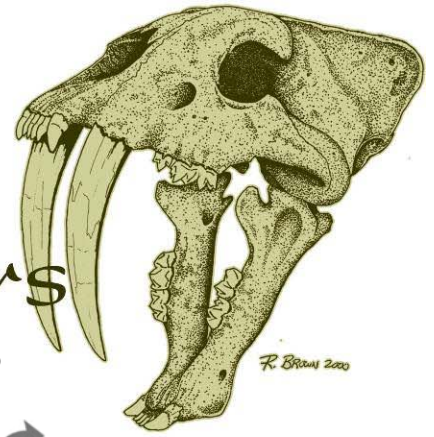


NEWS

Florida Fossil Hunters



Florida Prehistorical Museum, Inc. dba/ Florida Fossil Hunters
Volume 28, Number 2

February 2018

From the desk of the President.....

Hopefully winter is over. I'm tired of freezing but the Peace River is low, so go anyway. We have plenty of events to be involved with during the short month of February.

There is NO meeting at OSC in February. Instead there will be a field trip to Brevard Zoo on Saturday, Feb. 17th to see the Dino exhibits as well as the animals. Admission is normally \$19.95 for adults and \$14.95 for kids ages 3 to 11. With the group discount and FFH's help, adults will only have to pay \$10.00 for adults and \$5.00 for kids (3-11). Only club members who have paid their 2018 dues are eligible. The requirement is that we all have to arrive at the same time (probably . Our club will also be displaying fossils from 9 am to 3 pm and the volunteers will talk to the guests.

Club member Mark Voke will be taking some of his friends to the Peace River also on the 17th. He is willing to have others in the club join him and rent a canoe from him if they need one. His email is: mark@autopro4u.com. We hope to have another Peace River club trip later in the Spring.

Our VP, Steve Sharpe goes down to Peace River all the time.... says it's never too cold or too high, he just goes. Contact him if you'd like to join him sometime.

We'll be at Science Night Live at OSC (21 & older) on Sat., Mar. 3rd from 8:00 to 11:30 pm. Salvatore Sansone and Valerie First have volunteered for these events. It's a great way to spend a Saturday evening. Want to check it out? Contact Salvatore to volunteer.

Earth Day is right around the corner and already most of us who do events are booked up. At Lake Lotus Park in Altamonte Spr., Salvatore will be displaying minerals and fossils so he'll need some volunteers to help him out with the crowds.

A big "shout out" to one of the club's ladies in Paleo, Cindy Lockner retired from the US Postal Service and now has a part-time job at the FL Museum of Natural History. She'll be working on the dig at Montbrook and doing work for Richard Hubert, the Museum's Curator of Vertebrate Paleontology. She earned it with all her hard work and involvement in the Paleo field. You, too can be like Cindy. Check out all the opportunities to volunteer at FLMNH and help with the Montbrook dig. You can get the info on volunteering and see the incredible things they are finding at their website: www.floridamuseum.ufl.edu/montbrook/get-involved/

Rachel Narducci, another rising star in the world of Paleontology is the winner of the 2018 Morgan Award. You can read her proposal in this newsletter.

Speaking of Women in Paleontology... we're working on plans for this year's event. Watch your newsletters. There are plenty of fossil and mineral shows as well as things that are still being scheduled soon: meetings at OSC, Kids' Blast, Skeletons field trip, Yankeetown Island field trip (tentatively on Mar 31st)

Hope you make all we have planned.
Russell Brown, President

Coming Events

UPCOMING MEETINGS at the Orlando Science Center

Saturday, February 17th
Brevard Zoo-display
fossils & visit
Instead of a meeting at OSC

Saturday, March 17th
2 PM - Kids' Fossil Blast
3 PM - Meeting

Saturday, April 21st
FFH Meeting

*More events listed on back page
For more info...
www.floridafossilhunters.com*

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**It's Time to Renew
for 2018**
Still only \$17 a year.



Fragments

Mark your calendars...

Florida Fossil Hunters' 2018 Fossil Fair will be on Florida Fossil Hunters' 2018 Fossil Fair will be on October 20th/21st or on Nov. 3rd/4th. We'll let you know as soon as the date is set with the Fairgrounds.

Time to Renew

We hope that the Florida Fossil Hunters is part of your adventures for 2018. Please fill out the renewal application on the website or on page 6 and get it to us with (yes, still only \$17 per household) check. Mailing address: P.O. Box 540404, Orlando, FL 32854-0404.

Ask a geologist

Sunday, March 11, 1:00 pm - 4:00 pm
Florida Museum of Natural History

Dinosaurs at the Brevard Zoo

Five years after their last appearance, dinosaurs are making a return to Brevard Zoo for a positively primeval family experience. Among the 16 lifelike, life-sized animatronic figures are the cunning Utahraptor, a pair of spitting Dilophosaurus and—the king himself—Tyrannosaurus rex. The trail culminates at the interactive Dinosaur Discovery Center, where guests can uncover a replica Tyrannosaurus skeleton, touch real fossils and watch volunteers prepare specimens collected by Zoo staff in Montana. “Our goal is to illustrate that everything we know about dinosaurs comes from the scientific process,” said Chris DeLorey, the Zoo’s director of education programs. “Because we can’t observe dinosaurs firsthand, we rely on the evidence they left behind to draw conclusions about how they lived. The exhibit, which is not included with general Zoo admission, runs from Saturday, November 18 to Monday, April 30, 2018 and will be open daily from 10 a.m. to 5 p.m. An upcharge of \$4 applies to each guest ages three and older. More information is available at www.dinosareback.com.

Brevard Zoo is home to more than 800 animals representing 180 species from all over the world. As a not-for-profit organization, it is a leader in the fields of animal wellness, education and conservation. More information is available at www.brevardzoo.org.

Kids' Fossil Blast

Saturday, Mar 17th at 2-3 pm.

What is your favorite prehistoric animal? When and where did they live? How did they survive? Join us on Saturday, March 17th and create your own habitat for the creature while learning about it.



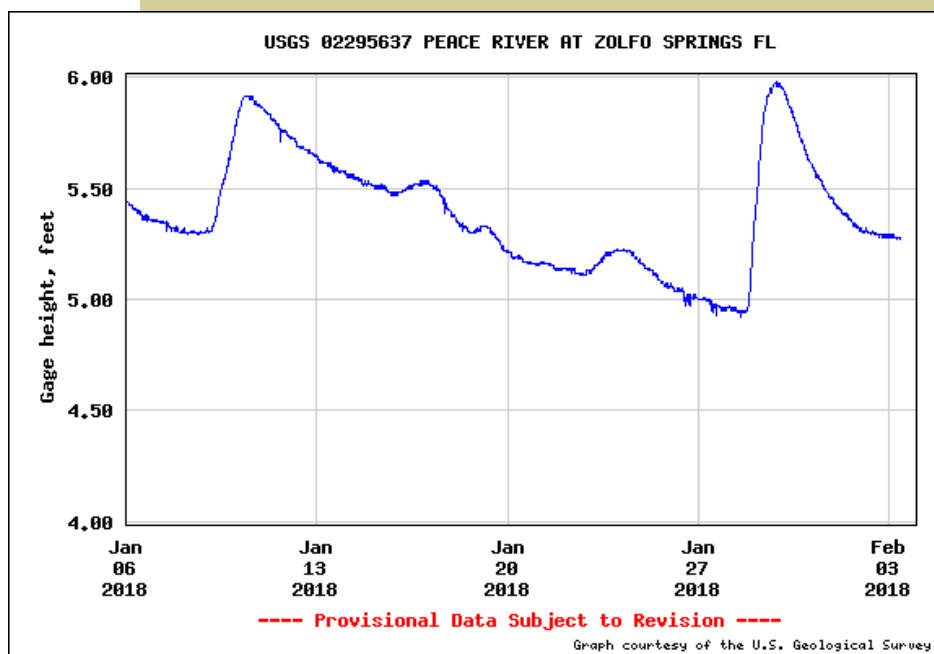
Kids' Fossil Blast is an informal, hands-on experience with real fossils, casts, etc. aimed at kids ages 5 to 14. We meet from 2 pm to 3 pm before our regular meetings.

Piece on the Peace

The water level has been fluctuating between 5 to 6 ft. at Zolfo Springs station. There are plenty of fossils being found. The water is still chilly so dress accordingly.

If you want to go with someone, check with Steve Sharpe - he digs often and likes the company.

You can contact him at sharpe626@yahoo.com or [352-552-2296](tel:352-552-2296).



Florida Fossil Hunters News

The Florida Fossil Hunters donate \$1,000.00 each year to the Gary S. Morgan Award to help the research costs of undergrad students' projects. This year's award winner is Rachel Narducci. She was one of the speakers at our 2017 Women in Paleontology program and she manages the Montbrook Dig Site.

Gary S. Morgan Student Research Award

Proposal: **Endocranial Variation of Pampatheriidae by Rachel Narducci**

Introduction: The Great American Biotic Interchange (GABI)¹ is one of the most important biogeographical events in history. Extremely diverse forms of plants and animals interacted for the first time, dispersing into North (NA) and South (SA) America via the connection at the Panamanian Isthmus. Within the Xenarthran clade, the armored Cingulata include modern armadillos and their extinct relatives; notably, the giant herbivorous forms, pampatheres and glyptodonts. All originated in SA, where they have had their greatest diversity. Consensus on cingulate relatedness and why some dispersed into NA while others did not, is lacking².

The Haile 7G (H7G) locality in Alachua County, FL has produced 40 skeletons of the pampatherer, *Holmesina floridanus*³. This is the largest known assemblage of pampatheres from a single fossil locality. I propose to use this one-of-a-kind resource along with additional pampatherer specimens to address the question: What details of paleo-biology can we infer from brain mass and are there significant differences between NA and SA pampatheres in their internal cranial anatomy? The answers may help us understand the environmental conditions of the GABI and how this impacted cingulate evolution.

How? High-resolution x-ray computed tomography (CT) scans of skulls allow for brain extractions from negative space by utilizing computer software. Such digital endocranial reconstructions, endocasts, have been processed to help understand the paleobiology of extinct animals. Endocasts of armored dinosaurs and glyptodonts exhibit very low predicted brain mass (encephalization quotient, EQ). This is hypothesized to be related to an armored body plan as a passive defense strategy from predation^{4,5}.

Goal 1: Characterize endocranial variation within the population of *H. floridanus*. H7G is a significant discovery because an entire coexisting group of pampatheres can be studied for the first time. Of the 40 individuals, 11 preserve the skull. I have CT scans for six of these and an additional of the same species from a nearby site, Inglis 1C. Two more from H7G have yet to be scanned. Endocasts of those best-preserved will be created via VG Studio Software. Femora associated with scanned skulls will be surface scanned using Next Engine scanners and analyzed with 3D morphometrics in R to estimate body mass. From these results, EQs and population variation may be inferred. These values will be the first to reveal variation in pampatheres and used as a base for future studies.

Goal 2: Compare the endocranial morphologies and EQs throughout the chronocline of *Holmesina*. *H. floridanus* is the first pampatherer to escape from the 'Mexican holding pen'⁶ and arrive in FL during the height of the GABI, approx. 2.5 MYA. It was part of a ~ 2 MY chronocline, doubling in size and thus altering functional morphology (greater weight bearing capabilities), to the broad-ranging *H. septentrionalis*⁷. I will scan three of these skulls, extract endocasts, scan and measure associated femora, and analyze the results. A comparison of endocranial morphology across the genus *Holmesina* will elucidate if the brain was changing over time. An increase in EQ would indicate that the species began to rely less on the armored defense strategy or vice versa.

Goal 3: Compare endocranial morphologies and EQs across the GABI. The only published pampatherer endocast is of *Pampatherium humboldtii* from the late Pleistocene of SA⁸. This EQ is intermediate between those of glyptodonts and modern armadillos, but shares more endocranial features with glyptodonts. A comparison of SA to NA genera will allow for a better assessment of relative brain size and endocranial morphologies of pampatheres through time and across space.

Goal 4: Compare endocranial variation and EQs of above results to infer phylogenetic affinities with other cingulates. 27 modern armadillo skulls have been CT scanned and endocast extractions are in progress. Those specimens with recorded body mass will be used as a control for data analyses. Once Dr. Guillaume Billet's research is published (2018), he will send CT scans of the extinct 'beautiful' armadillo, *Dasyopus bellus*. I will predict brain mass and map results on my cingulate spectrum of relatedness. I have discussed my research goals and am collaborating with an expert on the subject, Dr. Timothy J. Gaudin. He has loaned specimens and provided a list of institutions housing the best-preserved skulls of numerous pampatherer and outgroup cingulate species. Through Dr. Gaudin's networks, I will request loans of these skulls to CT scan and extract data.

Intellectual Merit: The CT scans and endocasts produced will be the first of the genus, *Holmesina*, and provide the first robust data sample for coexisting pampatheres. This research allows for greater insight into morphological changes in cingulates and similar niche-inhabiting giant ground sloths, subsequent to the GABI. My research will resonate with those studying Xenarthrans and more broadly with those interested in evolution, ecology, and dispersal events.

Broader Impacts: Results will be published in open access paleontological journals. The digital data will be made publicly available through MorphoSource.org and as a teaching resource on iDigFossils.org. Throughout and following my graduate career, I will continue and present this research at conferences. I am currently writing an abstract for submission to the Society of Vertebrate Paleontology's 2018 annual conference. I have begun mentoring a highly motivated UF undergraduate student who will help process these data and incorporate the acquired skills into an undergraduate honors project.



Florida Fossil Hunters News

Montbrook Fossil Dig

The Montbrook Site is very productive and almost all volunteers will find some fossil specimens on their first day. The most commonly found fossils are bones from the shell of freshwater turtles and vertebrae, spines, scales, and skull bones of fish, including gar, catfish, snook, and drum. Fossils of alligator, birds, and mammals are also found, but less frequently.

- **Volunteers must be at least 15 years old.** Volunteers age 15 to 17 will be accepted but must be accompanied by an adult sibling (18+ years old), or a parent or guardian.
- Volunteers must be **physically fit** enough to work outdoors for several hours and be able to walk up and down irregular slopes. Be aware that the site is in direct sunlight and sandy. We will have a porta-potty at the site.
- Volunteers can work just a single day, a few days, or a regular schedule one or more times per week. There is no limit to the number of times a volunteer can work at the site.
- Volunteers are more than welcome to drive themselves or carpool to meet us at the fossil site. We can sometimes drive about 5 volunteers in the museum van but we need to plan this in advance.

Digging has begun! We will dig 5 days per week, Wednesdays thru Sundays. The last day of the season is Sunday, May 13th. For info on volunteering, go to [www.flmnh.ufl.edu/montbrook/get involved/](http://www.flmnh.ufl.edu/montbrook/get%20involved/)

Can You Dig It?

Florida Museum of Natural History

Saturday, March 17th,
10 am - 3 pm

Dig into geology and discover the Earth at your feet! Enjoy hands-on activities and watch demonstrations of volcanic eruptions. Explore the Museum and check out displays and activities on geology, fossils, gems, minerals and much more from Florida and around the world!

For more info, go to www.flmnh.ufl.edu

Sal Sansone has volunteered to run the fossil display for the Florida Fossil Hunters at this event. Contact him if you'd like to join him.
email- ssfossilhunter@aol.com

Live from Orlando, it's Science Night Live!

Saturday, March 3, 2018, 8:00–11:30 p.m.

It's Social. It's Science. It's 21+.

General Admission: \$15.95

Member Admission: FREE with promo code.

Must be 21 years or older to attend.

Enjoy everything you love about Orlando Science Center, plus special programming designed for adults.

Science Night Live at Orlando Science Center is your chance to spark your curiosity through our fun exhibits and programs... with some adult beverages, of course! Bring your friends, or make a date night of it, and join us for a unique and ever-changing experience that proves there's no age limit on curiosity!

Don't miss these experiences at Science Night Live!

- Hear presentations from a guest speaker
- Work your brain with puzzles and more in our newest traveling exhibit, *Mindbender Mansion*
- Participate in science trivia to win prizes
- Experience giant-screen films in the Dr. Phillips CineDome
- Conduct science experiments in Dr. Dare's Laboratory
- Explore permanent exhibits like NatureWorks, Kinetic Zone, DinoDigs, and more
- Indulge on light bites and adult beverages available for purchase from Hard Rock Café
- Experience the Science Center in a whole new way...without kids!
- This event proves there's no age limit on curiosity! Tickets are going fast, so purchase yours before they're gone.

Florida Fossil Hunters News

Florida Museum of Natural History's first exhibit of 2018 is all about poop!

Yes, we mean it.

There's so much to learn about animals and our environment when you get right down to it!

Jan. 27-May 6, 2018

Poop is a scientific puzzle that provides important biological evidence about animals and how they live. Animals use poop to build homes, hide from enemies, attract mates, send messages and cool off – some even eat it. Discover the science behind scat by examining fecal samples to reveal clues about wildlife. Visitors can listen to an animal's digestive system, view 3-D models, touch a termite mound replica and compete in dung beetle races in this informational and interactive exhibit. Find out how scientists, farmers and power companies utilize pounds of droppings for investigative research.

The Scoop on Poop was created by Peeling Productions at Clyde Peeling's Reptiland.

Venue

Florida Museum of Natural History
3215 Hull Road
Gainesville, FL 32611

Phone: 352-846-2000

Website:

<http://www.floridamuseum.ufl.edu/visit/>

Factor in Large Mammal Extinction?

On a ho-hum day some 12,800 years ago, the Earth had emerged from another ice age. Things were warming up, and the glaciers had retreated.

Out of nowhere, the sky was lit with fireballs. This was followed by shock waves.

Fires rushed across the landscape, and dust clogged the sky, cutting off the sunlight. As the climate rapidly cooled, plants died, food sources were snuffed out, and the glaciers advanced again. Ocean currents shifted, setting the climate into a colder, almost "ice age" state that lasted an additional thousand years.

Finally, the climate began to warm again, and people again emerged into a world with fewer large animals and a human culture in North America that left behind completely different kinds of spear points.

This is the story supported by a massive study of geochemical and isotopic markers just published in the *Journal of Geology*.

The results are so massive that the study had to be split into two papers.

"Extraordinary Biomass-Burning Episode and Impact Winter Triggered by the Younger Dryas Cosmic Impact ~12,800 Years Ago" is divided into "Part 1: Ice Cores and Glaciers" and "Part 2: Lake, Marine, and Terrestrial Sediments."

The paper's 24 authors include KU Emeritus Professor of Physics & Astronomy Adrian Melott and Professor Brian Thomas, a 2005 doctoral graduate from KU, now at Washburn University.

"The work includes measurements made at more than 170 different sites across the world," Melott said.

The KU researcher and his colleagues believe the data suggests the disaster was touched off when Earth collided with fragments of a disintegrating comet that was roughly 62 miles in diameter -- the remnants of which persist within our solar system to this day.

"The hypothesis is that a large comet fragmented and the chunks impacted the Earth, causing this disaster," said Melott. "A number of different chemical signatures -- carbon dioxide, nitrate, ammonia and others -- all seem to indicate that an astonishing 10 percent of the Earth's land surface, or about 10 million square kilometers, was consumed by fires."

According to Melott, analysis of pollen suggests pine forests were probably burned off to be replaced by poplar, which is a species that colonizes cleared areas.

Indeed, the authors posit the cosmic impact could have touched off the Younger Dryas cool episode, biomass burning, late Pleistocene extinctions of larger species and "human cultural shifts and population declines."

"Computations suggest that the impact would have depleted the ozone layer, causing increases in skin cancer and other negative health effects," Melott said. "The impact hypothesis is still a hypothesis, but this study provides a massive amount of evidence, which we argue can only be all explained by a major cosmic impact."

Florida Fossil Hunters News

VULCAN MINE Field Trip

Vulcan Mine near Brooksville

FIELD TRIP LEADERS

Call or email Bonnie to volunteer
bonnierussell62@gmail.com | [352-429-1058](tel:352-429-1058)

Trip Leaders Needed
Saturdays, March 10, April 14, May 12

All participants **MUST** have paid your 2018 dues
(you can bring a \$17 check with you)

This is one of the few places where kids are allowed in to fossil hunt. Be sure to stay with them since there are steep cliffs, sharp rocks, and small sinkholes.

Meet on the driveway loop near the entrance to the Mine by 8:30 am to sign releases before we are escorted into the mine around 9 am. We get to drive our vehicles in so you can have your coolers, snacks, and equipment handy while you hunt. They usually allow us to dig until noon and sometimes people can stay till 2 pm.

ALL PARTICIPANTS MUST

**MUST BE ESCORTED
INTO AND OUT OF THE
MINE. NO EXCEPTIONS.
IF YOU ARE LATE,
YOU DO NOT GET IN.**

**THERE ARE
NO RESTROOM
FACILITIES AT
VULCAN MINE,**
other than the boulders
and the hills.

Directions: The trip will take approximately 2 hours from Orlando to Vulcan Mine. Be sure to allow for extra time to stop at a restroom before you get there.

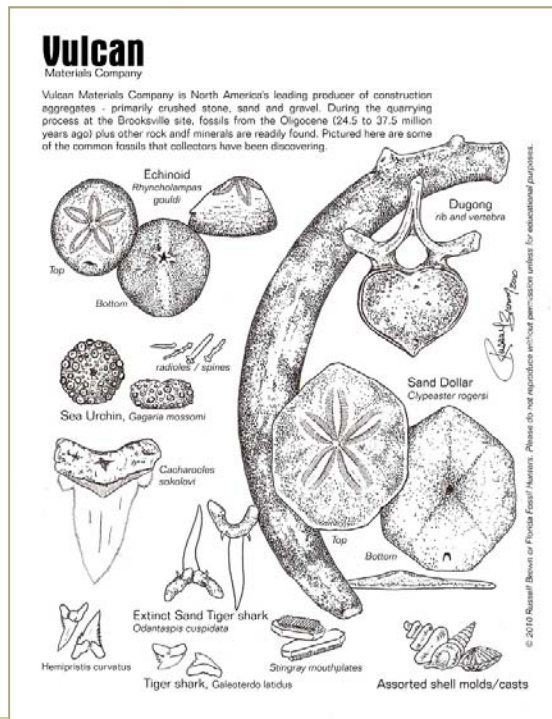
From Orlando take Hwy. 50 west (or the 408 west to the FL Turnpike, take exit 272 and then continue west on Hwy. 50) to Brooksville. Follow 50A/98 North through Brooksville and turn right on Ponce De Leon Blvd. (Hwy 98 North). Go approximately 10 miles. Vulcan/Cemex will be on your left. The address is 16313 Ponce De Leon Blvd, Brooksville, for those of you who want to download a map.

If you follow the truck route for Hwy. 50, you have to turn right onto 41, and then take the fork to the left to hook up with Ponce De Leon Blvd/98. There are several fast food places on 41 where you can take advantage of the bathroom facilities. Be sure NOT to keep following 41 north. You want to take 98 north from Brooksville.

This is mostly surface collecting with occasionally a little digging to pry out a specimen. Bring a small trowel or screwdriver or rock hammer, and a bucket to put your fossils and rocks into. You may want to bring small containers and tissue for fragile fossils.

Wear a hat, sturdy shoes, long pants (some of the rocks are sharp), and sunscreen. Bring lots of water and/or drinks and some snacks or lunch to eat.

We find mostly echinoids and sometimes sea urchins, pieces of bone, or other fossils are found. We also find chert rocks. This is the material that the Indians used to make their arrowheads and tools.



ID Sheet above is available on
the field trip and website.
floridafossilhunters.com/Field_Trips.htm

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

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	Steve Sharpe	(352) 552-2296
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@lisedreams.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,

Newsletter Policy

included at no extra charge, 2 adult votes per household.

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 Fossil Hunters News

Florida Fossil Hunters Mark Your Calendar

See inside for more information on events.

Saturday, Feb. 17th
9am - 5pm
Lee Co. Fossil Festival
Fort Myers

Saturday, Feb. 17
Brevard Zoo-display
fossils & visit
Instead of a meeting at OSC

Saturday, Feb. 24th,
9 am-4:30 pm
Bone Valley Gem, Mineral,
& Fossil Show
Lakeland, FL

Saturday, March 3rd,
8-11:30 pm
OSC, Science Night Live

Saturday, March 10th
Vulcan Mine Field Trip
Need leader

Sunday, March 11, 1 - 4
FLMNH - Ask a Geologist

March 10th & 11th
Tampa Bay Fossil Fest

Saturday, March 17th
2 PM - Kids' Fossil Blast
3 PM - Meeting

Thursday, April 5th, 11 - 2
Earth Day at Valencia College

April 6th - 8th
Central FL Rock, Gem & Mineral Show
Orlando Armory

Saturday, April 14th
Vulcan Mine Field Trip
Need leader

April 13 - 15th
Venice Shark's Tooth Festival

Saturday, April 21st
FFH Meeting

Sunday, April 22nd
Earth Day at Lake Lotus Park
Altamonte Springs

Saturday, May 12th
Vulcan Mine Field Trip
Need leader

Saturday, June 23rd
OSC Prehistoric Party

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



FLORIDA'S LARGEST PREHISTORIC SHOW!

FOSSILS & ARTIFACTS
GEMS - MINERALS - SHELLS
FOSSIL EXHIBITS - WORKSHOPS
KIDS GAMES * FOSSIL MINE * RAFFLES
DOOR PRIZES * SILENT AUCTIONS

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.

**Be a part of the adventure!
JOIN TBFC TODAY!**

www.tampabayfossilclub.com



Presents the 30th Annual
March 11th & 12th, 2017
Sat: 9AM-5PM, Sun: 10AM-4PM

Adults \$8, Kids 12 and under FREE!

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

