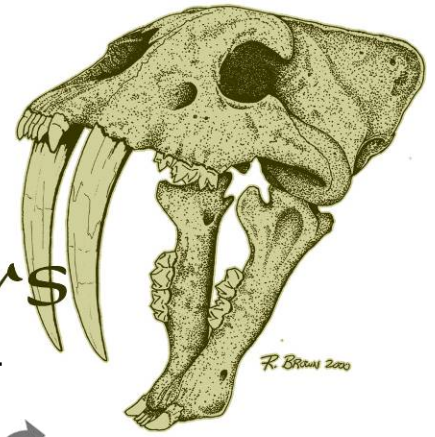


NEWS

Florida Fossil Hunters



Florida Prehistorical Museum, Inc. dba/ Florida Fossil Hunters
Volume 24, Number 6

June 2014

No Meeting or Newsletter in July.

From the President.....

Summer is here along with the rains. Unfortunately it rained before, too, during the club's planned Peace River Cookout/Dig. Still I hope everyone will take any opportunity to get down there when conditions are right. Just make sure to check the water level. Members who make it out are encouraged to bring in and share their treasures with everyone.

Next year, I'm thinking of not having a cook-out but instead (if weather/water level cooperate) a series of weekend digs starting at the end of April and all through May. Meeting at different spots each time for a day of digging. More on this as the year progresses. If you have any ideas, just let us know.

June 21, we will be meeting at the Orlando Science Center. Bonnie is skipping out of town so I'll be doing the Kids' Blast and our Fossil Bucks auction. Since Bonnie's gone, anything goes.

July we usually take a break from club activities but this year, Dave Dunaway has graciously opened his house for a party...and his pool, chicken house, 1890's fort, garden, displays, etc.

There's much more coming up so read all the details inside this newsletter. It's going to be a busy Fall.

See you at the meeting.

Russell Brown
President

Join Our Facebook group, Search:
Florida Fossil Hunters



Coming Events

UPCOMING MEETINGS at the Orlando Science Center

June 21st

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

**No FFH meeting
or Newsletter in July**

July 19th

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

October 18-19th
2014 Fossil Fair

More events listed on back page

For more info...

www.floridafossilhunters.com

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Florida Fossil Hunters News

Fragments

ROCKFEST, JUNE 7, 10 am to 2 pm, hosted by Central Florida Mineral & Gem Society, Inc., a not-for-profit educational organization, will be at 6100 South Orange Ave., Orlando, FL 32809. Selling Gems, Minerals, Fossils, Arts and crafts. Vendors wanted! \$20 for 10' x 10' space. Selling Pit Beef and Pulled Pork sandwiches. For more information call Paul Hayes [407-816-1229](tel:407-816-1229) or John Piziak [302-344-8422](tel:302-344-8422).

Orlando Science Center

OSC is holding a Science Night Live on Saturday, **June 7th** from 8 to 11 pm. This event is for adults (over 21) who like the idea of having fun is science. Valerie, Russell, and Bonnie will be there with fossils to display.

Sunday, **June 1st** is Walmart Day at the Orlando Science Center. Admission is just \$5!

June Vulcan Field Trip

We will have our last Vulcan field trip until Fall on Saturday, **June 14th**. To sign up contact Bonnie Cronin or Russell Brown at bonnierussell62@gmail.com or [352-429-1058](tel:352-429-1058). More on the field trip in our June newsletter.

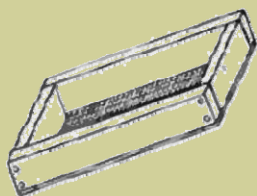
Kids' Fossil Blast

We recognize most animals by their face/head. But can you figure out who is who with just the skulls? Come test your skills of observation and logic to see if you can name that animal. There will be plenty of skulls to look at and compare. We'll meet on Saturday, **June 21st** at 2 pm. The regular meeting and Fossil Bucks auction will be at 3 pm.

PEACE RIVER

Much to our dismay the club's dig/picnic on May 3 was rained and flooded out. Since then the water level has been nice and low (see graph). There have been plenty of folks digging and sifting all month and finding lots of fossils. We never know when the summer rains will raise the water, so before you go, check the gauge via the link on our website:

floridafossilhunters.com



Brevard Zoo

Beat the summertime heat and enjoy Brevard Zoo in the evening during Summer Saturday Nights every Saturday in June and July from 5 to 9 p.m. Thanks to our local sponsors, this eight-night summer event offers an incredible discounted admission of \$6 to guests after 5 p.m. Brevard Zoo members get in for free. Last Zoo admission is at 8 p.m.

With exciting themes, special food and drinks, and activities planned for each night, there will be fun for everyone! Guests will enjoy live music from 6 to 8:30 p.m., special animal encounters at 7 p.m., see many of the Zoo animals on exhibit until dusk, and splash around in the Paws On play lagoon until 7:30 p.m. For an additional charge, guests can go kayaking, ride the train, go paddle boating and feed the giraffes.

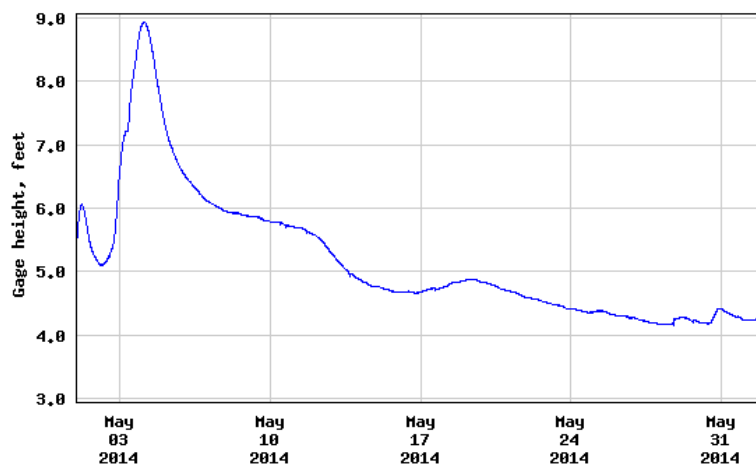
For more info and directions go to brevardzoo.org or call [321-254-9453](tel:321-254-9453).

July Party at the Fort

There will be no club meeting in July. There will be a cookout and lots of fun at Dave Dunaway's house on Saturday, July 19th, from 3 to 8 pm. The club will provide hot dogs and burgers and the fixin's. We ask that everyone who comes brings a dish to share..... salads, desserts, veggies, fruits, etc. Dave's house is filled with unique items as well as fossils and the replica Fort in his backyard is incredible. This event is always a lot of fun..... especially for the kids and those young at heart. Maybe there will even be fireworks.

Directions to Dave's house: Take I-4 to the 434 exit. Go west on 434. Turn right onto Markham Woods Rd. Turn right at the light (EE Williamson) and then turn right onto the first road, Ferne Dr. Dave's house is on the left, almost at the end of the road. 600 Ferne Dr., Longwood,

USGS 02295637 PEACE RIVER AT ZOLFO SPRINGS FL



---- Provisional Data Subject to Revision ----

Florida Fossil Hunters News

Fragments Continued

Daytona Beach Museum of Arts & Sciences

The museum will hold its Natural History Day of Saturday, **Sept. 20th**. More on this event as we hear it.

Fossil Fair 2014

The new flyer for this year's Fair is on our website. You can download it and make copies to hand out to organizations, kids' groups, libraries, etc. The Fair will be on **October 18th and 19th**. Mark your calendars. We'll have volunteer sign-up sheets at the August meeting. Remember you earn Fossil Bucks for volunteering.

The FOSSIL project

We've all taken pictures of the fossils we've found. If you'd like to sharpen your skills, check out these resources.

The FOSSIL project is making a "paleo imaging workshops" hosted by IDigBio available on-line. You can access it by going to the link on my FOSSIL below. It has recordings of all of the talks and some other goodies: <http://www.flmnh.ufl.edu/myfossil/resources-2/idigbio-paleo-imaging-workshop/>

IDigBio is a NSF funded project based at the University of Florida and Florida State University to digitize all biological specimens and make them available to researchers and the public. You can find out more by going to www.idigbio.org

Maybe you could even get some your fossil photos added to the collections.

Vulcan/Cemex Mine Field Trip

Saturday, June 14th 8:30am

Vulcan/Cemex Mine Field Trip
16313 Ponce DeLeon Blvd.
Brooksville

When: Saturday, June 14th - 8:30 am.
Gate is locked at 9 am so be on time.

Trip Leaders: Bonnie Cronin & Russell Brown

Email: bonnierussell62@gmail.com

PH: [352-429-1058](tel:352-429-1058)

(cell ph for day of trip ONLY [321-279-2592](tel:321-279-2592))

Do not leave messages on the cell phone, please.

It's going to be HOT. Be sure to bring lots of water and drinks. Bring some extra water to pour on your head to avoid heat exhaustion. A wet washrag kept in a bag in your cooler is great for quick relief, too.

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

THERE ARE NO RESTROOM FACILITIES AT VULCAN
- just rocks and dirt hills to hide behind.

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.

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

Meeting & Fossil Bucks Auction.

June 21st - 3 pm - Orlando Science Center

June 2014 Fossil Bucks Auction

1. Floating crinoid
2. Pine cone halves, sliced and polished (donated by R. Rock)
3. 2 manatee vertebrae
4. Modern Fox skull
5. Hatching triceratops - carved wood
6. Mammoth spit tooth and small piece of ivory
7. Saber-cat "saber" - reproduction
8. Scolecite - polished
9. Heart-shaped scolecite
10. Amber piece and amber ring
11. Madagascar petrified wood
12. Selection of fossil leaves and insect
13. 6 Dino skeleton models
14. Uncoiled ammonite
15. Terror Bird model "Gastornis", N. American
16. Lemon shark jaw
17. Black opalized/petrified wood
18. Whale ear bone
19. Display case, wood & glass, 14 x 20
20. Stone Canyon jasper, polished, 4 x 6

Time to search the backs of the drawers for all the fossil bucks you've earned. Now those hours volunteering will pay off!

We'll have a short business meeting and then get right to the auction.

Parking in the garage at the Orlando Science Center is free to members of the Science Center. Otherwise, it will cost \$5. There is free parking at street level near the theater and

across the street in the parking lot for the doctor's building.

You do NOT have to pay for admission to the Science Center to attend the FL Fossil Hunter's meeting. You do have to pay if you want to visit the Science Center's exhibits before the meeting.

We will probably meet in the Inspiration Room on the 2nd floor. Be sure to look for a sign near the entrance to make sure. There will be signs directing you to the room as well.

Florida Fossil Hunters News

"Living Fossil" Caught off Key West

Commercial fisher Carl Moore wasn't sure what he had netted last week just south of Key West, when he saw the fish's flat, blade-like snout. Only after the Georgia angler photographed and released his catch was its identity confirmed: It was a goblin shark, a rare deep-sea shark, and it's believed to be only the second such specimen ever caught in the Gulf of Mexico.

These sharks are so rarely encountered that any information about them is eagerly devoured by researchers, says John Carlson, a research biologist for the U.S. National Oceanic and Atmospheric Administration (NOAA) Fisheries Service. After Moore examined his curious catch and took a series of photos of it, he released it back into the ocean and contacted NOAA. Moore's photos were referred to Carlson, who specializes in sharks and was excited to get more data on this rare one.

"We don't know how long they live; we don't know how often they reproduce, or even how big they are when they reproduce," Carlson says. "They're a mystery."

Moore had told NOAA he thought the shark he released was about 18 feet (5.4 meters) long. When Carlson and colleagues analyzed Moore's photographs, they gauged the length to be more like 15 feet (4.5 meters) long. And they made an educated guess about the shark's sex.

Carlson says male sharks have external sexual characteristics called claspers, two fin-like appendages near the tail that males use to hold on to females while mating. "From the photographs, we don't see those, so we're suspecting it's a female," he says.

Life in the Dark

Moore caught the goblin shark at around 2,000 feet (610 meters) deep. That's on the shallower end of the average depth range for this species, Carlson says: They're usually found between 2,000 and 3,000 feet (610 and 914 meters) deep. That makes it one of the deepest occurring species among sharks and their relatives—and many of the shark's unusual features probably are adaptations to its habitat, he says.

Sharks have a series of sensors in their head called ampullar of Lorenzini, which enable them to pick up the electrical signals of animals around them. The goblin shark's unusually shaped head may provide an advantage in the gloomy deep, Carlson says, as the distribution of those sensors along the long, flat blade would extend the radius in which the sharks could detect prey. "It's the same sort of thing with hammerhead sharks," he says, with the ampullae found along the edge of the animal's distinctively shaped head.



Once a goblin shark locates its prey, that's where its needle-like teeth come in. Carlson says the teeth act like knives, impaling and holding on to soft-bodied prey such as fish and squid.

Shrouded in Mystery

The first recorded appearance of a goblin shark in the Gulf of Mexico was fairly recent, in 2000. Before that, the last time anyone reported seeing a goblin shark in the North Atlantic was in the 1970s off the Bahamas, says Carlson.

They've been found in the waters off Brazil, French Guiana, Colombia, and the Indo-Pacific, but "probably 80 percent of known records [of these sharks] occur off Japan," the research biologist says.

Carlson and colleagues are working on a paper describing this latest goblin shark sighting in the Gulf of Mexico, and are trying to figure out if there are hot spots for this animal around the world. The scientists aren't sure whether goblin sharks are just more abundant around Japan or if the lopsided sightings are a consequence of uneven sampling by researchers.

To build his knowledge of goblin sharks, Carlson says, he would have loved to have seen the specimen Moore pulled up. But he's glad that Moore was able to release it alive, to resume its mysterious life in the deep..

Credits: National Geographic

Australia's deadly eruptions were reason for the first mass extinction

A Curtin University researcher has shown that ancient volcanic eruptions in Australia 510 million years ago significantly affected the climate, causing the first known mass extinction in the history of complex life.

Published in the journal *Geology*, Associate Professor Fred Jourdan from Curtin's Department of Applied Geology, along with colleagues from several Australian and international institutions, used radioactive dating techniques to precisely measure the age of the eruptions of the Kalkarindji volcanic province -- where lavas covered an area of more than 2 million square kilometres in the Northern Territory and Western Australia.

Dr Jourdan and his team were able to prove the volcanic province occurred at the same time as the Early-Middle Cambrian extinction from 510-511 million years ago -- the first extinction to wipe out complex multicellular life.

"It has been well-documented that this extinction, which eradicated 50 per cent of species, was related to climatic changes and depletion of oxygen in the oceans, but the exact mechanism causing these changes was not known, until now," Dr Jourdan said.

"Not only were we able to demonstrate that the Kalkarindji volcanic province was emplaced at the exact same time as the Cambrian extinction, but were also able to measure a depletion of sulphur dioxide from the province's volcanic rocks -- which indicates sulphur was released into the atmosphere during the eruptions.

"As a modern comparison, when the small volcano Pinatubo erupted in 1991, the resulting discharge of sulphur dioxide decreased the average global temperatures by a few tenths of a degree for a few years following the eruption.

"If relatively small eruptions like Pinatubo can affect the climate just imagine what a volcanic province with an area equivalent to the size of the state of Western Australia can do."

The team then compared the Kalkarindji volcanic province with other volcanic provinces and showed the most likely process for all the mass extinctions was a rapid oscillation of the climate triggered by volcanic eruptions emitting sulphur dioxide, along with greenhouse gases methane and carbon dioxide.



Glass House Mountains National Park in Australia. A Curtin University researcher has shown that ancient volcanic eruptions in Australia 510 million years ago significantly affected the climate, causing the first known mass extinction in the history of complex life. Credit: © jovannig / Fotolia

"We calculated a near perfect chronological correlation between large volcanic province eruptions, climate shifts and mass extinctions over the history of life during the last 550 million years, with only one chance over 20 billion that this correlation is just a coincidence," Dr Jourdan said.

Dr Jourdan said the rapid oscillations of the climate produced by volcanic eruptions made it difficult for various species to adapt, ultimately resulting in their demise. He also stressed the importance of this research to better understand our current environment.

"To comprehend the long-term climatic and biological effects of the massive injections of gas in the atmosphere by modern society, we need to recognise how climate, oceans and ecosystems were affected in the past," he said.

Story Source:

The above story is based on materials provided by [Curtin University](#). Note: Materials may be edited for content and length.

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.

June 7th

OSC "Science Night Live" 8 - 11 pm

June 14th

Vulcan Mine Field Trip

June 21st

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

July

NO Meeting or Newsletter

July 19th

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

August 16th

2 pm Kids' Fossil Blast
3 pm Meeting

September 20th

MOAS Natural History Day

October 18 & 19th

Fossil Fair

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

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Florida Fossil Hunters News