December.

#### The vote is in.

I am pleased and honored to announce that the Florida Fossil Hunters will be starting to donate \$1,000.00 annually to the Florida Paleontological Society's Gary S. Morgan Award. Our club has come a long way through the years. Now having the money to do this, and publicizing this in the newsletter, and discussing it at meetings, the membership attending the September meeting voted "Yes" to donating to this Paleo-cause. If you want more information on the Gary S. Morgan Award, check out the FPS web page: <a href="http://floridapaleosociety.com/morgan-award/">http://floridapaleosociety.com/morgan-award/</a>

Thanks to everyone who helped us reach this goal. This is a huge step for our club, and it's because of you members that we keep moving forward, bettering ourselves and our club.

Hope I managed to answer some of your questions on shark teeth at our last meeting. If you find sharks teeth while out collecting, bring them in. I always enjoy seeing them..... and anything else you have found. Thanks to Bonnie, all the kids at the Kids' Fossil Blast and some new members got to string beads, wrap some shark's teeth, and make their very own necklace.

Chris DeLorey, Director of Education at the Brevard Zoo, will be our guest speaker at our meeting on November 19th. Chris will be speaking on dinosaurs, fossil hunting out west, and collecting at other locations. He knows his animal bones so you can try to stump him if you have anything to identify. He's sure to bring so interesting things for us to check out as well as info on the special dinosaur event

at the Zoo in 2012.

Russell Brown, President

2011

FOSSIL FAIR
October 8th and 9th
Check out page 3
for more information

#### Coming Events

UPCOMING MEETINGS at the Orlando Science Center

#### **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

More events listed on back page

For more info... www.floridafossilhunter.com

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#### Fragments

#### Orlando Science Center

The Orlando Science Center wants to improve and expand the Florida Fossil display that Russell & I have on loan to them. They have set aside a large hallway outside the Dino Digs as our area. We are excited about this opportunity to further the partnership of the Florida Fossil Hunters and the Science Center in educating the public - especially children - about Florida's rich fossil and geologic history. And they emphasized that they want us to include information about our organization.

They have generously offered to print up whatever material we want for visual aids and conveying information. Be sure to check out the 4th floor as this project progresses.

#### Neanderthal Ball

The Science Center's big party and fundraiser will be on Saturday, November 5th, from 7 to 11 pm. Dress code is cocktail fun with an accent on "caveman couture". There is wonderful food and music and it's an enjoyable way to support science education. Dave Dunaway, Valerie First, Russell, and I will provide some of the "entertainment" with displays and information on Florida's fossils and our club.

Tickets are \$125.00 per person. For more information, check out their website at www.osc.org

#### Mineral & Gem Show

The Central Florida Mineral & Gem Society will have their annual show at the Central Florida Fairgrounds Nov. 11th - 13th. The hours are: Friday, 1-6 pm; Saturday, 10 am - 6 pm; Sunday, 10 am - 5 pm. Cost is \$5 for adults and \$2 for seniors and students.

The vendors will have an assortment of rough minerals as well as polished specimens and gems and jewelry. There are activities for kids, too. For more info check out their website: www.cfmgs.org

# Kids' Fossil Blast

Kids (including some very tall ones) got to make shark teeth into necklaces in September.

Our next kids' program will be on Saturday, November 19th, at 2 pm. We will explore the reptile kingdom and what makes them different from dinosaurs and mammals.

#### FI. Paleontology Society

This is a statewide organization of fossil enthusiasts, professional and amateur, associated with the Florida Museum of Natural History. There are two meetings a year at various locations which include presentations, auctions, and usually a fossil hunting field trip. It's a great way to expand your knowledge and connect with like-minded folks. For more information check out their web-

site: <a href="www.floridapaleosociety.com">www.floridapaleosociety.com</a> or stop by their table at our Fossil Fair.

#### Brevard Zoo

The Brevard Zoo will be having a special Dinosaur exhibit in 2012. Meanwhile the Zoo continues to be a great place to see and learn about a wide assortment of unique animals, some of which used to live in Florida but have since gone extinct here: llamas, tapirs, peccaries, etc. Their newest addition is a splash and play area for younger kids that offers opportunities to become acquainted with the animal world.

For more information, go to www.brevardzoo.org

#### Mulberry Phosphate Museum

This little museum tucked away in the City of Mulberry houses some very interesting fossils from the area known as Bone Valley. (Sara highly recommends it!) It is open Tuesday through Saturday from 10 am to 4:30 pm. It is located on State Hwy. 37, just one block south of Hwy. 60. For more information, call the City at 863-425-2823.

#### Daytona Beach Museum of Arts & Sciences

For all of you that find it hard to visualize a sloth taller than most rooms, a visit to Daytona Beach can give you a great perspective on size. They have a 13 ft tall skeleton of Eremotherium laurilardi from the Pleistocene found in the Daytona Bone Bed in 1975. For more info on hours, etc., go to <a href="https://www.moas.org">www.moas.org</a>

#### OSC 2012 Fossil Fest

Mark your calendars for Saturday, March 17, 2012 - The Orlando Science Center has set the date for their 6th annual Fossil Fest. Our club has been partnering with the Science Center for this event for the past few years and it's been a great way to recruit new members as well as acquainting people about fossils.



## 2011 FOSSIL FAIR

Saturday, October 8 and Sunday, October 9 Central Florida Fairgrounds

#### Fossil Fair T-shirts

If you ordered shirts, you can pay for them and pick them up at the membership table at the Fossil Fair. Checks should be made out to:

Florida Fossil Hunters. Of course, we accept cash, too.

#### Fossil Fair 2011 - Share the News

Be sure to pass out flyers to your friends, your kid's class-

mates, and post them where you can.

You can download a copy from our



# The 20th Fossil Fair How you can help!

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 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 <a href="mailto:info@floridafossilhunters.com">info@floridafossilhunters.com</a> or call Sara.

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

#### Florida Museum of Natural History

If you have never been to this museum, you need to make it a priority to go soon. It has a fantastic display of Florida's fossils broken down by Epochs along with geologic information. There is also a great exhibit on the Indians of Florida. A special touring exhibit, "Cruisin' the Fossil Freeway" featuring the art of Ray Troll as well as some fossils that inspired his work, will run from Feb. 4th to Sept. 3, 2012.

It is open everyday except for Thanksgiving & Christmas from 10 am to 5 pm, except for Sundays when they are open 1 to 5 pm. Admission is free for the regular exhibits but they do ask for a donation of \$6 for adults and \$4 for children. There are extra charges for special exhibits and the Butterfly Rainforest.

There is a \$4 charge for parking Monday through Friday. Parking is free on the weekends and state holidays.

The address is SW 34th Street & Hull Rd. in Gainesville and their phone # is <u>352-846-2000</u>.

The Museum is renowned world-wide for its research and collections. It ranks among the top five natural history museums in the country! Check the website periodically to see the latest discoveries. It also has pictures of vertebrate & invertebrate fossils to help you identify your finds. - <a href="https://www.flmnh.ufl.edu/">www.flmnh.ufl.edu/</a>

#### Thomas Farm Volunteer Dig, Fall 2011

The Div. of Vertebrate Paleontology at the FI. Museum of Natural History is seeking volunteers to work with Museum staff & students at a fossil dig at the famous Thomas Farm site in Gilcrest County. There will be two 10-day-long sessions: the first from Oct. 21st - 30th; and the second from Nov. 11th - 20th. Digging hours are from 9 am to 5 pm. Volunteers are expected to work a minimum of 3 hours per day and can sign up for multiple days. In addition to digging, volunteers are also expected to spend time screen-washing sediment to recover bones and teeth of small animals.

No previous experience is necessary; they will train you.

Volunteers must be at least 15 yr. old, be in good enough physical condition to walk up & down stairs, and spend at least 3 hrs outdoors working. Camping is available on site for a fee.

All fossil specimens collected become the property of the Fl. Museum of Natural History.

This is a great way to experience the fine art of fossil excavating and to share in the thrill of discovery. For more information and to submit your application, go to <a href="https://www.flmnh.ufl.edu/vertpaleo">www.flmnh.ufl.edu/vertpaleo</a> and click on the link on the page for the 2011 Fossil Dig.

# Tree Resin Captures Evolution of Feathers On Dinosaurs and Birds

ScienceDaily (Sep. 16, 2011) — Secrets from the age of the dinosaurs are usually revealed by fossilized bones, but a University of Alberta research team has turned up a treasure trove of Cretaceous feathers trapped in tree resin. The resin turned to resilient amber, preserving some 80 million-year-old protofeathers, possibly from non-avian dinosaurs, as well as plumage that is very similar to modern birds, including those that can swim under water.

U of A paleontology graduate student Ryan McKellar discovered a wide range of feathers among the vast amber collections at the Royal Tyrrell Museum in southern Alberta. This material stems from Canada's most famous amber deposit, near Grassy Lake in southwestern Alberta.

The discovery of the 11 feather specimens is described as the richest amber feather find from the late Cretaceous period. The amber preserves microscopic detail of the feathers and even their pigment or colour. McKellar describes the colours as typically ranging from brown to black.

No dinosaur or avian fossils were found in direct association with the amber feather specimens, but McKellar says comparison between the amber and fossilized feathers found in rock strongly suggest that some of the Grassy Lake specimens are from dinosaurs. The non-avian dinosaur evidence points to small theropods as the source of the feathers.

Some of the feather specimens with modern features are very similar to those of modern birds like the Grebe, which are able to swim underwater. The feathers can take on water giving the bird the ballast required to dive more effectively.

McKellar says the Grassy Lake find demonstrates that numerous evolutionary stages of feathers were present in the late Cretaceous period and that plumage served a range of functions in both dinosaurs and birds.

The U of A team's research was published September 15, in the journal *Science*.

Ryan C. Mckellar, Brian D. E. Chatterton, Alexander P. Wolfe, Philip J. Currie. A Diverse Assemblage of Late Cretaceous Dinosaur and Bird Feathers from Canadian Amber. Science, September 15, 2011 DOI:10.1126/science.1203344

### Ancient Crocodile Competed With Titanoboa, World's Largest Snake, for Food, Paleontologists Discover

ScienceDaily (Sep. 16, 2011) — Did an ancient crocodile relative give the world's largest snake a run for its money?

In a new study appearing Sept. 15 in the journal *Palaeontology*, University of Florida researchers describe a new 20-foot extinct species discovered in the same Colombian coal mine with Titanoboa, the world's largest snake. The findings help scientists better understand the diversity of animals that occupied the oldest known rainforest ecosystem, which had higher temperatures than today, and could be useful for understanding the impacts of a warmer climate in the future.

The 60-million-year-old freshwater relative to modern crocodiles is the first known land animal from the Paleocene New World tropics specialized for eating fish, meaning it competed with Titanoboa for food. But the giant snake could have consumed its competition, too, researchers say.

"The younger individuals were definitely not safe from Titanoboa, but the biggest of these species would have been a bit much for the 42-foot snake to handle," said lead author Alex Hastings, a graduate student at the Florida Museum of Natural History and UF's department of geological sciences.

The new species is a dyrosaurid, commonly believed to be primarily ocean-dwelling, coastal reptiles. The new adult specimens challenge previous theories the animals only would have entered freshwater environments as babies before returning to sea.

Fossils of a partial skeleton of the species, Acherontisuchus guajiraensis, show dyrosaurids were key players in northeastern Colombia and that diversity within the family evolved with environmental changes, such as an asteroid impact or the appearance of competitors from other groups, said Christopher Brochu, an associate professor of vertebrate paleontology in the department of geoscience at the University of Iowa, who was not involved in the study.

"We're facing some serious ecological changes now," Brochu said. "A lot of them have to do with climate and if we want to understand how living things are going to respond to changes in climate, we need to understand how they responded in the past. This really is a wonderful group for that because they managed to survive some catastrophes, but they seemed not to survive others and their diversity does seem to change along with these ecological signals."



Top left: University of Florida researchers Jonathan Bloch, left, and Alex Hastings unearth fossils from the 60-million-year-old Cerrejon formation in northeastern Colombia, one of the world's largest open-pit coal mines. Top right: Hastings displays a pelvic bone of Acherontisuchus guajiraensis, a 60million-year-old ancestor of crocodiles discovered at the same site in northeastern Colombia as Titanoboa, the world's largest snake. Other fossils pictured include portions of the lower and upper jaw, as well as teeth, a rib and toe. Bottom: This illustration shows how Acherontisuchus guajiraensis would have looked in its natural setting. Titanoboa, the world's largest snake, is pictured in the background. (Credit: Top left: Florida Museum of Natural History photo by Edwin Cadena / Top right: Florida Museum of Natural History photo by Kristen Grace / Bottom: Florida Museum of Natural History illustration by Danielle Byerley)

The species is the second ancient crocodyliform found in the Cerrejon mine of northern Colombia, one of the world's largest open-pit coal mines. The excavations were led by study co-authors Jonathan Bloch, Florida Museum associate curator of vertebrate paleontology, and paleobotanist Carlos Jaramillo of the Smithsonian Tropical Research Institute.

"This one is related to a group that typically had these long snouts" Hastings said. "It would have had a relatively similar diet to the other (coastal) species, but surprisingly it lived in a more freshwater environment."

Continued page 6



#### Ancient Crocodile continued from page 5

The genus is named for the river Acheron from Greek mythology, "the river of woe," since the animal lived in a wide river that emptied into the Caribbean. Unlike the first crocodile relative found in the area, which had a more generalized diet, the snout of the new species was long, narrow and full of pointed teeth, showing a specialization for hunting the lungfish and relatives of bonefish that inhabited the water.

"The general common wisdom was that ancestrally all crocodyliforms looked like a modern alligator, that all of these strange forms descended from a more generalized ancestor, but these guys are showing that sometimes one kind of specialized animal evolved from a very different specialized animal, not a generalized one," Brochu said. "It's really showing s a level of complexity to the history that 10 years ago was not anticipated."

During the Paleocene in South America, the environment was dominated by reptiles, including giant snakes, turtles and crocodiles. The dyrosaurid family originated in Africa about 75 million years ago, toward the end of the age of dinosaurs, and arrived in South America by swimming across the Atlantic Ocean.

"The same thing that snuffed out the dinosaurs killed off most of the crocodiles alive at the time," Hastings said. "The dyrosaurids are one of the few groups to survive the extinction and later become more successful."

#### Vulcan Mine, September Trip Report

In September Vulcan Mine in Brooksville opened back up for collecting. The Mine will be open on the 2nd Saturday each month for schools, clubs, & scout groups to collect fossils and rock specimens.

Saturday, Sept. 10th, the weather was good and a large crowd of fossil hunters met at the front of the mine for sign-in. After Alan Pagel from Vulcan Materials guided everyone down the muddy, bumpy roads and gave the short safety talk, we all scattered in different directions to hunt. Rain had washed a lot of areas during the summer and everyone found plenty of echinoids. Actually, more of the rarer sea urchins were found than on any other trip I've been on. Saw a barracuda tooth, some dugong rib pieces, shell molds, and crystals among people's finds.

One person (from Tampa Bay area, I believe) found a 1-1/2 inch, strange tusk-like shell. It was calcified and had small spines or barbs on it.

Vulcan Mine has always been very thoughtful and generous about letting fossil hunting on their property. Thanks to mining companies like them, people get to experience fossil collecting and the unique animal & plant life first hand. This is something you can't get from a book about it or going on-line.

Special thanks to Alan and Vulcan Materials for these opportunities. Needless to say..... Vulcan Mine, I'll be back. Russell BrownPresident

#### **Vulcan Field Trip**

There will be a field trip to Vulcan Mine near Brooksville on Saturday, November 12th and the Trip Leader, contact Dave Dunaway, ph# 407-493-4253. 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.

#### 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) 493-4253
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) 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	(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:**

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

#### 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

#### 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@liseydreams.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

#### October 8 & 9 - Fossil Fair

October - No club meeting

October 12, 2011
National Fossil Day

November 5, 2011

OSC Neanderthal Ball

November 11, 12, & 13, 2011 Central Fl. Mineral & Gem Show

November 12, 2011 **Vulcan Mine Field Trip** 

November 19, 2011

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

December 3, 2011 Lee Co. Fossil Club Show

December 10, 2011 Vulcan Mine Field Trip

December 15, 2011
6 pm FFH Holiday Party & Auction

#### **Be Green**

Email Bonnie at bjrb48@netzero.com to receive the newsletter via email.



Join Our Facebook group, Search: Florida Fossil Hunters



Visit us online at www.floridafossilhunters.com

Articles and comments should be sent to: elise@liseydreams.com

#### Florida Fossil Hunters

Post Office Box 540404 Orlando, Florida 32854-0404



