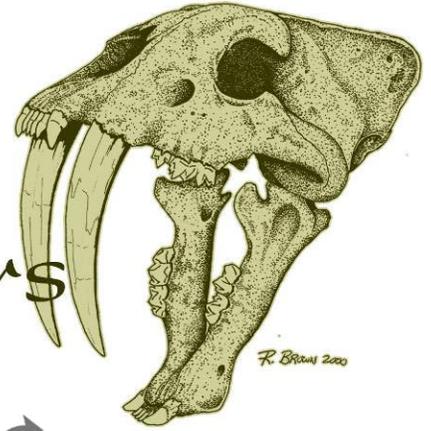


NEWS

Florida Fossil Hunters



Florida Prehistorical Museum, Inc.
dba/ Florida Fossil Hunters
Volume 32, Number 4

JUL/AUG 2022

From Ye Olde President...

The heat is on - hot weather, hot fossil hunting and hot stories. Heat stroke is a real threat so know your limits when you are outside on your fossil hunts.

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.

Field trip to Chris Delorey's Warehouse Sunday, July 24th. There will be a short meeting at 9am. The address is 4015 Pine Industrial Ave, Rockledge, FL 32955.

August Meeting, our guest speaker. Valerie First will present a presentation on Evolution of life.

As always, bring your fossil finds to the meeting. We will love to see them and hear your fossil adventures stories.

See you soon,

Salvatore Sansone
FFH President

Membership Clarification

Family membership covers married couples and children.
All other individuals must have separate individual membership to be covered by our club insurance.

MEETING
SCHEDULE
FULL 2022
Schedule Pg 8

2022
FOSSIL FAIR
Volunteer Info & Shirt
Orders, Next Issue

VENDORS
REGISTER
2022 Fossil Fair
OPEN NOW Pg 2

Coming Events

UPCOMING MEETINGS at the Orlando Science Center

FFH meeting at OSC
Sunday, July 24th
Field Trip

FFH meeting at OSC
Saturday, August 13th
2pm Kids' Fossil Blast
3pm Guest Speaker &
Club Meeting

2022 Fossil Fair
October 22 & 23

Full 2022 Mtg Schedule on pg 8

Table of Contents

Fragments, Meetings, Peace River & More	2
2022 Fossil Fair Flyer	3
Fossils in the 'Cradle of Humankind' may be more than a million years older than previously thought	4
Seven New Things We Learned About Human Evolution in 2021 ...	6
Contacts & Membership Info	7
Calendar	8

www.floridafossilhunters.com

Florida Fossil Hunters News

MEETINGS & MORE

Our Upcoming Meetings

July 24th Field Trip & Meeting

- Field trip to Chris Delorey's Warehouse Sunday, July 24th. There will be a short meeting at 9am. The address is 4015 Pine Industrial Ave, Rockledge, FL 32955.

August 13th Guest Speaker & Meeting

- 2pm Kids' Fossil Blast
- 3pm our guest speaker is Valerie First and she will give a presentation on the Evolution of life.

September 24th meeting

- 2pm Kids' Fossil Blast
- 3pm Meeting

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

- Information on shirt orders coming in the next issue.
- **Vendor Registration, Now open.** Visit www.floridafossilhunters.com/fossil-fair/. Scroll down for links to both the mail-in-form or online registration.

Kids' Fossil Blast

August 13th 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 Resources tab for the latest water level data or visit the [USGS website](#) directly.

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 in the 'Cradle of Humankind' may be more than a million years older than previously thought

June 27, 2022 | Purdue University

The earth doesn't give up its secrets easily -- not even in the "Cradle of Humankind" in South Africa, where a wealth of fossils relating to human evolution have been found.

For decades, scientists have studied these fossils of early human ancestors and their long-lost relatives. Now, a dating method developed by a Purdue University geologist just pushed the age of some of these fossils found at the site of Sterkfontein Caves back more than a million years. This would make them older than Dinkinesh, also called Lucy, the world's most famous Australopithecus fossil.

The "Cradle of Humankind" is a UNESCO World Heritage Site in South Africa that comprises a variety of fossil-bearing cave deposits, including at Sterkfontein Caves. Sterkfontein was made famous by the discovery of the first adult Australopithecus, an ancient hominin, in 1936. Hominins includes humans and our ancestral relatives, but not the other great apes. Since then, hundreds of Australopithecus fossils have been found there, including the well-known Mrs. Ples, and the nearly complete skeleton known as Little Foot. Paleoanthropologists and other scientists have studied Sterkfontein and other cave sites in the Cradle of Humankind for decades to shed light on human and environmental evolution over the past 4 million years.

Darryl Granger, a professor of earth, atmospheric, and planetary sciences in Purdue University's College of Science, is one of those scientists, working as part of an international team. Granger specializes in dating geologic deposits, including those in caves. As a doctoral student, he devised a method for dating buried cave sediments that is

now used by researchers all over the world. His previous work at Sterkfontein dated the Little Foot skeleton to about 3.7 million years old, but scientists are still debating the age of other fossils at the site.

In a study published in the Proceedings of the National Academy of Sciences, Granger and a team of scientists including researchers from the University of the Witwatersrand in Johannesburg, South Africa and the University Toulouse Jean Jaurès in France, have discovered that not only Little Foot, but all of the Australopithecus-bearing cave sediments date from about 3.4 to 3.7 million years old, rather than 2-2.5 million years old as scientists previously theorized. That age places these fossils toward the beginning of the Australopithecus era, rather than near the end. Dinkinesh, who hails from Ethiopia, is 3.2 million years old, and her species, Australopithecus africanus, hails back to about 3.9 million years old.

Sterkfontein is a deep and complex cave system that preserves a long history of hominin occupation of the area. Understanding the dates of the fossils here can be tricky, as rocks and bones tumbled to the bottom of a deep hole in the ground, and there are few ways to date cave sediments.

In East Africa, where many hominin fossils have been found, the Great Rift Valley volcanoes lay down layers of ash that can be dated. Researchers use those layers to estimate how old a fossil is. In South Africa -- especially in a cave -- the scientists don't have that luxury. They typically use other animal fossils found around the bones to estimate their age or calcite flowstone deposited in the cave. But bones can shift in the cave, and young flowstone can be deposited in old sediment, making those methods potentially incorrect. A more accurate method is to date the actual rocks in which the fossils were found. The concrete-like matrix that

Florida Fossil Hunters News

embeds the fossil, called breccia, is the material Granger and his team analyze.

"Sterkfontein has more Australopithecus fossils than anywhere else in the world," Granger said. "But it's hard to get a good date on them. People have looked at the animal fossils found near them and compared the ages of cave features like flowstones and gotten a range of different dates. What our data does is resolve these controversies. It shows that these fossils are old -- much older than we originally thought."

Granger and the team used accelerator mass spectrometry to measure radioactive nuclides in the rocks, as well as geologic mapping and an intimate understanding of how cave sediments accumulate to determine the age of the Australopithecus-bearing sediments at Sterkfontein,

Granger and the research group at the Purdue Rare Isotope Measurement Laboratory (PRIME Lab) study so-called cosmogenic nuclides and what they can reveal about the history of fossils, geological features and rock. Cosmogenic nuclides are extremely rare isotopes produced by cosmic rays -- high-energy particles that constantly bombard the earth. These incoming cosmic rays have enough energy to cause nuclear reactions inside rocks at the ground surface, creating new, radioactive isotopes within the mineral crystals. An example is aluminum-26: aluminum that is missing a neutron and slowly decays to turn into magnesium over a period of millions of years. Since aluminum-26 is formed when a rock is exposed at the surface, but not after it has been deeply buried in a cave, PRIME lab researchers can date cave sediments (and the fossils within them) by measuring levels of aluminum-26 in tandem with another cosmogenic nuclide, beryllium-10.

In addition to the new dates at Sterkfontein based on cosmogenic nuclides, the research team made careful maps of the cave deposits and showed how animal fossils of different ages would have been mixed together during excavations in the 1930s and 1940s, leading to decades of confusion with the previous ages. "What I hope is that this convinces people that this dating method gives reliable results," Granger said. "Using this method, we can

more accurately place ancient humans and their relatives in the correct time periods, in Africa, and elsewhere across the world."

The age of the fossils matters because it influences scientists' understanding of the living landscape of the time. How and where humans evolved, how they fit into the ecosystem, and who their closest relatives are and were, are pressing and complex questions. Putting the fossils at Sterkfontein into their proper context is one step towards solving the entire puzzle.

Story Source: Materials provided by Purdue University.

PREVENTING Heat-Related Illnesses

Although heat-related illnesses are serious, they can be easily prevented by staying hydrated and by being in tune with your body. To prevent heat stress, use the following tips:

- Drink about two cups of water or a sports beverage every hour.
- Do heavier work in the coolest parts of the day.
- Wear light and breathable clothing—such as cotton—if possible.
- Avoid alcohol and sugary, carbonated, and caffeinated drinks.
- Look at your urine's color—if it's a dark yellow to orange color or darker, then you could be dehydrated.
- Always take a break at the first sign of feeling overheated.

Whether you're a fossil hunter, beach lifeguard, construction worker, farmer, or landscape artist, staying hydrated is essential—not only during the summer's heat, but year round.

Adapted and excerpted from:

J. Beatty and G. P. Kauwell, "Hydrating in Hot Working Environments" (FCS80018), UF/IFAS Family, Youth and Community Sciences Department (03/2012).

"Heat Stress," Centers for Disease Control and Prevention (rev. 06/2014).

Florida Fossil Hunters News

Seven New Things We Learned About Human Evolution in 2021



Paleoanthropologists Briana Pobiner and Ryan McRae reveal some of the year's best findings in human origins studies

Briana Pobiner and Ryan McRae | December 28, 2021

This year—2021—has been a year of progress in overcoming the effects of the Covid-19 pandemic on human evolution research. With some research projects around the world back up and running, we wanted to highlight new and exciting discoveries from 13 different countries on five different continents. Human evolution is the study of what links us all together, and we hope you enjoy these stories we picked to show the geographic and cultural diversity of human evolution research, as well as the different types of evidence for human evolution, including fossils, archaeology, genetics, and even footprints!

1. New *Paranthropus robustus* fossils from South Africa show microevolution within a single species.
2. Fossil children from Kenya, France, and South Africa tell us how ancient and modern human burial practices changed over time.
3. The first Europeans had recent Neanderthal relatives, according to genetic evidence from Czechia and Bulgaria.
4. A warty pig from Indonesia, a kangaroo from Australia, and a conch shell instrument from France all represent different forms of ancient art.
5. Fossil finds from China and Israel complicate the landscape of human diversity in the late Pleistocene.
6. The ghosts of modern humans past were found in DNA in dirt from Denisova Cave in Russia.
7. Fossilized footprints bring to light new interpretations of behavior and migration in Tanzania, the United States and Spain.

CHECK OUT THE FULL ARTICLE AT:

<https://www.smithsonianmag.com/smithsonian-institution/seven-new-things-we-learned-about-human-evolution-in-2021-180979271/>

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 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

Membership Application

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.
dba/ Florida Fossil Hunters #

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

Sunday, July 24th
Field Trip & Short Meeting
See Page 2

2022 Fossil Fair
October 22nd & 23rd

Saturday, August 13th

Saturday, September 24th

Saturday, November 19th

December no meeting
Holidays Party, tba

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

Florida Fossil Hunters

Post Office Box 540404
Orlando, Florida 32854-0404



Florida Fossil Hunters News