NEWS
Florida Fossil Hunters

Florida Prehistorical Museum, Inc.
dba/ Florida Fossil Hunters
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From Ye Olde President…..

Hi to all FFH members and hope all is well. WOW another year is about to end and the holiday's are around the corner. I want to Wish all FFH members and their families a happy and safe holiday season 🙏

The **FFH Fossil Fair** was a great success. Show attendance was outstanding with 1000+ adults and 400 kids and the dealers were very happy; a really successful show. I want to thank all FFH members who volunteered at the show. ***Special thanks*** *to Valerie First, Steve Sharpe, Dave & Messila Donaway, Ed Metrin for their hard work to make the show a success. All volunteers please see Dave at the meeting to collect your fossil bucks earned.*

We are working with other fossil and mineral societies about shared fossil trips in the next year. Updates will be sent by email to members. Please remember some field trips can be scheduled months or only weeks in advance. Steve Sharpe and Mark Voke will keep us updated.

Paleontology for Kids programs is active at all meetings from 2-3pm before the main meeting.

Saturday, November 14th Meeting, 3:00pm, **at the OSC** in the Founders Room 3rd Floor. Our **Nov meeting** guest speaker will be **Bill Heim** and the topic will be **Evolution of Prehistoric Sharks**. **Elections for FFH 2027-28 Officers** will be held for all positions. All interested members are eligible to run. *See pg 5 for list of positions.*

FFH Annual Christmas Party and Fossil Bucks Auction will be held at Dave & Melissa's Dunaway's house on **December 5th at 4pm. Address:** 600 Fern Drive, Longwood FL 32779. Bring your hard earned fossil bucks and some yummies to share (sandwiches, cookies, cupcakes, etc.) Dave Dunaway & Ed Metrin will be bringing in a sack full of goodies to bid on. *There will be No FFH Meeting for December at the Orlando Science Center.*

Thank you
Salvatore Sansone
FFH President

UPCOMING MEETINGS

Saturday, November 14th
2pm Paleontology for Kids
3pm FFH Meeting
& Officer Elections at OSC

Saturday, December 5th
4pm FFH Annual Christmas Party
and Fossil Bucks Auction

Mark Your Calendar
OCTOBER 2 & 3
2027 FFH Fossil Fair

2027 Schedule
Coming Soon!

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www.floridafossilhunters.com

MEETINGS & MORE

Our Upcoming Meetings

At EVERY meeting!

- Support your club with the purchase of vintage fossil fair t-shirts! Variety of sizes available at meetings while they last. $25/Adults and Kids/$20.
- “Fossil swap”: every member brings in fossils to talk about and swap with other members.
- Paleontology for Kids has been a success and will be held before the general meetings at 2:00pm.

Regular Meetings held at the Orlando Science Center. Unless otherwise noted. Admission and parking is FREE to attending members. At the garage & ticket counter inform them you are there for the meeting.

PALEONTOLOGY FOR KIDS

Every OSC Meeting; 2:00-3:00pm

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

FFH OSC Meeting Room

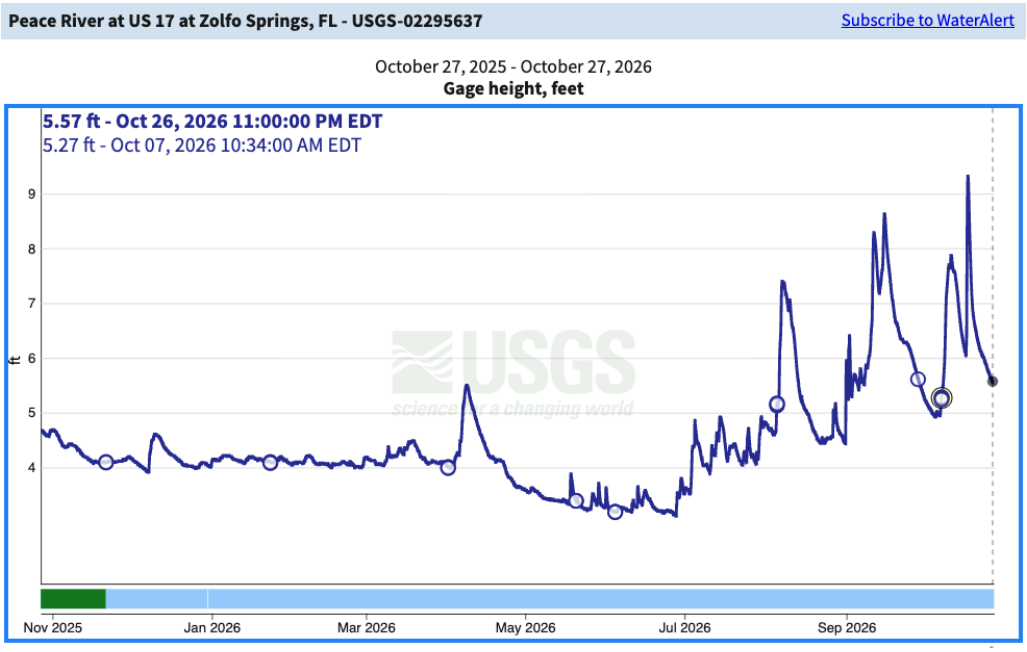
See the map below attend our November Meeting

Renew for 2027!

Family memberships cost $25
Individual membership will cost $20
https://floridafossilhunters.com/membership,
mail in the form on pg 7 or renew at the meeting.

PIECE ON THE PEACE

Want the most current height? Visit floridafossilhunters.com and click on the easy Peace River Gauge button in the sidebar or under the Resources tab for the latest water level data or visit the USGS website directly.
PEACE RIVER AT US 17 AT ZOLFO SPRINGS, FL
1 year snapshot!

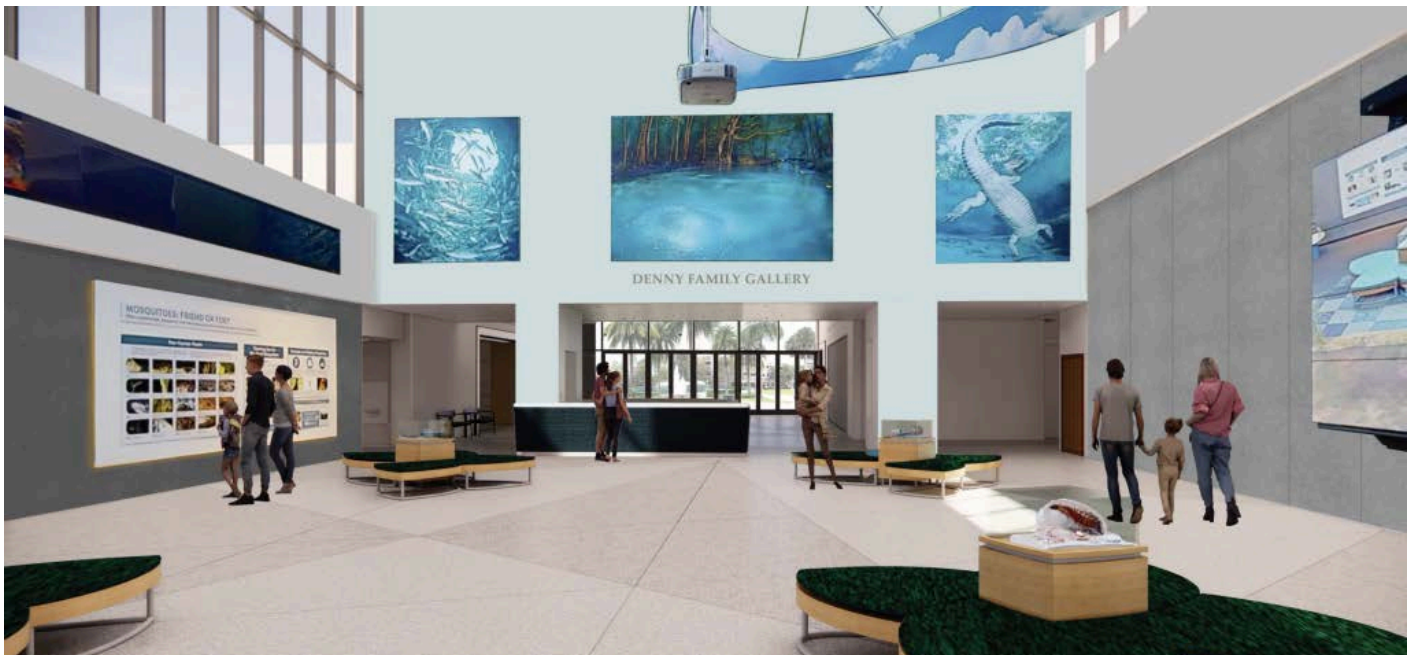


Expansion News: Exhibits Building Reopens Nov. 23

The Florida Museum of Natural History in Gainesville, FL began a large-scale expansion project on March 24, 2025 that has temporarily closed Powell Hall and its public exhibitions.

We are delighted to announce we are reopening to the public on Monday, Nov. 23, 2026. We can't wait to welcome everyone back just in time for the holidays. Include us in your family plans and take a stroll through our exhibits to rediscover all of your favorites and get inspired by our newest additions!

More details about the reopening schedule, upcoming traveling exhibit, tours and other visitor information will be shared in the coming weeks. *https://www.floridamuseum.ufl.edu/visit/expansion/*



A broken T. rex rib has preserved a stunning 66-million-year-old record of blood vessels and healing hidden inside the fossil. Credit: Phoenix Pleasant/ORNL, U.S. Dept. of Energy

A broken rib from the world's largest T. rex hid a 66-million-year-old secret

September 23, 2026 | Oak Ridge National Laboratory | Full Article and Video

A fractured rib from Scotty, the largest Tyrannosaurus rex skeleton ever discovered, is giving researchers a rare look at dinosaur biology from 66 million years ago. Preserved inside the bone is something almost never found in the fossil record: evidence of an injury that was still healing when the animal died.

Scientists used neutron imaging at the Department of Energy's (DOE) Oak Ridge National Laboratory (ORNL) to examine the fossil from the inside. The technology allowed them to construct detailed 3D images without damaging the preserved soft tissue.

"It's like winning the lottery," said Mauricio Barbi, professor of physics at the University of Regina (U of R) in Saskatchewan, Canada. "Scotty's rib contains a vast network of mineralized blood vessels that has never before been observed in a fossil."

Fossilized Blood Vessels Preserve a Rare Moment

Soft tissues such as blood vessels usually disappear during decomposition long before fossilization is complete. Scotty's rib is an unusual exception, preserving delicate structures that provide a glimpse of what was happening inside the dinosaur's body while the injury was healing.

After the rib broke, iron rich blood entered the injured area and new blood vessels formed as part of the healing process. Scotty died before the fracture had completely healed. The dinosaur

ended up in a salty marsh, where conditions slowed decomposition and helped preserve the fragile network of blood vessels.

"Every fossil is a tiny snapshot of the past," said Jerit Mitchell, a U of R doctoral candidate in physics who leads the project under Barbi's direction.

Scotty's remains were discovered by teams from the Royal Saskatchewan Museum in Saskatchewan's Frenchman River Valley, one of North America's richest sites for dinosaur fossils. Rocks in the region preserve an important record of dinosaur life shortly before the mass extinction that ended the age of nonavian dinosaurs. Researchers are also studying fossilized amber, dinosaur scales and bones from other dinosaurs.

"By piecing the clues together, we understand the past and how things could evolve in the future," said Marcella Berg, a U of R assistant professor of physics and former ORNL postdoctoral researcher.

Neutrons and X-rays Reveal a Dinosaur Medical Record

Neutron and X-ray imaging provide researchers with complementary ways to see inside materials. Neutrons are particularly useful for detecting light elements on the periodic table, especially hydrogen, while X rays are highly effective at revealing heavier elements. The contrast is somewhat similar to the difference between an MRI, which can emphasize soft tissues such as muscle, and an X ray, which is especially useful for viewing dense structures such as bone. Researchers select different neutron and X-ray techniques depending on the material they want to investigate.

The work traces back to 2020, when Mitchell, who was then a U of R undergraduate, detected evidence of blood vessels inside Scotty's rib. At the Canadian Light Source, he first used micro-CT scanning, a noninvasive X-ray imaging method. The scans confirmed fossilized soft tissue in cut sections of the rib.

As the investigation expanded, researchers combined other X-ray methods, including synchrotron radiation at the Canadian Light Source, with microscopy. Together, those techniques allowed the scientists to study both the healing injury and preserved fossil tissues at the cellular level.

Once X-ray imaging had exposed evidence of the fossilized blood vessels, the researchers turned to neutrons in hopes of finding additional clues from the vessels and other soft tissues.

Powerful Neutron Beams Peer Inside Scotty's Rib

In April 2026, the researchers used the Multimodal Advanced Radiography Station (MARS) instrument at ORNL's High Flux Isotope Reactor (HFIR) and the Virtual Environment for Neutron Sciences (VENUS) instrument at DOE's Spallation Neutron Source (SNS) at ORNL.

Neutron imaging allowed the team to confirm earlier observations, examine large bones including Scotty's rib without damaging them, and obtain additional image contrast that complemented the information gathered through other methods.

"Neutrons not only corroborated what we found with synchrotron radiation techniques that led to the discovery of blood vessels in Scotty's rib, but they also proved to be a highly valuable addition to our current studies in search of soft tissue preservation in fossils," said Berg. "This gives us an incredible amount of detail to better understand these properties without affecting the samples."

MARS generates cold neutrons that are particularly effective at highlighting signatures associated with soft tissue, areas rich in hydrogen and subtle differences within a specimen. Researchers used the instrument to produce high-resolution images of smaller bones, amber and fossilized scales.

VENUS, by contrast, produces high-energy neutrons capable of penetrating deeper into large objects and generating detailed 3D images. The researchers used VENUS to examine larger bones, including Scotty's rib.

A New Way to Search Fossils for Hidden Biology

As neutrons pass through a specimen, they interact with atoms throughout the material and are especially sensitive to hydrogen atoms. Those interactions generate information that can be converted into images. Because neutrons behave differently from X rays, they can expose features that may be difficult or impossible to detect with other imaging technologies.

"People often think of neutrons as tools for studying batteries or advanced materials, but they're just as innovative for answering questions about ancient life," said Hassina Bilheux, lead instrument scientist for VENUS.

Researchers will continue studying the data collected at VENUS and MARS while extending the approach to additional fossils. They also plan to compare patterns of injury and healing among different species.

By combining neutron imaging with X-ray techniques, the scientists hope to investigate pathologies preserved in fossils and examine how those ancient conditions compare with differences found in modern species.

"There are more fossils than you think sitting in collections, hiding secrets from millions of years ago," Mitchell said. "Putting them in a synchrotron or neutron source allows us to make new discoveries about ancient life like never before."

Read this article at Science Daily or the full source article & video at: Oak Ridge National Laboratory

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Looking for Holiday gifts?

5 CHILDREN'S BOOKS ABOUT FOSSILS

Check out these 5 children's books about the joys and discovery of fossil hunting

Will You Become a Fossil? by JD SavageIllustrated by Mariano Epelbaum
Take a whistlestop tour of fossils and learn about how they were formed, the thrill of their discovery and the big ideas they've revealed about the history of our planet. Along the way you'll learn facts about everything from mysterious "ghost forests" to the remains of sea creatures that were once believed to be fossilised lightning bolts.

The Fossil Keeper's Treasure by Amy AtwaterIllustrated by Natalia Cardozo
Discover ancient creatures from dinos and fish to our human ancestors, in this beautiful book. Written by a leading palaeontologist (a person who studies fossils), it's presented like a scrapbook with a treasure trove of illustrations and intriguing information. It even had some embossed fossils that you can touch.

Summaries from Apple News.

The Fossil Hunter by Kate Winter
Mary Anning was one of the most important fossil hunters in history. Collecting seashells and fossils on the beaches of Lyme Regis, she had a huge influence on our understanding of fossils. This award-winning book tells the story of her life and legacy.

Stones and Bones: Fossils and The Stories They Tell by Rob WilshawIllustrated by Sophie Williams
Over four billion years, life on Earth has evolved from tiny single-celled organisms to an enormous variety of plants and animals. In this engaging book, you'll learn everything there is about fossils and how they could help us protect the planet in the future.

Eyewitness: Fossil by Dr Paul David Taylor
If you want to delve even deeper into the subject, this illustrated reference book is packed with photographs, detailed diagrams and a wealth of information. Part of the Eyewitness series, it also features fascinating first-hand accounts from experts working in the field of fossils.

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 options are listed to the right.

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	Salvatore Sansone	(321) 278-9294
Vice President	Steve Sharpe	(352) 552-2296
Secretary	Melissa Dunaway	(407) 461-8507
Treasurer	David Dunaway	(407) 786-8844

Chairs:

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	Ken Sellers	
Newsletter	Elise Cronin-Hurley, info@elisech.com	
Photography	John Heinsen	(407) 291-7672
Facebook	Salvatore Sansone	
	Ken Sellers	
Webmaster	Elise Cronin-Hurley, info@elisech.com	

Board of Directors:

Joyce Bittle	(407) 341-6366
Melissa Dunaway	(407) 461-8507
Valerie First	(407) 699-9274
Ed Metrin	(407) 321-7462
Russ Ahlgrim	(407) 461-9207
Alex Bittle	(407) 202-5414
Micheal Sharpe	(352) 435-5308

Florida Prehistorical Museum, Inc.
dba/ Florida Fossil Hunters

Membership Application

MAIL in this form or Register ONLINE at
www.floridafossilhunters.com/membership

Name:			
Associate Members			
Address:			
Phone:			
Email:			
☐	New	☐	Renewal
Please list any interests, experience, talents or just plain enthusiasm, which you would like to offer to the club:			

Family membership: $25
Individual membership: $20

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 with Family Membership. Per our insurance policy, family membership covers married couples and children. All other individuals must have separate individual membership to be covered by our club insurance.

Membership year runs from January to December.

Newsletter Policy

Articles must be submitted two weeks before publication date. to be considered for an issue. Emailed to: info@floridafossilhunters.com. Articles can be sent either as text in the email, in a google doc, or in Microsoft Word files (.docx). Please note in subject of email 'FFH News: [article or info]

Florida Fossil Hunters Meetings & Events

MARK YOUR 2026 CALENDAR

Meetings 3pm at OSC | Paleontology for Kids at 2pm and alternative time and location noted when applicable.

MARK YOUR CALENDAR

2027 Fossil Fair

October 2-3rd

Watch the website for the
2027 Calendar coming soon!

Saturday, November 14th
2pm Paleontology for Kids
3pm FFH Meeting
& Officer Elections at OSC

Saturday, December 5th
4pm FFH Annual Christmas Party
and Fossil Bucks Auction

SEE INSIDE
for more information on events

Join Our Facebook group:
www.facebook.com/groups/floridafossilhunters

Visit us online at www.floridafossilhunter.com
Email info@floridafossilhunters.com to share articles, questions, & comments

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