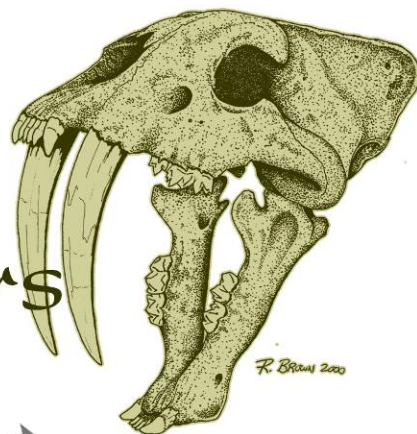


NEWS

Florida Fossil Hunters

Florida Prehistorical Museum, Inc. dba/ Florida Fossil Hunters
Volume 25, Number 5

May 2015



From the President.....

May will be a busy month for us Florida Fossil Hunters.

But first I'd like to thank Steve Sharpe for stepping up and taking my place at our meetings (work has been busy and keeping me away). Steve told me that Brian Andres, our guest speaker last month, did an outstanding presentation on his work with pterosaurs and we had a good turnout.

On **May 16th**, Dino Digs at the Orlando Science Center will be the site for the 2nd "**Women in Paleontology**". Cindy Lockner has a terrific line-up of inspiring ladies giving presentations. We'll also have displays and I would like all who can attend to come join us (not just women). I believe this will be a growing annual event that will make our club shine brightly in outreach to all who would like to know - or be involved with - the Natural Sciences. Yes, we always need volunteers to interact with the public and help this run smoothly. So come and be inspired. Be a part of this wonderful, educational event. Bring a guest and they will thank you for expanding their view of the wonders and history of this earth. Check out the flyer in this issue for the details.

The Peace River is still low enough to fossil hunt and every club has been going digging. Don't delay. I've heard that plenty of you have already been going each weekend. Invite some fellow members to join you. Fossil hunting is even more fun when you can show each other what you find and share the experience of "Wahoo!"

There will be no meetings in June and July (except a Board meeting).

I hope to see you at the May 16th "Women in Paleontology".

Russell Brown
President

P.S. I'll be finishing up this year's design for the club's t-shirt. Bonnie said so.

Coming Events

UPCOMING MEETINGS at the Orlando Science Center

Saturday, May 16th

NO CLUB MTG

10 am- 4pm

Women in Paleontology
FFH & OSC

June and July

NO CLUB MTGS

Saturday, August 15th

2 pm Kids' Fossil Blast

3 pm Meeting

More events listed on back page

For more info...

www.floridafossilhunters.com

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Join Our Facebook group, Search:
Florida Fossil Hunters



Florida Fossil Hunters News

Women in Paleontology, May 16 at OSC

Come join us on Saturday, May 16th, from 11 am to 5 pm, in Dino Digs at the Orlando Science Center for this stellar event. Bring along as many girls and women that you can. Yes, guys, you can come, too.

It will be a fun day of learning with the presentations (see the schedule on the flyer) and fossils and information on display.

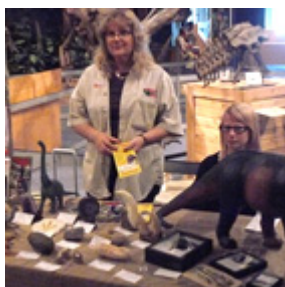
You can attend the event or volunteer to talk with guests about fossils and fossil hunting.

To volunteer, email

Bonnie (bonnierussell62@gmail.com) or
Cindy Lockner (clockner@comcast.net).

May is Women in Science Month at the Orlando Science Center

May celebrates the **women in science** both past, present and future who have made or are making significant impacts to science. Throughout the month, there will be opportunities to learn about the scientific work and research female scientists are currently doing in fields including entomology, chemistry, paleontology and more!



On May 2, forensic science students will have interactive activities about their field and female scientists from the **Navy** will be at the Science Center showcasing their cutting edge technologies. On May 16, the **Florida Fossil Hunters** will have special guest paleontologist pre-sentations and awesome displays. On May 23, we will have live bugs from UCF's **Entomological Society of Central Florida**.

Florida Museum of Natural History

Ask a Scientist: International Museum Day May 17th 1:00 pm - 4:00 pm

Science is all around you! Take advantage of this opportunity to talk one-on-one with Museum and UF researchers. Bring your questions and find answers during an afternoon of discovery and learning celebrating museums.

Florida Museum -
3215 Hull Road,
SW 34th Street
and Hull Road
Gainesville, FL 32611.
For more info go
to www.flmn.h.ufl.edu
or call 352-273-2064.



Kids' Fossil Blast

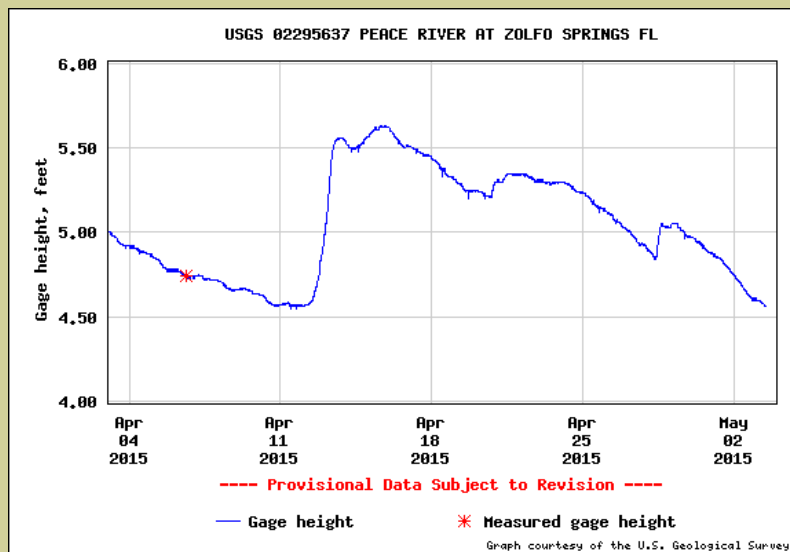
There will be activities for kids at our "Women in Paleontology" program in May.

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

What more can we say.....

GO DIG IN THE PEACE RIVER!

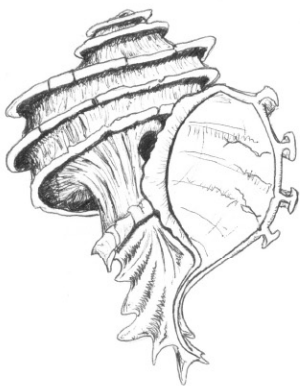


Women in Paleontology

Orlando Science Center
May 16th, 2015
10:00am-4:00pm

From 9 to 90 –
you can touch the past,
and change the future.

Meet with female
professionals in
Paleontology,
including,
Paleontology Students
from the University of Florida,
and amateur fossil enthusiasts
and collectors from the
Florida Fossil Hunters.



For more information
contact us by email at
info@floridafossilhunters.com,
or visit our website at
www.floridafossilhunters.com

10:00-11:00 Meet and Greet, view fossil collections,
receive a fossil for you to keep! (while supplies last)

Presentations

11:00-11:30 **Sharon E. Holte, Ph.D. candidate in Biology, University of Florida**
Started on her path to Paleontology as a young girl digging up
dinosaurs and now is researching early Miocene carnivorans.
Talk Title: The Thomas Farm Fossil Site: Yesterday, Today, and
Tomorrow

11:45-12:15 **Natasha S. Vitek, University of Florida Paleontology PhD
Student**
Talk Title: What About the Fossils Too Small to See?

12:30-1:00 **Julia Tejada, Peruvian Paleontologist**
Julia holds a holds a bachelor's degree in biology from the
National University of San Marcos in Peru, and a Master's
degree in Biology/Zoology from the University of Florida.
Talk Title: "The 10 most extreme recent paleontological
discoveries in Peru "

1:15-1:45 **Lisa Lundgren, University of Florida Science Education PhD
Student**
Talk Title: The FOSSIL Project: Connecting amateur and profes-
sional paleontologists

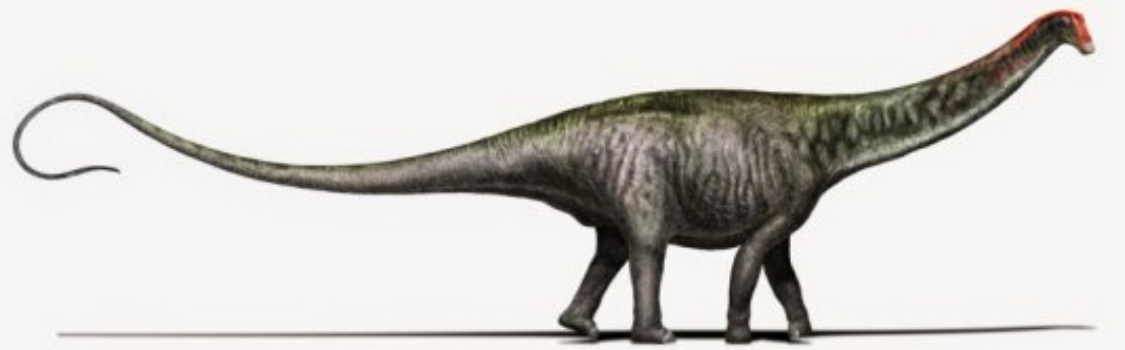
2:00-2:30 **Dr. Ann Spellman, Ph.D. in Marine Biology**
Marine Biologist
Talk Title: What Lies beneath? A presentation of what fossil
ancestors and modern day marine life tell us about life on
earth and in the sea, both then and now.

2:45-3:15 **Shelley Zimmerman, High School Geology Teacher**
Talk Title: Rock Head or Bone Head? The connection between
Geology and Paleontology.

10am-4pm View various fossil collections and exhibits

Florida Fossil Hunters
www.floridafossilhunters.com

Brontosaurus is Back!



This is Brontosaurus as researchers see it today -- with a Diplodocus-like head.

Although well known as one of the most iconic dinosaurs, *Brontosaurus* (the 'thunder lizard') has long been considered misclassified. Since 1903, the scientific community has believed that the genus *Brontosaurus* was in fact the *Apatosaurus*. Now, an exhaustive new study by palaeontologists from Portugal and the UK provides conclusive evidence that *Brontosaurus* is distinct from *Apatosaurus* and as such can now be reinstated as its own unique genus.

Brontosaurus is one of the most charismatic dinosaurs of all time, inspiring generations of children thanks to its size and evocative name. However, as every armchair palaeontologist knows, *Brontosaurus* was in fact a misnomer, and it should be correctly referred to as *Apatosaurus*. At least, this is what scientists have believed since 1903, when it was decided that the differences between *Brontosaurus excelsus* and *Apatosaurus* were so minor that it was better to put them both in the same genus. Because *Apatosaurus* was named first, it was the one that was used under the rules of scientific naming.

In fact, of course, the *Brontosaurus* was never really gone -- it was simply treated as a species of the genus *Apatosaurus*: *Apatosaurus excelsus*. So, while scientists thought the genus *Brontosaurus* was the same as *Apatosaurus*, they always agreed that the species *excelsus* was different from other *Apatosaurus* species. Now, palaeontologists Emanuel Tschopp, Octávio Mateus, and Roger Benson say that *Brontosaurus* was a unique genus all along. But let's start from the beginning.

The history of *Brontosaurus* is complex, and one of the most intriguing stories in science. In the 1870s, the Western United States formed the location for dozens of new finds of fossil species, most notably of dinosaurs. Field crews excavated numerous new skeletons mostly for the famous and influential palaeontologists Marsh and Cope. During that period, Marsh's team discovered two enormous, partial skeletons of long-necked dinosaurs and

shipped them to the Yale Peabody Museum in New Haven, where Marsh worked. Marsh described the first of these skeletons as *Apatosaurus ajax*, the "deceptive lizard" after the Greek hero Ajax. Two years later, he named the second skeleton *Brontosaurus excelsus*, the "noble thunder lizard." However, because neither of the skeletons were found with a skull, Marsh reconstructed one for *Brontosaurus excelsus*. *Brontosaurus* was a massive animal, like *Apatosaurus*, and like another long-necked dinosaur from the Western United States, *Camarasaurus*. Because of this similarity, it seemed logical at the time that *Brontosaurus* had a similarly stout, box-like skull to that of *Camarasaurus*. However, this reconstruction was later found to be wrong.

Shortly after Marsh's death, a team from the Field Museum of Chicago found another skeleton similar to both *Apatosaurus ajax* and *Brontosaurus excelsus*. In fact, this skeleton was intermediate in shape in many aspects. Therefore, palaeontologists thought that *Brontosaurus excelsus* was actually so similar to *Apatosaurus ajax* that it would be more correct to treat them as two different species of the same genus. It was the second extinction of *Brontosaurus* -- a scientific one: from now on, *Brontosaurus excelsus* became known as *Apatosaurus excelsus* and the name *Brontosaurus* was not considered scientifically valid any more.

The final blow to "Brontosaurus" happened in the 1970s, when researchers showed that *Apatosaurus* was not closely related to *Camarasaurus*, but to yet another dinosaur from the same area: *Diplodocus*. Because *Diplodocus* had a slender, horse-like skull, *Apatosaurus* and thus also "Brontosaurus" must have had a skull more similar to *Diplodocus* instead of to *Camarasaurus* -- and so the popular, but untrue myth about "Brontosaurus" being an *Apatosaurus* with the wrong head was born.

But now, in a new study published in the peer reviewed

Florida Fossil Hunters News

open access journal *PeerJ* and consisting of almost 300 pages of evidence, a team of scientists from Portugal and the UK have shown that *Brontosaurus* was distinct from *Apatosaurus* after all -- the thunder lizard is back!

How can a single study overthrow more than a century of research? "Our research would not have been possible at this level of detail 15 or more years ago," explains Emanuel Tschopp, a Swiss national who led the study during his PhD at Universidade Nova de Lisboa in Portugal, "in fact, until very recently, the claim that *Brontosaurus* was the same as *Apatosaurus* was completely reasonable, based on the knowledge we had." It is only with numerous new findings of dinosaurs similar to *Apatosaurus* and *Brontosaurus* in recent years that it has become possible to undertake a detailed reinvestigation of how different they actually were.

In science, the distinction between species and genera is without clear rules. Does this mean that the decision to resurrect *Brontosaurus* is just a matter of personal preference? "Not at all," explains Tschopp, "we tried to be as objective as possible whenever making a decision which would differentiate between species and genus." The researchers applied statistical approaches to calculate the differences between other species and genera of diplodocid dinosaurs, and were surprised by the

result. "The differences we found between *Brontosaurus* and *Apatosaurus* were at least as numerous as the ones between other closely related genera, and much more than what you normally find between species," explained Roger Benson, a co-author from the University of Oxford.

Therefore, Tschopp and colleagues have concluded that it is now possible to resurrect *Brontosaurus* as a genus distinct from *Apatosaurus*. "It's the classic example of how science works," said Professor Mateus, a collaborator on the research. "Especially when hypotheses are based on fragmentary fossils, it is possible for new finds to overthrow years of research."

Science is a process, always moving towards a clearer picture of the world around us. Sometimes this also means that we have to step backwards a bit before we continue to advance. That's what keeps the curiosity going. Hence, it is fitting that the *Brontosaurus* which sparked the curiosity of millions of people worldwide has now returned to do so again.

PeerJ. "Brontosaurus is back! Brontosaurus is a unique genus after all." ScienceDaily. ScienceDaily, 7 April 2015. <www.sciencedaily.com/releases/2015/04/150407085256.htm>.

National Fossil Day Event

Florida Fossil Hunters will be participating in this event on Saturday, October 3rd at the South Florida Museum in Bradenton. Last year's celebration was terrific and I'm sure this one will be also. More details (and the begging for volunteers) will be in the August newsletter.

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

Florida Museum of Natural History

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!

Florida Fossil Hunters News



March 2015
Peace River
Field Trip

VULCAN MINE Field Trip

LAST VULCAN TRIP UNTIL FALL

Saturday, May 9th

Leaders: Russell Brown and Bonnie

email: bonnierussell62@gmail.com | ph: [352-429-1058](tel:352-429-1058)

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

(do not leave a message on cell. Keep calling till I answer)

All participants MUST

be escorted into and out of the mine.

**There are NO RESTROOM
FACILITIES AT VULCAN,**

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.

Directions: The trip will take approximately 2 hours from Orlando to Vulcan Mine. 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

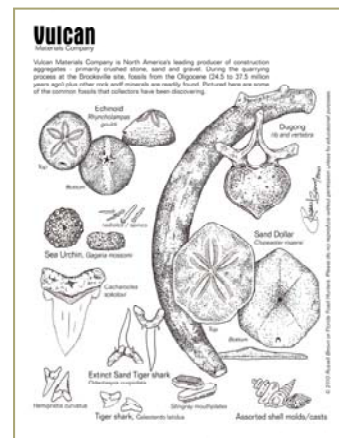
Brooksville and turn right on Ponce De Leon Blvd. (Hwy 98 North). Go approximately 10 miles. Vulcan/ Cemex will be on your left. The address is 16313 Ponce De Leon Blvd, Brooksville, for those of you who want to download a map. If you follow the truck route for Hwy. 50, you have to turn right onto 41, and then take the fork to the left to hook up with Ponce De Leon Blvd/98. Be sure NOT to keep following 41 north. You want to take 98 north from Brooksville.

This is mostly surface collecting. 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.

Download ID Sheet from our website.



Florida Fossil Hunters News

Florida Fossil Hunters

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	

Membership Application

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, May 9th

Vulcan Mine

May 9th - June 5th

Smithsonian's "Becoming Human"

Orange Co. Library

Saturday, May 16th

10 am- 4pm

Women in Paleontology

FFH & OSC

Sunday, May 17th

FLMNH, Ask a Scientist

NO FFH MTGS: June and July

Saturday, August 15th

2 pm Kids' Fossil Blast

3 pm Meeting

through Sept. 13, 2015 -

A **T. rex** Named Sue exhibit
at FLMNH

Saturday, October 3rd

National Fossil Day

South Florida Museum

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