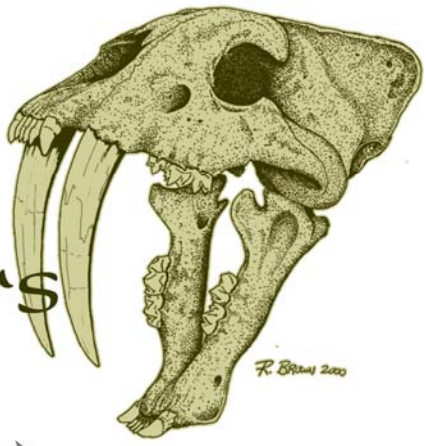
NEWS
Florida Fossil Hunters



Volume 20, Number 5 May 2010

Prez Sez

Before I begin, I'd like to say thank you to all of you who made the journey to join us at our April meeting. The last few months have seen rapidly increasing attendance at our meetings, and I believe heartily that this is due to the changes we've brought about, and all the new fun that we've been having lately! With several terrific speakers (including our own V.P., the inimitable **Russell Brown**) and extra activities for our all, there's never been a better time to be a Fossil Hunter!

Before we rallied around the Bald Eagle as our national symbol, another proud and majestic beast was seen as the mighty mascot for our young country: Our own local Columbian Mammoths.

A work colleague passed me a copy of last month's *Smithsonian* magazine with special attention to the article "***Mammoths & Mastodons: All American Monsters.***" You can easily find it at Smithsonianmag.com, and I suggest that you read through it. It's a great story, featuring a truly patriotic social commentary by the famous paleontologists on the fronts of our money--particularly **Ben Franklin** and **Thomas Jefferson**.

I won't spoil much of it, but the antagonist of the article is one **Georges-Louis Leclerc**, Comte de Buffon, the French naturalist, who called out the shiny new muscle car we call America on the basis of our fossil record. He described species in the New World—including humans—as puny and degenerate. “No American animal can be compared with the elephant, the rhinoceros, the hippopotamus,”

Clearly offended, Thomas Jefferson *(who stood 6-foot-2)* constructed elaborate tables comparing American species with their puny Old World counterparts—three-and-a-half pages of bears, bison, elk and flying squirrels going toe-to- toe. He wrote that the mammoth, “the largest of terrestrial beings,” should have “stifled in its birth” Buffon’s notion “that Nature is less active, less energetic on one side of the globe than she is on the other." In the early 1780's, Jefferson even sailed to Paris to represent the new U.S. of A., and packed with him the skins of "uncommonly large" panthers and moose, for several personal visits to Buffon. I imagine these scenes occurring like the good parts of any **John Wayne** or **Lee Marvin** movie, but with powdered wigs. Then, when its all over, we'll go buy a large order of "Potato Tusks" (instead of *French Fries*.) I'll also be buying these fries with nickels and $2.00 Bills from here on out--just to get extra points for Ol' TJ. No no, *you* keep the change.

And speaking of change, I'm very proud to announce that our meeting this month is taking place at *Pioneer Park* in *Zolfo Springs*, along the timeless coast of the beautiful ***Peace River!*** We will NOT be at the Science Center. You'll find more details about our venue vacation within the next few pages. There are multiple trips to the Peace River this month, hopefully you can share at least one with us!

So let's get out there, and leave no stone (or chert, claybed or clump of dirt) unturned!

Happy Hunting!
Jimmy Waldron, President, Florida Fossil Hunters.com

Coming Events

MEETINGS
SATURDAY
at the Orlando Science Center

NO MAY MEETING
PEACE RIVER FIELD TRIPS

Pioneer Park in Zolfo Springs
May 15th and 16th

Wauchula
May 22nd and May 23rd
See page 3 for more info

June 19, 2010
2:00pm Kids’ Fossil Blast
3:00pm Meeting

For more info...
www.floridafossilhunter.com

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Fragments

Highlights of the FPS Weekend

After leading Russell down the wrong road....not the first time and probably not the last....we found the motel that served as the base of operations for the FPS events. After an evening of sharing fossil stories with old friends and new, we sacked out for the night. Well, I did. Russell managed to grab a few minutes here and there. Let's just say that the rumors of my loud snoring are not exaggerated.

There was quite a large group gathered early Saturday morning for the field trip to Big Island Excavating. The pit held a variety of shells which we all gathered eagerly. Russell even found a fossil horse tooth. It seemed like we just started when the call as given that our 3 hours hunt was over. Everyone was very reluctant to go...some even lingered over the gravel piles near the entrance for a while. We piled our buckets of treasures in the vehicles and headed back.

The dinner Saturday evening was delicious....a nice surprise since most banquet meals we've had before fell short of expectations. Alex Hastings, a graduate student at the University of Florida gave a presentation after dinner. You may remember him from the presentation on early Crocodilians he gave at our club meeting back in 2007. He has continued his studies of them and still digs at the open pit coal mine in Columbia. His enthusiasm for his subject soon had all of us enthralled. There have been several new species found at the site which apparently filled different niches in the environment of the Cretaceous/Paleocene past.

Our thanks to Alex Kittle and Roger Portell and the officers of FPS for an enjoyable and enlightening weekend. I urge anyone who is able to attend the FPS events...it's wonderful to spend time with folks who have the same passions.

Goodbye, Nancy

We are sad to report that Nancy Patterson, one of our club members, passed away on April 2nd. Nancy had many interests, including early Florida history, archeology, model railoads, as well as fossils. In recent years, she used her talent for music and singing to travel throughout Europe and the Mediterranean with the Sound of Sunshine International Barbershop Chorus. As an active member of the American Indian Association she received the name "Singing Stone Woman". Her pursuit of diverse interests with such enthusiasm and curiousity stands as an example to us all.

Kids' Fossil Blast

In April we examined pieces of amber with critters caught inside them. Kids and those who are kids at heart had fun checking them out.

At our next Kids' Blast on June 19th at 2 pm, we will focus on shells....which can be found everywhere in Florida...and the creatures that used to call them home.

Peace River

Ever see Evolution in action?

This month, instead of me telling you about it and showing you the fossils found there, Peace River will be the place where the club will meet, talk, eat, explore and, (most especially) dig. During the past few meeting, I've talked to you about some changes that I would like the club to try out. Meeting at the Peace River is one of them.

We'd like those of you that have hunted fossils in the Peace before to join us ...not only to dig but to help those folks that haven't tried it before. If you have any extra screens, those would come in handy, too.

NEW MEMBERS and ED METRIN...If you've never been to the Peace River and have been wanting to go, this is your chance.

The club will provide hot dogs and the fixin's. We're asking folks to bring something to share to go with a picnic style lunch.

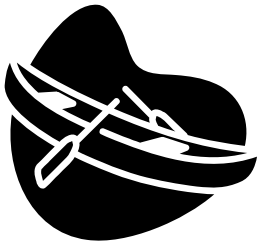
Bonnie and I will be at **Pioneer Park in Zolfo Springs at 9 am on Saturday, May 15th and Sunday, May 16th.** Pioneer Park is at the intersection of US Hwy. 17 and SR 64 in Zolfo Springs.

On **May 22nd and 23rd, we'll team up with Dave Dunaway at Wauchula Park**. From US Hwy. 17, turn east onto Main St. and go approximately 1 mile. The park/boat ram will be on your left… north side of the bridge. The address is 126 South 7th Ave., Wauchula, FL 33873, for those of you that want to get directions from the computer or use a GPS.

Come on and join us for an experience you (and especially your kids) will never forget.

SEE PAGE 3 for more info

Russell Brown



Tentative Meeting Schedule for 2011

January	Instead of meeting at OSC, have meeting at Museum of Natural History in Gainesville with behind the scenes tour by staff.
February	OSC Fossil Fest instead of meeting. Club volunteers to share their knowledge with the public.
March	Tampa Bay Fossil Fair. Meet there, do the show and afterward eat somewhere together.
April	Go to Venice Shark Tooth Festival or have a speaker at OSC.
May	Peace River Dig and cookout.
June	Meet at OSC and have our fossil bucks auction
July	Picnic at Dave Dunaway's or Yankeetown for echinoid collecting or some other location.
August	Speaker and display theme
September	Speaker, Fossil Fair volunteer sign-up
October	Fossil Fair
November	Speaker, officer nominations, fair report
December	Dinner at OSC with fossil bucks auction, elect officers

This is a framework for meetings...we can interchange speakers as they become available or change out locations of field trips. ***We want your feedback on this proposal.***

PEACE RIVER FIELD TRIPS

Pioneer Park in Zolfo Springs
Saturday, May 15th and Sunday, May 16th

Wauchula
Saturday, May 22nd and Sunday, May 23rd

- - - Start time for each day is at 9 am. - - -

These events are contingent on the river level staying under 7 ft. at the Zolfo gauge station. Be sure to check the website the day before or call the trip leaders BEFORE 9 pm.

Join us for four fun-filled days in May to go fossil hunting in the Peace. Russell and Bonnie will be at Pioneer Park in Zolfo Springs on Saturday, May 15th and Sunday, May 16th. Dave Dunaway will be at Wauchula on Saturday, May 22nd and Sunday, May 23rd.

THIS WILL BE INSTEAD OF A MEETING AT THE SCIENCE CENTER.

There are areas to walk into the river at each location for those of you who don't have canoes. In addition, we will ferry folks to other nearby shallow areas when possible.

Bring sifters, shovels, fanny packs to hold your fossils, buckets to haul them home, sunscreen, hats, etc. We plan on grilling hot dogs but bring other food and drinks you will want. Be sure to wear shoes/water-walkers to use in the river as well as a change of clothes.

Directions to Wauchula: Take Hwy. 17 south out of Bartow. In Wauchula, turn left onto Main St. Right before the bridge, turn left to go to the park and boat ramp.

Directions to Pioneer Park, Zolfo Springs:Continue south on 17 past Wauchula. Pioneer Park will be on your right. Follow the road to the boat ramp.

We ask that you sign up for this so we can have an idea of how many folks will be attending....but we certainly will not turn anyone away that just shows up. Email Bonnie/Russell at bjrb48@netzero.com or call them at 353-429-1058. Call Dave at 407-786-8844.

These events are contingent on the river level staying under 7 ft. at the Zolfo gauge station.

Be sure to check the website the day before or call the trip leaders BEFORE 9 pm.

Stalagmite Reveals Carbon Footprint of Early Native Americans

ScienceDaily (Apr. 15, 2010) *— A new study led by Ohio University scientists suggests that early Native Americans left a bigger carbon footprint than previously thought, providing more evidence that humans impacted global climate long before the modern industrial era.*

Chemical analysis of a stalagmite found in the mountainous Buckeye Creek basin of West Virginia suggests that native people contributed a significant level of greenhouse gases to the atmosphere through land use practices. The early Native Americans burned trees to actively manage the forests to yield the nuts and fruit that were a large part of their diets.

"They had achieved a pretty sophisticated level of living that I don't think people have fully appreciated," said Gregory Springer, an associate professor of geological sciences at Ohio University and lead author of the study, which was published a recent issue of the journal *The Holocene*. "They were very advanced, and they knew how to get the most out of the forests and landscapes they lived in. This was all across North America, not just a few locations."

Initially, Springer and research collaborators from University of Texas at Arlington and University of Minnesota were studying historic drought cycles in North America using carbon isotopes in stalagmites. To their surprise, the carbon record contained evidence of a major change in the local ecosystem beginning at 100 B.C. This intrigued the team because an archeological excavation in a nearby cave had yielded evidence of a Native American community there 2,000 years ago.

Springer recruited two Ohio University graduate students to examine stream sediments, and with the help of Harold Rowe of University of Texas at Arlington, the team found very high levels of charcoal beginning 2,000 years ago, as well as a carbon isotope history similar to the stalagmite.

This evidence suggests that Native Americans significantly altered the local ecosystem by clearing and burning forests, probably to make fields and enhance the growth of nut trees, Springer said. This picture conflicts with the popular notion that early Native Americans had little impact on North American landscapes. They were better land stewards than the European colonialists who followed, he said, but they apparently cleared more land and burned more forest than previously thought.

"Long before we were burning fossil fuels, we were already pumping greenhouse gasses into the atmosphere. It wasn't at the same level as today, but it sets the stage," Springer said.

This long-ago land clearing would have impacted global climate, Springer added. Ongoing clearing and burning of the Amazon rainforest, for example, is one of the world's largest sources of greenhouse gas emissions. Prehistoric burning by Native Americans was less intense, but a non-trivial source of greenhouse gases to the atmosphere, he said.

Mammoths Had Anti-Freeze

Researchers from Manitoba and Australia have recently isolated some genes for haemoglobin from the DNA of three Siberian mammoths. They found that their particular form of the haemoglobin allowed them to take up oxygen in their tissues in spite of the extreme cold temperature. Modern elephants do not have this particular adaptation so this was unique to the mammoths who inhabited those regions starting 2 million years ago.

New thick-shelled turtle species lived with world's biggest snake

Published: Tuesday, April 6, 2010 - 13:26 in Paleontology & Archaeology
Images: Edwin Cadena

The discovery of a new fossil turtle species in Colombia's Cerrejón coal mine by researchers from the Smithsonian Tropical Research Institute in Panama and the Florida Museum of Natural History helps to explain the origin of one of the most biodiverse groups of turtles in South America.
Cerrejonemys wayuunaikitakes its genus name from Cerrejón, and emys—Greek for turtle. Its species name is the language spoken by the Wayuu people who live on the Guajira Peninsula in northeastern Colombia near the mine.

About as thick as a standard dictionary, this turtle's shell may have warded off attacks by the Titanoboa, thought to have been the world's biggest snake, and by other, crocodile-like creatures living in its neighborhood 60 million years ago.

"The fossils from Cerrejón provide a snapshot of the first modern rainforest in South America—after the big Cretaceous extinctions and before the Andes rose, modern river basins formed and the Panama land bridge connected North and South America," explains Carlos Jarmillo, staff scientist at the Smithsonian who studies the plants from Cerrejón.

"We are still trying to understand why six of this turtle's modern relatives live in the Amazon, Orinoco and Magdalena river basins of South America and one lives in Madagascar," explains Edwin Cadena, first author of the study and a doctoral candidate at North Carolina State University. "It closes an important gap in the fossil record and supports the idea that the group originated near the tip of South America before the continent separated from India and Madagascar more than 90 million years ago."

Cadena will characterize two more new turtle species and analyze the histology of fossil turtle bones from the Cerrejón site. "I hope this will give us an even better understanding of turtle diversity in the region and some important clues about the environment where they lived."

Note: This is the same site where Alex Hastings has found several new species of crocodiles. Until 25 million years ago when the Andes started being pushed up by colliding plates, the rivers flowed west across this part of South America instead of flowing east like the Amazon and its tributaries do today.

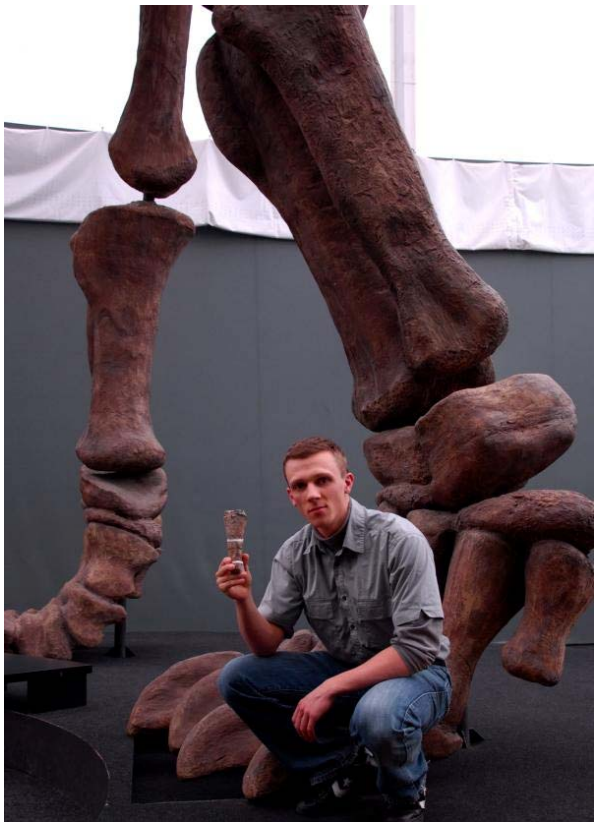
Deep in Colombia's Cerrejon coal mine, among house-sized trucks, Edwin Cadena discovered Cerrejonemys wayuunaiki, a new species of fossil turtle, which sheds light on the evolution of turtles in the Americas and beyond.

Note: *This is the same site where Alex Hastings has found several new species of crocodiles. Until 25 million years ago when the Andes started being pushed up by colliding plates, the rivers flowed west across this part of South America instead of flowing east like the Amazon and its tributaries do today.*

A shrunken giant: Island dino

Magyarosaurus was a dwarf, after all

ScienceDaily (May 3, 2010) *— In 1895, the sister of an eccentric palaeontologist called Franz Baron Nopcsa discovered small dinosaur bones on their family estate in Transylvania. Nopcsa interpreted these as the remains of dwarfed animals that had once lived on an island. Among these finds were a number of bones belonging to a sauropod dinosaur which Nopcsa named Magyarosaurus dacus, after his native country.*



Koen Stein holding Magyarosaurus lower leg bones. In the background, the lower leg of the Argentinosaurus dinosaur exhibition at the Museum Koenig in Bonn. (Credit: Jose Carballido / Koen Stein / University of Bonn)

A team of scientists led by Koen Stein and Professor Dr. Martin Sander from the University of Bonn, decided to cut up the fossil bones of the dwarfed dinosaur and study their microstructure.

"It's astonishing that the microanatomy of these bones has been preserved for us to study after 70 million years," says Stein, who carried out the research as part of his PhD studies. "Bone is a living tissue, and throughout an animal's life it is constantly dissipating and building up again." Humans, for example, have completely resorbed and rebuilt their skeleton by the time they are fully grown. This also occurred in sauropod dinosaurs. "We were able to distinguish these rebuilding features in Magyarosaurus, which prove that the little dinosaur was fully grown," Stein explains.

A dwarf among giants

Over the years, palaeontologists have frequently debated the question of whether or not the Magyarosaurus was a dwarf. Martin Sander, spokesperson of the Research Group on Sauropod Biology funded by Germany's central research funding foundation the DFG (Deutsche Forschungsgemeinschaft) notes, "An animal the size of a horse may not seem like a dwarf to most people but, in sauropod terms, it's tiny!"

When Magyarosaurus was discovered in Transylvania (then part of the Austro-Hungarian Empire), the palaeontologist Nopcsa advanced the idea that Magyarosaurus was an island dwarf, but he could not prove it back then, at the beginning of the 20th century. Many discoveries have since indicated that his theory might be correct, especially the fossils of dwarf elephants and hippopotamuses found on Mediterranean islands like Sicily, Malta and Cyprus.

However, scientists first pursued a different theory. For in the subsequent decades, other researchers found big sauropod bones on the Transylvanian site. They therefore concluded that Magyarosaurus was simply a youngster, while the larger bones came from fully grown adults.

The study now being published provides conclusive evidence that Nopcsa's hunch had been right all along. "Our study shows that dinosaurs on islands were subject to the same ecological and evolutionary processes that shape modern mammals," explains Martin Sander. "We were also able to demonstrate that the bigger bones found in that area belong to a different dinosaur species." Whether they come from stray animals who swam to the island from the mainland, or from large ancestors of the dwarf Magyarosaurus, remains a secret shrouded in the mists of pre-historic time.

The team's findings are now to appear in the science journal*Proceedings of the National Academy of Sciences.*

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.

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Vice President	Russell Brown	(352) 429-1058
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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

See page 2-3 for more information on events.

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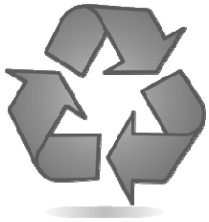

We are *emailing* the newsletter each month. If you want to participate, just email Bonnie at bjrb48@netzero.com or sign up at the meeting. If you want to continue to receive a paper newsletter in the mail, you don't have to do anything.

Visit us online at www.floridafossilhunters.com

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

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