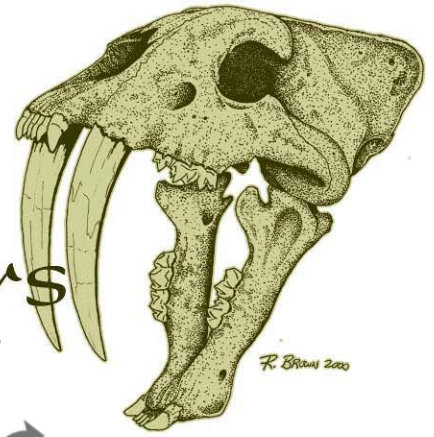


NEWS

Florida Fossil Hunters



Florida Prehistorical Museum, Inc. dba/ Florida Fossil Hunters
Volume 27, Number 10

December 2017

From the desk of the President.....

Ho-Ho-Ho. I can't believe Christmas is here.

Welcome to all members - new & old. It's a busy time for everyone at the end of a very busy year. Thanks to all members who made time to participate in club activities this year: Women in Paleontology, Fossil Fest, Science Night Live, National Fossil Day, Earth Day, our Annual Fossil Fair, field trips, teach-ins, and meetings. (note; all these activities earn Fossil Bucks which is the currency used at the club's Fossil Bucks Auction).

For the December 16th meeting at OSC, the club will hold our Party/Auction. Bring some little yummys to share and a drink for yourselves (no alcohol). The Auction list is in this newsletter and there is variety enough to interest everyone. And, yes, Bonnie will be bringing in a little something for each and everyone of you to take home. There is plenty for even the new members to have, so join the festivities.

Have to give a pat on the back to all who came out for the National Fossil Day at the Florida Museum of Natural History on Nov. 4th. Our club had a great set-up and plenty of volunteers. Special kudos to Valerie First for having her own set-up at the Museum with the collection she uses in educating the public about evolution, especially human evolution. The Museum has special exhibits celebrating their 100th year which ends Jan. 7th so visit it during the holidays. The kids' Zone is especially cool with lots of hands-on learning stations that will even teach us old dogs some new tricks.

The rainy season is over and Peace River is low enough for fossil hunting. Get your gear together and GO! Chances are, you'll see Steve Sharpe down there trying to test the limits of his new pacemaker. Join the group on Facebook to see what folks are finding. We're always looking for someone to lead a group on the Peace. If you are interested, contact me or Bonnie.

Looking to the future, the club needs someone to help lead the organization... and that future is here....Internet, Facebook, videos, websites, etc. There are great opportunities that our club is missing because most of the officers and usual volunteers grew up with phones plugged into the wall and manual typewriters. If you have the skills and some time, PLEASE volunteer. Your club needs you.

In closing, a lot of us have experienced losses this year. Some had material damages from the hurricanes, some lost their health, and some lost loved ones. I am grateful that our club members, although we're as different from one another as we are, are still are a family and support each.

Russell Brown
President

Join Our Facebook group, Search:
Florida Fossil Hunters



Coming Events

UPCOMING MEETINGS at the Orlando Science Center

Saturday, December 16th
3 pm - Meeting and
Fossil Bucks Auction
Founders Room on the 3rd level
of the Orlando Science Center

Saturday, January 20th
2 pm Kids' Fossil Blast
3 pm Meeting

*More events listed on back page
For more info...
www.floridafossilhunters.com*

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**It's Time
to Renew
for 2017**
Still only \$17 a year.



Florida Fossil Hunters News

Fragments

January Speaker

Our speaker for the January meeting will be Joshua Slattery from the University of South Florida. His talk will be on the Ecological Role of Ammonites During the Late Cretaceous in North America.

Gem, Mineral & Fossil Show

The Tomoka Gem & Mineral Society will have its annual show on Saturday, Jan. 20th from 10am to 6 pm and on Sunday, Jan. 21st from 10am to 5pm, at the Volusia County Fairgrounds, Tommy Lawrence Arena, [S.R. 44, Deland, FL \(1/4 mile east of I-4, exit 118A\)](#)

Admission is \$4 for adults (kids under 12 get in free). Parking is free and they will have demonstrations and kids' activities as well as fossil & mineral vendors. For more info, go to www.tomokagms.org

Dinos in February

Chris DeLorey at the Brevard Zoo is planning a special event with the Dinosaur exhibit on the weekend of Feb 17 - 19. Check the future newsletters for more info as we get it.

Time to Renew

We hope that the Florida Fossil Hunters is part of your adventures for 2018. Please fill out the renewal application on the website or in the newsletter and get it to us with (yes, still only \$17 per household) check. Mailing address: P.O. Box 540404, Orlando, FL 32854-0404.

Piece on the Peace

It's time (or darn close) to load up your diggin' gear and drive down to the Peace. Unless we get a rain event, the water should be low enough for most folks to dig & sift in the low parts of the Peace. Kids and we short people will have to wait a little longer. I just can't get good traction when I'm on my tip-toes.

Check out the things folks have been finding on the Florida Fossil Hunters Facebook page.

..... and ALWAYS check the water level before your go.

Kids' Fossil Blast

Saturday, Jan 20th at 2-3 pm.

Our next Kids' Fossil Blast will be on Saturday, Jan. 20th at 2 pm at the Orlando Science Center.

Kids' Fossil Blast is an informal, hands-on experience with real fossils, casts, etc. aimed at kids ages 5 to 14. We meet for an hour before our regular meetings.

Brevard Zoo, Dinosaurs Are Back!

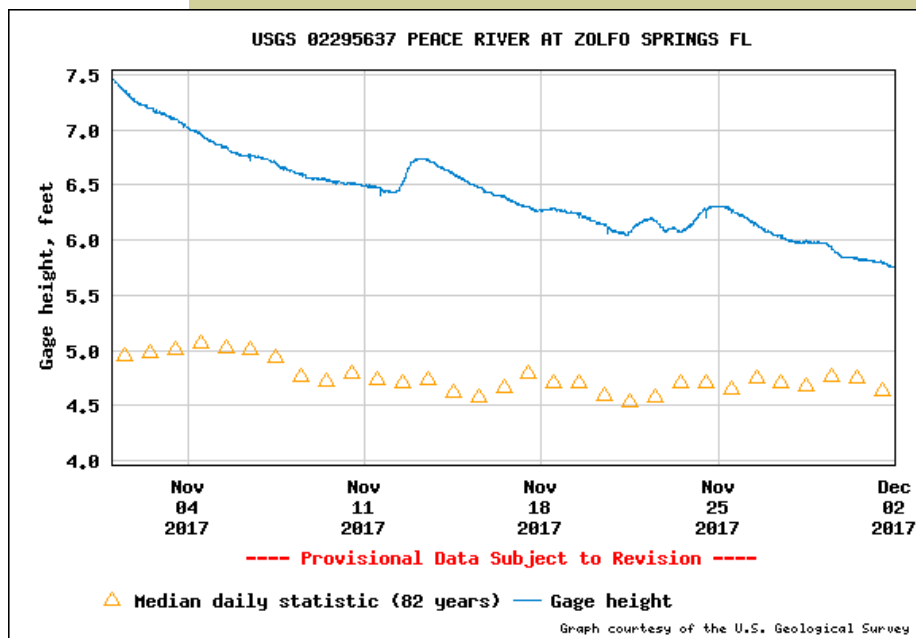
November 18 – April 30

Dinosaurs are returning to the Space Coast for the first time in five years!

Meet 16 advanced animatronic creatures modeled after the latest paleontological findings, uncover a giant

Tyrannosaurus skeleton and watch volunteers prepare real fossils in the Dinosaur Discovery Center.

Not included with Zoo admission. For more info go to brevardzoo.org



Florida Fossil Hunters News

Rare, Beautiful & Fascinating: 100 Years @FloridaMuseum

In 2017, the Florida Museum marks its 100th anniversary as the state's official natural history museum. Join us for a celebration of our newest exhibit and explore the key role museum collections play in telling the story of life on Earth.

Enjoy this free, fun-for-all-ages event with hands-on activities and displays celebrating the opening of the Museum's newest featured exhibit.

Rare, Beautiful & Fascinating: until Jan. 7, 2018

From rare, ancient treasures to cutting-edge technologies, the exhibit showcases the Museum's 17 collections and research initiatives that address topics from extinction to biodiversity. Visitors may interact with scientists working in the lab from a different collection each week, explore the institution's rich history and learn how the Museum has affected the lives of students, volunteers, employees and donors.

Objects from the Museum's 40 million specimens also reveal the stories of everything from coral reefs to human health to prehistoric life. Discover ways science has changed over time, and how the Florida Museum remains committed to addressing future critical world issues, including biodiversity, climate change, invasive species and more.

Join us every week as we reveal more of the objects from this upcoming exhibit on our exhibit site!

Follow us on [Facebook](#), [Twitter](#), [Instagram](#), or [Pinterest](#) for a preview of the most remarkable objects in our collections.

<https://www.floridamuseum.ufl.edu/100years/>

Fossil Bucks Auction List December 2017

J- Junior (kids) | N- New member (less than 1 yr)

1. Alligator skull, modern
2. Tapir jaw section w/ 3 teeth
3. Gomphothere tooth cast
4. Megalodon tooth (slight repair on root)
5. Fossil shrimp, *Carpopenaeus* sp., Cretaceous, Lebanon
6. Sand stromatolite, Cretaceous, Texas, USA
- J 7. 9" diameter Dusky shark jaw, modern
- J 8. Small fossil screen made by Dave Cass
- N 9. Large fossil screen made by Dave Cass
10. Fossil leaves, Cretaceous, Denton Co., Texas
11. Fossil Cow shark tooth in matrix, *Hexanchus gigas*, NC
12. Fossil Case: Tiger Sharks of Peace River
- J 13. Fossil Mosasaur teeth, two different species
14. Meteorites- 3 pack
15. Wooden display case w/lock, 10" x 4", made by Dave Cass
- N 16. Gainesville Fossil Shark Teeth book
17. Palm wood, fossilized, large raw piece, cut on one side
18. Septarain slices, Utah
- N 19. Petrified wood slice, 5", Arizona
20. Petrified wood slice, 7", Madagascar
21. Herkimer diamonds: one in matrix, one clean
22. Amber heart necklace & raw amber bracelet
- J 23. Large piece of fossil mammoth bone & section of a tooth
24. Ordovician fossil collection w/models
- N 25. Agatized coral
- J 26. Shark tooth case, Peace River
27. Manatee display case
28. Fish fossil display case
- N 29. Giant Venus clam with dogtooth-spar calcite, Ft. Drum, FL
30. Riker mount display cases: 3 different sizes

**Rule: Two successful bids per household.
Children get one successful bid each.**

Florida Fossil Hunters News

Montbrook Fossil Dig Get Involved

This is just a heads up to let you all know the **tentative** digging schedule for Fall 2017. This and the updated application are not yet available, but I will email everyone once they are finalized!

- Digging 5 days per week
- Thursdays thru Mondays
- Beginning Thursday, October 5th

More Information: <https://www.floridamuseum.ufl.edu/museum-voices/montbrook/get-involved/>

The Montbrook Site is very productive and almost all volunteers will find some fossil specimens on their first day. The most commonly found fossils are bones from the shell of freshwater turtles and vertebrae, spines, scales, and skull bones of fish, including gar, catfish, snook, and drum. Fossils of alligator, birds, and mammals are also found, but less frequently.

Volunteers must be at least 15 years old. Volunteers from age 15 to 17 will be accepted, but must be accompanied by an adult sibling (18+ years old), or a parent or guardian.

Volunteers must be physically fit enough to work outdoors for several hours and be able to walk up and down irregular slopes. Be aware that the site is in direct sunlight and sandy. We will have a porta-potty at the site.

Volunteers can work just a single day, a few days, or a regular schedule one or more times a week. There is no limit to the number of times a volunteer can work at the site.

Volunteers are more than welcome to drive themselves or carpool to meet us at the fossil site. We can sometimes drive about 5 volunteers in the museum van but we need to plan this in advance.

WORK SCHEDULE

Field work typically begins at **10:00 AM** and continues through the day until about 4:30 PM. Plan your arrival time so that you will not get there much earlier than 10:00 AM. You can begin work anytime of the day between 10 AM and 1:30 PM. You will be expected to work for at least 3 hours (not counting if you break for lunch).

RAINOUTS

We will contact you via email in the event of a "rainout" and to schedule a make-up day. This decision will normally be made the day before. If you do not receive an email from us, assume that we will be digging at the site, even if rain is forecasted for that day. If it begins to rain heavily while we are digging, we may have to stop for the day.

WHAT TO BRING AND WEAR

The museum will provide all necessary digging tools, field equipment, and supplies for collecting fossils. Volunteers



A volunteer holds a plaster jacket with the dig site in the background. Photo by Jeff Gage/Florida Museum



Volunteers digging at the Montbrook fossil site last season

should bring their own water, hats, gloves, sunscreen, cushions or towels to sit/kneel on, any special medication items, and food. Wear comfortable clothing that corresponds to the weather forecast. Wear shoes instead of sandals or flip-flops. Cameras of all types are welcome at the site.

Volunteer In the Field

To volunteer for the Fall 2017 excavation, see top of article. If you have any questions about volunteering at the site, please email Rachel Narducci: marducci@flmnh.ufl.edu.

Volunteer In the Collection

If you are interested in preparing specimens out of plaster jackets, screen washing, gluing bone fragments back together, or helping with the cataloging process. You can volunteer to work with the fossils back at the lab. **Because of the time invested in training volunteers, we can only accept those who can work at least 3 hrs/week, for a min of 6 weeks.** Volunteers must be at least 18 yrs old (or full-time UF student). Normal work hours for volunteers are between 8:30am and 5pm, Monday - Friday. To volunteer in the collection, please contact the FLMNH vertebrate paleontology collections manager, Richard Hulbert rhulbert@flmnh.ufl.edu or call [352-273-1821](tel:352-273-1821).

Florida Fossil Hunters News

Fluffy Dinosaurs

Feathered Dinosaurs Were Even Fluffier Than we Thought

A University of Bristol-led study has revealed new details about dinosaur feathers and enabled scientists to further refine what is potentially the most accurate depiction of any dinosaur species to date.

Birds are the direct descendants of a group of feathered, carnivorous dinosaurs that, along with true birds, are referred to as paravians -- examples of which include the infamous *Velociraptor*.

Researchers examined, at high resolution, an exceptionally-preserved fossil of the crow-sized paravian dinosaur *Anchiornis* -- comparing its fossilised feathers to those of other dinosaurs and extinct birds.

The feathers around the body of *Anchiornis*, known as contour feathers, revealed a newly-described, extinct, primitive feather form consisting of a short quill with long, independent, flexible barbs erupting from the quill at low angles to form two vanes and a forked feather shape.

The observations were made possible by decay processes that separated some of these feathers from the body prior to burial and fossilisation, making their structure easier to interpret.

Such feathers would have given *Anchiornis* a fluffy appearance relative to the streamlined bodies of modern flying birds, whose feathers have tightly-zipped vanes forming continuous surfaces. *Anchiornis*'s unzipped feathers might have affected the animal's ability to control its temperature and repel water, possibly being less effective than the vanes of most modern feathers. This shaggy plumage would also have increased drag when *Anchiornis* glided.

Additionally, the feathers on the wing of *Anchiornis* lack the aerodynamic, asymmetrical vanes of modern flight feathers, and the new research shows that these vanes were also not tightly-zipped compared to modern flight feathers. This would have hindered the feather's ability to form a lift surface. To compensate, paravians like *Anchiornis* packed multiple rows of long feathers into the wing, unlike modern birds, where most of the wing surface is formed by just one row of feathers.

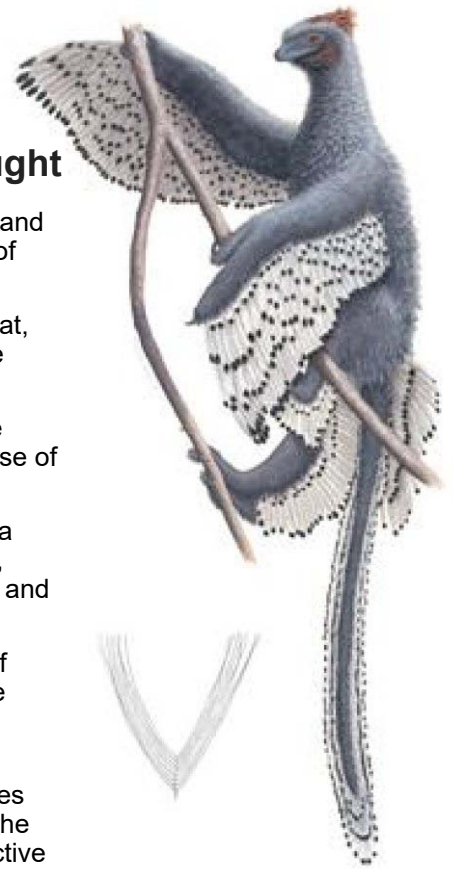
Furthermore, *Anchiornis* and other paravians had four wings, with long feathers on the legs in addition to the arms, as well as elongated feathers forming a fringe around the tail. This increase in surface-area likely allowed for gliding before the evolution of powered flight.

The new piece represents a radical shift in dinosaur depictions and incorporates previous research.

The color patterns for *Anchiornis* are known from fossilised pigment studies, the outline of the flesh of the animal has been constructed by examining fossils under laser fluorescence, and previous work has described the multi-tiered layering of the wing feathers.

Evan Saitta said: "The novel aspects of the wing and contour feathers, as well as fully-feathered hands and feet, are added to the depiction.

"Most provocatively, *Anchiornis* is presented in this artwork climbing in the manner of hoatzin chicks, the only



living bird whose juveniles retain a relic of their dinosaurian past, a functional claw.

"This contrasts much previous art that places paravians perched on top of branches like modern birds.

"However, such perching is unlikely given the lack of a reversed toe as in modern perching birds and climbing is consistent with the well-developed arms and claws in paravians.

"Overall, our study provides some new insight into the appearance of dinosaurs, their behavior and physiology, and the evolution of feathers, birds, and powered flight."

Rebecca Gelernter added: "Paleoart is a weird blend of strict anatomical drawing, wildlife art, and speculative biology. The goal is to depict extinct animals and plants as accurately as possible given the available data and knowledge of the subject's closest living relatives.

"As a result of this study and other recent work, this is now possible to an unprecedented degree for *Anchiornis*. It's easy to see it as a living animal with complex behaviours, not just a flattened fossil.

"It's really exciting to be able to work with the scientists at the forefront of these discoveries, and to show others what we believe these fluffy, toothy almost-birds looked like as they went about their Jurassic business."

Florida Fossil Hunters News

VULCAN MINE Field Trip

Vulcan Mine Field Trip near Brooksville

FIELD TRIP LEADER

Saturday, December 9th

If you did not sign up at the meeting, please call or email:

Trip Leader: Jen Archer

You can sign up by emailing

jen.archer@gmail.com

or calling her cell phone: [407-504-7815](tel:407-504-7815)

Call or email Bonnie to volunteer for the Dec trip
bonnierussell62@gmail.com | [352-429-1058](tel:352-429-1058)

This is one of the few places where kids are allowed in to fossil hunt. Be sure to stay with them since there are steep cliffs, sharp rocks, and small sinkholes.

Meet on the driveway loop near the entrance to the Mine by 8:30 am to sign releases before we are escorted into the mine around 9 am. We get to drive

our vehicles in so you can have your coolers, snacks, and equipment handy while you hunt. They usually allow us to dig until noon and sometimes people can stay till 2 pm.

All participants

MUST

be escorted into and out of the mine. Do not leave on your own since it is easy to become lost.

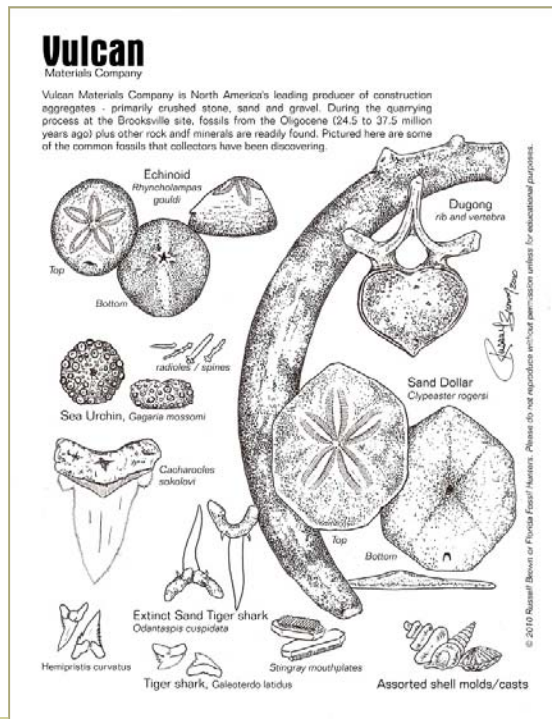
THERE ARE NO RESTROOM FACILITIES AT VULCAN MINE,

other than the boulders and the hills.

Directions: The trip will take approximately 2 hours from Orlando to Vulcan Mine. Be sure to allow for extra time to stop at a restroom before you get there.

From Orlando take Hwy. 50 west (or the 408 west to the FL Turnpike, take exit 272 and then continue west on Hwy. 50) to Brooksville. Follow 50A/98 North through Brooksville and turn right on Ponce De Leon Blvd. (Hwy 98 North). Go approximately 10 miles. Vulcan/Cemex will be on your left. The address is 16313 Ponce De Leon Blvd, Brooksville, for those of you who want to download a map.

If you follow the truck route for Hwy. 50, you have to turn right onto 41, and then take the fork to the left to hook up with Ponce De Leon Blvd/98. There are several fast food places on 41 where you can take advantage of the bathroom facilities. Be sure NOT to keep following 41 north. You want to take 98 north from Brooksville.



This is mostly surface collecting with occasionally a little digging to pry out a specimen. Bring a small trowel or screwdriver or rock hammer, and a bucket to put your fossils and rocks into. You may want to bring small containers and tissue for fragile fossils.

Wear a hat, sturdy shoes, long pants (some of the rocks are sharp), and sunscreen. Bring lots of water and/or drinks and some snacks or lunch to eat.

We find mostly echinoids and sometimes sea urchins, pieces of bone, or other fossils are found. We also find chert rocks. This is

TRIP LEADERS ALSO NEEDED JAN 13th

ID Sheet above is available on the field trip and website.
floridafossilhunters.com/Field_Trips.htm

You MUST be a member of the club for insurance purposes to participate in this field trip.

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 is \$17 per year. Other household members may be included at no charge.

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	Russell Brown	(352) 429-1058
Vice President	Steve Sharpe	(352) 552-2296
Secretary	Bonnie Cronin	(352) 429-1058
Treasurer	Sara Morey	(619) 302-4863

Chairs:

Education	Bonnie Cronin	(352) 429-1058
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	Bonnie Cronin	(352) 429-1058
Newsletter	Bonnie Cronin	(352) 429-1058
	Elise Cronin-Hurley	(407) 929-6297
Photography	John Heinsen	(407) 291-7672
Facebook	Paul Hardin	
Webmaster	Elise Cronin-Hurley	(407) 929-6297
	elise@lisedreams.com	

Board of Directors:

Ed Metrin	(407) 321-7462
Dave Cass	(407) 409-9095
Marge Fantozi	
Marcia Wright	
Cindy Lockner	
Dave Dunaway	
Salvatore Sansone	

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:

Membership is \$17 per year. Our membership year runs from January to December. All renewals are done in December and January.

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,

Newsletter Policy

included at no extra charge, 2 adult votes per household.

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: bonnierussell62@gmail.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'.

Florida Fossil Hunters News

Florida Fossil Hunters Mark Your Calendar

See inside for more information on events.

November 18th to April 30th

Dinosaurs Are Back!
Brevard Zoo

Saturday, December 9th

Vulcan Mine Field Trip

Saturday, December 16th

3 pm - Meeting and Fossil Bucks Auction
Founders Room on the 3rd level
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Vulcan Mine Field Trip
Need leader

Saturday, January 20th

2 pm Kids' Fossil Blast
3 pm Meeting

January 20-21

Tomoka Gem, Mineral & Fossil Show
Volusia Co. Fairgrounds

Saturday, February 10th

Vulcan Mine Field Trip, Need leader

Saturday, February 17th

Lee Co. Fossil Festival, 9am - 5pm
Fort Myers

Join Our Facebook group, Search:
[Florida Fossil Hunters](#)

facebook

Be Green

Email Bonnie at bonnierussell62@gmail.com
to receive the newsletter via email.



Visit us online at www.floridafossilhunters.com

Articles and comments should be sent to: bonnierussell62@gmail.com

Florida Fossil Hunters

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Florida Fossil Hunters News