From the President.....

Welcome back from summer break. It sure went fast. Hope everyone got to do “real Florida” fun outside - besides the usual yard work.

School’s will be in session and Fall is fast approaching. Our club has a busy schedule lined up. Be sure to join in.

Our annual Fossil Fair will be on October 28th & 29th at the Central Florida Fairgrounds.

The Florida Museum of Natural History is marking its 100th anniversary. We’ll help celebrate by participating in their National Fossil Day event on Saturday, November 4th.

The Daytona Beach Museum of Arts and Sciences will be having its annual Natural History Day on Saturday, September 16th.

There will be volunteer sign-up sheets at the meeting for all of these and more events as they come up. (or you can email Bonnie at bonnierussell62@gmail.com)

Cooler weather (under 100) will allow us to resume collecting at Vulcan Mine in October. There are always the creeks in northern Florida and the spoil islands at Yankeetown available for collecting. The Peace River has been up and down with all the rains moving through. Have patience. However, Steve Sharpe will be holding a "low water level prayer meeting because he’s got shark tooth fever really bad.

We’ve seen a lot of great finds posted to the Florida Fossil Hunters Facebook page. Thanks goes out to Paul Hardin for volunteering to help Bonnie manage it.

We had a great “Prehistoric Party” on Saturday, July 22nd. Thank you, Orlando Science Center, for hosting this event which allowed us to reach more people. Thank you to the club members who volunteered and our friends at FLMNH for participating. We had a great layout and plenty of curious guests excited to see, hear, feel, and learn about Paleontology.

At our August 19th meeting, Steve Sharpe, Vice President, will be in charge and Bonnie will have a Kids’ Fossil Blast on fossils/minerals unique to Florida. She will also be bring in the spoils from the Yankeetown trip.

Please bring fossils or treasures you have found to the meeting and share your stories with each other.

There may be a surprise or two... you won't know unless you go.

Russell Brown
President
**Fragments**

**National Fossil Day Celebration at FLMNH**

Join us for a colossal fossil festival as we honor National Fossil Day in a big way! Meet the paleontologists and geologists who work every day to uncover the secrets these ancient remains reveal about past life on Earth. Explore fossil displays and the dig pit. Bring your fossils for identification and talk to members of fossil clubs throughout Florida to learn what fossils can be found around the state!

*Florida Museum of Natural History*
3215 Hull Road
Gainesville, FL 32611
Phone: 352-846-2000
www.floridamuseum.ufl.edu/visit/

**Our ancestors were already warm-blooded just before the Permian-Triassic extinction event**

July 24, 2017

For how long have warm-blooded animals existed? The time at which this character first appeared in the ancestors of mammals has long been debated. Now, dating analyses carried out on 90 fossils have shown that warm-blooded species first appeared among our ancestors during the Late Permian, 252 -- 259 million years ago. In addition, this new character may have enabled them to survive the Permian-Triassic extinction event, 252 million years ago. For the entire article, go to www.sciencedaily.com

**Kids' Fossil Blast**

Saturday, Aug. 19th at 2 pm

Hope everyone has some fun outdoor time..... maybe even some fossil hunting!

Florida has some treasures from the past that are unique to our area and how they got here.

Bring your curiosity and join the fun.

_Kids' Fossil Blast is an informal, hands-on experience with real fossils, casts, etc. aimed at kids ages 5 to 14. We meet for an hour before our regular meetings._

**Piece on the Peace River**

The height of the Peace River has been a real roller coaster this summer..... the typical conditions for our monsoon season. Somehow some folks have found places to hunt for shark teeth anyway at beaches, in the creeks, etc.

It will probably be a couple months before it's back below 6 ft. at the gauge station so we can go back to digging in the Peace.

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![Graph of Peace River height fluctuations](image-url)
Live from Orlando, it’s Science Night Live!
Saturday, Aug 19, 2017, 8-11:30 p.m.
It’s Social. It’s Science. It’s 21+.
General Admission: $15.95
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 Dr. Julian Chambliss present how science impacts superhero culture
- Discover yourself in our newest traveling exhibit, Identity: An Exhibition of You
- Participate in science trivia to win prizes
- Experience giant-screen films in the Dr. Phillips CineDome
- Conduct science experiments in Dr. Dare’s Laboratory
- View the latest exhibition on display in Fusion: A STEAM Gallery
- 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!

There’s no age limit on curiosity! Tickets are going fast, so purchase yours before they’re gone.

With Guest Speaker:
Dr. Julian Chambliss,
Rollins College
My Mind is My Power: Comics, Science, and American Society
9:00 & 10:00 p.m.
Digital Adventure Theater, Level 2
20-Minute Presentation Followed by Q&A
Science has been and continues to be a defining characteristic of superhero culture. In this presentation, Chambliss will explore the evolution of science as a cornerstone of the superhero narrative.

BIO: Julian C. Chambliss is Professor of History at Rollins College in Winter Park, FL. His teaching and research focus on imagined and real urban landscape in the United States.

FFH Fossil Fair 2017
When: Sat, Oct. 28th, 9 am to 5 pm
Sun, Oct. 29th, 10 am to 4 pm
Where: Central Florida Fairgrounds
4603 W. Colonial Dr., Orlando, FL

Join the fun seeing incredible fossils and amazing minerals and talking to the experts. Share your sense of wonder and discovery with like-minded folks.

Volunteer at the membership table or admissions station. Help out at the Silent Auction or Kids’ Dig Pit. You can sign up for a few hours or a entire day. It really is a lot of fun interacting with people and seeing their smiles.

You can sign up at the meetings or by emailing Bonnie @ bonnierussell62@gmail.com or calling 352-429-1058.

VOLUNTEER
Join us for our annual celebration of all things natural history. Enjoy natural history specimens on display from rarely seen MOAS collections with many examples of fossils, mollusks, corals, insects, and more. Enjoy the various exhibitors that will have displays set up around the Museum. Various presentations will take place hourly throughout the day.

Free for members or with paid museum admission.

Schedule:

10:00am: Fossil Hunters TV Show
Have you tuned into Fossil Hunters on Wednesday evenings at 7:30 p.m.? Here is your chance to meet the cast! Join Zach, Allison, Dave, Trish, John, Linda, Don, and April, as they share a video summary of their first season of discoveries, highlighting the only television series being broadcast on fossil hunting. Various guest fossil hunters from the series will be attendance as well. See some of the most exciting adventures that these "fossilheads" have had over the last two years. Enjoy a Q&A with the cast after the video presentation.

11:00am: River of Grass, River of Time: The State of the Everglades in 2017
There is only one Everglades, but the future of this natural treasure is uncertain. Join Clayton Ferrer, Executive Director of the United Nations Accredited NGO, IDEAS for Us, and learn about the history, troubled past, and unfolding future of the real Florida’s most celebrated natural treasure.

12:00pm: The Diversity of Volusia’s Ecosystems
Learn about the large variety of ecosystems that make up Volusia County from mangrove estuaries and pine uplands, to salt marshes. Join Dr. Don Spence, Associate Professor of Biology, Bethune-Cookman University Plant Ecologist and Plant Pathologist on an ecological journey throughout the county and discover our many natural wonders.

1:00pm: A Short History of Nearly Everything
Join Jeff Rogers, Provost of the South Florida Museum, for a fascinating scientific journey from "nothing" to the world we see around us today. Along the way, you will take a look at the Big Bang, the origins of matter and energy, the first stars, the creation of elements, the formation of habitable planets, the origins and evolution of life, and the uniquely human adaptions that have allowed us to forge our modern world.

2:00pm: Smithsonian Environmental Research in the Indian River Lagoon
Often recognized as the most biodiverse estuary in the continental United States, the Indian River Lagoon (IRL) is part of the longest barrier island complex in the United States, spanning 156 miles from Ponce de Leon Inlet in the Mosquito Lagoon, to Jupiter Inlet near West Palm Beach. Dr. Valeri Paul, Director of the Smithsonian Marine Station at Fort Pierce, will discuss the ongoing research activities at the Smithsonian Marine Station and other research organizations focused on the IRL that include better understanding the factors causing harmful algal blooms, their persistence and termination, documentation, environmental effects, and understanding the role that bivalves and other invertebrates play in maintaining the health of the IRL.
2017 FOSSIL FAIR

Twenty-sixth Annual
Fossils, Rocks,
Gems & Minerals

Saturday, October 28, 2017
9:00am - 5:00pm
Sunday, October 29, 2017
10:00am - 4:00pm

Central Florida Fairgrounds
4603 West Colonial Drive, Orlando, Florida 32808

$4.00 Adults | $1.00 Children

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

Directions:
I-4 to Orlando, Exit 84,
West Hwy 50/Colonial Drive
exit Westbound.
The fairgrounds will be on the right side, just past Mercy Drive.

For more information on the 2015 Fossil Fair contact us by email at info@floridafossilhunters.com, call 407-699-9274, or check the website at www.floridafossilhunters.com
Ancient South Carolina whale yields secrets to filter feeding's origins

The blue whale is the largest animal that has ever lived. And yet they feed almost exclusively on tiny crustaceans known as krill. The secret is in the baleen, a complex filter-feeding system that allows the enormous whales to strain huge volumes of saltwater, leaving only krill and other small organisms behind. Now, researchers who have described an extinct relative of baleen whales in Current Biology on June 29 offer new insight into how baleen first evolved.

The findings shed light on a long-standing debate about whether the first baleen whales were toothless suction feeders or toothed whales that used their teeth like a sieve to filter prey out of water, the researchers say. The teeth of the newly discovered species of mysticete, called *Coronodon havensteini*, lend support to the latter view.

"We know from the fossil record that the ancestors of baleen whales had teeth," says Jonathan Geisler of the New York Institute of Technology College of Osteopathic Medicine. "However, the transition from teeth to baleen is controversial. Our study indicates that early toothed whales used spaces between their large complex teeth for filtering and that baleen gradually replaced teeth over millions of years."

The new whale species was found in the early 2000s by a scuba diver in South Carolina's Wando River. He was looking for shark teeth and found the fossilized whale instead. The whale, which lived some 30 million years ago, was later recognized as a representative of a new transitional species.

Geisler and his colleagues realized that meant the whale could offer important clues about the teeth to baleen transition. The whale under study also had other interesting features. It was larger than other toothed mysticetes, with a skull nearly one meter long. Its large molars in comparison to other whales further suggested an unusual feeding behavior.

Closer examination of the shape and wear on the whale's teeth led the researchers to conclude that the whale used its front teeth to snag prey. But the whale's large, back molars were used in filter feeding, by expelling water through open slots between the closed teeth.

"The wear on the molars of this specimen indicates they were not used for shearing food or for biting off chunks of prey," he says. "It took us quite some time to come to the realization that these large teeth were framing narrow slots for filter feeding."

As confirmation, the researchers found wear on the hidden cusps bordering those slots between the teeth.

The findings offer another example of a broader evolutionary pattern in which body parts (in this case teeth) that evolved for one function are later co-opted for another function. The researchers say they are now examining closely related species from the Charleston, SC, area in search of additional evidence.
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: 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
Webmaster: Elise Cronin-Hurley (407) 929-6297
elise@liseydreams.com

Board of Directors:

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

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 Fossil Hunters Mark Your Calendar

Saturday, August 19th
2 pm - Kids' Fossil Blast
3 pm - Meeting

Saturday, August 19th
8-11:30 pm
OSC Science Night Live

Saturday, September 16th
2 pm - Kids' Fossil Blast
3 pm - Meeting

Saturday, October 14th
Vulcan Mine Field Trip

FFH Fossil Fair
October 28th & 29th

Saturday, November 4th
National Fossil Day at FLMNH

Saturday, November 11th
Vulcan Mine Field Trip

Saturday, November 18th
2 pm - Kids' Fossil Blast
3 pm - Meeting

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

Florida Fossil Hunters
Post Office Box 540404
Orlando, Florida 32854-0404