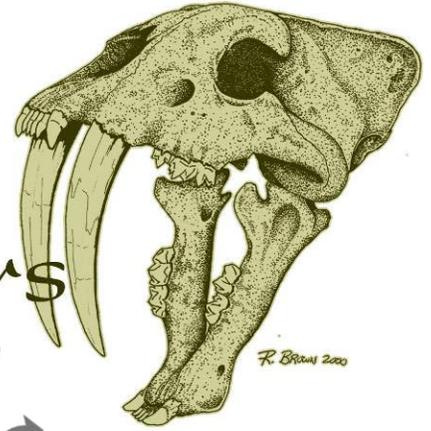


NEWS

Florida Fossil Hunters



Florida Prehistorical Museum, Inc. dba/ Florida Fossil Hunters AUG/SEPT 2019
Volume 29, Number 2

From Ye Olde President.....

Hello, and welcome to all. In celebration of Shark Week and all the shark bites at our beaches (and to make it easy for me), SHARKS will be the theme at our meeting on Aug. 17th. Of course, please bring in anything you have acquired during our summer break. We all like to see.

Each day there are events happening about fossils and the Earth and the Sciences in general... too many to participate in. Kudos to those in our club who get out regularly and help open minds and explain what amateur paleontologists do. Thank you, Salvatore Sansone, Valerie First, Cindy Lockner, Steve and Michael Sharpe for spreading the word. If you are doing outreach, let us know.

Sal & Valerie have been participating for OSC's Science Night Live (4x per year) for a long time and could use some over age 21 members to help out.

Things have been plenty busy for Bonnie and I and with the Fossil Fair and OSC's Prehistoric Party coming up quickly, we'll need as many members as possible to volunteer to help out.

2019 Fossil Fair Central Florida Fairgrounds Saturday, Oct. 19th and Sunday, Oct. 20th

There will also be a discussion on future plans for the club, so come on out and join us.

Best regards,
Russell Brown

p.s. Sorry... the Peace River is high.

Coming Events

UPCOMING MEETINGS at the Orlando Science Center

Saturday, Aug. 17th
2 pm - Kids' program
Adults welcome too. *Walking with Prehistoric Beasts* episode
3 pm - Meeting

Sat. Sept. 21st
2 pm - Kids' program
3 pm - Meeting
(hoping to get a speaker)

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For more info...

www.floridafossilhunters.com

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Fragments

Florida Fossil Hunters Meeting Saturday, August 17th

2 pm Kids' program | 3 pm Meeting
Inspiration Room, 2nd Level
Orlando Science Center
782 Princeton St. Orlando, 32803

Bring what fossils you've found lately. We all love to see them and learn more. We'll have volunteer sign-up sheets for all the upcoming events.

Need a trip leader for Vulcan Mine on Saturday, Oct. 12th.

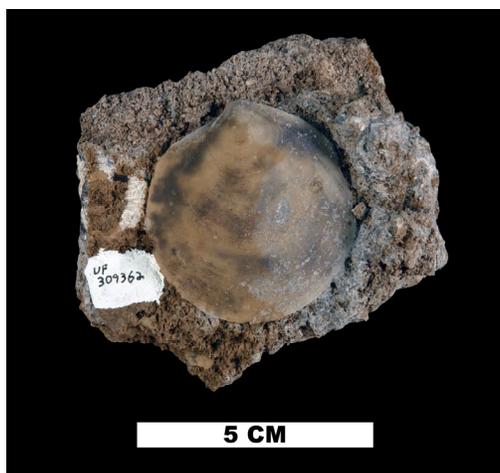
FLORIDA FOSSIL HUNTERS 2019 Fossil Fair

Our Fossil Fair is on Saturday, Oct. 19th and Sunday, Oct. 20th this year. It's always fun and packed full of wonderful fossils and rocks and great conversations.

We'll have the volunteer sign-up sheets at the meeting on Aug. 17th. Or you can email us at info@floridafossilhunters.com

Donations to the Florida Museum

For all of you who think that what amateurs find is of no interest to the professionals, rethink that premise. They are thrilled to have the opportunity to see what's out there and they don't get much time for digging..... just like us.



Kids' Fossil Blast

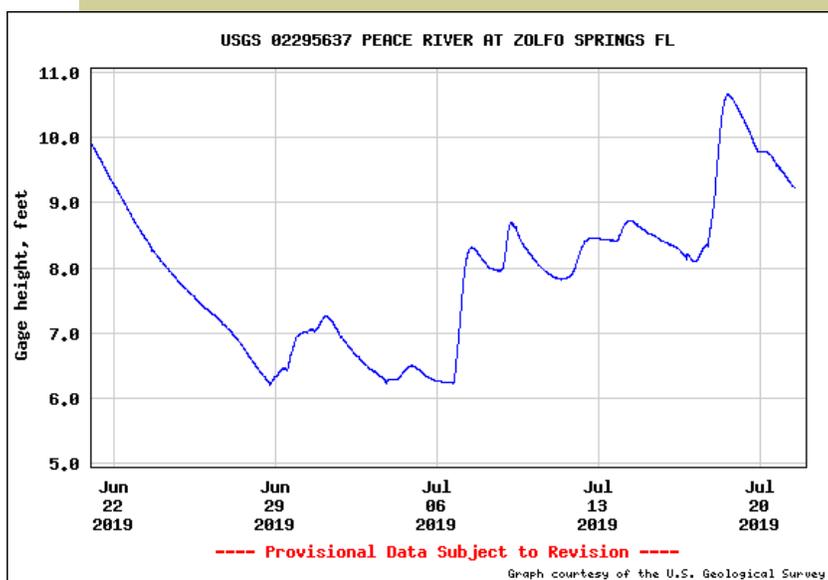
Our next program will be on Saturday, Aug. 17th at 2pm. This month's topic is *Walking with Prehistoric Beasts*. Bring your fossil finds (whole or partials) to identify and show off.

Kids' Fossil Blast is an informal, hands-on experience with real fossils, casts, etc. aimed at kids ages 5 to 14. Check the newsletter and website for information on future programs.

Piece on the Peace

Yes, it's the monsoon season (which is much better than the fire season). So water levels are up in the Peace River.

Check the link to Zolfo Springs gauge often so you can grab the opportunity when the depth subsides.



PBS Eons videos

These are a good resource

Join hosts Hank Green, Kallie Moore, and Blake de Pastino as they take you on a journey through the history of life on Earth. From the dawn of life in the Archaean Eon through the Mesozoic Era — the so-called “Age of Dinosaurs” -- right up to the end of the most recent Ice Age. Produced in collaboration with PBS Digital Studios: <http://youtube.com/pbsdigitalstudios> Link to the videos: <https://www.youtube.com/channel/UCzRrom72PHN9Zq7RML9EbA>

Florida Fossil Hunters News

OSC Prehistoric Party

On **August 24th and August 25th** Orlando Science Center will be hosting a Prehistoric Party event to highlight paleontology and geology. One of the goals for this event is to feature the Florida Fossil Hunters prominently in Dino Digs by converting a large portion of the floor space in DinoDigs into a showcase for the Florida Fossil Hunters. They would love to have as many members and items as possible! They'd also welcome any activities, such as fossil sorting. It will run 11:00a.m.-3:00p.m. on Saturday, August 24th and/or Sunday, August 25th. They expect to see 1500-2000 people in the building each on these days.

Please volunteer by signing up at the Aug. 17th meeting or by emailing us at info@floridafossilhunters.com So far Salvatore Sansone, Ken Sellers, & Valerie First have said they will be there.

Florida Museum Montbrook Dig

We will dig at the Montbrook Site for about a four-week long interval during the Fall of 2019. The digging schedule has not yet been determined, but will most likely fall within the range of **October 20 to December 10**. Information on how to volunteer will be posted at this web site in late September. The calendar is only applicable through September.

How to Volunteer:

For the first week after new schedule is posted, enrollment and reservations **only** from current museum volunteers and those that dug at the Montbrook site in 2018 and Spring 2019. After that, open enrollment; reservations taken from both new and past volunteers.

For each person, we must have a completely filled out and signed volunteer application form. ([Download adult version](#)) ([download junior version for ages 15-17](#)) and a [date reservation form](#). There are instructions on the forms on how to turn them both in. If you are unable to print out forms, they can be picked up at the reception desk in the lobby of Dickinson Hall on the UF campus. **Current Florida Museum volunteers and those who dug with us during the Fall 2018 Season do not need to fill out a volunteer application, just the [date reservation form](#).**

*Application forms must be submitted at least one week before your requested digging dates to allow time for processing.

For the forms and other info, go to: www.floridamuseum.ufl.edu/montbrook/get-involved/

Mineral & Fossil Show

Central Florida Mineral & Gem Society Inc., is hosting a Rock, Mineral, Gem, Jewelry & Fossil Show on **October 4th, 5th & 6th**, 2019 at the Florida National Guard Armory, 2809 S. Fern Creek Ave., Orlando, FL 32806. Show time: Fri. 1pm to 6pm, Sat. 10am to 6pm and Sun. 10am to 5pm. Vendors offering beads, minerals, gemstones, hand crafted cabochons and jewelry, fossils, artifacts, rocks, etc. Silent Auction, Door Prizes, Demonstrations, Family Activities, Scavenger Hunt. Admission: Adults \$5, Kids \$2, Scouts in uniforms free. Website: www.cfmgs.org. Contact: President Salvatore Sansone 321-278-9294 or ssfossilhunter@aol.com.



Daytona Beach Museum of Arts & Sciences Natural History Festival

We Need Volunteers! Please contact Dave Dunaway or Salvatore Sansone for more info and to sign up.

Join MOAS for the annual celebration of all things natural history. Enjoy natural specimens on display from rarely seen MOAS collections with many examples of fossils, mollusks, corals, insects, and more

Speaker Topics include:

- Dragons from the Deep Time,
- Fossil Hunters TV Show: Women in Paleontology
- Wetland and Core Climate Change
- The Takeover of the Everglades Rumese Python
- Going Dry in the Land of Water? Florida's hydrological history and ideas for avoiding a future water crisis

For more info on event, check out: www.moas.org/Natural-History-Festival-7-415.html

Florida Fossil Hunters News

Giant animals lived in Amazonian mega-wetland

Lake systems existing in regions over 10 million years ago survived the Amazon River reversal due to Andean uplift. Pebas, a mega-wetland that existed in western Amazonia during the Miocene Epoch, which lasted from 23 million to 5.3 million years ago.

The Pebas crocodylian ever identified, both of which were over Formation was the home of the largest caiman and gavialoid ten meters in length, the largest turtle, whose carapace had a diameter of 3.5 meters, and rodents that were as large as present-day buffaloes.

Remains of the ancient biome are scattered over an area of more than 1 million square meters in what is now Bolivia, Acre State and western Amazonas State in Brazil, Peru, Colombia and Venezuela. The oldest datings in this biome are for fossils found in Venezuela and show that Lake Pebas existed 18 million years ago.

While investigating sediments associated with vertebrate fossils from two paleontological sites on the Acre and Purus Rivers, Marcos César Bissaro Júnior, a biologist affiliated with the University of São Paulo's Ribeirão Preto School of Philosophy, Science and Letters (FFCLRP-USP) in Brazil, obtained datings of 8.5 million years with a margin of error of plus or minus 500,000 years.

The Pebas system encompasses several geological formations in western Amazonia: the Pebas and Fitzcarrald Formations in Peru and Brazil, the Solimões Formation in Brazil, the Urumaco and Socorro Formations in Venezuela, the La Venta Formation in Colombia, and the Quebrada Honda Formation in Bolivia.

"The absence of absolute ages hampers more refined interpretations on the paleoenvironments and paleoecology of the faunistic associations found there and does not allow us to answer some key questions, such as whether these beds were deposited after, during or before the formation of the proto-Amazon River."

To answer these and other questions, Bissaro Júnior's study presents the first geochronology of the Solimões Formation, based on mineral zircon specimens collected at two of the region's best-sampled paleontological sites: Niterói on the Acre River in the municipality of Senador Guiomar and Talismã on the Purus River in the municipality of Manuel Urbano.

Since the 1980s, many Miocene fossils have been found at the Niterói site, including crocodylians, fishes, rodents, turtles, birds, and xenarthran mammals (extinct terrestrial

sloths). Miocene fossils of crocodylians, snakes, rodents, primates, sloths, and extinct South American ungulates (litopterns) have been found in the same period at the Talismã site.

As a result of the datings, Bissaro Júnior discovered that the rocks at the Niterói and Talismã sites are approximately 8.5 million and 10.9 million years old (maximum depositional age), respectively.

"Based on both faunal dissimilarities and maximum depositional age differences between the two localities, we suggest that Talismã is older than Niterói. However, we stress the need for further zircon dating to test this hypothesis, as well as datings for other localities in the Solimões Formation," he said.

Drying up of Pebas

Lake Pebas was formed when the land rose in the proto-Amazon basin as a result of the Andean uplift, which began accelerating 20 million years ago. At that time, western Amazonia was bathed by the Amazon (which then flowed toward the Caribbean) and the Magdalena in Colombia. The Andes uplift that occurred in what is now Peru and Colombia eventually interrupted the flow of water toward the Pacific, causing water to pool in western Amazonia and giving rise to the mega-wetland.

However, the Andes continued to rise. The continuous uplifting of land in Amazonia had two effects. The proto-Amazon, previously pent up in Lake Pebas, reversed course and became the majestic river we now know. During this process, water gradually drained out of the Pebas mega-swamp.

The swamp became a floodplain full of huge animals, which still existed 8.5 million years ago, according to new datings by Bissaro Júnior. Unstoppable geological forces eventually drained the remains of the temporary lagoons and lakes in western Amazonia. This was the end of Pebas and its fauna.

"The problem with dating Pebas has always been associating datings directly with the vertebrate fauna. There are countless datings of rocks in which invertebrate fossils have been found, but dating rocks with vertebrates in Brazil was one of our goals," Schmaltz Hsiou said.

The new datings, she added, suggest that the Pebas system -- i.e., the vast wetland -- existed between 23 million and 10 million years ago. The Pebas system gave way to the Acre system, an immense floodplain that existed between 10 million and 7 million years ago, where reptiles such as Purussaurus and Mourasuchus still lived.

Florida Fossil Hunters News

"The Acre system must have been a similar biome to what was then Venezuela, consisting of lagoons surrounding the delta of a great river, the proto-Orinoco," she said.

Giant rodents

Rodents are a highly diversified group of mammals that inhabit all continents except for Antarctica. Amazonia is home to a large number of rodent species.

"In particular, a rodent group known scientifically as Caviomorpha came to our continent about 41 million years ago from Africa," said Leonardo Kerber, a researcher at UFSM's Quarta Colônia Paleontological Research Support Center (CAPP) and a coauthor of the article published in *Palaeogeography, Palaeoclimatology, Palaeoecology*.

"In this period, known as the Eocene Epoch, Africa and South America were already totally separated, with at least 1,000 kilometers between the closest points of the two continents, so there couldn't have been any biogeographical connections enabling terrestrial vertebrates to migrate between the two land masses," Kerber said. "However, the ocean currents drove dispersal by means of natural rafts of tree trunks and branches blown into rivers by storms and swept out to sea. Some of these rafts would have borne away small vertebrates. An event of this kind may have enabled small mammals such as Platyrrhini monkeys, as well as small rodents, to cross the ocean, giving rise to one of the most emblematic groups of South American mammals, the caviomorph rodents."

According to Kerber, the continent's caviomorph rodents have undergone a long period of evolution since their arrival, becoming highly diversified as a result. In Brazil, the group is currently represented by the paca, agouti, guinea pig, porcupine and bristly mouse, as well as by the capybara, the world's largest rodent.

"In recent years, in addition to reporting the presence of many fossils of species already known to science, some of which had previously been recorded in the Solimões Formation and others that were known from other parts of South America but recorded in Solimões for the first time, we've described three new medium-sized rodent species (Potamarchus adamae, Pseudopotamarchus villanuevai and Ferigolomys pacarana -- Dinomyidae) that are related to the pacarana (*Dinomys branickii*)."

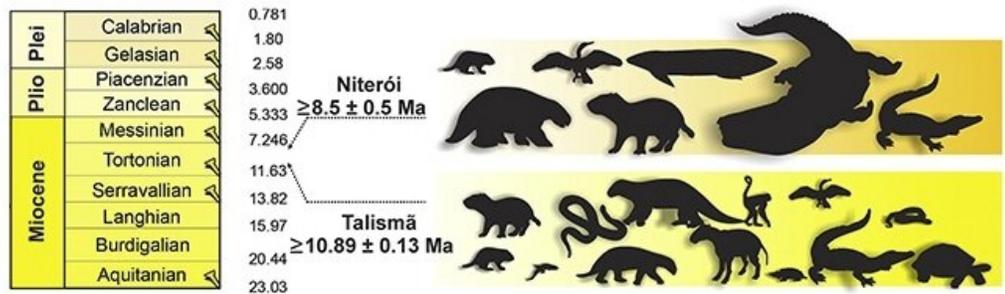
Kerber said an article to be published shortly in the *Journal of Vertebrate Paleontology* will recognize *Neopiblema acrensis*, an endemic Brazilian Miocene neopiblemid rodent that weighed some 120 kg as a valid species.

"The species was described in 1990 but was considered invalid at the end of the decade. These fossil records of both known and new species help us understand how life

evolved in the region and how its biodiversity developed and experienced extinctions over millions of years in the past," Kerber said.

For the entire article, go to www.saciedaily.com

Note: Tatanoboa vertebrae the fossil shell of a gigantic turtle were found in Columbia, dating to about 58 mya. . Maybe some of the "giants" migrated east following the water.



FLORIDA MUSEUM OF NATURAL HISTORY Howard Converse Award

The 2018 recipient, Guy Harley Means, exemplifies the meaning of outstanding contribution. Harley has donated significant specimens to all paleontology divisions at the FLMNH. His contributions of fossil mollusks, echinoids, and crabs to IP alone totals over 5,000 specimens, several of which are new to science, with some currently being described as new species. Harley's many years of FLMNH collaboration with fieldwork in Florida, Nebraska, and Jamaica; finding and reporting new fossils and fossil sites; and helping to interpret the geology of those and other sites, have been invaluable. Several of these collaborations have led to joint scientific publications, published abstracts, and field guides for professional and avocational paleontologists. Harley's dedication, providing important specimens to grow Natural History collections, desire to contribute to the science, and his passion for generating interest and public understanding of paleontology and geology are all highly commendable.

The Howard Converse Award, presented nearly every year since 1988 by the FLMNH, recognizes outstanding contributions to Florida paleontology. Individuals are nominated for the award by FLMNH staff from the Invertebrate Paleontology, Vertebrate Paleontology, and Paleobotany divisions.

Florida Fossil Hunters News

VULCAN MINE Field Trips



Thank you to everyone who has volunteered to lead a trip to the Vulcan Mine.

It's much too hot during the summer to go digging in the mine,
but watch for new opportunities coming this Fall.

TRIPS
Fall 2019

*You **MUST** be a member of the club for insurance purposes
to participate in this field trip.*

***MUST** have paid your 2019 dues (you can bring a \$17 check with you)*

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 1	Steve Sharpe	(352) 552-2296
Vice President 2	Salvatore Sansone	
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
Facebook	Paul Hardin	
Webmaster	Elise Cronin-Hurley	(407) 929-6297
	elise@liseydreams.com	

Board of Directors:

Ed Metrin	(407) 321-7462
Dave Cass	(407) 409-9095
Marge Fantozi	
Marcia Wright	
Cindy Lockner	
Dave Dunaway	
Salvatore Sansone	

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.

Florida Fossil Hunters News

Florida Fossil Hunters Mark Your Calendar

See inside for more information on events.

FFH Meeting at OSC

Saturday, Aug. 17th
2 pm - Kids' program (adults welcome)
Walking with Prehistoric Beasts episode
3 pm - Meeting (Russell will be there!)

OSC Prehistoric Party

Sat. & Sun., Aug. 24-25
11 am - 3 pm

MOAS Natural History Festival

Saturday, Sept. 14th, Daytona Beach
10 am to 3pm

FFH Meeting AT OSC

Sat. Sept. 21st
2 pm - Kids' program
3 pm - Meeting (hoping to get a speaker)

Central FL Mineral & Fossil Show

Fri - Sun, Oct 4-6
National Guard Armory, Orlando

Vulcan Mine Field Trip

Sat. Oct. 12th
Brooksville
NEED LEADER

FFH Fossil Fair

Sat., Oct. 19, 9 am - 5 pm
Sun., Oct. 20, 10am - 4 pm
Central FL Fairgrounds, Orlando

National Fossil Day Celebration

Sat., Oct. 19th 10 am - 5 pm
Bishop Museum of Science & Nature
Bradenton

Join Our Facebook group, Search:
[Florida Fossil Hunters](#)



Be Green

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



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

2019 FOSSIL FAIR

Florida Fossil Hunters

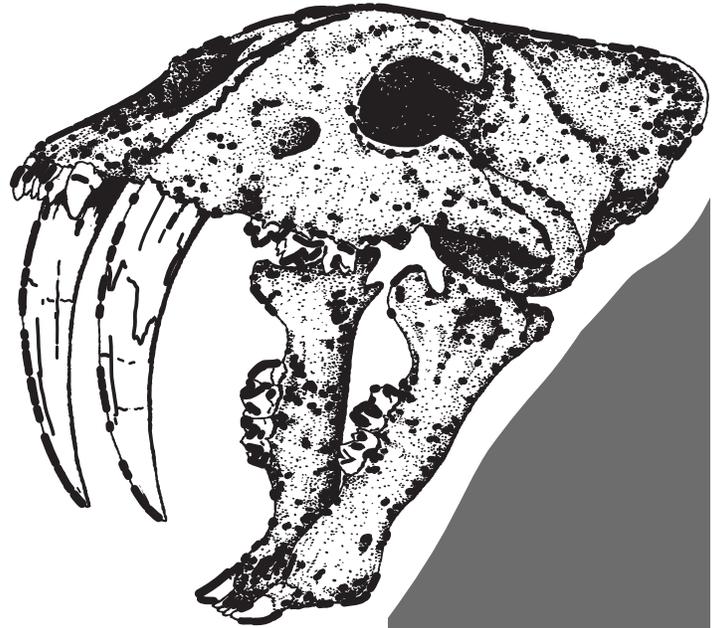
Twenty-eighth Annual
**Fossils, Rocks,
Gems & Minerals**

Saturday, October 19, 2019

9:00am - 5:00pm

Sunday, October 20, 2019

10:00am - 4:00pm



Central Florida Fairgrounds

4603 West Colonial Drive, Orlando, Florida 32808

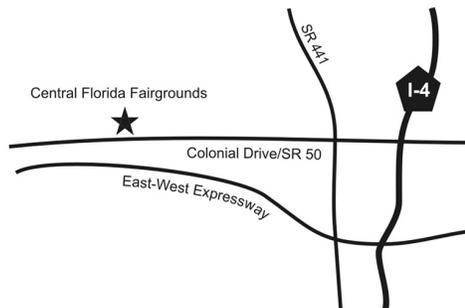
\$4.00 Adults | \$1.00 Children

**Learn to dig in Florida and
see what can be discovered!**

Directions:

I-4 to Orlando, Exit 84,
West Hwy 50/Colonial Drive
exit Westbound.

The fairgrounds will be
on the right side, just past
Mercy Drive.



For more information on the 2019 Fossil Fair contact us by email at
info@floridafossilhunters.com, call 407-699-9274, or check the website at

www.floridafossilhunters.com

Raffles

Vendors

**Silent
Auctions**

**Kids \$1
Dig Pit**

**Educational
Displays**

**Airconditioned!
INDOORS!**