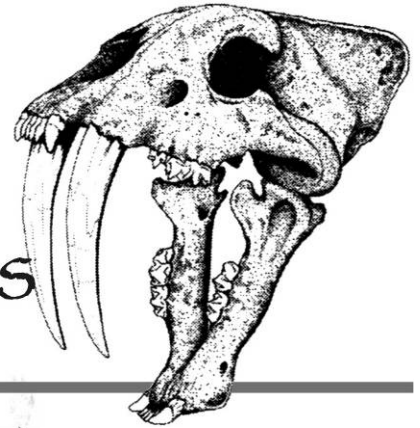


# NEWS

## Florida Fossil Hunters

Volume 19, Number 9

October 2009



### Message from the President:

There are a few events that we look forward to each season as a club. We look forward to our annual field trips to the Peace, or the unveiling of a new display case at the Science Center, and of course there is the traditional “making up an excuse to not go to Bordenkircher’s rock show” each year, which I personally enjoy. This month marks our organization’s annual offering to the public—our Fossil Fair, where we make our stand as enthusiasts, collectors, excavators and educators, and share our love of prehistoric earth with a grander scale.

You may be reading this for the first time at the 18<sup>th</sup> Annual Florida Fossil Hunters Fossil, Gem & Mineral Show! It’s my first Fossil Fair as your club President, and I am confident that we will have an incredible showing from all of our vendors and organizers.

If you are a guest of our event and have not considered joining us before today, then I urge you to look around, and see the glowing enjoyment on the faces of the young and old around you. Feel the energy of these ordinary folks bound by an extraordinary interest. If you are having a good time today, then join us, become a Fossil Hunter and let the excitement you feel today continue throughout the year.

Our next meeting date and time will be October 17<sup>th</sup> at 3:00 PM at Orlando Science Center. We are honored to have Dr. Richard Hulbert present his discoveries of fossil dating in prehistoric horses in “**How Old are My Fossils? The Chronology of Bone Valley Fossils using Horse Teeth and Bone Geochemistry.**”

And while you’re at Fossil Fair, feel free to stop by the *Triceratops* booth and meet me personally. I’ll gladly answer your questions, identify that weird rock you found, or even just shoot the breeze. Until then, I look forward to seeing you at our next meeting.

Happy Hunting!  
James Waldron, President  
Florida Fossil Hunters

**OCTOBER**  
club meeting

**October 17, 2009**  
2:00pm Kids’ Blast  
3:00pm Meeting

2009 Fossil Fair

October 10 & 11  
See page 3  
for more info

### Coming Events

#### MEETINGS SATURDAY

at the Orlando Science Center

**October 10 & 11, 2009**

Florida Fossil Fair (more info pg 3)

**October 17, 2009**

2:00pm Kids Blast  
3:00pm Meeting

**November 21, 2009**

2:00pm Kids Blast  
3:00pm Meeting

**December 19, 2009**

3:00pm Meeting and Auction

For more info...

[www.floridafossilhunter.com](http://www.floridafossilhunter.com)

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# Fragments

## **Piece on the Peace**

I checked the water level at Zolfo Springs on September 30th and it's coming down close to 6 ft. That means there are places low enough for us to dig for fossils. Be sure to use the link on our website before you head down there just in case we have some more rain events. Happy hunting.



## **Orlando Science Center**

The new film "Sharks" is now showing. Russell, Bonnie and Miranda put on a display of modern jaws and fossil shark teeth at the premiere. They entertained the crowd with tales of the monster Megalodon and all the sharks that used to swim where the Center is now.

Be sure to check out the displays of Florida fossils that our club members have loaned the Center up in the Dino Digs section. The newest display is one on the fossils and crystals from Ruck's Pit.

## **"By-Gone" Beasts Exhibit**

The Brevard Museum of History and Natural Science has been the lucky recipient of Cliff Jeremiah's fossil replicas of the Giant Ground Sloth, Megalodon Jaw and more which they have on display. In addition, the Museum has other exhibits featuring prehistoric animals, the Windover archaeological site, information on the Ais and Seminole Indians as well as other parts of Brevard history.

The Museum is open Tuesday through Saturday from 10 am to 4 pm. Admission is \$6 for adults, \$5.50 for seniors and \$4.50 for kids 5-16. Kids 4 and under can get in free. It's located at 2201 Michigan Ave., Cocoa, FL 32926. You can get more info at 321-632-1830 or at [www.nbbd.com/godo/BrevardMuseum/index.html](http://www.nbbd.com/godo/BrevardMuseum/index.html)

## **Vulcan Field Trip**

We are hoping that the Vulcan Mine in Brooksville will allow us to fossil hunt there on Saturday, November 14th. There will be a tentative sign-up sheet at the Fossil Fair and the October meeting. We'll need to have your e-mail or phone number in case it gets cancelled. *As always, you must be a member of the club to join us at Vulcan.*

# Kids' Fossil Blast

This month we will be following the tale of how the fins of early fishes became limbs and the variety of forms they have taken in all the animals from amphibians to reptiles to birds and mammals. We'll meet at 2:00 pm on Saturday, October 17th at the Science Center before our regular club meeting.

## **Fall Gem and Mineral Show**

The Central Florida Gem and Mineral Society will hold its annual show at the Central Florida Fairgrounds on Friday, Nov. 13th from 1 pm to 8 pm, Saturday, Nov. 14th from 10 am to 8 pm, and Sunday, Nov. 15th from 10 am to 5 pm.

There will be vendors with jewelry, gems, minerals, fossils and supplies. There will also be a special children's area with activities, silent auctions, demonstrations and lectures.

Admission is \$4 for adults, \$2 for students and children under 12 can get in free with a parent.

For more information contact them at [miller@cfl.rr.com](mailto:miller@cfl.rr.com)

## **Thomas Farm Fossil Dig, Fall 2009**

The Division of Vertebrate Paleontology of the Florida Museum of Natural History in Gainesville is seeking volunteers (ages 15 and older) to work with museum staff and students at this famous site. They will be working on Saturdays, Sundays, Mondays and Tuesdays starting October 24th and ending on November 24th. Digging hours are from 9 am to 5 pm. Volunteers are expected to work a minimum of three hours a day.

The Thomas Farm site formed 18 million years ago during the early part of the Miocene Epoch. Many species of animals had their bones washed into this old sink-hole. That makes this site a treasure trove of fossil bones.

Diggers will be instructed in the techniques of digging and screen washing so you don't have to have previous experience. All fossils will be kept by the Museum.

*This is an wonderful opportunity to be part of the discovery process!*

For more information and to fill out the application forms required go to: [www.flmnh.ufl.edu/vertpaleo/fall\\_2009.htm](http://www.flmnh.ufl.edu/vertpaleo/fall_2009.htm)

## **How Old Are My Fossils?**

That's the topic of October's presentation which will be given by Richard C. Hulbert, Jr., Ph.D. He'll delve into the chronology of the Bone Valley fossils using horse teeth and bone geochemistry.

Dr. Hulbert is the Manager of Vertebrate Paleontology Collections at the Florida Museum of Natural History in Gainesville. He has authored and co-authored many papers in the paleontological field as well as editing "The Fossil Vertebrates of Florida" which has a wealth of information for anyone interested in prehistoric animals and fossils.

*Be sure to attend this lecture and bring your copy of the book.....he might autograph it for you.*



# Feathery Four-winged Dinosaur Fossil Found In China Bridges Transition To Birds

*ScienceDaily* (Sep. 29, 2009) — A fossil of a bird-like dinosaur with four wings has been discovered in northeastern China. The specimen bridges a critical gap in the transition from dinosaurs to birds, and reveals new insights into the origin evolution of feathers.



The transition from dinosaurs to birds is poorly understood because of the lack of well-preserved fossils, and many scientists argue that bird-like dinosaurs appear too late in the fossil record to be the true ancestors of birds.

In the journal *Nature* this week, Xing Xu and colleagues describe an exceptionally well-preserved fossil of *Anchiornis huxleyi* from the province of Liaoning, China. Long feathers cover the arms and tail, but also the feet, suggesting that a four-winged stage may have existed in the transition to birds.

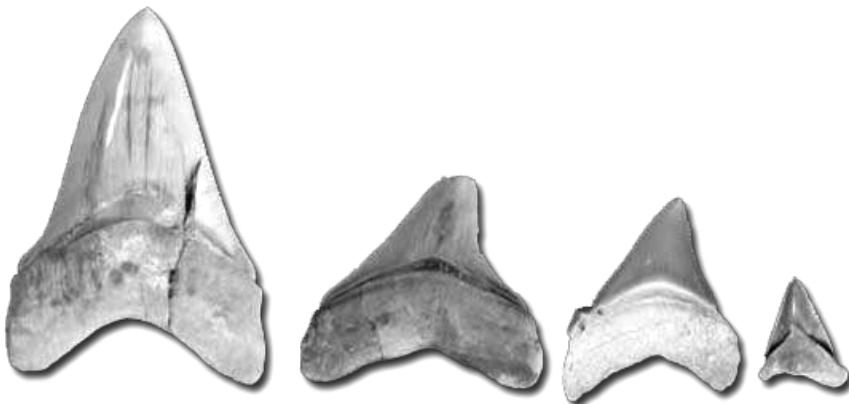
*Anchiornis huxleyi* was previously thought to be a primitive bird, but closer inspection reveals that it should be assigned to the *Troodontidae* — a group of dinosaurs closely related to birds.

The authors date the fossil to the earliest Late Jurassic, meaning that it is the oldest bird-like dinosaur reported so far, and older than *Archaeopteryx*, the earliest known bird.

## Prehistoric shark nursery spawned giants

DISCOVERY HIGHLIGHTS IMPORTANCE OF SHARK NURSERIES, ANCIENT AND MODERN

A group of researchers led by Catalina Pimiento of the University of Florida have found a stash of small Megalodon teeth, most between a half-inch and three inches long on the shores of the Caribbean Sea in Panama. The team compared the teeth to other Megalodon teeth and have determined that the teeth belonged exclusively to juvenile sharks. The only other suspected nursery is at a site in South Carolina.



But with all the small Megs we find in the Peace River, it is quite possible that they used the shallow sea in Florida as a nursery, too.

For more info on the findings go to [www.msnbc.msn.com/id/33074897/ns/technology\\_and\\_science-science/](http://www.msnbc.msn.com/id/33074897/ns/technology_and_science-science/)

# Florida Fossil Hunters News

# Oldest hominid skeleton provides new evidence for human evolution

Thursday, October 1, 2009  
Paleontology & Archaeology

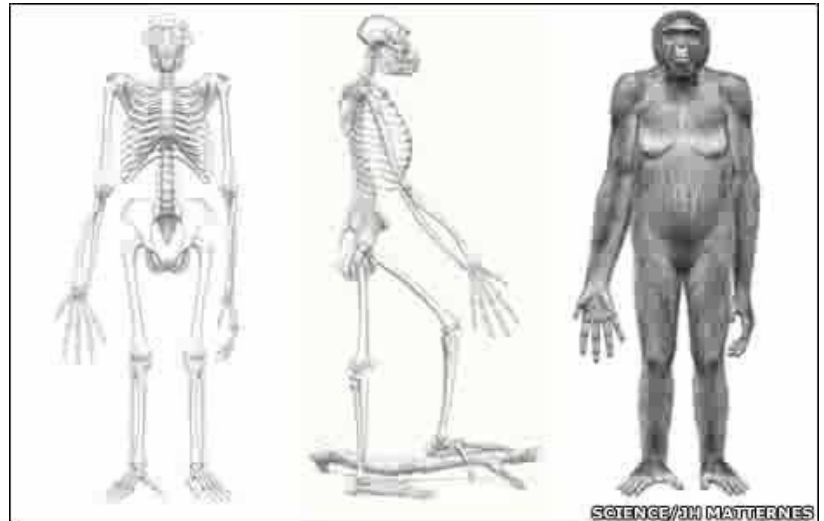
A Los Alamos National Laboratory geologist is part of an international research team responsible for discovering the oldest nearly intact skeleton of *Ardipithecus ramidus*, who lived 4.4 million years ago. The discovery reveals the biology of the first stage of human evolution better than anything seen to date. The 17-year investigation into the discovery of the extremely fragile remains of the small "ground ape," found in the Afar region of Ethiopia, is described today in a special issue of the journal *Science*, which includes 11 papers about the discovery. Nearly 15 scientists from 10 different countries were responsible for the 1994 discovery, including Los Alamos geologist Giday WoldeGabriel, who led the field geology investigations and sampling of ancient lavas and ashes that were used to determine the age of the fossilized remains.

The fossil, nicknamed "Ardi," is the earliest skeleton known from the human branch of the primate family tree. The branch includes *Homo sapiens* as well as species closer to humans than to chimpanzees and bonobos. The discoveries provide new insights about how hominids—the family of "great apes" comprising humans, chimpanzees, gorillas and orangutans—may have emerged from an ancestral ape.

Until the discovery of Ardi, the earliest well-known stage of human evolution was *Australopithecus*, the small-brained, fully bipedal "ape man" that lived between 4 million and 1 million years ago. The most famous *Australopithecus* fossil is the 3.2-million-year-old "Lucy," found in 1974 about 45 miles north of where Ardi would later be discovered. Ardi's skeleton and associated *Ardipithecus ramidus* remains are older and more primitive than *Australopithecus*.

After Lucy's discovery, there was some expectation that when earlier hominid remains were found, they would converge to a chimpanzee-like anatomy, based on the genetic similarity of humans and chimps. The *Ardipithecus ramidus* fossils do not, however, corroborate this expectation.

Ardi's skeleton contains enough of the skull, teeth, pelvis, legs, feet, arms, and hands to estimate her body weight and height; that she walked on two legs on the ground,



but climbed trees and spent time in them as well; and that she probably was omnivorous. Perhaps surprising, Ardi and her companions did not have limb proportions like chimps or gorillas, but rather like those of extinct apes or even monkeys, and her hands also are not chimpanzee- or gorilla-like, but more closely related to earlier extinct apes.

WoldeGabriel and his colleagues used field and laboratory geological methods to determine the age of the extremely fragile fossils by painstakingly analyzing and dating the stratigraphic markers of ancient lavas, ashes, and sedimentary deposits in which the bones were discovered. He also was able to precisely characterize the environment in which Ardi lived.

Ardi's woodland home included fresh-water springs and small patches of fairly dense forest. Palm trees graced the forest edges, and grasslands extended perhaps many kilometers away. Other fossils associated with Ardi included fig and hackberry trees; land snails; diverse birds, including owls, parrots, and peafowl; small mammals such as shrews, mice, and bats; and other animals such as porcupines, hyenas, bears, pigs, rhinos, elephants, giraffes, two kinds of monkey, and several different types of antelope.

"It is a privilege to have the opportunity to look back in time into the lives of mankind's oldest relatives," said WoldeGabriel. "This is a fascinating and important discovery."

Source: DOE/Los Alamos National Laboratory

## Discovery of Oldest-known Fiber Materials Used by Early Humans

An international team of archaeologists have made an exciting discovery in the Republic of Georgia. Flax fibers that are more than 34,000 years old, were found while examining samples of clay taken from different layers in a cave under a microscope. The original goal was to analyze tree pollen as part of a study of temperature fluctuations.

The fibers, which would have been collected from the wild and not farmed, could have been used to make linen and thread. Some of the fibers were twisted, indicating they were used to make ropes or strings. Others had been dyed.

We'll have to revise our image of the early hunters and gatherers dressed only in animal skins.

For more on this discovery go to [www.sciencedaily.com/releases/2009/09/090910142352.htm](http://www.sciencedaily.com/releases/2009/09/090910142352.htm)

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## Climate Change Nothing New

A team of earth scientists have been studying the 300 million year old rainforests that were found previously in the coal mines in Illinois. Preserved over vast areas, these fossilized rainforests are the largest of their kind in the world. The rocks at this site - in which the coal beds occur - contain evidence for climate fluctuations. The rainforests all but vanished at the height of the ice ages of that time. But as the climate warmed again, the coal beds formed again, containing abundant fossils of rainforest species.

For more on this story, go to [www.sciencedaily.com/releases/2009/09/090930202249.htm](http://www.sciencedaily.com/releases/2009/09/090930202249.htm)

## As if the Permian extinction wasn't already bad enough.....

Back at the end of the Permian, all the major land masses were joined together in the super continent of Pangea. Life was tough. The interior of Pangea was dry and hot. Then all hell broke loose...literally. A huge basalt lava flow erupted onto the plains of what is now Russia covering the land. This went on for a long, long time.

It is estimated that 96% of all marine animals and 70% of the land animals went extinct during this cataclysm but until now it was thought that the plant life had mostly survived.

Researchers studying the layers of rock have found global evidence of a species of ancient fungus that feeds on dead wood. This means that the forests succumbed to the acid rain and toxic gases that were released from the lava flows leaving massive amounts of dead wood for the fungus to feed on.

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## New Birthday for the *Quaternary*

The International Commission on Stratigraphy, after four years of debate and investigation, have moved the beginning of this Epoch which covers both the Ice Age and when early man started to use tools, to a new date. The new boundary of 2.6 million years (instead of the previous 1.8) coincides with a world-wide recognized event - when the ice ages began on a global scale.

So now we amateurs can round it off to 2.5 instead of 2 million years.

# 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.

**Officers:**

President	Jimmy Waldron	(386) 212-5814
Vice President	Russell Brown	(352) 429-1058
Secretary	Glory Kerr	
Treasurer	Sara Morey	(407) 353-8675

**Chairs:**

Education	Melissa Cole	(407) 834-5615
Field Trips	Shelley Zimmerman	(407) 891-1260
Fossil Fair	Valerie First	(407) 699-9274
Fossil Auctions	Dave Dunaway	(407) 786-8844
Fossil Bucks	Dave Dunaway	(407) 786-8844
Fossil Lotto	Ed Metrin	(407) 321-7462
Auctioneer	Roy Singer	(407) 645-0200
Historian	Valerie First	(407) 699-9274
Librarian	Kathy Munroe	(407) 846-7382
Membership	Joanne Maio	(407) 375-3635
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**

Paul Bordenkircher

**Directors:**

Russell Brown	(352) 429-1058
Melissa Cole	(407) 834-5615
Dave Dunaway	(407) 786-8844
Ed Metrin	(407) 321-7462
John Jelks	(407)568-5558
Roy Singer	(407) 645-0200

## 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

## 2009 Fossil Fair

### Central Florida Fairgrounds

Florida Fossil Hunters present the

*Seventeenth Annual Fossil, Mineral, and Gem Show*

Saturday, October 10, 2009 - 9:00 - 5:00pm

Sunday, October 11, 2009 - 10-00am - 4:00pm

#### **October 17, 2009**

2:00pm Kid's Blast

3:00pm Meeting and Auction

#### **November 21, 2009**

2:00pm Kid's Blast

3:00pm Meeting

#### **December 19, 2009**

3:00pm Meeting and Auction

### Be Green

We are *emailing* the newsletter each month. If you want to participate, just email Bonnie at [bjrb48@netzero.com](mailto: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](http://www.floridafossilhunters.com)

Articles and comments should be sent to: [elise@liseydreams.com](mailto:elise@liseydreams.com)

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Florida Fossil Hunters News