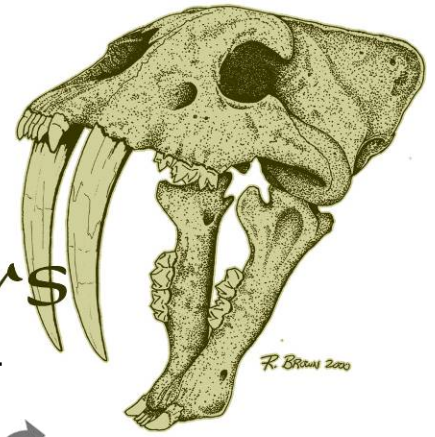


NEWS

Florida Fossil Hunters



Florida Prehistorical Museum, Inc. dba/ Florida Fossil Hunters
Volume 24, Number 3

March 2014

From the President.....

Come down to the **Orlando Science Center** on **March 15th** for our 1st **"Women in Paleontology"** celebration.

This will be a full day event, so come support your club. Sara Morey has lined up a great guest speaker, Dr. Rachel Wentz who is the Director of the East Central Region of the Florida Public Archaeology Network. She has taught courses in physical anthropology, human osteology and forensic anthropology, in addition to her field work. (more details inside on page 2)

When I first joined Florida Fossil Hunters years ago, there was an older woman who wore glasses with the chain attached so she could wear them around her neck. She was more pig-headed than I ever was and a real advocate for education. She spearheaded a weekly informal class in paleontology which went on for years.

At the **FOSSIL Project** meeting was a group from the "New Mexico Friends of Paleontology" out of Albuquerque. That's where Jewel Karpel had moved, so we asked one member if he knew her.

"Sure", he replied. "We call her a force of nature."

That pretty much sums Jewel up. She's traveled the world and hasn't let anyone tell her "you can't do that".

I'm touched and inspired enough by her to say - Happy Birthday, Jewel. I'm dedicating the club's first "Women in Paleontology" program to you. Hope it becomes better each year as you have done.

Russell Brown
President

Coming Events

UPCOMING MEETINGS at the Orlando Science Center

March 15th

10 am to 4 pm at OSC
"Women in Paleontology"
Dr. Rachel Wentz, speaker
- "Exploring Ancient Florida"

April 19th

3pm - Meeting and
Dr. Graham Worthy,
speaker

More events listed on back page

For more info...

www.floridafossilhunters.com

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Join Our Facebook group, Search:
Florida Fossil Hunters



Florida Fossil Hunters News

Fragments

Paul Roth Inspires

Paul Roth, a member of our club and the Vice President of FPS has been presented with the FIRST "National Fossil Day Partnership Award". The National Park Service was inspired by his positive contributions to their Fossil Day programs, especially the educational trunks filled with fossils, casts, and info. Each trunk is a treasure chest of fossils, casts, and info to get kids excited about fossils. Paul also organizes volunteers and displays each year at a different venue on Fossil Day.

Congratulations, Paul. Glad to see all your hard work has been recognized.

TIME TO RENEW

Renew your membership in Florida Fossil Hunters for 2014.

It's a real bargain at \$17 per household.... not per person like a lot of organizations.

You must be a paid member of the club to participate in our field trips.

Just download the form on our website or in our newsletter and mail it to: Florida Fossil Hunters, P.O. Box 540404, Orlando, FL 32854-0404 or bring it to the meeting. Even if you are renewing, please fill out the information so I can make sure what we have is up to date.

Kids' Fossil Blast

Our next Kids' program will be on March 15th. We'll be featuring "Women in Paleontology" with a special program at OSC. We'll also have a table dedicated to the great fossil finds that kids have made through the years as well as fun activities. *See you then.*

Be sure to check out the info on kids who have made fossil discoveries at our Women in Paleontology program on Saturday, March 15th at the Orlando Science Center.

Our next Kids Fossil Blast will be on Saturday, April 19th, at 2 pm when we will explore the different ways animals could adapt to major environment changes.

Kids Fossil Blast is an informal hands-on experience with real fossils and casts aimed at kids ages 5 through 13.

FIELD TRIPS and FOSSIL SHOWS

Fossil Show

Tampa Bay Fossil Club will hold its 26th annual FossilFest on March 15th and 16th, at the Florida State Fairgrounds, near the intersection of I-4 and Hwy. 301 just east of Tampa. It will feature fossils exhibits, workshops, door prizes, a silent auction, kids' mine, as well as fossils, artifacts, minerals & shells for sale.

Parking: \$5 per car

Admission: adults - \$6, kids 12 & under free

Hours: Saturday, 9am to 6pm and Sunday, 10am to 4pm

For more info, go to www.tampabayfossilclub.com

NEWS FLASH VULCAN MINE REOPENS TO FFH

Vulcan Mine Field Saturday April 12th.

Watch the April Newsletter and Website for detailed more information about sign up and what to bring. See page 4.

Venice Shark Tooth Festival

The annual event celebrating everything shark is being held this year from April 11th to the 13th. There will be fossil vendors as well as craft booths, music and food. Admission is \$3 per person and kids 12 & younger can get in free. It's at the Venice Airport Festival Grounds, 120 E. Airport Ave, Venice, FL 34285.

Fri.- 4 pm to 9 pm

Sat.- 10 am to 9 pm

Sun- 10 am to 5 pm

For more info, go to www.sharkstoothfestival.com

Mosaic Mine Field Trip

Mosaic Mine near Wauchula on Saturday, April 26th. See Page 4 for more information on the event and how to sign up!

Piece on the Peace

This is the best time of the year to go hunting for fossils in the Peace River. The water levels are nice and low, so you can access more places.

We are still planning on having our club's annual get together on the Peace in May. The date will be announced soon.

Florida Fossil Hunters News

Women in Paleontology

March 15th 11:00am at OSC

Come celebrate not only women's contributions to the field of Paleontology but the men who have encouraged women to pursue study in the sciences.

From 10 am to 4 pm we'll have displays and information about women who had a passion for science and made discoveries in the fields of Paleontology, Geology, and Archaeology.

We'll also have Dr. Rachael Wentz of the Florida Public Archaeology Network giving a presentation on "Exploring Ancient Florida" : Millions of years ago, the peninsula that would become Florida broke off from the west coast of Africa, settling into its present location. Since then, its landscape has gone from an African-like savannah to a tropical paradise. Ancient mega-fauna that once roamed the forests and grasslands disappeared as humans arrived. Come and see what Florida was like for the earliest Native Americans.

You can sign up to volunteer at the display tables at our February meeting or by contacting Sara Morey at saraariley@yahoo.com

Everyone got into "the swim" with the fossil fishes in January.

Rachel Wentz - Exploring Ancient Florida at the Women in Paleontology event

We are delighted to have Rachel Wentz speaking at our Women in Paleontology event.

Dr. Wentz received her PhD in Anthropology at Florida State University and specializes in the analysis of human remains with emphasis on ancient disease and the health of populations. Her master's and doctoral papers involved studies at the Windover site in Titusville. In addition to doing studies on Florida prehistoric sites, she has also worked at sites in England and the Ukraine.

She is a prolific author of many books, including, "Life and Death at Windover: Excavations of a 7,000-year-old Pond Cemetery". Rachel currently serves as the East Central Regional Director of the Florida Public Archeology Network.

The subject of her talk at our event will be: Exploring Ancient Florida.

Arrive early to get a good seat. Directions to the room at OSC will be posted near the entrance.

FOSSIL Project

The North American Paleontological Convention was a great learning experience. There were so many interesting talks on new findings using some very innovative techniques. It was like getting months of schooling in just a few days. We met professionals and amateurs from around the country and the world.

Then those of us involved in FOSSIL met and brainstormed on ways to improve interactions between amateurs and professionals and the public. We shared methods that worked for some of us and discussed ways of using technology and networking to improve our outreach with the public and our access to professionals and the vast data on Paleontology.

I believe this will be the wave of future fossil clubs - accessing digital collections, having instant access to research, working as citizen scientists in research, and helping on projects with museums and other organizations.

As clubs go, we stack up pretty well. We have an average

number of people, a good mix of women & men, and a good range of ages, and we have a children's program (most do not and they were very interested in ours). Most are finding fewer places to hunt as groups.

A lot of the other clubs were envious that we meet at the Orlando Science Center and wish that their club had a place to display fossils and do public outreach. We are lucky to have this partnership, and I'll do everything I can to keep our meetings there.

One issue raised recently - if you are not a member of OSC, you have to pay \$5 to park in the garage. If you do not want to pay to park, there are parking areas on the west and east sides of the Science Center. This may be inconvenient, but after years of meeting in parking lots, schools, libraries, etc. and having problems getting doors unlocked, access to restrooms, etc., we are blessed to have a home at OSC. I look forward to working with them as much as possible. — Russell Brown, President

Florida Fossil Hunters News

APRIL EVENTS

Prehistoric Florida, April 4th

Zach Zacharias, Senior Curator of Education & History at the Daytona Beach Museum of Arts & Sciences, will present a talk on Prehistoric Florida - Land of Giants at the Gamble Place, 1819 Taylor Rd., Port Orange.

Directions: Take I-95 to Exit 256. Go west on Taylor Rd. approx. 1.5 miles. Turn left at the Florida Historic Site marker. Go down the shell road .5 mile to the Gamble Place.

You'll not only learn about the animals and how they went extinct but you'll be able to examine the fossils, too.

Admission is free for members of the Museum. \$5 for non-members. Please RSVP at [386-255-0285](tel:386-255-0285).

April Speaker

Mark your calendars. You won't want to miss this one!

Graham Worthy, Ph.D. of UCF and a member of our club, will make a presentation at our April meeting on "Marine Mammals of Florida - Then and Now". There will be more information on the presentation in March's newsletter.

We look forward to Graham Worthy's presentation at our April 19th meeting at 3pm at the Orlando Science Center.

Marine Mammals of Florida – Then and Now

The marine mammal and seagrass communities of Florida and the Caribbean were very different during the Eocene to Oligocene period compared to the present. During the Oligocene, there were as many as six species of sirenians eating a wide variety of seagrasses living in the region. Changes in oceanographic conditions following closure of the Central American Seaway (about 2-3 MYA) probably led to the collapse of this diverse system, causing extinction of several seagrass species and as a result all of the dugongs. The likely enabled manatees to spread from freshwater habitats in South America into the Caribbean and ultimately Florida. I will interpret the natural history and ecology of modern manatees and dugongs to better understand the species that once lived in the region.

Graham Worthy is a Provosts Distinguished Professor of Biology and the Hubbs-SeaWorld Endowed Professor of Marine Mammalogy at the University of Central Florida. He is also the Director of the Physiological Ecology and Bioenergetics Lab in the Department of Biology. Professor Worthy's research interests focus on understanding marine ecosystem function, and ultimately ocean health, by examining the interrelationships between different species and how those species respond to natural and human-related perturbations and how individual animals derive their nutritional needs from their environment by studying their energetics, growth, and nutrition. To achieve this he has undertaken studies on a variety of marine mammal species, including pinnipeds, cetaceans and sirenians, through laboratory and field based investigations designed to examine the capabilities of different species to withstand normal seasonal variation in their environment as well as understanding how human induced change can impact them.

Mosaic Mine Field Trip

Cindy Roll has arranged a trip to Mosaic Mine near Wauchula on Saturday, April 26th. The group is limited to 30 people and children must be 13 or older.

First priority will be given to those people who have NOT gone on one of the mine trips yet. If there is room left, it will be filled on a first contacted basis.

To sign up email Cindy at croll59@cs.com or call her at 904-571-4258.

NEWS FLASH VULCAN MINE REOPENS TO FFH

Vulcan Mine Field Saturday April 12th.

Watch the April Newsletter and Website for detailed more information about sign up and what to bring. For more information contact, Bonnie Cronin at bonnierussell62@gmail.com or call her at 352-429-1058 before 8:30pm.

Prequel Outshines the Original:

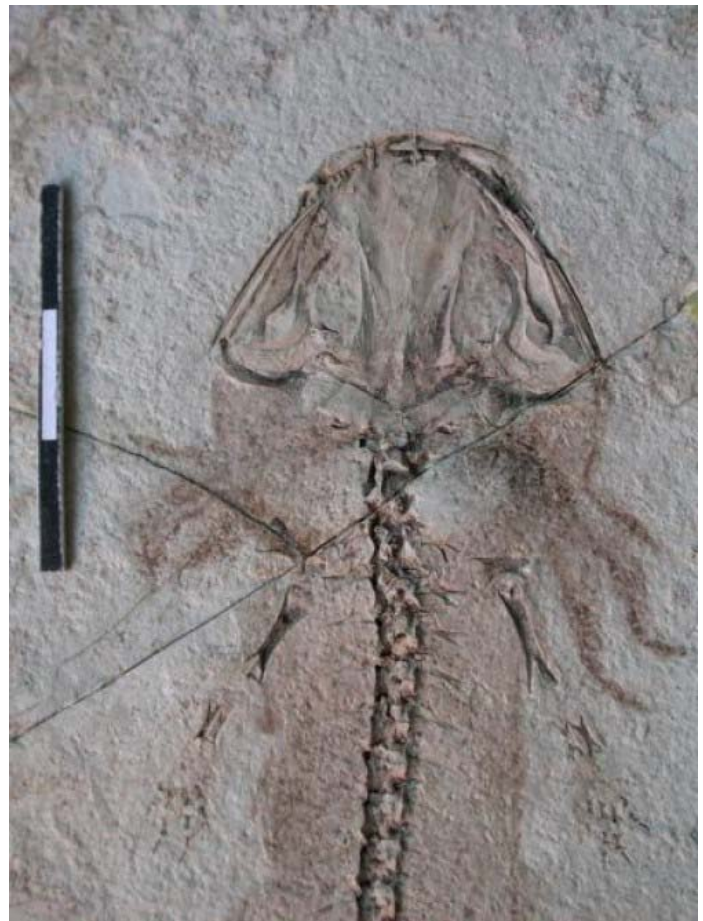
Exceptional fossils of 160- million-year-old daohugou biota

[http://www.sciencedaily.com/
releases/2014/03/140304141728.htm](http://www.sciencedaily.com/releases/2014/03/140304141728.htm)

Over the last two decades, huge numbers of fossils have been collected from the western Liaoning Province and adjacent parts of northeastern China, including exceptionally preserved feathered dinosaurs, early birds, and mammals. Most of these specimens are from the Cretaceous Period, including the famous Jehol Biota. However, in recent years many fossils have emerged from sites that are 30 million years earlier, from the Middle-Upper Jurassic Period, providing an exceptional window on life approximately 160 million years ago. A new paper published in latest issue of the Journal of Vertebrate Paleontology shows that several of these Jurassic sites are linked together by shared species and can be recognized as representing a single fossil fauna and flora, containing superbly preserved specimens of a diverse group of amphibian, mammal, and reptile species.

This fossil assemblage, newly named the Daohugou Biota after a village near one of the major localities in Inner Mongolia, China, dates from a time when many important vertebrate groups, including our own group, mammals, were undergoing evolutionary diversification. The Daohugou Biota makes an immense contribution to our understanding of vertebrate evolution during this period, with such notable creatures as the oldest known gliding mammal, another early mammal that may have swum with a beaver-like tail, the oldest dinosaurs preserved with feathers, and a pterosaur that represents an important transitional form between two major groups. As described by Dr. Corwin Sullivan, lead author of the study, "The Daohugou Biota gives us a look at a rarely glimpsed side of the Middle to Late Jurassic -- not a parade of galumphing giants, but an assemblage of quirky little creatures like feathered dinosaurs, pterosaurs with 'advanced' heads on 'primitive' bodies, and the Mesozoic equivalent of a flying squirrel."

Almost more impressive than the diversity of the biota is the preservation of many of the vertebrate specimens, including complete or nearly-complete skeletons associated with preserved soft tissues such as feathers, fur, skin or even, in some of the salamanders, external gills. Dr Yuan Wang, co-author of the study, explained, "The Daohugou amphibians are crucially important in the study of the phylogeny and early radiation of modern amphibian groups."



This is the fossil of the salamander Chunerpeton showing not only the preserved skeleton but also the skin and even external gills.

Dr. Paul Barrett, dinosaur researcher at the Natural History Museum, London, who was not involved with the study, commented, "Daohugou is proving to be one of the key sites for understanding the evolution of feathered dinosaurs, early mammals, and flying reptiles, due largely to the fantastic levels of preservation. Many of the fossils are stunning and offer vast amounts of information. There are only a handful of similar sites elsewhere in the world and this article represents the first comprehensive attempt to draw all of the relevant information together into a single benchmark paper." Because the Daohugou Biota and the much better studied Jehol Biota are similar in preservational mode and geographic location, but separated by tens of millions of years, they give palaeontologists an outstanding, even unique, opportunity to study changes in the fauna of this region over a significant span of geological time and an important period in vertebrate evolution. As Dr. Sullivan further remarked, "The Cretaceous feathered dinosaurs of north-eastern China have been astonishing palaeontologists and the public for almost two decades now, and the Daohugou Biota preserves their Jurassic counterparts in the same region. As prequels go, it's pretty exciting."

Florida Fossil Hunters News

Aquatic Sloths

While at FOSSIL in Gainesville, we were treated to a webinar (lecture via the internet) about some fossil whales found in Peru. The researcher mentioned in passing that they found fossils of aquatic sloths as well.

I had never heard of aquatic sloths so I did some research and this is what I found. Hope you find it interesting. ~ Bonnie



Ground sloths (Gravigrada, Xenarthra) are known from middle or late Oligocene to late Pleistocene in South America and from late Miocene to late Pleistocene in North America. They are medium to gigantic in size and have terrestrial habits. Discovery of abundant and well preserved remains of a new sloth (*Thalassocnus natans*), in marine Pliocene deposits from Peru drastically expands our knowledge of the range of adaptation of the order. The abundance of individuals, the absence of other land mammals in the rich marine vertebrate fauna of the site, and the fact that the Peruvian coast was a desert during the Pliocene suggest that it was living on the shore and entered the water probably to feed upon sea-grasses or seaweeds. The morphology of premaxillae, femur, caudal vertebrae (similar to those of otters and beavers) and limb proportions are in agreement with this interpretation." [Nature 375, 224 - 227 (18 May 1995)] The research was reported by C. de Muizon and H. Greg McDonald in Nature.

In 2004, de Muizon, McDonald, Salas and Urbina reported on the evolution of the feeding strategy of

the sloths: "The aquatic sloth *Thalassocnus* is represented by five species that lived along the coast of Peru from the late Miocene through the late Pliocene. A detailed comparison of the cranial and mandibular anatomy of these species indicates different feeding adaptations. The three older species of *Thalassocnus* (*T. antiquus*, *T. natans*, and *T. littoralis*) were probably partial grazers (intermediate or mixed feeders) and the transverse component of mandibular movement was very minor, if any. They were probably feeding partially on stranded sea weeds or sea grasses, or in very shallow waters (less than 1 m) as indicated by the abundant dental striae of their molariform teeth created by ingestion of sand. The two younger species (*T. carolomartini* and *T. yaucensis*) were more specialized grazers than the three older species and had a distinct transverse component in their mandibular movement. Their teeth almost totally lack dental striae. These two species were probably feeding exclusively in the water at a greater depth than the older species." *Journal of Vertebrate Paleontology*: Vol. 24, No. 2, pp. 398–410.

Florida Fossil Hunters

Membership Application

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 usually held on the third Saturday of the month but may vary with club activities. Check the website for the date and location of the next meeting or call one of the officers.

Officers:

President	Russell Brown	(352) 429-1058
Vice President	Dave Dunaway	(407) 786-8844
Secretary	Bonnie Cronin	(352) 429-1058
Treasurer	Sara Morey	(619) 302-4863

Chairs:

Education	Bonnie Cronin	(352) 429-1058
Field Trips	OPEN	
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
Membership	Bonnie Cronin	(352) 429-1058
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@lisedreams.com	

Board of Directors:

Melissa Cole	(407) 834-5615
Ed Metrin	(407) 321-7462
Dave Cass	(407) 409-9095
Shelley Zimmerman	(407) 891-1260
Marge Fantozi	
Marcia Wright	

Names: _____

Associate Members: _____

Address: _____

City: _____

State: _____ Zip: _____ Phone: _____

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: bonnierussell62@gmail.com . Articles can be sent as text in the e-mail or in Microsoft Word files (.doc or .docx).

Please note in subject of email 'FFH'.

Florida Prehistorical Museum, Inc.
dba/ Florida Fossil Hunters

Florida Fossil Hunters News

Florida Fossil Hunters Mark Your Calendar

See inside for more information on events.

March 15th

10 am to 4 pm

"Women in Paleontology" at OSC
11am - Dr. Rachel Wentz, speaker
- "Exploring Ancient Florida"
4th floor, Orlando Science Center

March 15 & 16th

Tampa Bay FossilFest

April 11th - 13th

Venice Shark Tooth Festival

April 12th—Vulcan Mine Field Trip

April 19th

2 pm Kids' Fossil Blast
3 pm Graham Worthy, speaker
"Marine Mammals - Then and Now"

April 26th

Mosaic Mine Field Trip

May 3rd

Peace River Fossil Hunting & Picnic
(date subject to change)

June 21

2 pm Kids' Fossil Blast
3 pm Meeting & Auction

Be Green

Email Bonnie at bonnierussell62@gmail.com
to receive the newsletter via email.



Join Our Facebook group, Search:

[Florida Fossil Hunters](#)

facebook

Visit us online at www.floridafossilhunters.com

Articles and comments should be sent to: bonnierussell62@gmail.com

Florida Fossil Hunters

Post Office Box 540404

Orlando, Florida 32854-0404



Florida Fossil Hunters News



FLORIDA'S LARGEST PREHISTORIC SHOW!

FOSSILS & ARTIFACTS

GEMS * MINERALS * SHELLS

FOSSIL EXHIBITS & WORKSHOPS

KIDS GAMES * FOSSIL MINE * RAFFLES

DOOR PRIZES * SILENT AUCTION

PALEO WORKSHOPS

Learn about Florida's prehistoric past in a FossilFest workshop! Experienced collectors will teach you how to find, identify, and preserve fossil treasures of your very own! All workshops are free to FossilFest attendees!

Saturday & Sunday

Discovering Florida's Fossil Treasures with TBFC's own Dr. Bob Sinibaldi PhD. Learn where and how to find fossils of your own right here in Florida!

Florida's Fossil Vertebrates & the Fossil Hunting Permit with Dr. Richard Hulbert PhD of the Florida Museum of Natural History. It's cheap and easy! Learn how to get your fossil permit and participate in the science of paleontology.

The Perfect Plaster Jacket & Other Preservation Techniques with Bill Faucher. Learn how to successfully get fossils from the field to your lab. Jacketing, glues, and preservation techniques are discussed for the beginner.



Presents the 26th Annual

FOSSILFEST

March 15th & 16th, 2014

Sat: 9AM-6PM, Sun: 10AM-4PM

Adults \$6, Kids 12 and under FREE!

Florida State Fairgrounds

Intersection of I-4 & Hwy 301 just east of Tampa.

**Be a part of the adventure!
Visit TBFC's membership table &
JOIN TODAY!**

www.tampabayfossilclub.com

