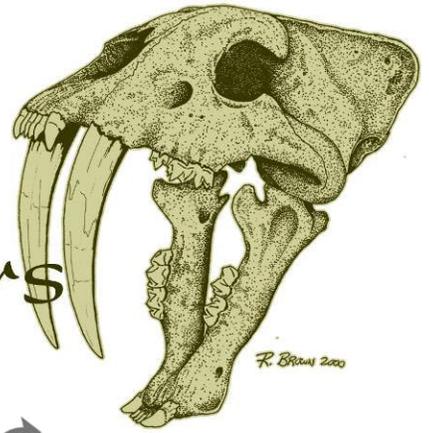


# NEWS

## Florida Fossil Hunters



Florida Prehistorical Museum, Inc.  
dba/ Florida Fossil Hunters  
Volume 31, Number 4

JUL/AUG 2021

### From Ye Olde President.....

I hope everyone is having a safe and fun summer.

Happy fossil hunting adventures. Come and tell your stories and share your finds at the FFH meeting.

I would like to see more FFH members attend club meeting and activities. FFH wants try something new at the meeting, we are calling a Fossil Swap. Members bring in fossils to swap with other members. Its been a successful activity with my Mineral and Gem Club meetings.

#### July's Florida Fossil Hunter Summer Picnic

When: July 17, 2021 from 3-8pm

Where: Dave's house: 600 Ferne Drive, Longwood, FL

What to bring:

- Bring your best dish! Club will supply hotdogs, hamburgers, drinks, and the fixings!
- Bathing suit if you would like to swim!
- Fossils to swap

#### Field Trip to the Museum of Arts & Science: MOAS

352 S Nova Rd, Daytona Beach, FL 32114

August 21st 9:30-4:00pm | 9:00-9:30am Club Meeting

Come out to see fossil skulls, displays & there will be activities for the kids.

Hope to see you there!

Thank You

Salvatore Sansone

FFH President

### Coming Events

#### UPCOMING MEETINGS at the Orlando Science Center

##### JULY SUMMER PICNIC

Saturday, July 15th  
3:00-8:00pm

##### MOSA Field Trip & FFH Mtg

Saturday, August 21st  
9:00-9:30am Club Meeting  
9:30-4:00pm Field Trip

##### FFH meeting at OSC

Saturday, September 18th  
2 pm - Kids' program  
3 pm - Meeting

##### 2021 Fossil Fair

Sat., Oct. 16, 9 am - 5 pm  
Sun., Oct. 17, 10am - 4 pm  
Sanford Civic Center

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[www.floridafossilhunters.com](http://www.floridafossilhunters.com)

#### SAVE THE DATE

Florida Fossil Hunters Fossil Fair  
October 16 & 17, 2021.

Volunteers Needed!

#### VOLUNTEER SURVEY

Club & Fair, Get Involved!

[https://floridafossilhunters.com/  
club-volunteer-survey/](https://floridafossilhunters.com/club-volunteer-survey/)

# Florida Fossil Hunters News

# MEETINGS & MORE

## July 17th Florida Fossil Hunter Summer Picnic

see page 1 for more information.

## August 21st Field Trip to the Museum of Arts & Science: MOAS

352 S Nova Rd, Daytona Beach, FL 32114  
9:30am-4:00pm | 9:00-9:30am Club Meeting  
Come out to see fossil skulls, displays & there will be activities for the kids.

## FFH meeting at OSC

Saturday, September 18th  
2 pm - Kids' program | 3 pm - 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.**

*Social distancing & face masks requirements dependent on current State of Florida Phase level policies.*

# ROCK, MINERAL, GEM, JEWELRY & FOSSIL SHOW

Central Florida Mineral & Gem Society, Inc, a non-profit 501(C)3 educational organization is hosting a Rock, Mineral, Gem, Jewelry & Fossil Show on September 25<sup>th</sup> and 26<sup>th</sup>, 2021 at the Sanford Civic Center, 401 E. Seminole Blvd., Sanford, FL 32771. Show time: Saturday 9am to 5pm and Sunday 9am to 4pm. Vendors offering: minerals, rocks, fossils, beads, gemstones, hand crafted cabochons and jewelry, etc. Also available: silent auction, door prizes, demonstrations, family activities and scavenger hunt. Admission fee: Adults \$5, Kids \$2 and Scouts in uniform free. Website: [www.cfmgs.org](http://www.cfmgs.org). Contact: President Salvatore Sansone 321-278-9294 or e-mail: [ssfossilhunter@aol.com](mailto:ssfossilhunter@aol.com).

# FOSSIL ID SHEETS

Over the years Russell Brown has created stunning, artistic Fossil ID Sheets for various species. Nine (9) of these are now available online for your convenience.

Visit the website and click on link under **Resources**.  
<https://floridafossilhunters.com/fossil-id-sheets-by-russell-brown/>

# REGISTER/RENEW

**JOIN | 2021 Membership Dues**

Family \$25 | Individual \$20

<https://floridafossilhunters.com/membership>

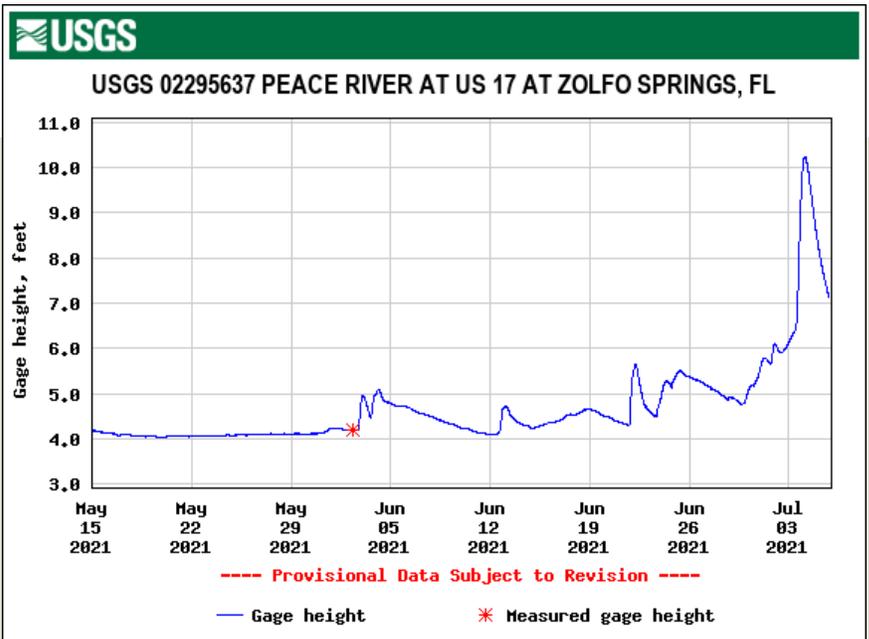
# Kids' Fossil Blast

September 18th  
2:00-3:00pm

# PIECE ON THE PEACE

Water level is rising!  
May 15th to July 5th  
*Want the latest?*

**Easy button available on the [floridafossilhunter.com](http://floridafossilhunter.com) website**



# 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](mailto: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

# Fossilized Dung from a Dinosaur Ancestor Yields a New Beetle Species

*Ancient feces could contain more details about life long ago than previously thought*

Scientists found never-before-seen beetles by analyzing ancient poo likely from an insect-eating relative of dinosaurs called *Silesaurus opolensis* (illustrated).

By Nikk Ogasa | JUNE 30, 2021 AT 11:14 AM

In a fossilized chunk of ancient reptilian poo, scientists have uncovered complete specimens of a new beetle species. The finding, described June 30 in *Current Biology*, suggests that fossilized dung could contain more details about past life than previously thought.

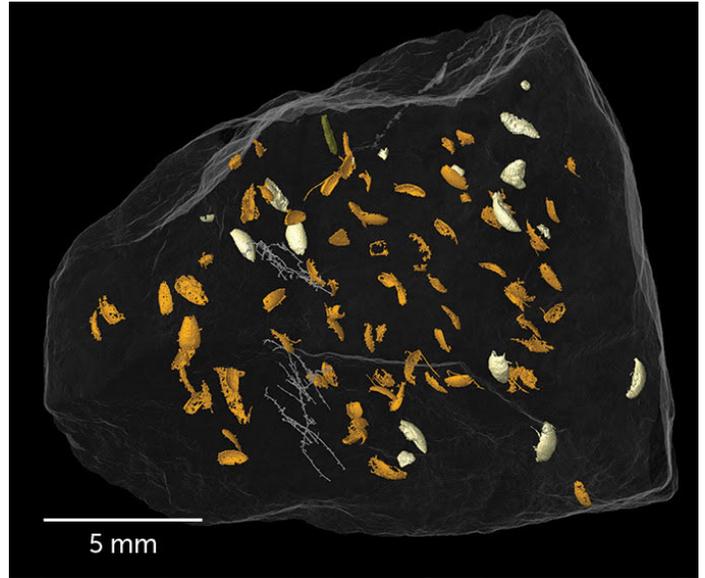
Such ancient feces have been “largely overlooked,” says evolutionary biologist Martin Qvarnström of Uppsala University in Sweden. “But they often contain very well-preserved fossils. They’re like hidden treasure chests.”

Fossilized dung, also known as coprolite, can reveal insights about the diets of extinct creatures that body fossils can’t. For example, coprolites have been used to show that some dinosaurs with plant-based diets also ate crustaceans (SN: 9/21/17).

Feces, especially from carnivores, can readily form into coprolites because the excrement often contains the raw materials and bacteria needed for mineralization, says paleontologist Karen Chin of the University of Colorado Boulder, who was not involved in the study. Laboratory experiments have shown that poo can become a coprolite in just weeks, saving any delicate structures within as the dung is buried over time. “If you didn’t get rapid mineralization, the feces would get flattened, but most coprolites are three-dimensional,” she says.

Despite this preservation power, coprolites can be overshadowed by amber, a translucent tree resin, when it comes to fossils. Some of the most well-preserved, three-dimensional insect fossils are found in amber. But since the resin became common only around 130 million years ago, amber-preserved insects older than that are rare.

Curious whether much older, fossilized poop could match the fossil quality of amber specimens, Qvarnström and colleagues used a synchrotron, which generates powerful X-rays, to peek inside a coprolite from Poland. The dung likely comes from an extinct



dinosaur relative called *Silesaurus opolensis*, which lived around 237 million to 227 million years ago during the Triassic Period.

This computer rendering of newly analyzed fossilized dung shows beetle remains (tan), beetle wing covers (orange), fungal fibers (gray) and algae (green). M. QVARNSTRÖM ET AL/CURRENT BIOLOGY 2021

The synchrotron scan revealed whole beetle fossils that rival the quality of similar specimens in amber, along with fragments of the same kind of beetle. The whole beetles’ fossilized exoskeletons lacked the joints needed for classification, but by piecing together the fragmented beetles, the researchers were able to reconstruct these features. As a result, the team identified the insects as a new family and species of beetle, named *Triamyxa coprolithica*.

Qvarnström hopes more paleontologists will begin to recognize how useful coprolites can be. “This dinosaur ancestor was doing a bit of the fieldwork for us,” he says. “We wouldn’t have been able to find these insects otherwise.”

Read article at: [www.sciencenews.org/article/fossil-dung-poop-dinosaur-reptile-ancestor-new-beetle-species](https://www.sciencenews.org/article/fossil-dung-poop-dinosaur-reptile-ancestor-new-beetle-species)

## Florida Fossil Hunters News

# For some dinosaurs, the Arctic may have been a great place to raise a family

*Fossil baby teeth and bones hint that some dinosaurs reared their young near the North Pole*

Several dinosaur families, including tyrannosaurs (illustrated), may have lived in the Arctic year-round, fossilized infant dinosaur remains suggest.

by By Nikk Ogasa | JUNE 24, 2021 AT 11:00 AM

Dinosaurs didn't just summer in the high Arctic; they may have lived there year-round, new fossil evidence suggests.

Hundreds of bones and teeth found along the Colville River in northern Alaska belonged to dinosaur hatchlings, researchers say. The remains, which fell from outcroppings of the Prince Creek Formation, represent seven dinosaur families including tyrannosaurs, duck-billed hadrosaurs and horned and frilled ceratopsids.

"These are the northernmost [non-avian] dinosaurs that we know of," says paleontologist Patrick Druckenmiller of the University of Alaska Museum of the North in Fairbanks. And now it's clear they're not just migrating into polar latitudes, he says. "They're actually nesting and laying and incubating eggs ... practically at the North Pole."

Some of these dinosaurs incubated their eggs for up to six months, previous evidence suggests (SN: 1/23/17). That would have left little time for any dinos nesting in the Arctic to migrate south before winter set in, Druckenmiller and colleagues report online June 24 in *Current Biology*. And any offspring would have struggled to make the long journey.

The Arctic was slightly warmer during the dinos' lifetime than it is today. Be-



19 mm

Hundreds of teeth and bones from baby dinosaurs, found in northern Alaska, are the best evidence yet that some dinosaurs nested and raised their young in the Arctic. Among the selection of remains shown are a tyrannosaur tooth (left), ceratopsid tooth (top left) and theropod bones by PATRICK DRUCKENMILLER

tween around 80 million and 60 million years ago, the region had an average annual temperature of about 6° Celsius — similar to that of modern-day Ottawa — fossilized plants from the Prince Creek Formation indicate. Still, overwintering dinosaurs would have endured months of darkness, cold temperatures and even snowfall, Druckenmiller says.

They may have fought the cold with insulating feathers or some degree of warm-bloodedness (SN: 4/4/12); SN: 6/13/14), and the herbivores may have hibernated or eaten rotten vegetation when fresh food diminished in the dark months, Druckenmiller speculates. Finding these baby dino fossils unearthed more questions than answers, he admits. "We've opened a whole can of worms."

**Read article at:** [www.sciencenews.org/article/dinosaur-arctic-bone-fossil-alaska-paleontology](http://www.sciencenews.org/article/dinosaur-arctic-bone-fossil-alaska-paleontology)

## Florida Fossil Hunters News

# An ancient creature thought to be a teeny dinosaur turns out to be a lizard

Weird, hummingbird-sized *O. khaungraae* has puzzled scientists since its discovery

By Carolyn Gramling | JUNE 14, 2021 AT 11:00 AM



Fossils of two specimens preserved in amber — *Oculudentavis naga* (illustrated) and *O. khaungraae* — have been identified as lizard species that lived about 99 million years ago.

STEPHANIE ABRAMOWICZ/PERETTI MUSEUM FOUNDATION, A. BOLET ET AL/CURRENT BIOLOGY 2021

A tiny creature caught in amber 99 million years ago isn't the smallest dinosaur ever found. It is actually a lizard — albeit a really bizarre one, researchers report June 14 in *Current Biology*.

Over the last year, scientists have puzzled over the nature of the strange, hummingbird-sized *Oculudentavis khaungraae*, a fossil found in amber deposits in northwestern Myanmar. The fossil consists of only a birdlike, rounded skull with a slender tapering snout and a large number of teeth in its mouth, along with a lizardlike eye socket, deep and conical. The birdlike features led one team of scientists to identify the fossil as a miniature dinosaur — the smallest ever found (SN: 3/11/20).

But other scientists weren't so sure. Another analysis of *O. khaungraae*'s strange assemblage of features suggested it looked rather more like a weird lizard.

Now, a third team of scientists reports the discovery of a second amber fossil that so closely resembles

*O. khaungraae* as to belong to the same genus. And the new specimen, dubbed *O. naga*, includes parts of the lower body that clearly reveal the members of genus *Oculudentavis* to be lizards, say paleontologist Arnau Bolet of the Institut Català de Paleontologia Miquel Crusafont in Barcelona and colleagues.

The researchers used CT scans to examine both specimens. *Oculudentavis*' lizardlike features include scales, teeth attached to its jawbone directly rather than in sockets (as dinosaur teeth were) and a particular skull bone unique to squamates, or scaled reptiles.

Still, the creatures were markedly different from all other known lizards in their unusual combination of features, such as the rounded skulls and long tapering snouts, the researchers say — probably representing a previously unknown group of lizards.

Read the full article at: [www.sciencenews.org/article/fossil-lizard-dinosaur-amber](http://www.sciencenews.org/article/fossil-lizard-dinosaur-amber)

## 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		
Treasurer	David Dunaway	(407) 786-8844

## Chairs:

Field Trips	<b>OPEN</b>	
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	
Melissa Cole	407-461-8507
Marge Fantozi	
Valerie First	
Ed Metrin	(407) 321-7462
Ken Sellers	

# Membership Application

**MAIL in this form or Register ONLINE at [www.floridafossilhunters.com/membership](http://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.*

Membership year runs from January to December.

## 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: info@floridafossilhunters.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 News: [article or info]#'*

**Florida Prehistorical Museum, Inc.  
dba/ Florida Fossil Hunters #**

# Florida Fossil Hunters News

# Florida Fossil Hunters Mark Your Calendar

## 2021 FFH Schedule

**July 17th** Summer Picnic  
See Page 1 for more info

### August 21st

2pm Kid's Meeting  
3pm Club Meeting

### September 18th

2pm Kid's Meeting  
3pm Club Meeting

### October: Fossil Fair

### November 13th

2pm Kid's Meeting  
3pm Club Meeting

### December

Holiday Party - date tba

Mtgs held at the OSC  
Orlando Science Center,  
unless otherwise noted.

July 15th Summer Picnic at Dave's

August 21st: MOSA Field Trip

Next OSC Meeting: September 18th

**Mark Your Calendars  
for the 2021 Fossil Fair**

**October 16 & 17**

Join Our Facebook group, Search:

[Florida Fossil Hunters](#)

facebook

See inside for more information on

Visit us online at [www.floridafossilhunters.com](http://www.floridafossilhunters.com)

Email [info@floridafossilhunters.com](mailto:info@floridafossilhunters.com) to share articles, comments and how to receive the newsletters by email.

## Florida Fossil Hunters

Post Office Box 540404

Orlando, Florida 32854-0404



# Florida Fossil Hunters News

# 2021 FOSSIL FAIR

Florida Fossil Hunters

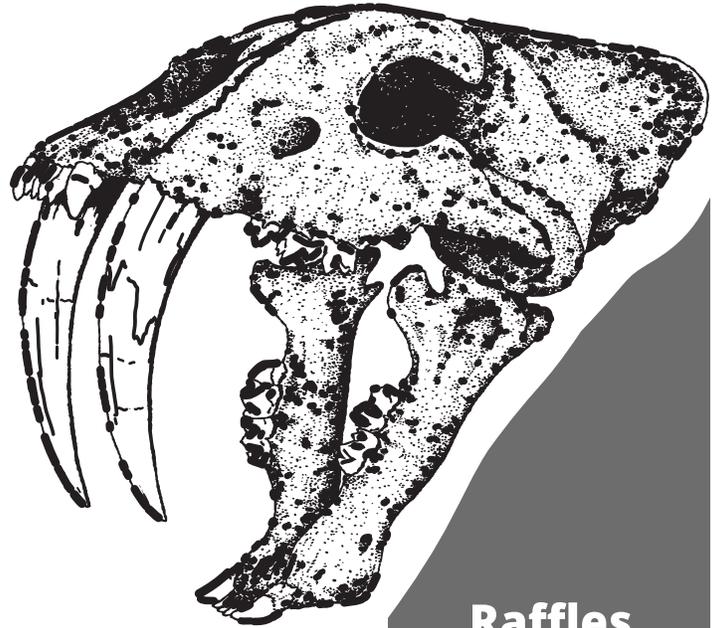
Thirtieth Annual  
**Fossils, Rocks,  
Gems & Minerals**

Saturday, October 16, 2021

9:00am - 5:00pm

Sunday, October 17, 2021

10:00am - 4:00pm



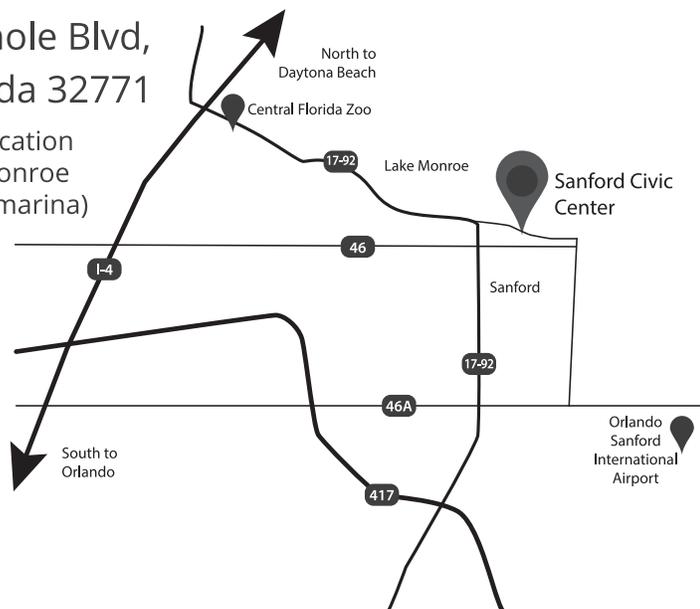
\$4.00 Adults | \$1.00 Children

**LEARN to dig in Florida and  
see what can be discovered!**

New Location! Sanford Civic Center

401 E. Seminole Blvd,  
Sanford Florida 32771

A picturesque location  
right off Lake Monroe  
(across from the marina)



For more information

contact us at one of the following [info@floridafossilhunters.com](mailto:info@floridafossilhunters.com),  
(cell) 407-721-0481 or 407-699-9274, or visit

[www.floridafossilhunters.com](http://www.floridafossilhunters.com)

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**Silent  
Auctions**

**Children's  
Activities**

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requirements  
dependent on  
current State of  
Florida Phase  
level policies.*