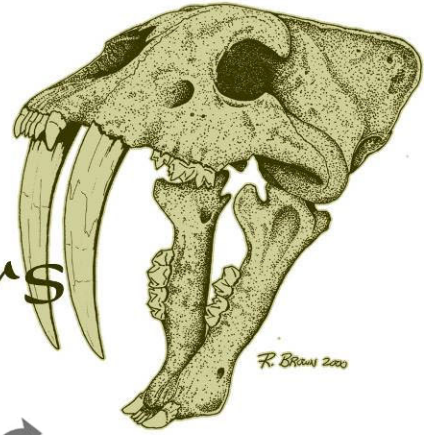


NEWS

Florida Fossil Hunters



Florida Prehistorical Museum, Inc.
dba/ Florida Fossil Hunters
Volume 32, Number 5

SEP/OCT 2022

From Ye Olde President...

Hi to all FFH members and hope all is well.

FFH next meeting is at the OSC on Saturday September 24th.

Working on field trips and possibly setting up another **Yankee Town dig**.

FFH September's meeting activity will be a Fossil Swap. All members are encouraged to participate and bring in fossils for trading with other members. Its a great way to interact with other members and trade for fossils.

Paleontology Party Science Night Live was a great success and reach out to the public. Talked about FFH and Florida's Prehistoric past. Special thanks to Salvatore Sansone, Dave Dunaway, Valerie First, and Ed Metrin for their support and outreach to the public.

Paleontology Day weekend at the OSC was lots of fun and outreach with the public. FFH had a shark tooth dig for the kids and parents. A excellent way to interaction with the public and kids. Special Thanks too Salvatore Sansone, Steve and Michael Sharpe, Valerie First and Joyce Bittle.

Hoping to see everyone at the club's annual **Fossil Fair October 22 & 23**. I'm sure that like every other year, there will be plenty to see, learn, buy, and eat while volunteering. We need members to volunteer for setup and help during the show, see information on page 3 for information on where you can help. FFH needs donations for the Auction and grab bags. Its a good way for members to earn fossil bucks.

National Fossil Day is October 12th.
See more on page 2

Salvatore Sansone
FFH President

Coming Events

UPCOMING MEETINGS
at the Orlando Science Center

FFH meeting at OSC
Saturday, September 24th
2pm Kids' Fossil Blast
3pm Fossil Swap &
Club Meeting

2022 Fossil Fair
October 22 & 23

FFH meeting at OSC
Sunday, November 19th

Full 2022 Mtg Schedule on pg 8

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www.floridafossilhunters.com

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MEETINGS & MORE

Our Upcoming Meetings

September 24th & November 19th

- 2pm Kids' Fossil Blast
- 3pm Meeting.

National Fossil Day is October 12th.

Fossils aren't just interesting and fun to look at — they're also proof of the existence of once-living things (like dinosaurs, animals, plants and even DNA remnants). Through these fossils we're able to learn a lot about life from billions of years ago. We can even take a look at animals and life-forms that are no longer on the planet! These fossils (and the education around them) deserve to be preserved and explored. That's why we celebrate National Fossil Day annually on the Wednesday of the second full week in October, with this year's celebration being held on October 12. Show some appreciation for these incredible "time capsules" and the paleontologists who excavate them.

Regular Meetings are 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. Please consult the [State of Florida](#) and [OSC](#) sites for Health and Safety policies.

2022 FOSSIL FAIR

- **Fossil Fair T-shirt Orders:** members can contact Dave Dunaway directly at (407) 786-8844 to order shirts. Adults are \$20.00 each and kids are \$25.00 each. This year, *the kids shirts are more expensive due to upgrade of material.* The standard Kids shirts were not available. Dave will bring all orders to the September 24th meeting.
- **Vendor Registration, Now open.** Visit www.floridafossilhunters.com/fossil-fair/ and scroll down for links to both the mail-in-form or online registration.
- **New this year, shark teeth fossil digs for the kids**

Kids' Fossil Blast

September 24th 2:00-3:00pm

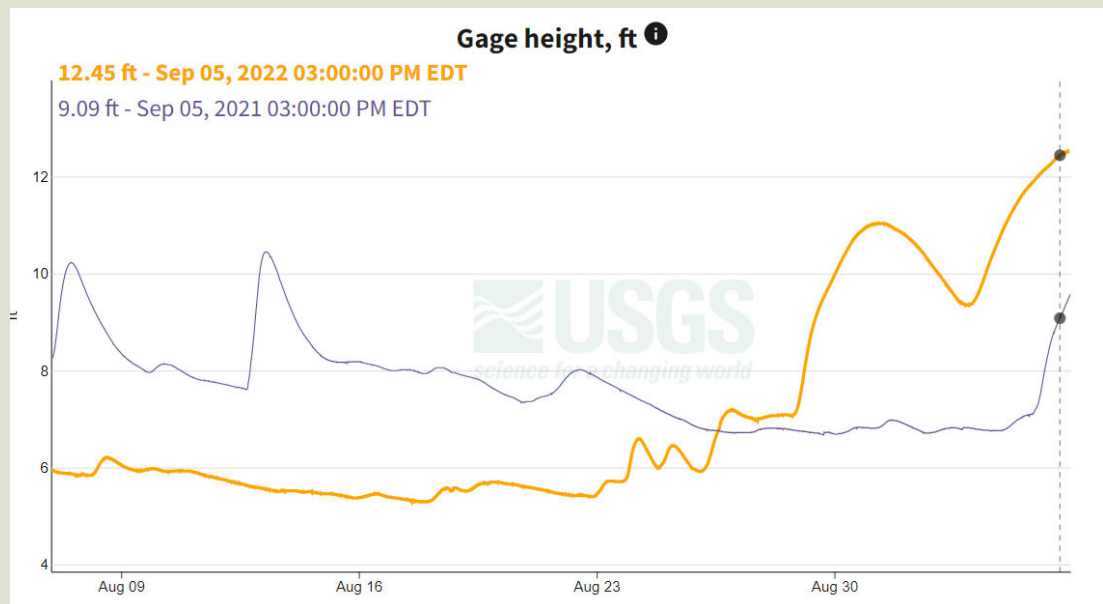
Kids' Fossil Blast is an informal, hands-on experience aimed at kids ages 5 to 14.

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 Re-

PEACE RIVER
AT US 17
AT ZOLFO
SPRINGS, FL



Florida Fossil Hunters News

Fossil Fair How I can help?

To put on such an event, we need lots of volunteers to help!

There are so many ways to take part in this fun-filled, fossil-packed weekend.

First of all, volunteer some time to help out in one of the areas during the Fair.

- Be one of the smiling, helpful people at the admissions table where people arrive.
- Help get set up Friday and/or tear down on Sunday, the Kids' identify their fossil finds in the activities area, folks bidding on treasures at the Silent Auction.
- Volunteer at the Membership table, answer questions and helping folks get started in their own quest to find fossils.
- And more...

Each position offers plenty of opportunities to share your excitement of fossiling and the joy of learning more about the world.

Please give a few hours.... or more if you can. You will be rewarded, not only in Fossil Bucks, but also with the fun of sharing your interests with other folks.

The shifts: Saturday: 8:30am to 12:45pm and 12:30pm to 5pm | Sunday: 9:30am to 12:45pm and 12:30pm to 4pm

SIGN UP: to volunteer at the August or September meetings, complete the online volunteer survey (<https://floridafossilhunters.com/club-volunteer-survey/>) or email us at info@floridafossilhunters.com.

Admissions Table: Greeting visitors with a smile, taking the money, giving them a free door prize ticket, etc.

Kid's Activities: help the kids shift through shark tooth and Yankee town echinoid fossil matrix and help them identify what they find with ID sheets.

Silent Auction: Logging donations, selecting items for each auction round, taking money, soliciting donations from the vendors, announcing the beginning and end of the auctions, etc.

Membership Table: Handing out club info, helping join the club, explaining about the field trips and other activities, selling t-shirts, etc.

Fossil Display Area: Telling visitors about the fossils on display and answering questions or suggesting other sources for the answers.

Setting up on Friday and packing up after closing on Sunday, putting the signs out on the streets early Saturday morning,

To donate items to the Kids' Dig Pit or the Silent Auction, just bring them to the Fair with you.

Bring Food!

One of the really extraordinary things about our Fossil Fair is that we feed our volunteers and vendors. We firmly believe full tummies make for happy people. So we ask that everyone bring a casserole, or salad, or dessert, or bag of munchies to share. The club foots the bill for the lunch meat and fixings for sandwiches as well as the paper plates and utensils. Finally, bring some food to share with the other volunteers and the vendors. We've managed to feed the workers at our past Fossil Fairs which really makes it feel like a big family reunion... a really strange but funny and intellectually stimulating one.

Donations for the Kids' Pit and Silent Auction

Small bones, echinoids and sharks needed for kid's activities. Please bring to the meetings or Fossil Fair. Those donated fossils bring smiles of joy to the kids who get to find them in our activities.

Silent Auction

For the Silent Auction, you can donate display cases/shelves, modern bones, figurines, prehistoric animal toys, etc. as well as fossils or minerals

Florida Fossil Hunters News



Fossils of giant sea lizard that rules the oceans 66 million years ago discovered.

August 24, 2022 | University of Bath

Researchers have discovered a huge new mosasaur from Morocco, named *Thalassotitan atrox*, which filled the apex predator niche. With massive jaws and teeth like those of killer whales, *Thalassotitan* hunted other marine reptiles -- plesiosaurs, sea turtles, and other mosasaurs.

At the end of the Cretaceous period, 66 million years ago, sea monsters really existed. While dinosaurs flourished on land, the seas were ruled by the mosasaurs, giant marine reptiles.

Mosasaurs weren't dinosaurs, but enormous marine lizards growing up to 12 metres (40 feet) in length. They were distant relatives of modern iguanas and monitor lizards.

Mosasaurs looked like a Komodo dragon with

flippers instead of legs, and a shark-like tail fin. Mosasaurs became larger and more specialised in the last 25 million years of the Cretaceous, taking niches once filled by marine reptiles like plesiosaurs and ichthyosaurs. Some evolved to eat small prey like fish and squid. Others crushed ammonites and clams. The new mosasaur, named *Thalassotitan atrox*, evolved to prey on all the other marine reptiles.

The remains of the new species were dug up in Morocco, about an hour outside Casablanca. Here, near the end of the Cretaceous, the Atlantic flooded northern Africa. Nutrient rich waters upwelling from the depths fed blooms of plankton. Those fed small fish, feeding larger fish, which fed mosasaurs and plesiosaurs -- and so on, with these marine reptiles becoming food for the giant, carnivorous *Thalassotitan*.

Thalassotitan, had an enormous skull measuring 1.4 metres (5 feet long), and grew to nearly 30 feet (9 metres) long, the size of a killer whale. While most mosasaurs had long jaws and slender teeth for catching fish, *Thalassotitan* had a short, wide

Florida Fossil Hunters News

muzzle and massive, conical teeth like those of an orca. These let it seize and rip apart huge prey. These adaptations suggest *Thalassotitan* was an apex predator, sitting at the top of the food chain. The giant mosasaur occupied the same ecological niche as today's killer whales and great white sharks.

Thalassotitan's teeth are often broken and worn, however eating fish wouldn't have produced this sort of tooth wear. Instead, this suggests that the giant mosasaur attacked other marine reptiles, chipping, breaking, and grinding its teeth as it bit into their bones and tore them apart. Some teeth are so heavily damaged they have been almost ground down to the root.

Fossilised remains of prey

Remarkably, possible remains of *Thalassotitan's* victims have been discovered. Fossils from the same beds show damage from acids, with teeth and bone eaten away. Fossils with this peculiar damage include large predatory fish, a sea turtle, a half-meter long plesiosaur head, and jaws and skulls of at least three different mosasaur species. They would have been digested in *Thalassotitan's* stomach before it spat out their bones.

"It's circumstantial evidence," said Dr Nick Longrich, Senior Lecturer from the Milner Centre for Evolution at the University of Bath and lead author on the study, published in *Cretaceous Research*.

"We can't say for certain which species of animal ate all these other mosasaurs. But we have the bones of marine reptiles killed and eaten by a large predator.

"And in the same location, we find *Thalassotitan*, a species that fits the profile of the killer -- it's a mosasaur specialised to prey on other marine reptiles. That's probably not a coincidence."

Thalassotitan was a threat to everything in the oceans -- including other *Thalassotitan*. The huge mosasaurs bear injuries sustained in violent combat with other mosasaurs, with injuries to their face and jaws sustained in fights. Other mosasaurs show similar injuries, but in *Thalassotitan* these wounds were exceptionally common, suggesting frequent, intense fights over feeding grounds or mates.

"*Thalassotitan* was an amazing, terrifying animal," said Dr Nick Longrich, who led the study. "Imagine a Komodo Dragon crossed with a great white shark crossed with a *T. rex* crossed with a killer whale."

The new mosasaur lived in the final million years of the Age of Dinosaurs, a contemporary of animals

like *T. rex* and *Triceratops*. Along with recent discoveries of mosasaurs from Morocco, it suggests that mosasaurs weren't in decline before the asteroid impact that drove the Cretaceous mass extinction. Instead, they flourished.

Professor Nour-Eddine Jalil, a co-author on the paper from the Museum of Natural History in Paris, said: "The phosphate fossils of Morocco offer an unparalleled window on the paleobiodiversity at the end of Cretaceous.

"They tell us how life was rich and diversified just before the end of the 'dinosaur era', where animals had to specialise to have a place in their ecosystems. *Thalassotitan* completes the picture by taking on the role of the megapredator at the top of the food chain."

"There's so much more to be done," said Longrich. "Morocco has one of the richest and most diverse marine faunas known from the Cretaceous. We're just getting started understanding the diversity and the biology of the mosasaurs."

Blog by Nick Longrich: <https://www.nicklongrich.com/blog/thalassotitan-the-killer-mosasaur>

BEST PLACES TO FIND FOSSILS IN FLORIDA

Fossils in Florida – Hunting for Nature's Treasures from the Past

Florida is a veritable hotbed of fossils, and the amateur prospector will be pleased to know that they don't have to get out the pick and shovel in order to nab some truly impressive specimens for their collection as long as they pick their spot carefully.

Venice Beach is considered to be one of the best places in the world to find fossilized shark teeth.

Scuba Divers Hunt Fossils in search of the best shark teeth fossils.

Peace River. Most of the fossils are found while wading in the water or snorkeling under its surface

Shell Creek for shark teeth and rarer specimens.

Honeymoon Island State Park for Agatized coral

For the full article, visit: <https://raregoldnuggets.com/?p=3579>

Florida Fossil Hunters News

Know the law before you go

In Florida it is illegal to collect vertebrate fossils (excluding shark teeth) without a permit from lands owned by the state. State lands include the bottoms of navigable waterways like rivers, lakes and some streams. A permit to collect vertebrate fossils on state lands can be obtained through the Florida Museum of Natural History. There is a \$5 fee per year, and the permit holder agrees to report their vertebrate fossil finds on a yearly basis. The state has the right to claim any fossils found that are deemed scientifically significant as a condition of issuing the permit. This law applies to both Florida residents and those traveling to the state.

Like shark teeth, invertebrate and plant fossils can be collected without a permit (sea shells, echinoids and petrified wood). Often times, fossil hunters come across human artifacts. An artifact represents something that has been shaped or constructed by prehistoric humans while fossils are the remains of ancient life. Sometimes it is difficult to distinguish between fossils and artifacts as prehistoric people occasionally utilized fossils as ornaments and tools. An example of fossil material that can also be an artifact is agatized coral. Prehistoric Floridians made projectile points and other tools out of agatized coral. If you cannot tell the difference, then it is best to leave the object where it was found. Collecting of human artifacts on state lands is illegal.

No fossil collecting of any type is allowed inside the boundaries of national and state parks or wildlife refuges. It is suggested that fossil collectors check with the manager of any lands they are interested in collecting from as some areas are off-limits to collecting of any kind. Remember, this applies only to state lands; private lands are a different matter. It is not illegal to remove either human artifacts or vertebrate fossils from private land as long as you have the landowner's permission. However, the collection of artifacts on private land is not allowed if the area contains a human burial.

Florida Law

Florida law requires a \$5 annual Fossil Collecting Permit if you collect vertebrate fossils; however, collecting sharks teeth and shells does not require a permit. If you go collecting with a guide they typically have you covered with a "group" collecting permit.

Florida law states that artifacts are state property and cannot be removed from Florida waters – these include Native American tools and arrowheads as well as any human-altered object older than 50 years old.

Do not disturb any vegetation or wildlife while collecting and be aware of your wild surroundings.

To Register or Renew, visit:
<https://www.floridamuseum.ufl.edu/vertpaleo/amateur-collector/fossil-permit/>

**Register or Renew your
Florida Fossil Permit**

WHY JOIN THE FLORIDA FOSSIL HUNTERS

ATTEND MEETINGS

Learn more &
Get involved!
Monthly Meetings have
guest speakers & time to
share finds.

GET OUT ON A FIELD TRIP

Join the trip to
Yankeetown
more info pg 2

VOLUNTEER & MAKE AN IMPACT

Help plan club events or
inspire others about fossils
at the science centers &
schools.

JOIN THE FACEBOOK GROUP

Share your finds and
help others identify.
[Facebook Group](#)

JOIN TODAY: www.floridafossilhunters.com/membership

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 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 1	Steve Sharpe	(352) 552-2296
Vice President 2		
Secretary	Melissa Cole	(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 Cole	(407) 461-8507
Marge Fantozi	(407) 256-5566
Valerie First	(407) 699-9274
Ed Metrin	(407) 321-7462
Ken Sellers	(407) 457-4117

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

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:

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 e-mail, in a google doc, or in Microsoft Word files (.docx).

Please note in subject of email 'FFH News: [article or info]#

Florida Prehistorical Museum, Inc.
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Florida Fossil Hunters News

Florida Fossil Hunters Mark Your Calendar

2022 Calendar

Meetings 3pm at OSC | Kids' Fossil Blast and alternative time and location noted when applicable.

See inside for more information

Saturday, September 24th

2022 Fossil Fair

Saturday, November 19th

October 22nd & 23rd

December no meeting
Holidays Party, tba

2023 Meeting Schedule
coming soon

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



Visit us online at www.floridafossilhunters.com

Email info@floridafossilhunters.com to share articles, questions & comments

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