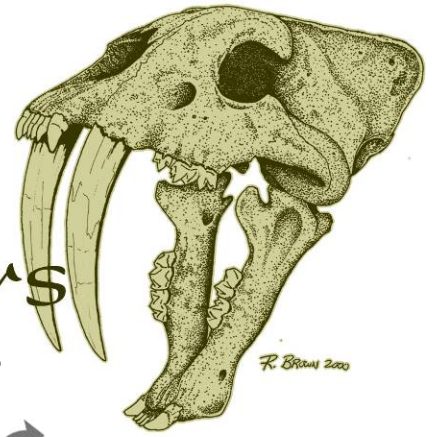


# NEWS

## Florida Fossil Hunters



Florida Prehistorical Museum, Inc. dba/ Florida Fossil Hunters  
Volume 24, Number 5

May 2014

**May 3rd, Peace River Fossil Hunt/Picnic/Canoe Trip. Pg 7**  
**May 10th, Vulcan Mine Field Trip, Pg 3**

### *From the President.....*

Club members attending our April meeting were treated to an great lecture on Marine Mammals. Thanks to Graham Worthy for an excellent educational presentation. There were tables full of both modern and fossilized specimens to see..... dugong, manatee, dolphin, whale, seal, etc. From skulls to vertebrae, we had it covered. Plus all the children from "Kids' Blast" got to take home a few items for their own.

Thank you, Graham Worthy, for the lecture, and Bonnie Cronin's Kids' Blast for making our April meeting a success.

In May we will NOT be meeting at the Orlando Science Center. Instead on the 3rd of May, the club will be having a Peace River fossil hunt/picnic/canoe trip. Bonnie's got all the details in side this newsletter.

The second Saturday, May 10th, we'll have a Vulcan Mine trip as well. Sign-up info inside.

In June, we will be at OSC for our Fossil Bucks auction.

We usually take off for July, but Dave Dunaway has offered to host a picnic at his house on Saturday, July 19th. Plan on plenty of summer activities.

Come early/ stay late.

Russell Brown  
President

## Coming Events

### **UPCOMING MEETINGS** at the Orlando Science Center

**No FFH meeting in May**

**June 21**

2 pm Kids' Fossil Blast  
3 pm Mtg & Fossil Bucks Auction

**No FFH meeting in July**

**July 19th**

Summer picnic at Dave  
Dunaway's, 3 - 8 pm

*More events listed on back page*

*For more info...*

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

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Join Our Facebook group, Search:  
**Florida Fossil Hunters**



# Florida Fossil Hunters News

# Fragments

## Ask a Scientist: International Museum Day

Do you have some fossils or rocks that you need to be identified? Are there questions about the earth, animals, plants nagging at your mind?

Then take your curiosity to the Florida Museum of Natural History on Sunday, May 18th, from 1 to 4 pm. There will be a number of scientists from a range of disciplines to answer whatever questions are bugging you.

Address: 3215 Hull Rd. Gainesville, FL 32611  
ph: [352-273-2062](tel:352-273-2062)

**VULCAN MINE May 10th, see page 3 for more info**

## Kids' Fossil Blast

Our next Kids' program will be on Saturday, June 21st, at 2 pm in the Inspiration Room on the 2nd floor at the Orlando Science Center.

The Kids' Fossil Blast is a hands-on exploration of the past with real fossils, casts, and pictures. It's geared for kids ages 5 to 13.

## Books. to put on your wish list...

Rachel Wentz has written books on a wide range of subjects:

"Chasing Bones" is about her experiences in becoming a bioarchaeologist.

"Life and Death at Windover: Excavations of a 7,000-year-old Pond Cemetery" covers the information learned from the skeletons found at the Brevard County site.

"Searching Sand and Surf" about the origins of archaeology in Florida.

Information on these books can be found on her Facebook page - [rachelwentzbooks](https://www.facebook.com/rachelwentzbooks). They can be purchased on Amazon.com on Kindle and in paperback.

You can find out about her upcoming talks throughout Florida at [www.myfloridahistory.com](http://www.myfloridahistory.com)

One of the best resources for identifying fossil shells -

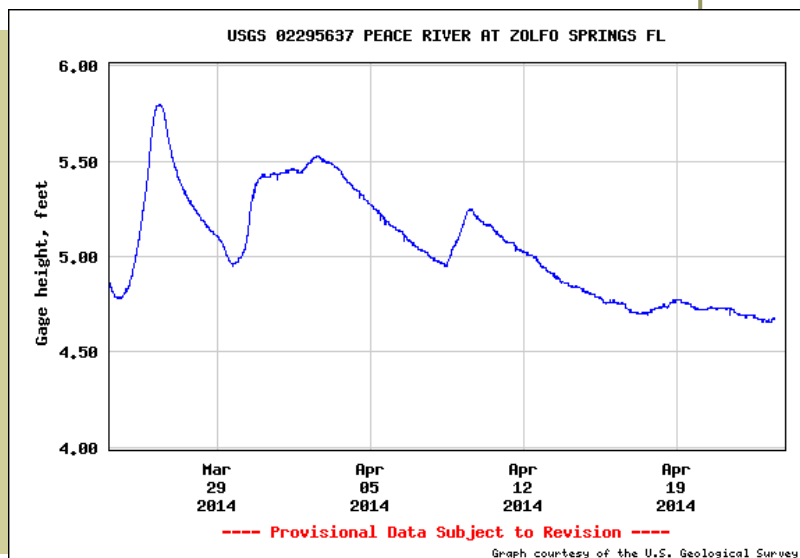
"Southern Florida's Fossil Seashells" by Carol and Bernie Peterson

Florida's history lies buried beneath a few feet of sand. That history is in the form of fossils of every description that have been deposited and then exposed over the course of the last 40 million years. Some of the most abundant and interesting fossils to be found in Florida are those of mollusks or "seashells". This book is a fantastic resource for identifying fossil seashells.

The book can be purchased on Amazon.com

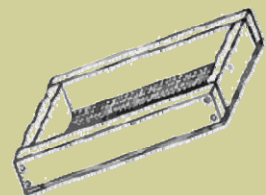
Carol also came to our WIP program and delighted us with her stories and the shells she brought. They sell and/or trade ammonites and echinoids.

Carol & Bernie's email is [bpeterson11@cfl.rr.com](mailto:bpeterson11@cfl.rr.com)



## PEACE RIVER TRIP May 3rd, see page 7 for more info

Bring a Sifter to the Peace... anything that has a 1/4" screen will do. The easiest to work with are approx. 1 ft x 2 ft wooden boxes fitted with screening with fun-doodle floats attached to keep them from sinking while you fill them. It's important to have it tied to you with a length of rope so your finds don't float down the river. The alternative is to have a partner that holds the sifter while you shovel in the gravel.



# Florida Fossil Hunters News

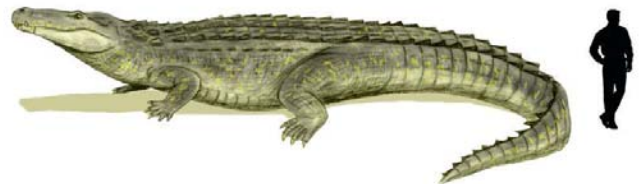
# Monsters.

When we talk about the Peace River, the question "are there snakes or alligators to worry about?" is often asked. Yes, there are snakes and gators in the Peace but we hunt in shallow areas and generally make a lot of noise so those critters stay away from us. Probably the biggest risk of being bitten comes from the mosquitoes.

However..... if you had been in the water during the Miocene, you would have had worse dangers to occupy your mind.

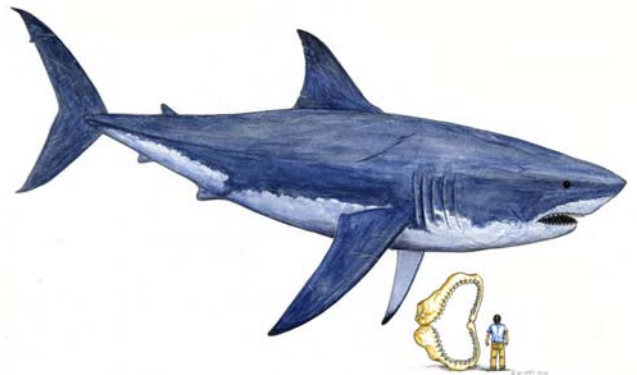
## Giant Prehistoric Whale

This was an ancient relative of today's sperm whale. *Acrophyseter* was moderately sized, and didn't feed on squid but rather on other marine mammals and even on sharks! Its horrible-looking teeth were deadly weapons and have given *Acrophyseter* and its ancient relatives the nickname of "killer sperm whales". *Acrophyseter's* fossil remains have been found in Peru; it lived in the Miocene period, which seems to have been the best epoch for scary marine monsters including giant dolphins, colossal sharks and even monster penguins and seals.



## Giant Crocodillian - Purussaurus

This prehistoric caiman might have been even bigger than the SuperCroc, *Deinosuchus*. It had a stout, robust head with sharp-edged teeth capable of catching and eating large prey. It's estimated to have been between 35-43 ft. and 7-10 tons. But since it lived 8 million years ago in South America, the chances of running across it while you're digging is pretty low.



## Megalodon

Back in the Miocene, this monster shark ruled the oceans. You'll find their teeth in the Peace but most of them will be from juveniles. Might the waters covering Florida been a nursery for Megalodons? Very rarely, someone will uncover a large megalodon tooth..... so keep diggin' and lookin'.

## Miocene shoreline

So why do we find shark teeth and dugong ribs and land animal fossils in the Peace River?

A good amount of the fossils we find in the Peace are from the Miocene to the Pleistocene. During that time the sea levels fluctuated, at times almost covering most of Florida. Then during the Ice Ages, the shoreline extended well out into what is now the Gulf of Mexico. (see map) →



# Florida Fossil Hunters News

# Earliest ancestor of land herbivores discovered: 300-million-year-old predator showed way to modern terrestrial ecosystem

New research from the University of Toronto Mississauga demonstrates how carnivores transitioned into herbivores for the first time on land.

"The evolution of herbivory was revolutionary to life on land because it meant terrestrial vertebrates could directly access the vast resources provided by terrestrial plants," says paleontologist Robert Reisz, a professor in the Department of Biology. "These herbivores in turn became a major food resource for large land predators."

Previously unknown, the 300-million-year old fossilized juvenile skeleton of *Eocasea martini* is less than 20 cm long. Found in Kansas, it consists of a partial skull, most of the vertebral column, the pelvis and a hind limb.

By comparing the skeletal anatomy of related animals, Reisz and colleague Jörg Fröbisch of the Museum für Naturkunde and Humboldt-University in Berlin, discovered that *Eocasea martini* belonged to the caseid branch of the group Synapsid. This group, which includes early terrestrial herbivores and large top predators, ultimately evolved into modern living mammals.

*Eocasea* lived nearly 80 million years before the age of dinosaurs. "*Eocasea* is one of the oldest relatives of modern mammals and closes a gap of about 20 million years to the next youngest members of the caseid family," says Fröbisch. "This shows that caseid synapsids were much more ancient than previously documented in the fossil record."

It's also the most primitive member and was carnivorous, feeding on insects and other small animals. Younger members were herbivorous, says Reisz, clear evidence that large terrestrial herbivores evolved from the group's small, non-herbivorous members, such as *Eocasea*.



The smallest and largest caseid: this is a reconstruction of 300-million-year-old tiny carnivorous *Eocasea* in the footprint of 270-million-year-old largest known herbivore of its time, *Cotylorhynchus*. Credit: Artwork by Danielle Dufault

"*Eocasea* is the first animal to start the process that has resulted in a terrestrial ecosystem with many plant eaters supporting fewer and fewer top predators," he says.

Interestingly, Reisz and Fröbisch also found that herbivory, the ability to digest and process high-fibre plant material such as leaves and shoots, was established not just in the lineage that includes *Eocasea*. It arose independently at least five times, including twice in reptiles.

"When the ability to feed on plants occurred after *Eocasea*, it seems as though a threshold was passed," says Reisz. "Multiple groups kept re-evolving the same herbivorous traits."

The five groups developed the novel ability to live off plants in staggered bursts with synapsids such as *Eocasea* preceding reptiles by nearly 30 million years. This shows that herbivory as a feeding strategy evolved first among distant relatives of

### ***300-million-year-old predator, continued***

mammals, instead of ancient reptiles -- the branch that eventually gave rise to dinosaurs, birds, and modern reptiles.

The adoption of plant-eating also caused dramatic shifts in the size of early herbivores. When the team mapped the animals on an evolutionary tree, they found that four of the groups showed a tremendous increase in size during the Permian Period, at the end of the Paleozoic Era.

Caseids were the most extreme example of this size increase, says Reisz. The oldest member of the group, *Eocasea*, was very small, less than 2 kilograms as an adult, while the youngest, last member exceeded 500 kilograms.

Reisz says that the discovery of *Eocasea* creates questions even as it answers them. "One of the great mysteries to my mind is: why did herbivory not happen before and why did it happen independently in several lineages? That's what's fascinating about this event. It's the first such occurrence, and it resulted in a colossal change in our terrestrial ecosystem."

*University of Toronto. "Earliest ancestor of land herbivores discovered: 300-million-year-old predator showed way to modern terrestrial ecosystem." ScienceDaily. ScienceDaily, 16 April 2014. <[www.sciencedaily.com/releases/2014/04/140416172243.htm](http://www.sciencedaily.com/releases/2014/04/140416172243.htm)>.*

## **Vulcan/Cemex Mine Field Trip**

**Saturday, May 10th 8:30am**

16313 Ponce DeLeon Blvd., Brooksville

When: **Saturday, May 10th - 8:30 am.**  
**Gate is locked at 9 am so be on time.**

**Trip Leader: Steve Chambers**

email: [stchamb1@comcast.net](mailto:stchamb1@comcast.net) ph: [321-806-0763](tel:321-806-0763)

Children are allowed but keep close to them. There are steep cliffs and sharp rocks, and rattlesnakes.

Directions: From Orlando, take Hwy 50 west. Do NOT take 50A through downtown Brooksville.

Turn right onto 41 north. If you are early enough, you can stop and use the restrooms at the fast food places. THERE ARE NO RESTROOM FACILITIES AT VULCAN - just rocks and dirt hills to hide behind.

Continue for a couple blocks and then take the road that forks off to the left, Ponce De Leon Blvd./ Rt. 98. Go approx. 10 miles and Cemex/Vulcan will be on your left. Park along the driveway loop, check in and sign the releases.

We will drive our vehicles into the mine at 9 am. There will be two departure times: 12 noon and 2 pm. You have to be led out at those times only. We don't want people getting lost.

Bring: screwdriver, rock hammer, or garden spade for prying out specimens. A bucket to carry your finds along with containers for fragile things. Also bring water and/or drinks and snacks, lunch, etc.

Wear: Hat, sturdy shoes, long pants, and sunscreen. Bring bug repellent. Someone brought a tick home last trip.

It is mostly surface collecting and we find mostly echinoids, sand dollars, and shell molds. Sometimes we find sea urchins & dugong bones, and a few other marine fossils. For those that like rocks, there are calcite crystals and chert..... some of the chert has crystals and fossil molds in it.

# Florida Fossil Hunters News

# FFH Peace River Dig & Picnic Saturday, May 3rd

Please email us at [bonnierussell62@gmail.com](mailto:bonnierussell62@gmail.com) or call Russell or Bonnie at [352-429-1058](tel:352-429-1058) to sign up. We need to have the number of vehicles to arrange for day passes into the campground and the number of people for hot dogs/buns.

## ***Two ways to do the dig this year....***

For those of you who have canoes/kayaks or rent them, we're going to put in at the park at Wauchula at 9:30 am and float down to Thousand Trails Campground. It's about 2 - 3 hrs of easy paddling so we'll have time to stop at gravel bars and hunt for fossils. Wauchula park: go south on Hwy.17 to Wauchula, turn left onto East Main St. (State Hwy. 64A) and go east. Just before the bridge, turn left onto Riverside, then right on Palmetto. There is a boat ramp to unload your canoe and gear. After the picnic, we'll drive folks to get their vehicles from the park. (no bathrooms at this park, so stop on the way)

People that don't have canoes or prefer to just walk in can come directly to the campsites we'll rent at Thousand Trails Campground. Arrive around 9 to 9:30 am so we can give you the day passes for your vehicles and the code to get in the gate. There are places there where you can walk into the river to hunt for fossils.

We'll grill hot dogs around 2 pm and have the fixin's for those. We ask that everyone bring a side dish to share.... salad, fruit, chips, dessert, etc. Bring water/drinks (NO ALCOHOL) and snacks for yourselves and chairs or blanket for sitting while you eat.

## **Necessities:**

- Florida Fossil Permit
- shovel
- sifter\* (see page 2)
- shoes that you can wear in the water. No sandals. Wear ones that stay on your feet such as dive boots, water shoes, or old gym shoes. I find socks that are tight around the ankle are good for keeping gravel out.
- fanny pack for putting fossils in while you dig. A small backpack or a bag tied to you will also work.
- containers to put your fossils in to take home - some may be fragile, a bucket for large items.
- dry clothes and a towel.
- sunscreen and a hat.
- chair for the cookout or to take breaks in.
- bug repellent

## **If you bring your kids....**

This can be a wonderful family adventure and a great opportunity for your kids to find real fossils. These are some recommendations to make the experience enjoyable for all of you.

If you have young children (about 8 and under)

- there should be one adult for each child
- please be sure they have a life jacket on when they are in the river
- they get hungry and tired quickly - bring snacks and something for them to rest on the shore with

For all children

- they must have shoes on
- experienced members of the club will be there to help you get started and offer advice but your kids will probably still need your help in hunting



## **The address for Thousand Trails Campground**

Is 2555 US 17th South, Wauchula, FL 33873. ph: 863-735-8888. It is on the east side of the river BEFORE Hwy. 17 crosses the bridge. If you get to Zolfo Springs, you've gone too far south.

***See Peace River Water Level graph Page 2.***

# Florida Fossil Hunters News

# 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	<b>OPEN</b>	
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.

## No FFH meeting at OSC in May

**May 3rd**

Peace River Fossil Hunting & Picnic

**May 10th—Vulcan Mine Field Trip**

**May 18th**

FLMNH - "Ask a Scientist" 1 - 4 pm

**June 7th**

OSC "Science Night Live" 8 - 11 pm

**June 21**

2 pm Kids' Fossil Blast

3 pm Meeting & Fossil Bucks Auction

**July**

NO Meeting

**July 19th**

Summer picnic at Dave Dunaway's  
3 - 8 pm

## Be Green

Email Bonnie at [bonnierussell62@gmail.com](mailto: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](http://www.floridafossilhunters.com)

Articles and comments should be sent to: [bonnierussell62@gmail.com](mailto:bonnierussell62@gmail.com)

## Florida Fossil Hunters

Post Office Box 540404

Orlando, Florida 32854-0404



# Florida Fossil Hunters News