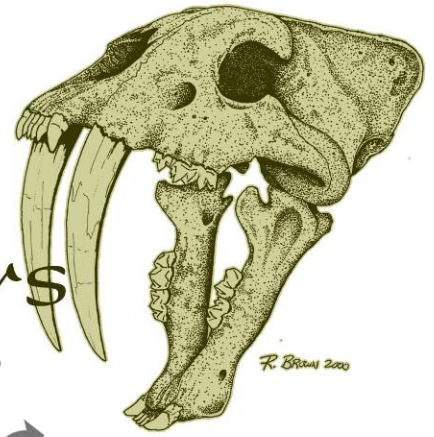


NEWS

Florida Fossil Hunters



Florida Prehistorical Museum, Inc. dba/ Florida Fossil Hunters
Volume 25, Number 2

February 2015

From the President.....

On January 24th, we met up at the Florida Museum of Natural History for the opening of "A T-rex Named Sue" exhibit. We had four tables full of fossils & stuff from stromatolites to dinosaurs, with plenty of hands-on items. There was a good turnout of members volunteering throughout the day. We even brought the huge Apatosaurus femur cast from our friends at OSC. Chuck Ferrara from the Southwest Florida Fossil Society was there, along with a bunch of their members. Dr. Hulbert & Dr. Jonathon Bloch were there with fossils of dinosaurs and other creatures (people were asked to guess which were dino fossils) and other displays to intrigue and amuse all the guests.

We always look forward to going up to the Museum. It's a great way to spend a day with your family or friends. And, yes... Sue is a BIG T-rex. It will be there until Sept. so go check it out.

Watching for the Peace River to go down (along with everyone else). As soon as it gets low, get your gear together and go. As I confirm a few things and get some volunteer trip leaders, we'll put out some dates, times, etc.

For February's meeting on the 21st, we're bringing back Dr. Felipe Opazo, a speaker from last year. A lot of us missed his first presentation to the club and after hearing how good it was, we decided to have him back. He'll be talking about comparisons of paleo-environments. (see page 5)

It looks to be a great meeting. Come out and join us... bring a friend.

Russell Brown
President

Join Our Facebook group, Search:
Florida Fossil Hunters



Coming Events

UPCOMING MEETINGS at the Orlando Science Center

Saturday, February 21st
2 pm Kids' Fossil Blast
3 pm Meeting & Speaker

Saturday, March 21st
2 pm - Kids' Fossil Blast
3 pm - Meeting & Speaker

Saturday, April 18th
3 pm Meeting & Speaker

More events listed on back page

*For more info...
www.floridafossilhunters.com*

Table of Contents

Fragments	2
Kids Fossil Blast	2
Peace River	2
Field Trips and Events	3
Fossil ankles indicate Earth's earliest primates lived in trees	4
Early human ancestors used their hands like modern humans	5
February Meeting	5
Vulcan Mine Trips	6
Contacts and Membership Info	7
Calendar	8

Florida Fossil Hunters News

Fragments

National Fossil Day Celebration

Mark your calendars! The Florida Fossil Hunters have been invited to participate in the Fossil Day celebration at the South Florida Museum in Bradenton on Saturday, October 3rd. Last year's was a lot of fun, with participants from many of Florida's fossil clubs as well as FPS and the FL Museum of Natural History.

VOLUNTEERS NEEDED

FOSSIL Project

FOSSIL is developing a new website that will be more interactive than the current one. They have asked that 5 to 10 of our members participate in a test run of some of the tasks: uploading a fossil photo, creating a profile, etc. We were talking about doing this before our meeting on April 18. Please contact me if you are interested in helping. Bonnie bonnierussell62@gmail.com

Women in Paleontology

May 16 at OSC

The plans for the Women in Paleontology program are coming together quite nicely. We have three very excited graduate students from the University of Florida's grad program signed up and a lot of interest from the FOSSIL Project as well. This is going to be a stellar event and I encourage all of you who have contact with girls and young women to tell them about it. The Orlando Science Center is looking into having a badge program available for Girl Scouts to tie in with this event, too.

If you are interested in volunteering for this event, contact Bonnie at bonnierussell62@gmail.com or Cindy Lockner at clockner@comcast.net. The club will have fossils on display and we'll be spreading the good news of fossil hunting as amateurs and professionals.

2014 Morgan Award

This year's award (which includes \$1,000 donated by the Florida Fossil Hunters) has been given to Kaydee West, a grad student at the School of Geosciences, University of South Florida.

Her work will be on finding methods to capture organic matter from 80 mya fossil shells in order to assess ecosystem changes over time and establish some baselines for the time before humans impacted the planet.

We look forward to hearing from her after she finishes this work and writes her paper.

Kids' Fossil Blast

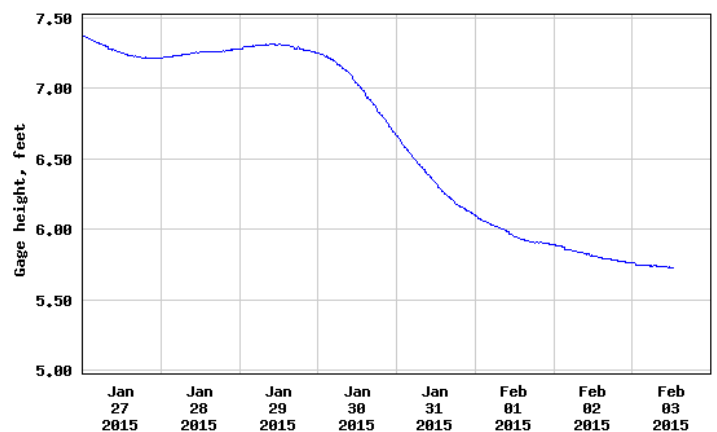
Shells are more than just pretty objects. They hold lots of information on the ecology of the place and time. On Saturday, February 21st at 2 pm, we will examine all the ways that scientists have been able to pry the data from the fossil shells and how they use the data to re-create the environments of the past.

Kids' Fossil Blast is an informal, hands-on experience with real fossils, casts, etc. aimed at kids ages 5 through 14.

Piece on the Peace

This winter has been very unpredictable rain-wise. It goes down and, then just as we get ready to dig, it rains again and the water goes up. We'll just have to cross our fingers and hope that the next couple months are as dry as they usually are. Have your gear ready to jump up and go when it does settle down. During the low spells some folks have found some nice stuff so the fossils are out there.

USGS 02295637 PEACE RIVER AT ZOLFO SPRINGS FL



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

Florida Fossil Hunters News

A T. rex Named Sue

Jan. 24 – Sept. 13, 2015 | \$7.50 adults, \$6.50 Fla. residents and seniors, \$4.50 ages 3-17 and free for Museum members and UF students with a valid Gator 1 card

Tyrannosaurus rex has long commanded respect and sparked curiosity in the mind of the public, and Sue is the most famous T. rex of all. At 42 feet long and 13 feet tall at the hips, her skeleton inspires as much awe today as she did 67 million years ago. In the featured exhibit "A T. rex Named Sue," explore how this remarkable creature interacted with its world and what we can learn from studying its bones. Revel in the sheer magnitude of a fully articulated, life-size skeleton cast while learning about Sue's movement, vision and sense of smell. Enjoy family-friendly interactives, climb into the dig pit to uncover fossils and learn about dinosaurs through touchable bone replicas and other hands-on activities. Follow Sue's sensational journey from the Cretaceous period and sedimentary rocks of South Dakota to the U.S. courts and finally the world. Come to the Florida Museum to experience the largest, most complete and best-preserved Tyrannosaurus rex ever discovered!

Field Trips

Vulcan, Sat., Feb. 14th. Celebrate Valentines Day by playing in the dirt. See Vulcan page for more details.

Vulcan, Sat., March 14th. Need a Trip Leader: to volunteer email Bonnie at bonnierussell62@gmail.com or call [352-429-1058](tel:352-429-1058).

Peace River, Saturday, April 4th. (weather permitting) Russell Brown & Bonnie Cronin trip leaders. More info in March's newsletter.

Peace River: Need volunteers for other weekends when the water level goes back down. Please email or call Bonnie or Russell to volunteer as trip leader. You don't have to be Jack Horner to do this. Just a little previous experience fossil hunting on the Peace.

Florida Museum of Natural History Events of Interest:

Feb. 22nd- 2 to 4 pm, Archaeology Workshop: Hunting Technology(pre-registration required)

Mar. 8th- 1 to 4 pm, Ask a Scientist: Geology

Mar. 14th- 10 am to 3 pm, Can You Dig It?: Explore rocks, gems, fossils, and the Earth

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

Fossil & Mineral Shows

LARGO

Suncoast Gem & Mineral Society will hold their show on: March 6th & 7th - 10 am to 6 pm, March 8th - 10 am to 5 pm. It will be at the Minnreg Building, 6340 - 126th Avenue North, Largo, FL. If you need more info email sgamsgemshow@gmail.com

ORLANDO

Central Florida Mineral & Gem Society will have their show on: April 10th - 1 pm to 6 pm, April 11th - 10 am to 6 pm, April 12th - 10 am to 5 pm. It will be at the National Guard Armory, 2809 South Fern Creek Ave., Orlando, 32806. Adults - \$5; Students - \$2. For more information and a \$1 off coupon, go to www.cfmgs.org

TAMPA BAY

Tampa Bay Fossil Club will have their Fossil Fest on March 21st & 2nd. See the flyer for details.

VENICE BEACH

The annual Shark's Tooth Festival will be held at the Airport Festival grounds, 120 E. Airport Ave., Venice, 34285.

Hours: Apr. 10th - 4 pm to 9 pm, Apr. 11th - 10 am to 9 pm, Apr. 12th - 10 am to 5 pm.

Admission: \$3; children 12 & under free

In addition to lots of shark teeth and fossils, there are food and craft vendors.

Time to Renew

Still just \$17 per household! Fill out the application (I want to make sure I have the right info), and mail your check made out to: Florida Fossil Hunters, P.O. Box 540404, Orlando, FL 32854-0404.

Florida Fossil Hunters News



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

FLORIDA'S LARGEST PREHISTORIC SHOW!

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



**Presents the 27th Annual
March 21st & 22nd, 2015
Sat: 9AM-6PM, Sun: 10AM-4PM**

Adults \$7, Kids 12 and under FREE!

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



Earth's earliest primates have taken a step up in the world, now that researchers have gotten a good look at their ankles.

Fossil ankles indicate Earth's earliest primates lived in trees

A new study has found that *Purgatorius*, a small mammal that lived on a diet of fruit and insects, was a tree dweller. Paleontologists made the discovery by analyzing 65-million-year-old ankle bones collected from sites in northeastern Montana.

Purgatorius, part of an extinct group of primates called plesiadapiforms, first appears in the fossil record shortly after the extinction of non-avian dinosaurs. Some researchers have speculated over the years that primitive plesiadapiforms were terrestrial, and that primates moved into the tree canopy later. These ideas can still be found in some textbooks today.

"The textbook that I am currently using in my biological anthropology courses still has an illustration of *Purgatorius* walking on the ground. Hopefully this study will change what students are learning about earliest primate evolution and will place *Purgatorius* in the trees where it rightfully belongs," said Stephen Chester, the paper's lead author. Chester, who conducted much of the research while at Yale University studying for his Ph.D., is an assistant professor at Brooklyn College, City University of New York. Chester is also a curatorial affiliate at the Yale Peabody Museum of Natural History.

Until now, paleontologists had only the animal's teeth and jaws to examine, which left much of its appearance and behavior a mystery. The identification of *Purgatorius* ankle bones, found in the same area as the teeth, gave researchers a better sense of how it lived.

"The ankle bones have diagnostic features for mobility that are only present in those of primates and their close relatives today," Chester said. "These unique features would have allowed an animal such as *Purgatorius* to rotate and adjust its feet accordingly to grab branches



while moving through trees. In contrast, ground-dwelling mammals lack these features and are better suited for propelling themselves forward in a more restricted, fore-and-aft motion."

The research provides the oldest fossil evidence to date that arboreality played a key role in primate evolution. In essence, said the researchers, it implies that the divergence of primates from other mammals was not a dramatic event. Rather, primates developed subtle changes that made for easier navigation and better access to food in the trees.

The research appears in the Jan. 19 online edition of the Proceedings of the National Academy of Sciences.

Date: January 19, 2015

Source: Yale University

Image Credit: Patrick Lynch/Yale University

Early human ancestors used their hands like modern humans

New research suggests pre-Homo human ancestral species, such as *Australopithecus africanus*, used human-like hand postures much earlier than was previously thought.



Anthropologists from the University of Kent, working with researchers from University College London, the Max Planck Institute for Evolutionary Anthropology in Leipzig (Germany) and the Vienna University of Technology (Austria), have produced the first research findings to support archaeological evidence for stone tool use among fossil australopiths 3-2 million years ago.

The distinctly human ability for forceful precision (e.g. when turning a key) and power "squeeze" gripping (e.g. when using a hammer) is linked to two key evolutionary transitions in hand use: a reduction in arboreal climbing and the manufacture and use of stone tools. However, it is unclear when these locomotory and manipulative transitions occurred.

Dr Matthew Skinner, Senior Lecturer in Biological Anthropology and Dr Tracy Kivell, Reader in Biological Anthropology, both of Kent's School of Anthropology and Conservation, used new techniques to reveal how fossil species were using their hands by examining the internal spongy structure of bone called trabeculae. Trabecular bone remodels quickly during life and can reflect the actual behavior of individuals in their lifetime.

The researchers first examined the trabeculae of hand bones of humans and chimpanzees. They found clear differences between humans, who have a unique ability for forceful precision gripping between thumb and fingers, and chimpanzees, who cannot adopt human-like postures. This unique human pattern is present in known non-arboreal and stone tool-making fossil human species, such as Neanderthals.

The research, titled "Human-like hand use in *Australopithecus africanus*, shows that *Australopithecus africanus*," a 3-2 million-year-old species from South Africa traditionally considered not to have engaged in habitual tool manufacture, has a human-like trabecular bone pattern in the bones of the thumb and palm (the metacarpals) consistent with forceful opposition of the thumb and fingers typically adopted during tool use.

These results support previously published archaeological evidence for stone tool use in australopiths and provide skeletal evidence that our early ancestors used human-like hand postures much earlier and more frequently than previously considered.

February Club Meeting: Saturday, February 21st at 3 pm at the Orlando Science Center

The meeting is scheduled to be in the **Inspiration classroom** on the **2nd floor** at OSC. **Keep your eyes open for the signs....** the room sometimes changes. You do not have to pay admission to OSC just for attending the meeting, but if you wish to tour the exhibits, you must pay. Parking is available in the garage (they sometimes charge us for the \$5 fee) and there is free parking available near the theater and across the street at the doctors' office bldg.

We will have the Kids' program at 2 pm. The business part of our meeting will start at 3 pm and after that, Felipe Opazo will give his presentation.

Dr. Luis-Felipe Opazo is a Marine Biologist from Chile. He got his PhD in Geoscience in 2012 at the University of Plymouth, UK. The subject of his thesis focused on paleo-ecological changes in marine invertebrate communities during the Triassic-Jurassic mass extinction event. Afterward at 2013, he moved to Gainesville to work on a Post-Doctoral Fellowship in Invertebrate Paleontology, at The Florida Museum of Natural History. In general my research interest spanned; paleontology, paleobiology, ecology, paleoecology, macroevolution, global change, mass extinction, ecological modelling, statistics and quantitative analysis in biodiversity. Currently he is working on two projects; "Evolution, energetic and distribution of body size in Bivalves and Brachiopods: A comparative analysis of marine Palaeozoic and Mesozoic faunas" and "Metabolic rates and species replacement during Pliocene-Pleistocene extinction event: Scaling up of ecological patterns and processes in the fossil record." In both cases, he will describe and evaluate large-scale ecological changes of marine fauna in term of energy use, which will allow us to understand how the distribution of energy and nutrients determines the replacement dynamics between species in paleocommunities, or how ecological competition might scale up to the level of long-term paleontological patterns.

His presentation: "Ecology, energy and complexity throughout the Phanerozoic: roles of mass extinctions." Will basically describe how the number of species has increased through the life history, and with it, how the biological interaction between species has increased generating more complex ecosystems, and how this dynamic has been modulated by the mass extinctions.

Florida Fossil Hunters News

VULCAN MINE Field Trip

Vulcan Mine Field Trip near Brooksville

If you did not sign up at the September meeting, please call or email the trip leader at:

Feb. 14th trip leader - Bonnie Cronin,
bonnierussell62@gmail.com | 352-429-1058
(cell ph. for day of trip only 321-279-2592)

Need a trip leader for the Saturday, March 14th date

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 be escorted

into and out of the mine. Do not leave on your own since it is easy to become lost.

THERE ARE NO RESTROOM FACILITIES AT VULCAN, 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.

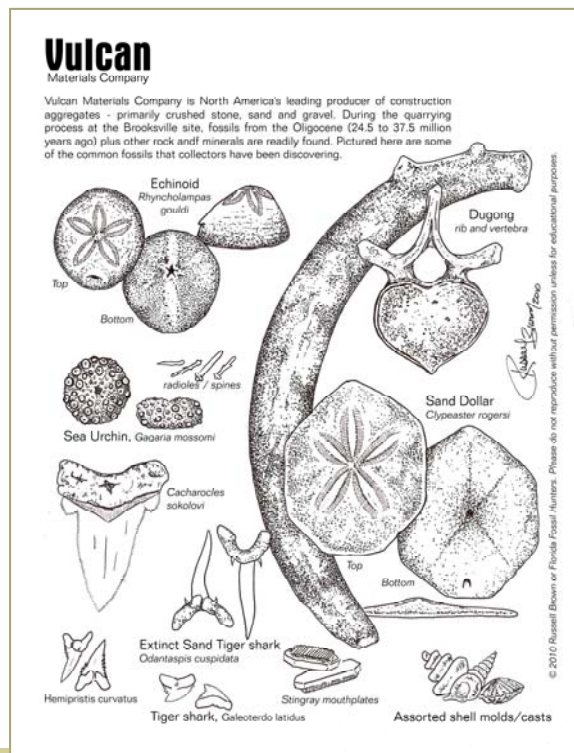
If you follow the truck route for Hwy. 50, you have to turn right onto 41, and then take the fork to the left to hook up with Ponce De Leon Blvd/98. There are several fast food places on 41 where you can take advantage of the bathroom facilities. Be sure NOT to keep following 41 north. You want to take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



Join Us
JAN 10th &
FEB 14th

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	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	
Cindy Lockner	

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.

Saturday, February 14th
Vulcan Mine

Saturday, February 21st
2 pm Kids' Fossil Blast
3 pm Meeting & Speaker

Sunday, March 8th - 1 to 4 pm
FLMNH, Ask a Scientist: Geology

Saturday, March 14th
Vulcan Mine

Saturday, March 21st
2 pm - Kids' Fossil Blast
3 pm - Meeting & Speaker

March 21st & 22nd
Tampa Bay Fossil Fest

Saturday, April 4th
Peace River Fossil Hunting
(weather permitting)

April 10, 11, & 12th
Venice Shark Tooth Festival, Venice
Central FL Mineral & Gem Society Show, Orlando

Saturday, April 11th
Vulcan Mine

Saturday, May 16th
Women in Paleontology

Jan. 24 to Sept. 13, 2015 -
A *T. rex* Named Sue exhibit

Be Green

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



Join Our Facebook group, Search:

[Florida Fossil Hunters](#)

facebook

Visit us online at www.floridafossilhunters.com

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

Florida Fossil Hunters

Post Office Box 540404

Orlando, Florida 32854-0404



Florida Fossil Hunters News