# Florida Fossil Junters Volume 19, Number 11 December 2009

## Prez Sez

#### Season's Greetings, Paleo-Pals!

I hope that we can all look back on 2009 as a year of fun, friends, fellowship, and of course, fossils. It's December, and as is customary, I'm writing this newsletter in a knitted woolen sweater with a picture of a big blocky Oreodont on the front. It'd be charming if it wasn't 74° in the shade. The holidays are about all about tradition, and I'd like to start a new one this year, if I may. I've had a chance to look back on a number of events that have made this year particularly special for me, and I'd like to share them with you, in the easiest and least thoughtprovoking way possible. So now. I present, tongue firmly in cheek: "The Loosely Thrown Together, Legally Distinct, Untitled Holiday Rhyming Project"

Stop me if you've heard this one....

Jimmy Waldron
President
Florida Fossil Hunters

DECEMBER
CLUB PARTY
See page 2 for details.

'Twas a week before Dave's Party, and all through the fort, the terror birds were munching on cinnamon three-toed-horse. (Off to a strong start!)

Our whale ears and horse teeth all purchased with care in hopes of a trade for Gavialsuchus or Cave Bear!

While I'm Googling "kerchief" and it's relation to "cap," there's a wintery glow about my desktop coprolite.(It rhymes.)

As we hunters all gather and listen with caution, 'Cause you've gotta bid quick in the Thousands at auction!

With the children all bundled asleep in their beds, while visions of Mastodons parade through their heads.

When from outside I heard, like the smash of a vase, I thought maybe the Science Center had broken another case!

I rushed to the window, looked downward, and then I saw Paul calling out, "Marge just pushed me again!"

Oh the river adventures you're sure to uncover: A 200-lb tusk makes a great stocking stuffer

Keep going, keep trying That's always my motto! (Though try as I might, I can't win FossiLotto!)

There's my holiday poem now let's make this clear: If you're not really smiling this was Bonnie's idea. ♥

And now, Fossil Hunters, this comes to an end. (And I hope that tomorrow we'll all still be friends!) In a fun new tradition, and if I may be blunt:

Merry Christmas to all, and to all a good hunt!

## Coming Events

#### MEETINGS SATURDAY

at the Orlando Science Center

**December 19, 2009** See page 2 for details

**January 16, 2010** 3:00pm Meeting

February 20, 2010 2:00pm Kids Blast 3:00pm Meeting

For more info... www.floridafossilhunter.com

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Florida Fossil Hunters News

# Fragments

#### Piece on the Peace

The water level is still down within "diggable" depth ....even for us short folks. The rain event predicted for early December may cause a temporary rise but it will fall back.

This is a good time of the year to go hunting. It's not too hot, the water levels are good, and it hasn't been cold enough to make the water uncomfortable. Hope all of you get to take advantage of these conditions and get to enjoy the thrill of the hunt.

#### **Vulcan Mine Field Trip**

Once again, the folks at Vulcan will be letting us hunt for fossils on **Saturday, December 12th**. Meet at the circle drive near Hwy. 98 by 8:30 am to sign releases, etc. before being escorted in. They usually escort groups out at noon and sometimes let those who wish stay till 2 pm.

This is generally a surface fossil hunting experience. Kids are allowed and they have great fun finding echinoids and crystals and rocks...and where else are they encouraged to climb piles of dirt!

Bring a change of shoes and clothes in case you get muddy. You will also need a bucket or container for collecting, garden spade or rock hammer to pry out stubborn fossils, water and snacks to keep you going, and a hat and sunscreen to protect you.

Directions: Take Hwy. 50 west through Brooksville. Take Hwy. 98 north approx. 10 miles and Vulcan Mine will be on your left. The street address is: 1313 Ponce De Leon Blvd., Brooksville.

As always: you must be a member of the club to join us at Vulcan

To sign up or to get more info, call Shelley Zimmerman at 407/891-1260.

#### Tampa Bay Fossilfest

Mark your 2010 calendars. It will take place on March 20th and 21st. More details in the coming months.

# Kids' Fossil Blast

There will be no kids' program for December...we're all going to party instead. The next Fossil Blast will be on Saturday, February 20th at 2 pm. The subject of our study will be Proboscians, aka elephants.

# TIME TO RENEW

# your Florida Fossil Hunters 2010 Membership.

#### It's That Time

It's time to renew your membership. The cost is still only \$17 for a household.

Please use one of the forms...either online or in the newsletter...so we can make sure we have your correct address and/or email.

Thank you to all of you who have signed up to get your news online. This has saved the club a good amount of money and has helped keep our operating costs down.

#### It's Time to Party

Be ready to make merry! The annual club Christmas bash at Dave's house will be on Saturday, December 19th from 5 pm to 9 pm. Come join us and bring a dish (filled with yummies of course) for all to share. There will be all of Dave's fascinating fossils and treasures to look at as well as his fort.

Directions: Take I-4 to the Hwy. 434 exit. Go west on 434 to Markham Woods Rd. Turn right on Markham Woods. Turn right at the traffic light onto E.E. Williamson. Then turn right at the first road...Ferne Dr. Dave's house is the one near the end on the left side, 600 Ferne Dr., Longwood, 32779

#### Peace River Losing Water

A five-year federal study found that the Peace River is losing an average of 11 million gallons of water each day to sinkholes. This is about 8% of the flow as measured at Bartow.

The upper Peace River has even gone dry seven of the last ten years. This loss is occurring along a two mile long stretch south of Bartow.

We certainly hope that the rest of the Peace continues to have water enough to float our canoes.

For the entire article, go to www.usgs.gov/newsroom/article.asp?ID=2319

This info was submitted by Kim Jackson.

#### Hobbits....the story continues

Using statistical analysis on skeletal remains of a wellpreserved female specimen, researchers at the Stony Brook University Medical Center in New York have confirmed that Home floresiensis is a genuine ancient human species and not a genetically flawed version of modern humans

For the entire article go to: www.sciencedaily.com/releases/2009/11/091110101034.htm

Florida Fossil Hunters News

## A Crowd of Crocs

Paul Sereno with the University of Chicago has continued to find new fossils in the Africa that inhabited the southern land mass known as Gondwana some 100 million years ago.

The crocs and their nicknames:

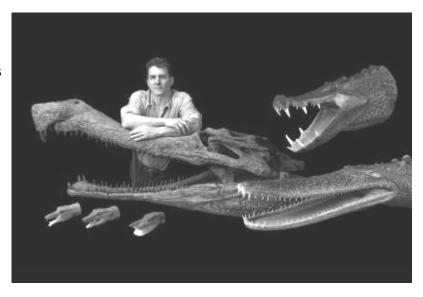
**BoarCroc:** A new species, Kaprosuchus saharicus, was a 20 ft. long upright meat eater with an armored snout for ramming and 3 sets of dagger-shaped fangs for slicing.

**RatCroc:** A new species, Araripesuchus rattoides, was a 3 ft. long, upright plant and grub eater, with a pair of buckteeth in its lower jaw used to dig for food.

**PancakeCroc:** A new species, Laganosuchus thaumastos, was 20 ft long, squat fish eater with a 3 ft. pancake-flat head with spike-shaped teeth on slender jaws.

**DuckCroc:** Anatosuchus minor was a 3 ft. long, upright fish, frog & grub eater with a broad overhanging snout and Pinocchio-like nose.

**DogCroc:** Araipesuchus wegeneri, was a 3 ft. long upright plant and grub eater with a soft, dog-like nose pointing forward and was likely an agile galloper and a capable swimmer.



Paleontologist Paul Sereno with his Saharan discoveries – SuperCroc, BoarCroc (upper right), PancakeCroc (lower right), RatCroc, DogCroc and DuckCroc. The fossil crocs were unearthed in a series of expeditions to the Sahara beginning in 2000, supported by the National Geographic Society. (Credit: Photo by Mike Hettwer, courtesy National Geographic)

For more info and pictures check out the November, 2009, issue of National Geographic and the full article at www.sciencedaily.com/

#### Big Freeze Came Fast

Around 12,800 years ago the northern hemisphere was hit by a mini ice-age, known by scientists as the Younger Dryas which lasted around 1300 years. Geological evidence shows that the Big Freeze was brought about by a sudden influx of freshwater, when the glacial Lake Agassiz in North America burst its banks and poured into the North Atlantic and Arctic Oceans. This vast pulse, a greater volume than all the Great Lakes combined, diluted the North Atlantic conveyor belt and brought it to a halt.

Previous evidence from the Greenland ice cores had indicated that this change in climate occurred over the space of a decade or so.

But now William Patterson and his colleagues at the University of Saskatchewan using mud cores from an ancient lake in Ireland have shown that the time was much shorter. Based



on the carbon isotopes they have discovered that it took only a couple years for the area to be plunged into a glacial climate.

This sheds new light on the question of why the megamammals went extinct and gives us something to think about as the big ice masses melt in the Arctic.

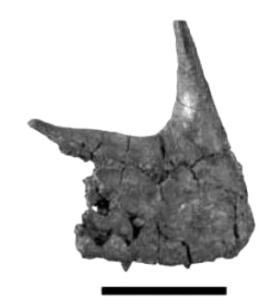
# 'EARTH CLAW':

# New Species of Vegetarian Dinosaur Close to Common Ancestor of Gigantic Sauropods

ScienceDaily (Nov. 12, 2009) — The discovery of a new species of dinosaur from the early Jurassic period (approximately 195 million years old and seven metres long) has been announced and described by Dr Adam Yates, the primary investigator and a palaeontologist from the Bernard Price Institute for Paleontological Research (BPI) from the University of the Witwatersrand, Johannesburg, South Africa.

The vegetarian dinosaur, one of three discovered at the same site, was named *Aardonyx celestae* -- the genus name (Aardonyx) means "Earth Claw," (Aard -- Afrikaans for Earth) and (Onyx -- Greek for claw) an appropriate name, given that the large, earth-encrusted foot claws were some of the first bones to be discovered in the town of Senekal, near Bethlehem in the Northern Free State, in South Africa. The species name (*celestae*) is given to acknowledge the work of Celeste Yates who prepared much of the fossil.

"This species is important as the Aardonyx was an animal close to the common ancestor of the gigantic sauropod dinosaurs," explains Yates. "Sauropods, known popularly as "brontosaurs," were the largest backboned animals to walk on land with their long necks, tree-trunk legs and



5 cm

The right premaxilla, a bone from the tip of the snout. The two prongs partly enclose the giant nostril characteristic of this species. The tips of two teeth can be seen protruding from the bottom edge. (Credit: Image courtesy of University of the Witwatersrand)Adapted from materials provided by Geological Society Of America.

whip-like tails. Some were even longer and exceeded 100 feet (about 30 metres) in length. *Aardonyx* gives us a glimpse into what the first steps towards becoming a sauropod involved."

The discovery was made by a Wits postgraduate palaeontology student, Mr Marc Blackbeard, who began excavating two sites in the Northern Free State, five years ago, under the leadership of Yates. "We knew that there was likely to be some fossils in these 'bone beds' discovered by James Kitching about 20 years ago, but we did not expect to find anything of this magnitude," says Yates.

Yates elaborates on the anatomy of *Aardonyx celestae*: "The dinosaur had a wide-gaping mouth, bracing joints in the back vertebrae that made the backbone rigid enough to support great weight and a forearm and hand capable of grasping and supporting weight. Growth rings in the rib and shoulder blade sections show that Aardonyx was not full grown -- it was probably less than 10 years old when it died near a river or stream."

He adds: "Aardonyx probably walked on its hind legs but could drop onto all fours as well. It had flattened feet with large claws that supported body weight on the inside of the foot and a robust thigh bone (femur) for supporting weight."

Dr Chinsamy-Turan a Wits graduate and a Vertebrate Paleohistologist at UCT concurs: "My analysis of the bone microstructure in the ribs and shoulder blades of *Aardonyx*suggests that while it had experienced at least seven spurts or cycles of growth, it was not a fully grown animal."

According to Dr Matthew Bonnan, a Vertebrate Paleobiologist, Department of Biological Sciences and an author of the paper, they already knew that the earliest sauropods and near-sauropods would be bipeds.

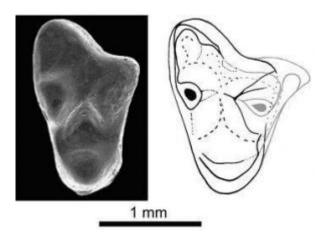
"What Aardonyx shows us, however, is that walking quadrupedally and bearing weight on the inside of the foot is a trend that started very early in these dinosaurs, much earlier than previously hypothesised. The bones of the forearm are shaped like those of sauropods -- this means that the forearm and hand could bear weight and that Aardonyx could drop onto allfours as well as walk bipedally."

Dr Johann Neveling, a Geologist from the Council for Geosciences in Pretoria, also an author of the paper, says that geology suggests that *Aardonyx* lived near an oasis on the outskirts of a vast desert.

The discovery was published on 11 November 2009 in the *Proceedings of the Royal Society B*. The lead author is Dr Adam Yates and the other authors of the paper, in order of precedence, are: Dr Matthew F Bonnan (Vertebrate Paleobiologist, Department of Biological Sciences, Western Illinois University, USA); Dr Johann Neveling (Geologist, Council for Geosciences, Pretoria); Dr Anusuya Chinsamy (a Wits graduate and a Vertebrate Paleohistologist at UCT) and Mr Marc Blackbeard (Graduate Student, BPI, Wits).

The Bernard Price Institute for Palaeontological Research is part of the School of Geosciences in the Faculty of Science of the University of the Witwatersrand, Johannesburg, South Africa. Its mission is to collect, conserve, study and interpret the rich fossil heritage of South and southern Africa, and to make its findings known through its research, teaching and public engagement activities both in South Africa and beyond.

# Discovery Of The Oldest European Marsupial In Southwest France



ScienceDaily (Nov. 9, 2009) — Remains of one of the oldest known marsupials have been recovered in Charente-Maritime by a palaeontologist team from the Muséum national d'Histoire naturelle (CNRS) and the University of Rennes 1. This discovery raises a new hypothesis about the dispersal route of the earliest marsupial mammals.

In the history of the first modern mammals (i.e., marsupials and placentals), during the Cretaceous, Europe is almost a Terra incognita. No fossils are known between 125 and 84 million years (my), and very few up to the Cretaceous-Tertiary boundary (65 my). In the Cenomanian (99 my) of Charente-Maritime, the discovery of the scientist team from the Muséum1 (CNRS) and the University of Rennes 12 thus provides important information on the early history of these mammals in Europe. The discovery consists of a few teeth, collected after screenwashing of 5 tons of sediment. They belong to a new tiny mammal, named Arcantiodelphys marchandi, which is one of the oldest and most primitive marsupial known in the world. It is also the oldest known representative of the modern therians in Europe.

This discovery is the result of a research program of the University of Rennes 1 on the vertebrates from the Cretaceous of Charentes, in collaboration with the MNHN.

Arcantiodelphys marchandi improves our knowledge of the earliest stages of the marsupial history, so far known mostly from North American fossils. Its main significance is that the beginning of the marsupial history also involved Europe. Furthermore, it confirms faunal links between North America and Europe during the mid-Cretaceous. It is from these primitive marsupials from the "Euramerican" Cretaceous that the modern marsupials colonized the southern landmasses, South America and mainly Australia where they are nowadays well diversified. Opossums and kangaroos are extant representatives of this very old northern origin of the marsupials.

# 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:

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Photography	John Heinsen	(407) 291-7672
Webmaster	Elise Cronin-Hurley	(407) 929-6297
	elise@liseydreams.co	m

# Board of Paul Bordenkircher Directors: Russell Brown

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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

December 19, 2009 Party

**January 16, 2010** 3:00pm Meeting

February 20, 2010 2:00pm Kids Blast 3:00pm Meeting

See page 2 for more information on events.

# TIME TO RENEW

your Florida Fossil Hunters 2010 Membership.

#### Be Green

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

Florida Fossil Hunters
Post Office Box 540404

Orlando, Florida 32854-040



