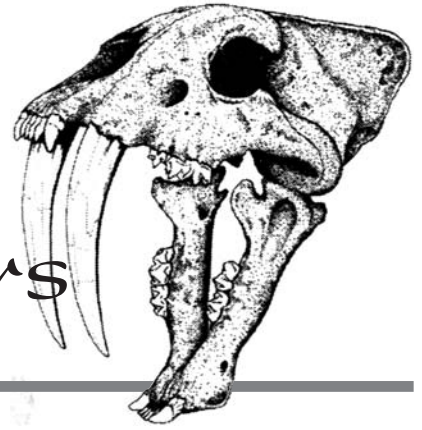


NEWS

Florida Fossil Hunters



Volume 15, Number 5

May 2005

Prez Sez.....

Prez Sez

I want to thank all of you who brought their petrified wood and other related items to our April club meeting. It was also nice to see the quartz crystals that Shelley and the other ladies in our club found in Arkansas.

Out of the 12 members who signed up to go to Gatorland, only Ed Metrin and I were there on April 16th. The alligators bellowed for 35 to 45 minutes; the crocodiles never made a sound. The bird rookery was full of baby egrets being fed by their mothers.

The "Fossil Fest" at the Daytona Museum of Arts and Sciences was spectacular. Zach Zacharias was a great host. Bonnie and Russell set up a great display in behalf of the club. The children loved this display. Eric Sanders and Mark Renz each gave fine talks. Thank you, Zach. We all had a great time.

The annual club campout and "almost flood" turned out to be very good in spite of the rain on Sunday morning. (see article inside for details)

Dr. Hulbert will speak on fossil bears at our May meeting.

Be sure to bring in any of your recent finds to the meeting to share with the rest of us. And bring in your entry for the Fossil Fair flyer contest.

See you at the meeting.

Dave Dunaway



The June meeting and semi-annual fossil bucks auction will be held at the College Park library since the schools will be closed by then.

Coming Events

May 18th

7:00pm Meeting and Richard Hulbert, speaker 'Fossil Bears'

June 6th

7:00pm Board Meeting

May 21st

Ruck's Pit Field Trip

June 15th

6:00pm Kids' Fossil Blast

7:00pm Meeting and Auction

For more events check out the Mark Your Calendar section on the back cover.

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Fragments

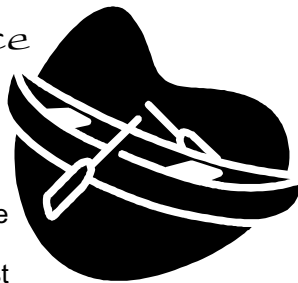
Seminole County Natural Land Programs will hold an open house event "Bones, Fossils and Artifacts Day" on Saturday, June 25th from 9 am to 1 pm. It will be held at the Ed Yarborough Nature Center at the Geneva Wilderness Area on 426. Address is 3501 N. CR 426, Geneva, FL 32722. For more information call Amy Raub at 407-665-7411.

Fossil Fair 2005

Flyer Contest !!!!! Design the flyer for this year's Fossil Fair and win \$500 fossil bucks. There are two categories: adults and children. Call Sharon Reagan (407) 246-8848 or Valerie First (407) 699-9274 for more details.

A Piece on the Peace

Drats! Yes, the rain we got on May 3rd through the 5th put the depth of the river up again to 10 ft. But the good news is that it is going back down. It was a little below 9 ft. by the end of Friday, May 6th. We can only hope that it will get low again at least once more before the summer rains. Keep your fingers and toes crossed.



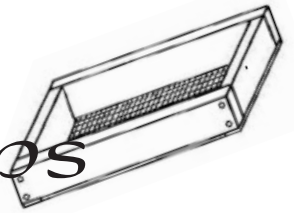
Web sites

Above is a link to some critical information that needs addressing by all Florida fossil collectors. At the link take a look at the proposed codification it is very similar to the Fossil Permit and though would add to the permits and paperwork may allow continued collecting. Please pass this link to any and all you might feel are interested. Send some letters and save our hobby.

<http://www.archaeologynet.org/IFF/aapc.htm>

For sharks tooth id and links to maps of public places to fossil hunt in South Carolina. www.Blackriverfossils.org

Field Trips



Ruck's Pit, Ft. Drum

When: May 21st

Cost: \$20

Directions: Take the turnpike (or Hwy. 441 south) to Yeehaw Junction. From there take 441 south to Ft. Drum. There will be a gas station/convenience store on your left and soon after that turn left onto N.E. 304th St. Go approx. 2 1/2 mi. and the crystal mine will be on the left.

You will need: Shovels, rock hammers, chisels (screens if you want to dig for other fossils); buckets, containers and stuff to wrap crystals or shells in; food, lots of drinks; sturdy shoes that can get muddy, hats, etc.

The hunting is on the surface and shallow digging for shells. Some of the digging can be hard if you're trying to get a crystal shell out of the rock matrix and some people bring large picks. Children can come but you have to keep a close eye on them. This is a working shell pit and the walls can be very steep and the water is deep in places.

What can be found: Clam and gastropod shells with calcite crystals, fossilized shells, some shark teeth and even some vertebrate material.

You can sign up at the May meeting or call Shelley at 407-891-1260.

PEOPLE FROM A FRENCH MUSEUM WILL BE PARTICIPATING IN THIS TRIP AND THEY ARE LOOKING TO SWAP SMALL FOSSILS WITH OTHER FOSSIL COLLECTORS SO BRING YOUR EXTRA TREASURES.

Kids' Fossil Blast



We had a fun time at the April meeting looking at all the plant fossils and petrified wood. The next meeting of the Kids' Fossil Blast will be on Wednesday, June 15th, at 6 pm. Looking forward to seeing you there.

2005 FFH Overnight Canoe Trip

by Wiley Dykes

David Dunaway went on Friday as trip leader for anybody who wanted to for three days. At 7:30 he went by the river to the launch site and no body was there. This meant Dave was by himself. He drove over to the Peace River Canoes and got his shuttle back to the launch site. The river depth at this time was about 6.5 with no visibility and moving fast. He went on to the camp spot and set up his gear. Then motored on to the dig sit for the rest of the day.

About 3:00 PM Grant Groves and his wife motored up from Wauchula to join him camping and sifting the bottom. Grant and David fossilized till about 8:00PM with a one hour break for dinner.

On Saturday about 7:30 David went back to the fossil site after breakfast. Grant motored up to the launch site to see if he could help any body haul there gear to the camp site. After we had all unloaded Grant left and the drivers took their vehicles to the Peace River Canoes to have them watch them over night "cost \$5.00".

There they met a gal and her son (new club members) from California who were renting and only going for the day. By 8:30 we were all launched and heading to the camp site. Dave Cass & wife, Valerie First, Tom Tomlinson, & myself (Wiley) joined David, Grant & wife.

The two wives stayed back at the campsite most all day. The rest of us after dropping off our gear went on to the dig site to join Grant and David. By 9:30 we were all digging. By 6:15 PM the last of us had quit digging and went back for dinner. Grant cooked over the fire the two catfish he had got the evening before about dark. Then after dinner David, Dave and wife went back to the dig site till about 8:15 PM and dug.

Valerie and I stayed at the campsite and dug with not much luck. The gravel bed next to the campsite has for the most part been picked clean. You dig lots of gravel

and find almost no fossils in it.

That day the new gal and her son dug till about 3:00 then they left getting towed by Grant in his motor boat. When grant returned he went for an ice and beer run up to Wauchula about 0:45 minutes with his motor where he was parked. Heaven forbid him to run out of beer on a river trip.

That day I saw Valerie found a good 3" meg tooth. Grant found a 5" sloth tooth, 2 bison teeth. 1 glyptodont scute, & an astragulus to what who knows. Tom found a very broken 6 plate mammoth tooth. David found a (fossilized) dog tooth, alligator tooth with root & a dolphin tooth with root. Dave Cass I never saw what he found I found a complete horse ankle bone (magnum), 3 broke up dolphin ear bones, and a camel tooth.

Every body found plenty of whole and broken meg teeth and sting ray parts. Grant again fished about dark and got 2 more catfish. By 10:00 PM we had all gone to bed. By 3:00 AM it started to rain and did not quit till about 8:00 AM. So by the time everybody packed up all tents, ground tarps, & chairs were soaked. After breakfast (in the rain) and packing up the rain quit about 8:00 AM. We then went to the dig site for about 2 more hours of digging. Grant and wife went on back (no digging) loaded and went on home. By 10:00 our bodies were telling us to quit even though our brains wanted to keep on digging. So we all quit and headed for the Little Charley Creek bridge to get out by 11:45 we were all loaded and heading For Wood's Bar-B-Q in Winter Haven to eat. After eating we all went our own way and went home.

By the time Monday 4:00 AM posting the river had crested at 7.17 from a low of 6.48. Since the trip it has rained again on them and as of 5-3-05 at 8:00 PM the river was at 7.58 and still going up.

University Of Florida Discovery Raises Questions About Origin Of African Mammals

Hillary Mayell, For National Geographic News , March 3, 2005

Provided by Wiley Dykes

GAINESVILLE, Fla. --- "Into Africa" rather than "Out of Africa" could well be the better description of how certain mammals originated and spread across the world, according to a University of Florida scientist, who has found the first evidence for origins in North America of a mammal thought to be endemic to Africa.

Long considered the cradle of many mammal species, Africa no longer lives up to that image with the discovery in the Wyoming badlands of 54 million-year-old skeletal remains of the first elephant shrew, said Jonathan Bloch, a UF paleontologist who describes his team's finding in today's issue of the journal *Nature*.

"Elephant shrews part of a group that includes elephants, sea cows and aardvarks, are thought to be endemic to Africa yet we have found evidence of their beginnings in North America," Bloch said. "This research has broad implications because it indicates there may have been a great deal more interchange in terms of how animals moved around the world as the continents broke up than previously thought."

The identification of the elephant shrew, a small-bodied, hopping mammal, is consistent with the observation that other mammals, including primates, also moved around the world during the course of their history, Bloch said.

"It is at least possible that primates, like primitive elephant shrews, evolved in North America and spread from there into Europe, Asia and Africa," said Bloch, who works at the Florida Museum of Natural History on the UF campus.

The first modern mammals appeared about 55 million years ago, roughly 10 million years after the mass extinction of the dinosaurs that had dominated them. In this Eocene period arose the first modern primates, the first recognizable horses and many other mammals, Bloch said.

"After the extinction of the dinosaurs 65 million years ago, there was an explosion of diversity," he said. "Mammals had a huge celebration with all the big predators gone and they just kind of took over. They went crazy, filling all the open ecological niches they couldn't have exploited while the dinosaurs were still around."

About 55 million years ago, a dramatic short-term global warming event took place. It lasted 100,000 years at the most, but it brought about the emergence of a huge assortment of new creatures all over the globe, Bloch said. With the warmer climates, the animals' ranges expanded, he said.

As the once giant land mass, or supercontinent, known as Gondwana separated into smaller continents, land bridges temporarily formed that allowed generations of animals to migrate from one part of the world to another, he said.

Once the continents disconnected, animals were thought to have been isolated, Bloch said. But the recent Wyoming discovery suggests the ancestor of certain mammals now living in Africa, such as elephants and primates, could have entered Africa from elsewhere, he said.

"It shows that history is a lot more complicated than what we've thought," he said. "If Afrotheria this idea of a shared common ancestor is real, it indicates its members extend around the world."

Zhe-Xi Luo, curator of vertebrate paleontology at the Carnegie Museum of Natural History, said Bloch's work is very important because it challenges the assumption by some molecular evolutionists that the history of the Earth can be determined solely by studying modern mammals. "Bloch's team has brought in additional evidence and made a very coherent challenge to the paradigm of molecular studies that you can really infer the breakup of major mammalian groups way back in the Earth's history just by using molecular techniques," Luo said.

Shawn Zack, the paper's senior author and a current graduate student at Johns Hopkins University, found hind limb and fore limb bones of an elephant shrew, along with some teeth, in a Wyoming quarry several years ago, Bloch said.

"It's incredibly important when we come across a bone in association with teeth because then it's like finding a Rosetta stone," he said. "The next time you find one of these bones you know to whom it belongs."

The paper's other authors are graduate student Tonya Penkrot and professor Kenneth Rose, both of Johns Hopkins University.

T. rex soft tissues recovered in Montana/Nonfossil rarity has scientists talking about DNA studies

*Friday, March 25, 2005 (SF Chronicle)
John Noble Wilford, New York Times*

Alive as dinosaurs may seem to children, knowledge of them as living creatures is limited almost entirely to what can be learned from bones that have long since turned to fossils. Their soft tissues, when rarely recovered, have lost their original revealing form.

A 70-million-year-old *Tyrannosaurus rex* recently discovered in Montana, scientists reported Thursday, has apparently yielded the improbable: soft tissues, including blood vessels and a possibility of cells that "retain some of their original flexibility, elasticity and resilience."

In a paper published today in the journal *Science*, the discovery team said that the remarkable preservation of the tissue might open up "avenues for studying dinosaur physiology and perhaps some aspects of their biochemistry."

"Tissue preservation to this extent has not been noted before in dinosaurs," said the team leader, Dr. Mary H. Schweitzer of North Carolina State University.

The scientists said that an examination with a scanning electron microscope showed the dinosaur blood vessels to be "virtually indistinguishable" from those recovered from ostrich bones. The ostrich is today's largest bird, and many paleontologists think birds are living descendants of some dinosaurs.

Schweitzer and other scientists not connected with the research cautioned that further analysis of the specimens was required before they could be sure the tissues had indeed survived unaltered. They said the extraction of DNA for studies of dinosaur genetics and cloning experiments was only a long shot.

But in a separate article in *Science*, Dr. Lawrence Witmer, a paleontologist at Ohio University who had no part in the research, said:

"If we have tissues that are not fossilized, then we can potentially extract DNA. It's very exciting."

If the tissues are as well preserved as they seem, the scientists held out some hope of recovering intact proteins, which are less fragile and more abundant than DNA. Proteins might provide clues to the evolutionary relationship of dinosaurs to other animals and possibly help solve the puzzle of dinosaur physiology: whether, as argued, dinosaurs were unlike other reptiles in being warm-blooded.

Excavations of dinosaur remains sometimes turn up preserved tissues other than bone, such as feathers, embryonic fragments and internal organs. But as Schweitzer's group noted, in those cases their shapes may be replicated but their original composition is not preserved "as still soft, pliable tissues."

The scientists said it was usually difficult to determine what such modified tissues were like in life if the fossils are more than a few million years old. The last of the dinosaurs died 65 million years ago.

The *T. rex* with the soft tissue was found in 2003 by a fossil-hunting team led by John R. Horner, a paleontologist with the Museum of the Rockies at Montana State University. Horner is a co-author of the journal report. The soft tissue was discovered inside a thigh bone.

Geologically, the *T. rex* skeleton was excavated from the Hell Creek Formation, in sandstone laid down about 70 million years ago.

Tyrannosaurs were famously huge predators. This one, estimated to have been 18 years old at death, was not as large as most. Its femur, or thigh bone, was 3 1/2 feet long; some *T-rex* femurs are at least a foot longer.

But the creature was large enough so that some of the rock-encased long bones had to be broken in half to fit a helicopter rig -- not a thing paleontologists like to do.

Inside the dense bone, Schweitzer and colleagues noticed unusual tissue fragments lining the marrow cavity. Fossilization had not been complete.

When fossilizing mineral deposits in the tissues were dissolved by a weak acid, the scientists were left with stretchy material threaded with what looked like tiny blood vessels. Further examination revealed reddish brown dots that the scientists said looked like the nuclei of cells lining the blood vessels.

Schweitzer said it was too early to draw any definitive conclusions about the lives of dinosaurs based on the laboratory analysis so far. "We are still in the process of analyzing the microstructures of these tissues," she said.

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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).

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

The Great



North Carolina Fossil Tour

by *Bonnie Croniin*

Fossil hunters have unusual vacations. We don't lay on beaches; we walk with eyes riveted on the sand in search of black specks. We don't go skiing; we climb up and down hills in stone quarries. Only fossil hunters would call a day hip deep in a creek, covered with mud and aching from shoveling a wonderful time.

So when the Sunday we were scheduled to go into the Lee Creek mine in Aurora dawned cold and windy and pouring rain, we eagerly donned our steel-toed boots and rain gear and stood in the deluge with smiles on our faces waiting to board the bus into the mine. It was so bad that the releases we all had to sign were dripping water and mostly illegible.

By some miracle, the rain stopped by the time we got to the site. Marge, Marsha, Shelley, Jan, Laura, Pam, Alan, Russell and I all grabbed our buckets and navigated the mud-slick path down into the pit where we spread out and started hunting in earnest. Russell and I wended our way along piles 20 ft. high looking for treasure exchanging mostly monosyllables on finds or lack of them. After about an hour of random hunting we fixed upon one pile that seemed to have lots of little shark teeth. So we pawed through the surface as we balanced on the slopes or lay flat on the ground, wallowing in the joy of the mud and fossils.

We ended up with about a cup of shark teeth each plus pieces of coral, some worn vertebrae, a few interesting shells (Russell found three little ephoras amid the

debris). After hours of searching and climbing, we clambered back up out of the pit to the lot to wait for the bus. To our delight, we discovered the gravel there filled with more shark teeth and proceeded to crawl around the area picking them up. That's where I found my treasure of the day - a 2" Mako. We ended up finding as much there as in the pit!

We didn't find anything really extraordinary but we certainly enjoyed the experience and would do it again.

Actually, Russell's and my best part of the trip was digging and sifting in Green Mill Creek in Greenville. It was similar to some of the creeks in Gainesville (not as polluted as previously reported). I found a fairly large Eophora and Russell and I both found Cretaceous Crow Shark teeth and orange-colored internal shells of Belemnites. We were thrilled! Marge, Marsha, Jan & Laura joined us soon after we got there and they found treasures there, too, including extinct White Shark teeth. We later found out that Shelley was digging at the same time in one of the feeder creeks.

Shelley, Russell and I also hunted in the Rocky Point mine on Friday finding a few shark teeth, lots of echinoids and some shells.

All in all, it was a very satisfying vacation for fossil hunters; lots of mud, water, rocks, friendly people and, best of all, FOSSILS!

Mark Your Calendar

- May 18th: 7:00pm Meeting and Richard Hulbert, speaker 'Fossil Bears'
- June 6th: 7:00pm Board Meeting
- May 21st: Ruck's Pit Field Trip (See page 2 for more info)
- June 15th: 6:00pm Kids' Fossil Blast
7:00pm Meeting and Auction

The April Newsletter was mailed out to an old mailing list. Sorry for any inconvenience this may have caused. You can find the April issue on our website at www.floridafossilhunters.com



Visit our website www.floridafossilhunters.com
Articles and comments should be sent to: elise@lisedreams.com

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Florida Fossil Hunters News