

# NEWS

## Florida Fossil Hunters

Volume 18, Number 6

June 2008



### Prez Sez:

Thanks to Craig Nesbit for his talk on the Kansas fossils, we learned how to prep in the field in a new way!

Gatorland and the Brevard Zoo were good field trips, thanks Dave D. for getting through to set them up.

Our next speaker will be presenting in August. In June is the Fossil Auction with the ever popular Roy Singer; auctioneer extraordinaire, and we meet in July at Dave D. house for our picnic. If you didn't catch it, he had a write up about the fort in the newspaper!

See You Then!!!

Shelley Zimmerman

**Summer Cookout and Picnic**  
Saturday, July 19th from 1 pm to 5pm, Page 3

**Vulcan Mine Field Trip**  
New Available Dates, Page 2

### Coming Events

#### **Meetings held at the Orlando Science Center**

*June 18th*

6:00pm Kid's Blast and

7:00pm Meeting and Auction

**July Club Picnic**, Saturday,  
July 19th, *No July Meeting*

*August 20th*

6:00pm Kid's Blast and

7:00pm Meeting

*September 17th*

7:00pm Meeting

*For more info...*

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

### Table of Contents

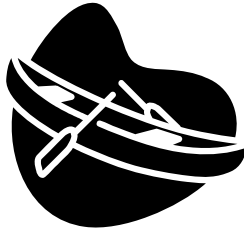
Piece on the Peace .....	2
Kids FossilBlast .....	2
Vulcan Field Trip Dates .....	2
Summer Cookout and Picnic .....	3
Giant Flying Reptiles Preferred To Walk .....	4
Fossilized fish reveals first vertebrate sex .....	5
June 2008 Fossil Bucks Auction ....	6
Membership Application .....	7
Calendar .....	8

# Florida Fossil Hunters News

# Fragments

## **Piece on the Peace**

The river level is low, low, low! It was below 4 ft. at the Zolfo Springs station at the end of May. Take advantage of it while you can for soon the summer rains will be coming and it'll be too deep to dig.



Be sure to check the river level via the link on our website before you head down there.

*Happy hunting.*

## Kids' Fossil Blast

They include the biggest animals that ever lived on this planet and they sing! Yes, we're going to study whales and their smaller cousins, the dolphins for the June Fossil Kids' Blast. Our next meeting of the Kids Fossil Blast will be on **Wednesday, June 18th, at 6:00 pm** before our regular meeting.

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 6:00 pm at the Orlando Science Center.

## VULCAN FIELD TRIP INFO

We received this email from Alan at the Vulcan Mine in Brooksville. Be sure to check with Shelley to make sure a field trip has been arranged before going on any of the dates listed below.

### **Alan says:**

There have been some changes at the mine in recent months that many of you are aware of. We laid off 20 employees in April and in May received a new manager. Our operating schedule has changed based on supply and demand to working production Monday thru Thursday. We have a few people at the site on Friday and no one here on the weekends. In discussing changes in how we operate, of course, there are changes with how we will be able to work with fossil clubs going forward. Due to cost restrictions we will have the quarry open one Saturday per month for fossil hunters. There will no longer be any Sunday trips. Since we are only running our production 4 days per week, we will be open to fossil hunters on Fridays throughout each month.

Groups still need to contact Vulcan ahead of time to schedule their trips.

I am sorry it has come to this, but the current outlook is dismal for the rest of this year and into most of 2009 for the aggregate industry. I will do my best to keep you all in the loop as things change. Hopefully the economy will

start moving again and we can be more flexible with our scheduling.

From today forward we will be available on the 2nd Saturday of each month. Again it needs to be scheduled in advance. If there are no scheduled trips on that particular Saturday, no one will be at the quarry to escort them in. The second Saturday of each month was chosen due to the overall number of people that come out on that weekend during previous years as well as the dates do not interfere with any holidays.

### **Currently these dates are available:**

June 14th, 2008  
 July 12th, 2008  
 August 9th, 2008  
 September 13th, 2008  
 October 11th, 2008  
 November 8th, 2008  
 December 13th, 2008

I apologize for any inconvenience. We will do our best to continue to be available for the fossil hunting community.

Alan Pagels  
 Safety, Health and Environmental Coordinator  
 Vulcan Materials Company  
 Florida Rock Division

# Summer Cook Out and Picnic



*Dave Dunaway has graciously agreed to host the annual summer picnic again.*

**Saturday, July 19th from 1 pm to 5pm.**

So be planning what yummy you will bring to share and join us for the delightful company and conversations.

It's too hot to dig in July (unless you're up to your armpits in the river). But we can still have the fun of fossil stuff at the annual picnic at Dave Dunaway's house. Bring your latest finds, a covered dish to share and tour Dave's fantastic collection of fossils and curious objects. He has a fort to explore and a pool to cool off in, too.

The get-together will be from 1pm to 5pm on Saturday, July 19th.

*Directions: Take I-4 to SR 434. Go west on 434 to Markham Woods Rd. Turn right onto Markham Woods and go north to E.E. Williamson (at the traffic light). Turn right and go one block and turn right again onto Ferne Dr. Dave's house is on the left at the end of the road - 600 Ferne Dr., Longwood.*

Be sure to join us for good food, good conversation and lots of laughter.

# Florida Fossil Hunters News

# Giant Flying Reptiles Preferred to Walk



*A group of Quetzalcoatlus, another type of giant azhdarchid, strolling around a fern prairie eating baby dinosaurs for lunch. (Credit: Mark Witton)*

*ScienceDaily (May 28, 2008)* — New research into gigantic flying reptiles has found that they weren't all gull-like predators grabbing fish from the water but that some were strongly adapted for life on the ground.

Pterosaurs lived during the age of dinosaurs 230 to 65 million years ago. A new study by researchers at the University of Portsmouth on one particular type of pterosaur, the azhdarchids, claims they were more likely to stalk animals on foot than to fly.

Until now virtually all pterosaurs have been imagined by palaeontologists to have lived like modern seabirds: as gull- or pelican-like predators that flew over lakes and oceans, grabbing fish from the water. But a study of azhdarchid anatomy, footprints and the distribution of their fossils by Mark Witton and Dr Darren Naish shows that this stereotype does not apply to all flying reptiles and some were strongly adapted for terrestrial life.

Azhdarchids were probably better than any other pterosaurs at walking because they had long limbs and skulls well suited for picking up small animals and other food from the ground.

Azhdarchids, named after the Uzbek word for 'dragon', were gigantic toothless pterosaurs. Azhdarchids include the largest of all pterosaurs: some had wingspans exceeding 10 metres and the biggest ones were as tall as a giraffe.

Dr Naish said: "Azhdarchids first became reasonably well known in the 1970s but how they lived has been the subject of much debate. Originally described as vulture-like scavengers, they were later suggested to be mud-probers (sticking their long bills into the ground in search of prey), and later still suggested to make a living by flying over the water's surface, grabbing fish.

"Other lifestyles have been suggested too. These lifestyles all seem radically divergent so Mark and I sat down and carefully examined the evidence and we argue that azhdarchids were specialised terrestrial stalkers. All the details of their anatomy, and the environment their fossils are found in, show that they made their living by walking around, reaching down to grab and pick up ani-

mals and other prey."

Animals like azhdarchids no longer exist but the closest analogues in the modern world are large ground-feeding birds like ground-hornbills and storks.

The researchers studied fossils in London, Portsmouth and Germany and compared the anatomy of azhdarchid with those of modern animals. This showed that azhdarchids were strikingly different from mud-probers and animals that grab prey from the water's surface while in flight.

Dr Naish said: "We also worked out the range of motion possible in the azhdarchid neck: this bizarrely stiff neck has previously been a problem for other ideas about azhdarchid lifestyle, but it fits with our model as all a terrestrial stalker needs to do its raise and lower its bill tip to the ground."

Other aspects of azhdarchid anatomy, such as their relatively small padded feet and long but weak jaws often pose problems in other proposed lifestyles but fit perfectly with the terrestrial stalker hypothesis. Mr Witton said: "The small feet of azhdarchids were no good for wading around lake margins or swimming should they land on water but are excellent for strutting around on land. As for what azhdarchids would eat, they'd have snapped up bite-size animals or even bits of fruit. But if your skull is over two metres in length then bite-size includes everything up to a dinosaur the size of a fox."

The researchers found that over 50 percent of azhdarchid fossils come from sediments that were laid down inland. Significantly, the only articulated azhdarchid fossils we have come from these inland sediments.

# Fossilized fish reveals first vertebrate sex

The fossil, found in the Gogo area of northwest Australia, is proof that an ancient species had advanced reproductive biology, comparable to modern sharks and rays, said John Long, head of sciences at the Museum of Victoria in Melbourne.

"It is not only the first time ever that a fossil embryo has been found with an umbilical cord, but it is also the oldest known example of any creature giving birth to live young," Long told Reuters.

"It dawned on me after studying the specimen that this was the earliest evidence of vertebrates having sex by copulation, not just spawning in water," Long said.

"This is the first bit of evidence on how a complete extinct class of animals may have reproduced."

The placoderms, often referred to as "the dinosaurs of the seas," were the rulers of the world's lakes and seas for almost 70 million years. Most species of the armored fish were quite small but some reached over 20 feet in length.

Placoderms are from the late Devonian period when land animals evolved from fish.

"This discovery changes our understanding of the evolution of vertebrates," Long said. "It will make us rethink the early evolution of vertebrate in terms of how reproduction has driven evolutionary events."

Long said little was known about how reproductive changes from spawning eggs to internal fertilization affected the evolution species.

The scientists have published their finding in the latest Nature journal (<http://www.nature.com/nature>).

"The new specimen, remarkably preserved in three dimensions, contains a single, intra-uterine embryo connected by a permineralized umbilical cord. An amorphous crystalline mass near the umbilical cord possibly represents the recrystallized yolk sac," wrote the scientists.



An artist impression of the 375-million-year-old placoderm fish is seen in this undated image released by Museum Victoria. Australian scientists unveiled on May 29, 2008, the fossilised remains of the oldest vertebrate mother ever discovered, a 375-million-year-old placoderm fish with embryo and umbilical cord attached.

*(Museum Victoria/Handout/Reuters)*

They said the discovery extended internal fertilization and viviparity (giving birth to live young) in vertebrates back by some 200 million years.

"Unlike most other fish that lay eggs in the water...(the) eggs were fertilized internally, the mother provided nourishment to the embryo and gave birth to live young, much like mammals do today," said Kate Trinajstic from the University of Western Australia and co-author of the Nature article.

The Australian scientists have named their 25-cm fossil, *Materpiscis attenboroughi*, in honor of Sir David Attenborough, who first drew attention to the Gogo fish sites in the 1979 series *Life on Earth*. The fossil will go on display in the foyer of Melbourne Museum from May 29.

# June 2008 Fossil Bucks Auction

## *Items to Bid on*

- 1. Florida agatized coral
- 2. Polished stone bird carving
- 3. Sloth tooth in display case
- 4. Lower camel molar
- N** 5. Upper camel molar
- J** 6. Dinosaur bone pieces in display case
- 7. Polished red horn coral
- 8. Dragonfly cast, donated by Terry Titus
- 9. Australian opal in matrix
- 10. Display case with alligator tooth and scute, donated by Dave Cass
- N** 11. T-Rex tooth cast
- J** 12. Animal stickers, donated by Marcia Wright
- 13. Polished dinosaur bone
- 14. Polished stone owl carving
- 15. Polished horn coral
- 16. Florida agatized coral
- N** 17. Dermal plate in display case
- J** 18. Brazilian agate slab
- 19. T-Rex cast
- 20. Polished dinosaur coprolite
- N** 21. Polished brazilian agate slb
- J** 22. Shark teeth in display case

J - Junior members only (kids under 14)

N - New members only  
(joined the club within the last year)

# 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	Shelley Zimmerman	(407) 891-1260
Vice President	Paul Bordenkircher	(407) 687-3843
Secretary		
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 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	Kathy Munroe	(407) 846-7382
Membership	Melissa Cole	(407) 834-5615
	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 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

## 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

Saturday, June 7th  
Gainesville Artifact & Fossil Show

**Wednesday, June 18th**  
**6:00pm Kid's Blast and**  
**7:00pm Meeting and fossil buck auction**

Saturday, July 19th  
Summer Picnic

**Wednesday, August 20th**  
**6:00pm Kid's Blast and**  
**7:00pm Meeting**

**Wednesday, September 17th**  
**7:00pm Meeting**

## ***Vulcan Field Trip dates:***

June 14th, 2008  
July 12th, 2008  
August 9th, 2008  
September 13th, 2008  
October 11th, 2008  
November 8th, 2008  
December 13th, 2008

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)

Florida Fossil Hunters

Post Office Box 540404

Orlando, Florida 32854-040



Florida Fossil Hunters News