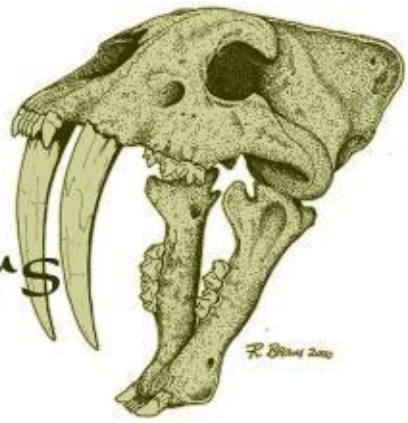
NEWS Florida Fossil Hunters



Florida Prehistorical Museum, Inc.
dba/ Florida Fossil Hunters
Volume 36, Number 1

JAN/FEB 2026

From Ye Olde President…..

Hello to everyone: Merry Christmas and Happy New Year. Hope your holidays were joyous.

23 members attended the Annual FFH Christmas Party and shared great food. Thank You Dave & Melissa Dunaway for hosting all the fun! Members won great auction items and raised 165,000 fossil bucks.

The FFH 2026 Meeting schedule is confirmed. FFH will have 10 meetings at the OSC in the Founders Room for 2026. See PG 8

It's time again to renew your membership for 2026.

Salvatore Sansone and Valerie First, will be handling the **outreach for the Orlando Science Center** representing FFH. OSC Events include: Science Night Live, Stem/Steam events for schools and First Saturday of every month for community partners day and Fossil Fest Days. We invite FFH members to join us at these events to share our knowledge and love of Fossils! *Its a great way of earning fossil bucks too.*

Paleontology for Kids programs will be active at all meetings from 2pm to 3pm. Thank you Laurie and Francesca for your hard work and dedication to making Paleontology for Kids a success.

January Meeting: Our guest speaker for the January meeting is Valerie First and the topic will be about Evolution

Working on a **field trip** to Chris Delory's workshop. I will send an email when date is scheduled.

Thank you
Salvatore Sansone,
FFH President

FOSSIL SWAP
at each Meeting!

TIME TO RENEW
YOUR MEMBERSHIP
See page 2 for 3 easy options
and all your membership supports!

UPCOMING MEETINGS

Saturday, January 17th
2pm Paleontology for Kids
3pm Meeting
FFH meeting at OSC

Saturday, February 28th
2pm Paleontology for Kids
3pm Meeting
FFH meeting at OSC

Now Available!
2026 Calendar of Events
Page 8

FOSSIL FAIR
October 3-4, 2026

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www.floridafossilhunters.com

MEETINGS & MORE

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.
- Paleontology for Kids has been a success and will be held before the general meetings at 2:00pm.

Regular Meetings are held at the Orlando Science Center. *Unless otherwise noted.* Admission and parking is FREE to 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.

MEMBER REGISTRATION

https://floridafossilhunters.com/membership, mail in the form on pg 7 or renew at the meeting.

REGISTER/RENEW

Membership options
Family memberships cost $25
Individual membership will cost $20

3 OPTIONS RENEW NOW ONLINE!

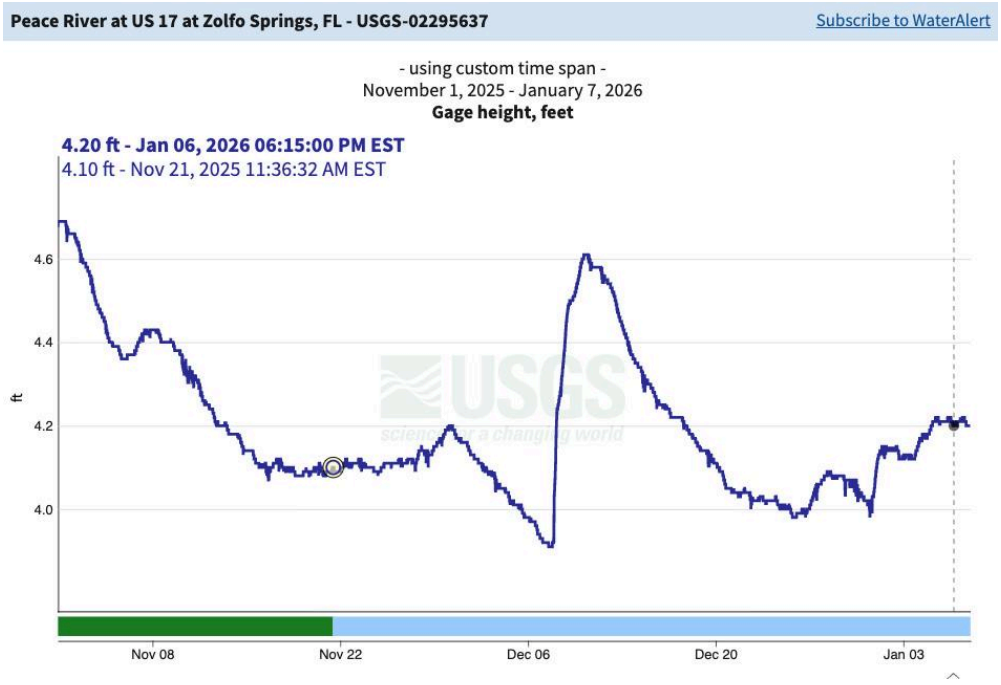
https://floridafossilhunters.com/membership
Mail in the form on pg 7 or renew at the meeting.

Florida Fossil Hunters Memberships supports

- Monthly Meetings with speakers, auctions, fossil sharing and a kid's program
- Field trips
- School and community outreach
- Organize Fossil Fair for 30 years
- Manage Florida Fossil Hunters
- Facebook group that boasts more than 20,000 enthusiasts.
- Newsletter and website communications
- A stellar reputation with Central Florida science centers and museums... with our support of their events,
- Fossil collections to display, and community engagement.

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



Scientists Found a 520-Million-Year-Old Miracle: a Fossil with Brains and Guts Intact

It's an unprecedented look into prehistoric anatomy.

BY JACKIE APPEL | DEC 02, 2025 | Popular Mechanics

Jason Edwards//Getty Images

We know what fossils look like. For example, typical dinosaur fossils are bones turned to stone and preserved from the passage of time located, if we're particularly lucky, in large collections that can be reassembled to represent the beast they used to prop up in their entirety.

Now, not all fossils are like that. Some are just impressions of small creatures or animals left in rocks, but most have something in common—it's just the hard stuff left behind. With the exception of those found in environments particularly adept at preservation, the soft tissues degrade over time and all we're left with is stony bone.

But not always. Sometimes we get lucky—like a team did when it located a fossil of a 520-million-year-old worm larva that still had its brain and guts intact.

"It's always interesting to see what's inside a sample using 3D imaging," Katherine Dobson, one of the co-authors of a study centered on this remarkable find, said in a press release, "but in this incredible tiny larva, natural fossilization has achieved almost perfect preservation."

That "almost perfect preservation" made the specimen an absolute gold mine for evolutionary biologists.

According to the press release, the structures observed within the creature—which were studied via 3D images generated from scans made using a technique known as synchrotron X-ray tomography—include a brain, "digestive glands, a primitive circulatory system and even traces of the nerves supplying the larva's simple legs and eyes." The incredible amount of detail preserved in this ancient fossil showed scientists that we had previously dramatically underestimated the complexity of early arthropods - a group that came into being during the Cambrian Explosion and includes creatures like crabs, lobsters, insects, & millipedes.

That detail also allowed scientists to draw evolutionary connections between the critters of the ancient past and those scuttling around today. For example, preserved in the larva was a region of the brain known as the protocerebrum. Now that scientists have seen it, they can see that it evolved into the "nub" of arthropod heads that has allowed them to thrive in such a wide variety of environments—from the depths of the ocean to every single continent on Earth (yes, including Antarctica).

"When I used to daydream about the one fossil I'd most like to discover," Martin Smith, the lead researcher on the study, said in a press release, "I'd always be thinking of an arthropod larva, because developmental data are just so central to understanding their evolution. But larvae are so tiny and fragile, the chances of finding one fossilized are practically zero—or so I thought! I already knew that this simple worm-like fossil was something special, but when I saw the amazing structures preserved under its skin, my jaw just dropped—how could these intricate features have avoided decay and still be here to see half a billion years later?"

Right now, the scientists are happily counting themselves lucky that the creature was preserved at all, giving us a unique window into what life looked like in our distant past.

Full article and see more pictures:
www.popularmechanics.com/science/environment/a69607077/scientists-discover-fossil-with-brains-and-guts-intact/

Scientists just uncovered three ancient worlds frozen beneath Illinois for 300 million years

Date: August 9, 2025 | Source: University of Missouri-Columbia

A Tully Monster (Tullimonstrum gregarium). Credit: Univ of Missouri

More than 300 million years ago, during the Carboniferous Period, much of northern Illinois outside Chicago -- including what is now the Mazon Creek ("muh-ZAHN") fossil site -- was alive with ancient creatures thriving in lush, tropical swamps, river deltas and shallow seas.

Now, researchers at the University of Missouri's College of Arts and Science are collaborating with geologist Gordon Baird to reanalyze his massive fossil collection from Mazon Creek -- currently housed at the Field Museum in Chicago -- which includes 300,000 siderite concretions from around 350 different localities.

The Mazon Creek fossil beds are renowned for their exceptional preservation of both plants and animals, made possible by their unique geological setting. The fossils are encased in siderite -- an iron carbonate mineral -- forming abundant concretions that have become a treasure trove for scientists and avocational fossil hunters alike. Thanks to decades of research at Mazon Creek, including foundational fieldwork by Baird and colleagues in the late 1970s, we now have an extraordinary view of life along that ancient coast.

A snapshot of ancient life

"We found three readily identifiable paleo-environments, including the unique characteristics of a benthic marine assemblage representing a transitional habitat between the nearshore and offshore zones," said Jim Schiffbauer, Marie M. and Harry L. Smith Endowed Professor of Geological Sciences. "These ancient environments were each dominated by specific groups of animals, for example freshwater animals nearest to shore, jellyfish and sea anemones further offshore, and marine clams and worms in the transitional zone."

The fossils formed during a phase of sea-level rise and flooding of what used to be large coal swamps.

"The different environments affected how quickly and deeply organisms were buried, and in what specific geochemical conditions fossilization may have started," Schiffbauer said. "That, in turn, shaped where certain microbes lived and helped form the minerals that make up the concretions surrounding these fossils today."

Next steps

In current and future research, Schiffbauer and Baird are using this information to create a sedimentological model to show how the Mazon Creek ecosystem connects to the Colchester coal layers below -- where coal mining led to the fossil site's original discovery.

"Given that multiple episodes of rapid coastal drowning events occurred in the U.S. midcontinent during the Carboniferous Period, refinement of information from the Mazon Creek locality will lead to a deeper understanding of similar deposits in other coal basins," said Baird, who is now an emeritus professor at State University of New York at Fredonia.

Mizzou's new collaborative analysis with Baird, colleagues from the private sector and the University of Toronto is the most comprehensive and data-driven picture of what Mazon Creek's ancient ecosystem looked like long ago. This

knowledge contributes significantly to our understanding of the Carboniferous Period's biodiversity and paleoecology.

"It offers a real snapshot of the incredible diversity present in the late Carboniferous Period and allows for inferences about the complexity of food chains and how this ecosystem functioned," Schiffbauer said. "Now, we have an unparalleled and statistically supported look at the interconnected terrestrial, estuarine and marine life of the Carboniferous Period."

The study, "283,821 concretions, how do you measure the Mazon Creek? Assessing the paleoenvironmental and taphonomic nature of the Braidwood and Essex assemblages," was published in the journal Paleobiology.

Other co-authors are John Warren Huntley and Tara Selly at Mizzou; Charles Chabica at Northeastern Illinois University; Marc Laflamme at University of Toronto Mississauga; and A. Drew Muscente at Princeton Consultants, Inc.

Full article and see more pictures:
https://www.sciencedaily.com/releases/2025/08/250809100919.htm

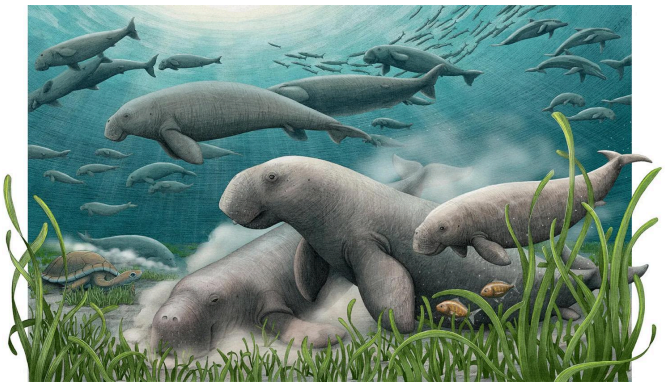
New fossils in Qatar reveal a tiny sea cow hidden for 21 million years

October 9, 2025 | Dr. Stefanie Mikulla

Today the Arabian Gulf supports large numbers of dugongs, marine mammals related to manatees that feed on seagrass and leave trails in the sediment as they graze. Newly examined fossils from Qatar show that sea cows living more than 20 million years ago shaped their environments in much the same way.

The findings, published December 10 in the journal PeerJ, come from a partnership between scientists at the Smithsonian's National Museum of Natural History and Qatar Museums. The team also identified a previously unknown species of ancient sea cow that was much smaller than modern dugongs.

"We discovered a distant relative of dugongs in rocks less than 10 miles away from a bay with seagrass meadows that make up their prime habitat today," said Nicholas Pyenson, curator of fossil marine mammals at the National Museum of Natural History and a lead author of the study. "This part of the world has been prime sea cow habitat for the past 21 million years -- it's just that the sea cow role has been occupied by different species over time."



An artistic reconstruction of a herd of ancient sea cows foraging on the seafloor. Credit: Alex Boersma

Exploring the Al Maszhabiya Fossil Site

One of the most significant sources of these fossils is Al Maszhabiya [AL mahz-HA-bee-yah], a site in southwestern Qatar. Geologists first encountered the site in the 1970s while conducting mining and petroleum surveys and believed they had found reptile bones. When paleontologists revisited the area in the early 2000s, they recognized the bones as belonging to ancient sea cows.

After obtaining the required permits in 2023, Pyenson, Sakal, and their team surveyed the site. Surrounding rock layers suggest that the fossils date to the Early Miocene, approximately 21 million years ago. The area was once a shallow sea inhabited by sharks, barracuda-like fish, prehistoric dolphins, and sea turtles.

The World's Densest Sea Cow Bonebed

The team documented sea cow remains at more than 170 separate locations across the site. Pyenson described Al Maszhabiya as the richest fossil sea cow assemblage known. He compared it to Cerro Ballena in Chile's Atacama Desert, where he and other researchers had uncovered a large collection of whale fossils.

Although the bones share similarities with those of modern dugongs, they also show differences. The ancient animals still had hind limb bones, which living dugongs and manatees lost during their evolution. The prehistoric species also had a straighter snout and smaller tusks.

Naming a New Species: Salwasiren qatarensis

The team formally designated the Al Maszhabiya sea cows as a new species, Salwasiren qatarensis. The genus name refers to the Bay of Salwa, a nearby section of the Gulf where dugongs live today. Although the Bay of Salwa touches the waters of several countries, the species name "qatarensis" honors Qatar, where the fossils were discovered.

Based on their estimates, the researchers believe Salwasiren weighed around 250 pounds, similar to the weight of an adult panda or a heavyweight boxer. Even at that size, it was relatively small compared with some dugongs living today, which can weigh nearly eight times more.

Ancient Seagrass Meadows and the Role of Sea Cows

The fossils provide evidence that abundant seagrass beds existed in the region more than 20 million years ago, during a period when the Gulf supported high marine biodiversity. Sea cows would have helped maintain these underwater meadows by feeding and disturbing the sediment.

"The density of the Al Maszhabiya bonebed gives us a big clue that Salwasiren played the role of a seagrass ecosystem engineer in the Early Miocene the way that dugongs do today," Pyenson said. "There's been a full replacement of the evolutionary actors but not their ecological roles."

Preserving Qatar's Fossil Heritage

Sakal hopes continued collaboration between Qatar Museums and the Smithsonian will lead to further discoveries at Al Maszhabiya and other nearby locations. Protecting the site is a top priority, and the team plans to nominate it for recognition as a UNESCO World Heritage site.

Digital Access and Continued Research

To make their data widely available, Pyenson and Sakal worked with the Smithsonian's Digitization Program Office to create digital scans of several fossil sites and of the fossil skull, vertebrae, tooth, and other skeletal parts of the newly described species. These 3D models can be explored through the open-source Smithsonian Voyager platform, which includes interactive educational materials and a virtual tour of the excavation.

The study's authors also include researchers from the Smithsonian's Digitization Program Office, the Stone Ridge School of the Sacred Heart, Texas A&M University at Galveston, Texas A&M University College Station, and the Natural History Museum of Los Angeles County.

This work was supported by a collaborative agreement between the Smithsonian Institution and Qatar Museums and received additional funding from the National Museum of Natural History and the Qatar National Research Fund.

Full study found here:
https://www.sciencedaily.com/releases/2025/12/251212022244.htm

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
Marge Fantozi	(407) 256-5566
Valerie First	(407) 699-9274
Ed Metrin	(407) 321-7462
Ken Sellers	(407) 457-4117

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.

January 17,2026
February 28, 2026
March 21, 2026
April 18, 2026
May 16, 2026

June 20, 2026
July 18, 2026
August 15, 2026
September 26, 2026

2006 Fossil Fair
October 3-4

November 21, 2026
December date tba,
FFH Annual Christmas Party
and Fossil Bucks Auction

SEE INSIDE
for more information on events

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

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