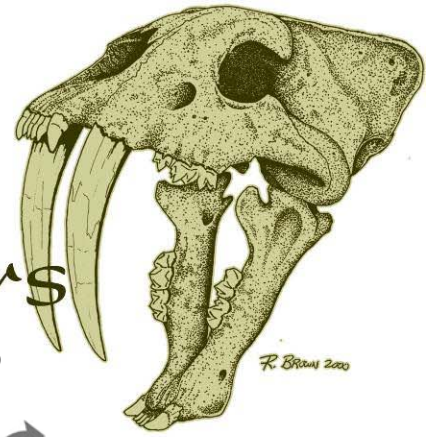


NEWS

Florida Fossil Hunters



Florida Prehistorical Museum, Inc. dba/ Florida Fossil Hunters
Volume 25, Number 10

November 2015

From the President....

The Fossil Fair is here! I hope to see everyone at our club's biggest get-together of the year. Thanks to all of you who have already volunteered. Even if you haven't signed up, come on out and join the fun. (Bonnie has more on the Fair inside this newsletter, see page 3). It's going to be bigger and better than last year... more vendors, more displays, more food.

Last month Victor Perez came down and spoke to the club about the sharks of Panama, Bonnie had a **Kids' Blast** and has another lined up for this month (see pg 2), and Steve Sharpe has filled in for me lately at the meetings. I'd liked to thank them all.

At the **November 21st meeting**, bring in all your new fossil treasures... purchased at the Fair or found while hunting. Everyone enjoys "show & tell".

In **December** we will have our **auction and party**, celebrating another year together. Get your Fossil Bucks in order. For new members, Fossil Bucks are club money, earned by participation in club activities, volunteering, and donating items at the Fair. We use these to bid on items at the December meeting. Don't have many? Don't worry, everyone goes home with something.

Also, please don't forget to get your **Fossil Permit information report** ready to send in to Dr. Richard Hubert at FLMNH. Everyone needs to report in order to renew their permit for next year. If you have any questions, feel free to call or email me, or you can contact FLMNH by email.

The long-awaited water level drop on the **Peace River** should be occurring. I know all the fossil hunters in the State are watching and waiting. I'd like to see more club trips there. Anyone who is heading down to the Peace and would like some company, let fellow members know so you can enjoy it together.

We have a club dig at **Mosaic on Dec. 5th** (sorry it's booked full) and I'd like to see a report for the newsletter from one of the participants.

Vulcan Mine is open for fossil hunting on the second Saturday of the month. We could use some volunteers for trip leaders for the months coming up.

And we are lining up a club trip to **Skeletons: Animals Unveiled** in January (more inside the newsletter).

The year is a-flying by.
See you at the Fossil Fair.

Russell Brown
President

Join Our Facebook group, Search:
Florida Fossil Hunters



Coming Events

UPCOMING MEETINGS at the Orlando Science Center

November 7 & 8th
Fossil Fair

Saturday, Nov. 21st
2 pm - Kids' Fossil Blast
3 pm - Meeting

Saturday, Dec. 19
3 pm Meeting and Auction

More events listed on back page

For more info...
www.floridafossilhunters.com

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Florida Fossil Hunters News

Fragments

Our Changing Climate: Sea Level Rise

Opens Nov. 21

The Earth's seas are rising at an accelerated rate – largely in response to climate change. Learn about the science behind sea level rise and the special challenges Florida faces. Discover current UF research as well as steps being taken to help communities adapt for the future. This exhibition continues the Museum's series exploring science and world issues.

Visit www.flmnh.ufl.edu for further information on these two exhibits and other exhibits and events at the Museum.

Mummies of the World Orlando Science Center limited time engagement

Inside every mummy is a story waiting to be told. Mummies of the World portrays a once-in-a-lifetime collection of real mummies and artifacts from across the globe. This compelling collection, presented with reverence and dignity, includes ancient mummies dating back as far as 4,500 years. A fascinating mix of old and new, this captivating collection bridges the gap between past and present with contributions from 10 world-renowned Institutions and two private collectors.

Fossil EXPO

The Southwest Fossil Society will have their annual show on Saturday, Nov. 14th from 9 am to 4 pm at the Punta Gorda Women's Club Bldg, 118 Sullivan St., Punta Gorda, FL 33950. They will have fossils, minerals, books, & jewelry vendors as well as silent auctions and a kids' dig pit. For more info go to www.southwestfloridafossilsociety.org.

SAVE THE DATE
Fossil Fair 2015:
Nov. 7th & 8th

Kids' Fossil Blast

Last month we talked about bones and put together parts of a real alligator skeleton.

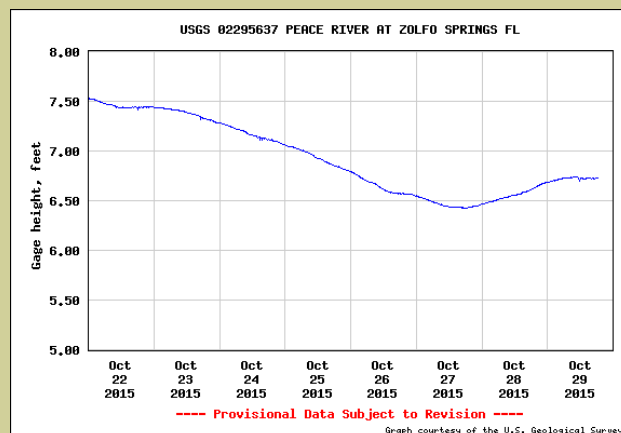
On Saturday, Nov. 21st at 2 pm, we will investigate the world of the BIG GUYS of America's past: the mammoth and its cousins.

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

Piece on the Peace River

The water level in the Peace River has dropped 4 feet in the last week!

Get your gear out and cleaned up because it won't be long before we are back in the river all wet and muddy and with smiles on our faces.



VULCAN MINE

November 14th
See page 6 for more details.

Florida Fossil Hunters News

2015 FOSSIL FAIR

Won't be long before we are wandering around the tables of the dealers drooling over treasures and deciding which ones just have to come home with us. It's so much fun to see all the different fossils, minerals, and artifacts and learn all about them. There is always something that I've never seen before. It's the best kind of brain candy.

It takes all of us to make this event a success..... not just raising funds for the club expenses, but also spreading the good word about the story of the earth and the life that has inhabited it. The true icing on the cake is putting wonder and smiles on the kids' faces.

Please give of your time, expertise, and fossils to make this event fantastic.

Volunteers needed:

- Admissions
- Kids' Dig Pit
- Fossil ID
- Silent Auction
- Membership
- Set up- mostly Friday
- Put out and pick up signs
- Cleanup after the fair - Sunday 4 pm to ?

Shifts are-

Sat: 8:30am to 2:45, 12:30 to 5pm

Sun: 9:30am to 12:45, 12:30 to 4pm

To Sign up, just contact Bonnie at

bonnierussell62@gmail.com

or call [352-429-1058](tel:352-429-1058) between 7-8 pm.

Volunteers

Thanks to all of you who have volunteered already. If you haven't signed up yet, feel free to just show up and put in some time. We can always use some extra people. Remember to sign in and mark down hours worked at the Membership table so you can get your Fossil Bucks for the December auction.

Bring Food

Bring a dish or yummy to share with the other volunteers and vendors. It is one of the things that makes our Fossil Fair unique and enjoyable. Some folks bring soups, salads, fruits, baked goods, etc. The club provides meat and fixings for sandwiches along with sodas and water.

Kids' Pit Fossils

Clean out those extra fossils that you've collected over the years and donate them to the Kids' Pit. It's a great way to spread joy and the excitement of the past with children.

Silent Auction Items

While you are rummaging around for old fossils, collect those extra minerals, shelving, display boxes, fossil or nature books, extinct animal toys, and any other weird stuff that is taking up room in your closets. We can use them in the Silent Auction to raise money for the Club. We use the money for insurance, donations for scholarships, etc.

T-Shirts

Pick up and pay for the t-shirts you ordered at the Membership table.

Above all, enjoy the Fossil Fair!

Where else can you find so many wondrous things and delightful people with the same interests as you.



FL Museum of Natural History, Gainesville

First Colony: Our Spanish Origins

Opens Oct. 17, 2015, through April 17, 2016

Long before Jamestown, Spaniards, free and enslaved Africans and Native Americans crafted our country's first enduring European settlement — St. Augustine, in 1565. Discover the first colony through archaeology, history and the stories of people who lived there in this hands-on, interactive exhibition. These first colonial immigrants created America's original "melting pot" — a colorful, multicultural society that was new then, but might seem familiar today.

Florida Fossil Hunters News

Origin of Turtles

A research team led by NYIT scientist Gabriel Bever has determined that a 260-million year-old fossil species found in South Africa's Karoo Basin provides a long awaited glimpse into the murky origins of turtles.

Bever, describes the extinct reptile, named *Eunotosaurus africanus*, as the earliest known branch of the turtle tree of life.

"*Eunotosaurus* is a critical link connecting modern turtles to their evolutionary past," said Bever, an assistant professor of anatomy at the NYIT College of Osteopathic Medicine. "This is the fossil for which science has been searching for more than 150 years. You can think of it as a turtle, before turtles had a shell."

While *Eunotosaurus* lacks the iconic turtle shell, its extremely wide ribs and distinctively circular torso are the first indications that this fossil represents an important clue in a long unsolved mystery: the origin of turtles. In a new study published in *Nature*, Bever and his colleagues focus their attention on the skull of *Eunotosaurus*. Their findings indicated that the complex anatomy of the head houses convincing evidence of the important role played by *Eunotosaurus* in the deep history of turtle evolution.

Using high-resolution computed tomography, Bever digitally dissected the bones and internal structures of multiple *Eunotosaurus* skulls, all of which are housed in South African museums. He then incorporated his observations into a new analysis of the reptile tree of life.

One of the study's key findings is that the skull of *Eunotosaurus* has a pair of openings set behind the eyes that allowed the jaw muscles to lengthen and flex during chewing. Known as the diapsid condition, this pair of openings is also found in lizards, snakes, crocodylians, and birds. The skull of modern turtles is anapsid -- without openings -- with the chamber housing the jaw muscles fully enclosed by bone.

The anapsid-diapsid distinction strongly influenced the long-held notion that turtles are the remnants of an ancient reptile lineage and not closely related to modern lizards, crocodiles, and birds. The new data from *Eunotosaurus* rejects this hypothesis.

"If turtles are closely related to the other living reptiles then we would expect the fossil record to produce early turtle relatives with diapsid skulls," said Bever. "That ex-



pectation remained unfulfilled for a long time, but with some help from technology and a lot of hard work on our part, we can now draw the well-supported and satisfying conclusion that *Eunotosaurus* is the diapsid turtle that earlier studies predicted would be discovered."

In linking turtles to their diapsid ancestry, the skull of *Eunotosaurus* also reveals how the evidence of that ancestry became obscured during later stages of turtle evolution.

"The skull of *Eunotosaurus* grows in such a way that its diapsid nature is obvious in juveniles but almost completely obscured in adults. If that same growth trajectory was accelerated in subsequent generations, then the original diapsid skull of the turtle ancestor would eventually be replaced by an anapsid skull, which is what we find in modern turtles."

Although the new study represents a major step towards understanding the reptile tree of life, Bever emphasizes that it will not be the final chapter in the science of turtle origins.

"The beauty of scientific discoveries is that they tend to reveal more questions than they answer" said Bever, "and there is still much we don't know about the origin of turtles. Which of the other diapsid groups form their closest cousin? What were the ecological conditions that led to the evolution of the turtle's shell and anapsid skull? And how much of the deep history of turtle evolution can be discovered by studying the genes and developmental pathway of modern turtles?"

Why We DON'T Hunt Fossils in the Wekiva

Some people have wondered if the prohibition against hunting for fossils was just in the part of the Wekiva that is in State Parks. For example, the Peace River runs through a State Park near Bowling Green and we can't take fossils from that portion of the Peace.

But on October 13, 2000, the Wekiva River was designated as a federal "Wild and Scenic River" ALONG IT'S ENTIRE LENGTH. This means that the federal rules of pro-

tected land management apply to the Wekiva system, including the provision that no fossils are to be removed from it. The only exception is for scientists who apply for permits to do research studies.

For more information, you can check out the websites for the National Park Service, Wild & Scenic Rivers and the Friends of the Wekiva River, Inc.

Florida Fossil Hunters News

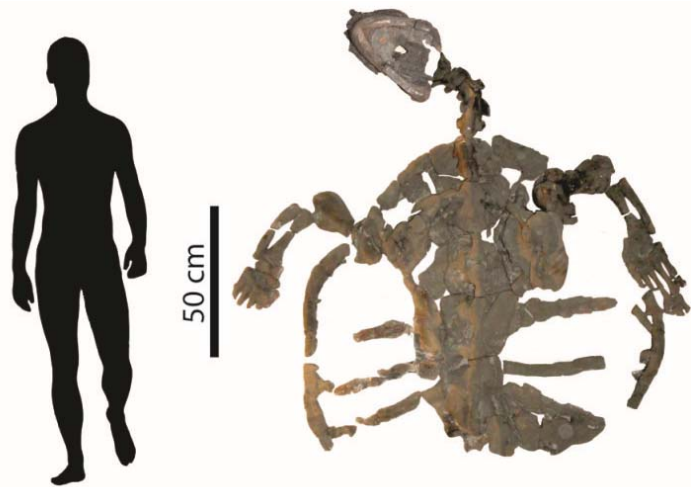
Oldest Sea Turtle Fossil

Scientists at the Senckenberg Research Institute in Frankfurt have described the world's oldest fossil sea turtle known to date. The fossilized reptile is at least 120 million years old -- which makes it about 25 million years older than the previously known oldest specimen. The almost completely preserved skeleton from the Cretaceous, with a length of nearly 2 meters, shows all of the characteristic traits of modern marine turtles. The study was published in the scientific journal *PaleoBios*.

"*Santanachelys gaffneyi* is the oldest known sea turtle" -- this sentence from the online encyclopedia Wikipedia is no longer up-to-date. "We described a fossil sea turtle from Colombia that is about 25 million years older," said Dr. Edwin Cadena, a scholar of the Alexander von Humboldt foundation at the Senckenberg Research Institute. Cadena made the unusual discovery together with his colleague from the US, J. Parham of California State University, Fullerton.

"The turtle described by us as *Desmatochelys padillai* sp. originates from Cretaceous sediments and is at least 120 million years old," says Cadena. Sea turtles descended from terrestrial and freshwater turtles that arose approximately 230 million years ago. During the Cretaceous period, they split into land and sea dwellers. Fossil evidence from this time period is very sparse, however, and the exact time of the split is difficult to verify. "This lends a special importance to every fossil discovery that can contribute to clarifying the phylogeny of the sea turtles," explains the turtle expert from Columbia.

The fossilized turtle shells and bones come from two sites near the community of Villa de Leyva in Colombia. The fossilized remains of the ancient rep-



tiles were discovered and collected by hobby paleontologist Mary Luz Parra and her brothers Juan and Freddy Parra in the year 2007. Since then, they have been stored in the collections of the "Centro de Investigaciones Paleontológicas" in Villa Leyva and the "University of California Museum of Paleontology."

Cadena and his colleague examined the almost complete skeleton, four additional skulls and two partially preserved shells, and they placed the fossils in the turtle group Cheloniodea, based on various morphological characteristics. Turtles in this group dwell in tropical and subtropical oceans; among their representatives are the modern Hawksbill Turtle and the Green Sea Turtle of turtle soup fame.

"Based on the animals' morphology and the sediments they were found in, we are certain that we are indeed dealing with the oldest known fossil sea turtle," adds Cadena in summary.

The Making of North America

NOVA on PBS channel 24

(or check your local PBS station)

Tune in for the incredible story of our majestic continent premiering
Wednesday, November 4, 2015
at 9pm ET/8C on PBS.

Episode 1: Origins (11/4)

Episode 2: Life (11/11)

Episode 3: Humans (11/18)

Mighty, elemental forces molded North America -fiery eruptions, titanic floods, the grinding of great ice sheets, and massive impacts from space all shaped our homeland. The epic three-part series unfolds in a forgotten world that existed long before our own, crossed by long-lost mountain ranges, deserts the size of Africa, and vast inland seas spanning the length of the continent. Explore beloved landmarks like the Grand Canyon and Yellowstone National Park from the inside out as we witness the clash of nature's creative and destructive forces. Hosted by renowned paleontologist Kirk Johnson, this spectacular road trip through a tumultuous deep past explores three fundamental questions: How was the continent built? How did life evolve here? And how has the continent shaped us? "Making North America" reveals the incredible story of a majestic continent. Go to www.pbs.org for more information.

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:

Nov. 14th trip leader - Bonnie Cronin

To sign up contact

bonnierussell62@gmail.com, ph. 352-429-1058

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

(do not leave a message)

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

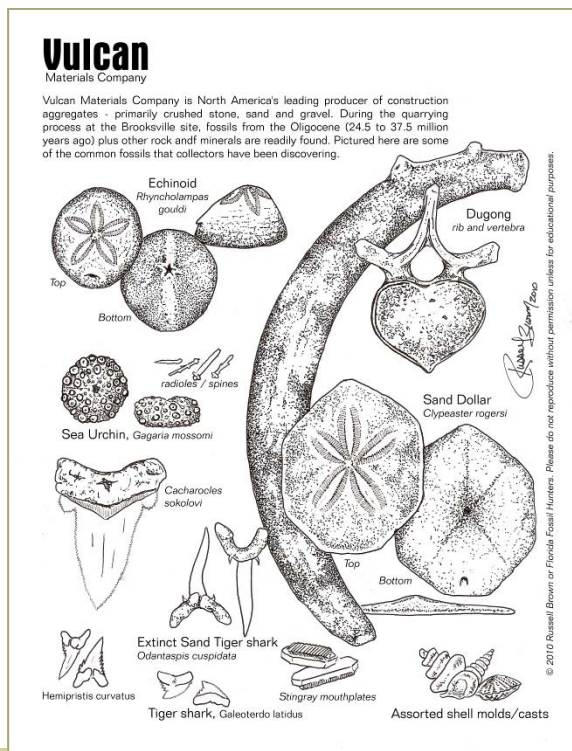
into and out of the mine. Do not leave on your own since it is easy to become lost.

THERE ARE NO RESTROOM FACILITIES AT VULCAN 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.

**Join Us
NOV 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.

November 7th

7 - 10:30 pm, Neanderthal Ball, OSC

Saturday, Nov. 14th

Vulcan Mine Field Trip

Saturday, Nov. 14th

SW FL Fossil Society, Punta Gorda
Fossil EXPO

Saturday, Nov. 21st

2 pm - Kids' Fossil Blast
3 pm - Meeting

Saturday, Dec. 19

3 pm Meeting and Auction

November 7 & 8th FOSSIL FAIR

Central Florida
Fairgrounds

2015 FOSSIL FAIR

Florida Fossil Hunters

Twenty-fourth Annual
Fossils, Rocks,
Gems & Minerals
Saturday, November 7, 2015
9:00am - 5:00pm
Sunday, November 8, 2015
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-405 to Hwy 17, Exit 84,
West Hwy 170/Colonial Drive
and Westbound
the signposts will be
on the left side just past
Hwy 170.



For more information on the 2015 Fossil Fair contact us by email at
info@floridafossilhunters.com, call 407-698-9324, or check the website at
www.floridafossilhunters.com

Raffles

Vendors

Silent
Auctions

Kids \$1
Dig Pit

Educational
Displays

Accommodated
in POCOS

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

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Orlando, Florida 32854-0404



Florida Fossil Hunters News