

NEWS

Florida Fossil Hunters



Volume 16, Number 4

April 2006

Big Discovery In Orlando

The Florida Department of Transportation contacted Bonnie and I last Friday morning, April 1, stating that they had hit a huge bone bed and shell layer and asked if we could come out and see what exactly they'd dug through.

We proceeded to the site, just off the 429 and Hwy. 50, going down a small dirt road no bigger than a trail and pulled into an area where a pond the size of several acres was being dug. There were several large piles of shells with blackish-looking sticks and logs poking through them. Getting closer we realized that the "sticks" were all fossilized bones. "My God", I thought. There were leg bones and jaws...large and small, some broken, some complete. It looked like "Cockroach Bay" reincarnated.

The foreman said we could get as much material out as possible in the next two months until they had to resume work in that part to complete their job on time. In just two hours we set out three mammoth jaws and tusks. The largest tusk is just under 14 feet! The teeth are a caramel-pink and the prettiest that I have ever seen. Camel, horse, and tapir were the most common mammals. Several sloth cores and bones came from the side of the pond. The carnivores that I could ID look like large lion teeth and maybe some Dire Wolf.

There are more bones than you could conceivably look through.....to move a bone, you have to dig out 5 or 6 other bones to free it up. I believe the bone layer is about 8 to 9 feet thick and about 70 yards long.

The foreman said he'd let anyone in to collect as much as they like as long as you obey the safety rules. I advise you to bring a large vehicle.

Good luck.

Russell Brown

P.S. Happy April Fools. See you at the meeting.

Coming Events

April 7th, 8th and 9th:
Venice Shark Tooth Festival

April 19th:
6:00pm Kids' Blast
7:00pm Meeting

April 22nd: Fossil Trip Aurora, NC

April 29th: Behind the Scene at
Daytona Beach Museum of Art &
Natural History

May 6-7th: Annual Fossil Hunt &
Camping Trip

May 17th:
7:00pm Meeting

June 21st:
6:00pm Kids' Blast
7:00pm Meeting
Watch for info on meeting location.

Table of Contents

Fragments	2
Kids FossilBlast	2
Field Trips	3
Annual Fossil Hunt and Camping Trip	3
The Tapir Challenge Continues	4
Membership Application	6
Mass Extinctions: A Threat From Outer Space Or Our Own Planet's Detox?	7
Calendar	8

Fragments

Fossil Talks for the Library

We have received a request from the Orange County Library for fossil presentations this summer. If you are interested in giving one, contact Katherine Puller, in the Community Relations Dept. of the Orange County Library at 407-835-7493 or email: puller.katherine@ocls.info

Correction

The item on Apollo Beach in the last issue: The Ramada Inn has been razed and there's an empty lot there now, fenced in so you no longer have access to the beach at that point. Too bad!

Beach access at the small public park at the end of the street to the north occasionally yields sharks teeth and some other small fossils, but it usually takes a good storm across the Bay to stir them up.

Thank you for submitting this Andy & Yvonne Kerek

Spreading the news.....

Fossil news, that is.

I set up a couple tables of fossils and information on the club at Rock Springs Park for Dr. Kelly Day there on Saturday, March 25th. For a while it looked like the only people who would come by to look would be the Indian dancing group from the neighboring exhibit. But as the day went on, some people trickled down to the waterside where they had assigned me and stopped by to see what those strange things were. I soon was explaining all about saber-cats, sloths, glyptodonts, tiny horses, terror birds and all of the wonders of Florida's past.

I have come to truly appreciate the animated movie "Ice Age" as a teaching tool. Although it does not stick to actual facts, it does make explaining what a mammoth is to a 4 yr. child easier. I'm actually looking forward to seeing the sequel. Guess I'm just a kid at heart. (wish I had a kid's knees, too.)

Anyway, it was tiring but fun and very satisfying. Russell did all the hard work of packing up the fossils and putting them away. I got the glory part.

Venice Shark Tooth Festival

The Annual Shark Tooth and Seafood Festival in Venice will be held this year on April 7th through April 9th. This festival is a lot of fun and includes shark tooth and fossil vendors and well as artisans and crafts and good food. There are special exhibits and activities for the kids and you can take this opportunity to hunt for sharks teeth on the beach. Who could ask for more?

The festival is held near the municipal airport across from Sharkey's Pier. There is a small fee to get into the festival (can't remember exactly how much but I think it's \$3). Hours are as follows:

Friday, April 7th: 5 pm to 9 pm

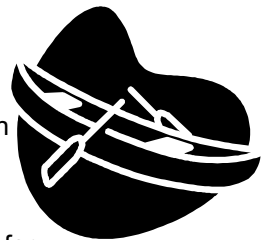
Saturday, April 8th: 10 am to 9 pm

Sunday, April 9th: 10 am to 5 pm

For directions see the article on fossil hunting at Venice Beach.

A Piece on the Peace

This drought is awful. The grasses are all brown and the danger of brush fires is up. That being said.....I can't help but rejoice a bit because the Peace River is very low - just above 4 ft. at the Zolfo Station - and perfect for us fossil diggers. If you don't get to go this season, you have no one but yourself to blame. If you don't have a canoe, rent or borrow one. Take provisions for the day and your shovel and sifter and find those treasures!

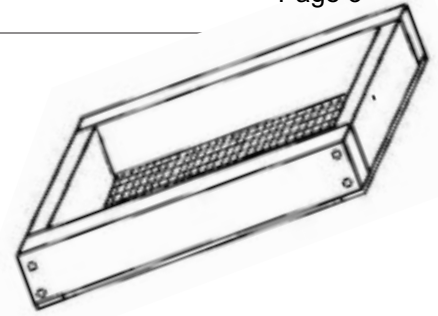


Kids' Fossil Blast

What's 5 ft. tall, 10 ft. long, weighed one ton and came from South America? Come to the meeting at 6 pm on Wed., April 19th and find out!

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 pm in the cafeteria at Lee Middle School before our regular club meeting.

Field Trips



Annual Overnight Peace River Canoe & Camping Trip

Dates: Saturday, May 6th and Sunday, May 7th

Trip Leader: Dave Dunaway (ph. 407/786-8844 between 7 pm and 9 pm)

Location: Peace River at Bowling Green south of Payne Creek Historic Park. We will camp on the island in the river and dig one bend south of the island.

Directions: Take Hwy. 17 south through Winter Haven, Eagle Lake, Bartow, & Ft. Meade. In Bowling Green look for the sign for Payne Creek park at traffic light and turn left at the light and go past park. Before bridge pull off on dirt track and meet under the bridge to put in.

Canoe Renters: If you need to rent a canoe call Peace River Canoes at 863/773-6370.

Day Trippers(with own canoes): Meet under the bridge at 8 am either Saturday or Sunday. Leave your vehicle parked by the bridge. Paddling one way without a motor takes about one hour.

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 swim suits, 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.

Sign up at the April meeting or call Dave Dunaway for further information.

Fossil Trip to Aurora, N.C.

There will be a trip into the Aurora, N.C. fossil mine on Saturday, April 22, 2006. There are also several other fossiling places nearby that are available to make it a longer fossiling weekend. For those unfamiliar with this mine, it is one of the places famous for large megalodon shark teeth, among other things. There is also a wonderful museum in the town along with piles of material from the mine to search through.

Participants must be 18 years or older, wear long pants, full shirts, steel-toed boots and hard hats. You will be

taken into the mine by bus at 7:30 am and brought out around 3 pm.

There will be sign-up sheets at the April meeting. In the event that more people sign up then there are slots for, names will be drawn. **You need to have a Photo ID with you for when you sign the liability waivers**

For more information email Marge Fantozzi at mfantozzi@aol.com or call her at 407-295-3891.

FLORIDA MUSEUM OF NATURAL HISTORY, DIVISION OF VERTEBRATE PALEONTOLOGY

Spring 2006 – The Tapir Challenge Continues

Volunteer Fossil-Diggers Wanted!

The Division of Vertebrate Paleontology of the Florida Museum of Natural History will conduct a major fossil excavation from April through early May 2006 in north-central Florida. The site we will work was discovered in 2005 in a limestone quarry northeast of the town of Newberry in western Alachua County. About 150 volunteers worked at this site, called Haile 7G, in the fall of 2005 and collected many thousands of fossils.

Haile 7G produces fossil bones and teeth of about 30 different kinds of freshwater and land animals. Some are preserved as intact (or nearly so) skeletons, others are isolated bones or teeth without an association with other specimens. Common mammals at the site are a two types of ground sloth, one small and one very large, a tapir, and a large armadillo-like animal (

[click here](#) for a list of the entire fauna). The fossils are estimated to be about 2 million years old, from what geologists call the Pliocene Epoch. This is an especially interesting time in Florida's prehistory, as new arrivals from South America, such as sloths, armadillos, porcupines, and capybaras, were adapting to live among resident species of horse, tapir, llama, peccary, mastodon, and others. Another reason the Haile 7G fossils are scientifically significant is that they represent the entire life span of the common species, from those that died at a very young age, soon after birth, all the way to fully mature adults.

WHEN

From April 4 through May 13, we will work Tuesday through Saturday.

[Click here](#) for the exact digging schedule. Field work will begin at 9 AM and continue to about 4:30 PM (except for May 9-12, when we will not work in the afternoon).

Because private vehicles are not allowed in the quarry, volunteers will be instructed to park in a designated location, and we will transport you to the fossil site and then back to your car. Volunteers can elect to sign up for a morning shift (work from about 9 to 12), an afternoon shift (from about 1 to 4:30), or the full day. You can volunteer for a single day, a block of days, or whatever days fit your schedule.

We will attempt to reschedule volunteers in case of rained-out days, but cannot guarantee that will be possible.

WHERE

The fossil site is located about 2 miles northeast of Newberry, a short distance off Newberry Road. It is approximately a 30 to 45 minute drive from Gainesville, depending on traffic. Detailed directions to the parking location will be provided to all volunteers after we receive their application form.



(Photo by Erika Simons)

WHAT

Volunteers will be digging along side Florida Museum of Natural History staff and UF graduate students. Normally small hand tools are used, such as screwdrivers and trowels, to carefully dig through the clay and to expose the fossil bones. If intact and sturdy, the bones will be removed and placed into plastic bags. If fragile, you will dig around the specimen and then make a plaster jacket (see picture below) around the specimen, which will hold it together as we transport it back to museum laboratory. No previous experience is necessary; we will train you on your first day if you have not worked on one of our past fossil digs.

WHAT IS THE TAPIR CHALLENGE?

Tapirs are hoofed, plant-eating mammals distantly related to horses and rhinos. They have bodies somewhat proportioned like pigs, and their nose has been modified into a small trunk. Today tapirs live in southern Central America, South America, and southeastern Asia. Modern tapirs are classified into four species, and all of them are placed in a single genus, *Tapirus*. *In the past, Tapirus had a wider distribution, inhabiting China, Europe, and much of North America.*

The first fossil skull of Tapirus found in North America was recovered near Vero Beach, Florida in 1917. In the almost 90 years since then, many hundreds, if not thousands, of fossils of Tapirus have been found in Florida, including several more skulls and many upper and lower jaws. The fossil record shows that Tapirus lived in Florida almost continuously for about 9 million years, until it became extinct here and the rest of the United States about 11,000 years ago. More fossils of Tapirus have been found in Florida than any other region of the world.

A fossil site in eastern Tennessee that was found in 2000 during highway construction has challenged one of Florida's claims of fossil tapir superiority, having the fossil site that has produced the largest number of individuals of *Tapirus*. *Florida's Love Bone Bed site, located near the town of Archer, previously held that record, with a minimum of 24 individuals. The Gray Fossil Site in Tennessee has produced several dozen individuals, and collecting there continues, so that number will only increase.*

By the end of 2005, the number of individuals of Tapirus collected at Haile 7G is 21; of those 14 were found during

the Fall 2005 Tapir Challenge. As only a very small percentage of the total volume of the site was excavated, it has the potential to rival or even exceed the number of individuals at Tennessee's Gray Site. So, our challenge this spring is to to reclaim Florida's tapir superiority from Tennessee!

REQUIREMENTS

Minimum age for regular volunteers is 18 (this age limit was set by the mine management, and we **can not make any exceptions**). **Volunteers need to be of at least moderate physical fitness and be able to work outdoors for extended periods, often when temperatures are high. For insurance purposes, volunteers must sign a liability waiver and become official museum volunteers. All fossil specimens collected during the excavations become the property of the Florida Museum of Natural History.**

HOW TO APPLY

If you did not work with us last fall, we will begin accepting applications from new volunteers on March 16. Go to this web page for an application form (pdf file). Before filling out the form, check here to learn on which days and sessions there are available positions.

Those who worked with us on last Fall's 2005 Tapir Challenge **do not have to fill out a new application form. Starting March 1, you can simply email** Art Poyer (apoyer@flmnh.ufl.edu) and inform him which days and which session (morning, afternoon, or all day) you want to work at the fossil site.

DONATIONS

This fossil dig is funded primarily by donations, which are used to purchase tools, supplies, and gasoline. The budget we receive from the state is insufficient to pay for this type of operation. Donations in any amount can be included with your application, or mailed separately to Richard Hulbert, Dickinson Hall, University of Florida, Gainesville FL 32611-7800. Make checks out to "University of Florida Foundation". Donations are tax deductible.

Return to the Vertebrate Paleontology Home Page

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, Lee Middle School Cafeteria (Maury Road, two blocks West of Edgewater Drive, Orlando).

Officers:

President	Dave Dunaway	(407) 786-8844
Vice President	Paul Bordenkircher	(407) 687-3843
Secretary		
Treasurer	Sara Morey	(407) 834-0281

Chairs:

Education	Melissa Cole	(407) 834-5615
Field Trips	Shelley Zimmerman	(407) 891-1260
Fossil Fair		
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	Bob Angell	(407) 277-8978
Membership	Sharon Lynes: momba10@aol.com	
Newsletter	Bonnie Cronin	(352) 429-1058
	Elise Cronin-Hurley	(407) 929-6297
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Webmaster	Elise Cronin-Hurley	(407) 929-6297
	elise@lisedreams.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

Florida Fossil Hunters

Membership Application

Names: _____

Associate Members: _____

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

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

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

Mass Extinctions: A Threat From Outer Space Or Our Own Planet's Detox?

Earth history has been punctuated by several mass extinctions rapidly wiping out nearly all life forms on our planet. What causes these catastrophic events? Are they really due to meteorite impacts? Current research suggests that the cause may come from within our own planet – the eruption of vast amounts of lava that brings a cocktail of gases from deep inside the Earth and vents them into the atmosphere.

University of Leicester geologists, Professor Andy Saunders and Dr Marc Reichow, are taking a fresh look at what may actually have wiped out the dinosaurs 65 million years ago and caused other similarly cataclysmic events, aware they may end up exploding a few popular myths.

The idea that meteorite impacts caused mass extinctions has been in vogue over the last 25 years, since Louis Alvarez's research team in Berkeley, California published their work about an extraterrestrial iridium anomaly found in 65-million-year-old layers at the Cretaceous-Tertiary boundary. This anomaly only could be explained by an extraterrestrial source, a large meteorite, hitting the Earth and ultimately wiping the dinosaurs – and many other organisms - off the Earth's surface.

Professor Saunders commented:

"Impacts are suitably apocalyptic. They are the stuff of Hollywood. It seems that every kid's dinosaur book ends with a bang. But are they the real killers and are they solely responsible for every mass extinction on earth? There is scant evidence of impacts at the time of other major extinctions e.g., at the end of the Permian, 250 million years ago, and at the end of the Triassic, 200 million years ago. The evidence that has been found does not seem large enough to have triggered an extinction at these times."

Flood basalt eruptions are – he says - an alternative kill mechanism. These do correspond with all main mass extinctions, within error of the techniques used to determine the age of the volcanism. Furthermore, they may have released enough greenhouse gases (SO₂ and CO₂) to dramatically change the climate. The largest flood basalts on Earth (Siberian Traps and Deccan Traps) coincide with the largest extinctions (end-Permian, and end-Cretaceous). "Pure coincidence?", ask Saunders and Reichow.

While this is unlikely to be pure chance, the Leicester researchers are interested in precisely what the kill mechanism may be. One possibility is that the gases released by volcanic activity lead to a prolonged volcanic winter induced by sulphur-rich aerosols, followed by a period of CO₂-induced warming.

Professor Andy Saunders and Dr. Marc Reichow at Leicester, in collaboration with Anthony Cohen, Steve Self, and Mike Widdowson at the Open University, have recently been awarded a NERC (Natural Environment Research Council) grant to study the Siberian Traps and their environmental impact.

The Siberian Traps are the largest known continental flood basalt province. Erupted about 250 million years ago at high latitude in the northern hemisphere, they are one of many known flood basalts provinces - vast outpourings of lava that covered large areas of the Earth's surface. A major debate is underway concerning the origin of these provinces –including the Siberian Traps - and their environmental impact.

Using radiometric dating techniques, they hope to constrain the age and, combined with geochemical analysis, the extent, of the Siberian Traps. Measuring how much gas was released during these eruptions 250 million years ago is a considerable challenge. The researchers will study microscopic inclusions trapped in minerals of the Siberian Traps rocks to estimate the original gas contents. Using these data they hope to be able to assess the amount of SO₂ and CO₂ released into the atmosphere 250 million years ago, and whether or not this caused climatic havoc, wiping out nearly all life on earth. By studying the composition of sedimentary rocks laid down at the time of the mass extinction, they also hope to detect changes to seawater chemistry that resulted from major changes in climate.

From these data Professor Saunders and his team hope to link the volcanism to the extinction event. He explained:

"If we can show, for example, that the full extent of the Siberian Traps was erupted at the same time, we can be confident that their environmental effects were powerful. Understanding the actual kill mechanism is the next stage....watch this space."

More information is available from the website:
<http://www.le.ac.uk/gl/ads/SiberianTraps/Index.html>

Mark Your Calendar

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Visit our website www.floridafossilhunters.com

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

Florida Fossil Hunters

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Florida Fossil Hunters News