

## FOSSIL CLUB OF LEE COUNTY SEPTEMBER 2014

#### **Letter from the President**

The Prez Sez!

Hello again, to all you SW Florida fossil collectors! It's getting that time again for another monthly meeting of the Fossil Club of Lee County. We will be back to the regular format this month, after the annual show and tell and trade and sell meeting we had in August. The speaker this month will be Matt Hayes. Matt was unexpectedly sick several months ago and had to reschedule for this month, and we are glad he is well and will be presenting to us. We are also getting back to our regular show and tell presentations, with the featured fossil(s) this month being the giant extinct land tortoise and also bear. Since most members have so little carnivore material, it was decided to combine with a more common fossil animal. This is a good format for showing your rarer carnivore fossils and still having a featured animal that allows more people to share their fossils with us. We all learn from seeing each other's fossils from their personal collections, so, please, let us all participate. If you are too shy to speak in front of the group, at least bring the fossils to show us.

The club participated in the opening of the fossil museum extension, at the Shell Factory. Many people saw the fossils and were greeted by club members and explained the details and nuances of the fossils. We also signed up some new members.

We got approved by the Mosaic Phosphate company to have a collecting trip on January 3. We get only one trip again this year. As before, we will have a lottery to pick the names of those participants who want to go. We are only allowed 30 members again.

The annual National Fossil Day is fast approaching. The date this year is October 4,

and the theme is called "Fossils at the Museum". This is a national celebration, with events all over the nation. The one closest to us will be held in Bradenton, at the South Florida Museum. The FCOLC will participate with a club table. Any member who helps out gets free museum admission.

The 10th Annual FCOLC Fossil festival will be held on December 6, at the Shell Factory. Like last year, any member who volunteers and helps at the fossil festival will get an extra signup on the Phosphate Mine trip lottery. And, this year will be different and busier and lots of fun!

I want to thank all of you who participate in the ongoing operations of the club. Mike Cox and his great girl friend Tara, provided the refreshments for the August meeting, and Phil and Louise Briskin will be doing the September meeting. Marc Cantos has volunteered to provide the refreshments for the October meeting. Since the November monthly club meeting will be held at the Shell factory, they will be providing the refreshments that month. We thank all of these great members for helping out!

One of the tools we use to reach the members and the general public is our website: www.fcolc.com Each month Curtis Klug, our webmaster, faithfully adds the newsletter to the archive section and also posts any current happenings to the main page. The website also has some of the club trips and events we have participated in over the last several years and a list of recommended websites related to the club. One of these is about spotting fake fossils, which I recommend all of our members read and learn from. Also, our website has the fossil permit info and application, some fossil labels you can print for your collection, and all the

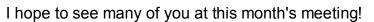
#### Continued from page1

information and directions needed to learn about our club and the meetings. The website has helped move us into the digital age and keeping up with the current day method of information. In 2004, when the club reorganized, and I was elected the president at that time, we focused on what changes we needed to make to stay current and grow into a strong organization for the future. The digital age was upon us and besides deciding to go digital with our monthly newsletter, one of the other things on our wish list was a club website. When we spoke of this at a meeting Curtis volunteered to take on this task. He personally designed the website, registered it, put us online and has been the webmaster ever since! Curtis, a certified geologist, as well as a teacher, attended his first club meeting over seventeen years ago! At that time we were named the Paleontological Society of Lee County. After a short time, Curtis joined the club and has been a valuable member ever since. We owe a great deal of gratitude to Curtis Klug for all he has done over the years and especially this ten year span of selfless volunteering as our webmaster! Thank you so very much, Curtis, for all your help and we know the FCOLC is better for it.

I want to remind members who use face book to "like" the FOSSIL PROJECT page. https:// www.facebook.com/TheFossilProject They post some real neat articles on fossils almost every day. if you "like" it you will see them show up on your home page. The way face book operates now is that if you "like" a posting it will continue to show but if you don't it seems that it eventually goes away, rarely to be seen again. The FOSSIL PROJECT is very interesting. They also have a website and put out a digital newsletter. Web site is: http://www.flmnh.ufledu/myfossil/resources-2/

Coming soon are some fossil club fossil shows. The Southwest Florida Fossil Society show will

be November 8, in Punta Gorda, at 118 Sullivan St. The Florida Fossil Hunters Fossil Fair will be held on October 18 and 19th, at the Central Florida Fairgrounds, 4603 West Colonial Dr., in Orlando Fl., 32808 Remember National Fossil Day, as well as our own festival/ Lots of fun things going on soon, so you can get your fossil fix while waiting for the rainy season to stop and the rivers ready for hunting!



Louis Stieffel President Fossil Club of Lee County



#### **OFFICERS**

Louis Stieffel, President 239-851-7499, <u>cape187@earthlink.net</u> Michael Siciliano, Vice President 239-980-1406 Sandra Schwartz, Treasurer 239-772-8015, <u>sschwartz@embarqmail.com</u> AL Govin, Secretary 239-910-2339

#### DIRECTORS

#### COMMITTEES

Al Govin, Club Trips Director Curt Klug, Web Master Phil Briskin, Land trips/Invertebrate Education Cherie Neat, Newsletter Developer Pam Plummer and Dean Hart, 2014 Fossil Show Sandy Schwartz, Badges, Membership Bill Howat, Merchandise David Sheehey, Librarian Michael Siciliano, Raffle and Dive Trips Louis Stieffel, Auctioneer, Vertebrate Education, Speakers, Newsletter editor, FOSSIL project representative

#### FCOLC Meeting 8/21/2014

President Louis Steiffel called meeting to order.

There were 32 members in attendance.

There will be no dollar auction table this evening, it will be replaced by silent auction this meeting only.

Someone is needed to manage club merchandise table. Louis called for volunteers but there were none. Next month speaker will be Matt Hayes from South Florida.

November meeting will be held at the shell factory due to conflict with the church fellowship hall.

Mark Cantos volunteered to do refreshments for October meeting. Phil and Louise Briskin will provide refreshments for September meeting.

There will only be one trip to the Mosaic mine on January 3<sup>rd</sup> 2015 with 30 club members to attend. Last year we were promised two trips but it will again be one. The 30 spots will be by drawing. Extra entries will be given to volunteers working the December fossil show.

It was noted that we are officially a 501C3 non-profit organization.

October 4<sup>th</sup>, 2014 will be National Fossil Day. It is being held in Bradenton Florida. The club is looking for volunteers to help with a display.

November 8 SWFC will be the date for their fossil show.

October 18-19 is the Florida Fossil Hunters Fossil Fair in Orlando

Anyone not getting news letters needs to contact Louis Steiffel or Sandy Schwartz.

Fossils of the month for our September meeting will be Tortoise and Bear. Please bring in your tortoise and bear material and show off.

Northwest Library of Cape Coral will have a fossil display starting on September 8<sup>th</sup>, the display is being provided by Louis Steiffel and Al Govin.

Show and tell was held and refreshments were provided by Michael Cox and his girlfriend, Tara.

From the club secretary, Al Govin

#### Fossil related news links!

http://centurylink.net/tv/3/player/vendor/Newsy/player/fiveminute/asset/newsyremains\_of\_ancient\_horses\_lions\_found\_in\_wyo\_cave-5min

http://centurylink.net/tv/3/player/vendor/Newsy%20Now/player/sf/asset/newsy\_now-40000yearold\_mammoth\_skeleton\_found\_on\_texas\_farm-newsy

#### **NOTICE:**

The location of the Fossil Club of Lee County general meeting--for the month of <u>NOVEMBER</u>--will be moved from the Zion Lutheran Church Fellowship Hall, where we hold our monthly meetings to the Dolphin Room at the Shell Factory. The church holds its annual harvest festival in November and has asked us to not meet there on our regularly scheduled third Thursday.

The Shell Factory will be where we hold our annual Fossil Festival on December 6 and it seems like a good place to also hold the November meeting. Members attending can get a good feel of the location of our fossil festival as well as enjoy a different venue for this **one time** change. The Fish Bones restaurant, adjoined next to the Dolphin Room will be providing the refreshments.

The December meeting will be held, as usual, at the Fellowship hall.

#### Websites & Locations of Interest

**Fossil Club of Lee County: www.fcolc.com FCOLC, c/o Sandra Schwartz, 1821 SE 5<sup>th</sup> Terrace, Cape Coral, Fl., 33990** The FCOLC website is a source for links to Fossil websites of interest, archived monthly club newsletters, details on club meetings and officers.

<u>Museum of Natural History</u> @ Gainesville www.flmnh.ufl.edu/ <u>Randell Research Center</u> PO Box 608, Pineland, FL www.flmnh.ufl.edu/RRC/ <u>Smithsonian Natural History Museum</u> www.mnh.si.edu <u>Southwest Florida Museum of History</u> 2031 Jackson St., Fort Myers www.MUSEUMofHISTORY.org <u>The Bailey-Matthews Shell Museum</u>, 3075 Sanibel-Captiva Rd, Sanibel, FL www.shellmuseum.org <u>Cracker Museum at Pioneer Park</u> in Zolfo Springs, FL Tel 863.735.0119 www.hardeecounty.net/crackertrailmuseum/about.html

Cape Coral Friends of Wildlife Burrowing Owls

www.ccfriendsofwildlife.org <u>Calusa Nature Center and Planetarium</u> 3450 Ortiz Av, Fort Myers Tel 239-275-3435 www.calusanature.org <u>Imaginarium 2000</u> Cranford Ave, Fort Myers www.i-sci.org

Florida Fossil Clubs Southwest Florida Fossil Club www.southwestfloridafossilclub.com Tampa Bay Fossil Club www.tampabayfossilclub.com Orlando Fossil Club www.floridafossilhunters.com The Fossil Forum www.thefossilforum.com/index.php Fossil Treasures of Florida www.fossil-treasures-of-florida.com Florida Paleontological Society http://floridapaleosociety.com/

Collecting Vertebrate Fossils on Florida state lands **requires** a permit. A fossil hunting permit is also part of being an ethical Florida fossil hunter.

Florida Vertebrate Fossil Permit http://flmnh.ufl.edu/natsci/vertpaleo/vppermit.htm

Peace River Water Levels http://waterdata.usgs.gov/fl/nwis/rt

<u>Picking Up Isolated Native American Artifacts</u> www.flheritage.com/news/faq.cfm **If you find an Indian artifact, such as an arrowhead, on Florida state lands or river bottom, be aware that possession of an Indian artifact found on state lands after 2004 is a Class 3 Felony.** 

#### FOSSIL CLUB OF LEE COUNTY 2014 FOSSIL FESTIVAL!

The show will be a one day show. A poll of the majority of the dealers who attended last year's show were in favor of one day. Since we should draw several thousand folks to the show, it should be very interesting. A one day show will be less costly for all, and that was also a consideration for doing a one day show. The show will consist of an indoor area, called the Dolphin Room, as well as two 30' x 30' outside tents. The atmosphere will be more festive with a live music, knapping demonstration and gem cutting/ polishing demonstrations. With the Shell Factory's media power we are excepting this to be the most successful and largest attended show yet!! The Shell Factory has been open for 76 years, and averages a half million visitors annually!. We want you to join us!

#### FLORIDA IS THE FLATTEST STATE

Now it's official; Florida is the flattest state. Geographers at the University of Kansas and the United States Department of State analyzed elevation data from the Shuttle Radar Topography Mission. They subdivided 48 states and the District of Columbia into 90 meter square cells and classified each cell as not flat, flat, flatter, or flattest (Dobson. J.E, and Campbell, J.S., 2014, Flatness of the United States, in Geographical Review 104(1), p. 1-9). Florida was ranked the flattest state. The flattest five states also included Illinois, North Dakota, Louisiana, and Minnesota. West Virginia was ranked the least flat, followed by Pennsylvania, Kentucky, New Hampshire, and Vermont.

#### The following is paraphrased from the field trip guidebook

The Santa Fe River provides one of the best localities in the world to observe and study groundwater/surface water interactions. In this region, the river is actually the top of the Floridan aquifer system, that is, there is no confining layer separating the aquifer from the land surface; and the rocks beneath the river are completely saturated. Groundwater and surface water are readily exchanging (aquifer-river-aquifer) along the entire reach of the Santa Fe to its confluence with the Suwannee River. Beyond the obvious springs, where groundwater discharges into the river, there are also several points where the river loses water to the aquifer via well developed cave systems and where that water is discharged back into the river via resurgences. Resurgence of river water is distinguished by its color and temperature-different from typical groundwater. There are two basic mechanisms for the river water intrusion into the aquifer. Where the aquifer is confined or partially confined, rising river stages drive water into the aquifer through the spring vents-this is the situation at most of the springs along the Suwannee River. The second mechanism is active in regions where the aquifer is unconfined and the river forms the top of the aquifer. In these regions, rising river stage drives river water. This is the situation at most of the Santa Fe River springs. One very

well known point of exchange between the river and the aguifer is the Devil's Ear cave system which is an anastomosing network of underwater conduits that trend parallel and sub-parallel to the river. The main conduit in the cave system trends east more than 4,500 ft upstream from the entrance at Devil's Ear spring at a depth of approximately 30 m below the water surface. Three springs (July, Devil's Eye, and Devil's Ear) discharge water from the cave to the river that consists of groundwater and recirculated river water. Water clarity in the conduits is typically clear but becomes turbid during higher stages of the river or after flood events. During periods of turbid water discharge at the three springs, cave divers report that clear water enters the main passage from the northern conduits and mixes with turbid water from the southern conduits producing the turbid water discharge visible at the spring vents.



Reprinted with permission from Southeastern Geological Society Newsletter, Summer 2014

#### **September Speaker**

Matt Hayes is a paleoecology doctoral student at the School of Geosciences at the University of South Florida, with research interests in food-web reconstruction, vertebrate paleontology, stable isotope biogeochemistry and taphonomy (fossilization and preservation processes).

Rows of Teeth and the World of Whorls: The Evolutionary History of Sharks and Their Relatives

Matt will discuss the fascinating history of sharks through the fossil record, including their appearance,



changes in habit and structure, and what we can tell about the seas of the past. He will also comment on their close relatives, the chimaeras (or ratfish) and some of the incredible ancestors these now-small fish claim as their forebears; such as the amazing tooth structures of the Paleozoic *Helicoprion*.

Attached is an image of a *Helicoprion* specimen featured at the Idaho Museum of Natural History. I will try to bring along a few smaller, and admittedly less impressive specimens that I'm using in some of my research.

#### THE FOSSIL PROJECT

As you might have seen on the FOSSIL Project's Facebook and Twitter pages, we are coming out with another issue of our newsletter in September. We are asking paleontological/ fossil societies/clubs to contribute submissions for our "Featured Fossil" section of the newsletter. If you would like to submit a fossil, please send a photo and a description of the fossil to this email (<u>llundgren@flmnh.ufl.edu</u>) or to <u>fossil@flmnh.ufl.edu</u> For an example of the last submission, please see the newsletter page of FOSSIL's webpage (<u>http://www.myfossil.org/</u> <u>archived-newsletters/</u>) and click on the link which reads "Featured Fossil." We look forward to seeing your submission!

Cheers, Lisa

Lisa Lundgren 303-524-4203 Ilundgren@flmnh.ufl.edu FOSSIL Project Assistant UF School of Teaching and Learning PhD candidate



found by Frank Garcia

#### **Fossil finds of the month!**

Mike Siciliano recently found this baby mammoth tooth while diving Venice Beach. He stopped by my house to show me on his way home and had not yet cleaned the marine growth off.

This is probably the second tooth, after the baby milk tooth. Mammoths had a set of six teeth in their lifetimes, with each tooth progressively larger than the preceding one. Louis, for Mike







Picture of Pam Plummer, director of the Shell Factory fossil museum and FCOLC member/director



Manning the club membership table at the Shell Factory fossil museum expansion grand opening. Ray Seguin, Louis Stieffel and Don Lindsey

#### 505 Million year old fossils found near my home

Below is an article from the Calgary Herald about an new find of Cambrian age fossils very close to one of our favorite camping sites about 40 miles from my home. From: Barry Rogers

Yoho National Park's 505-million-year-old Burgess Shale -- home to some of the planet's earliest animals, including a very primitive human relative -- is one of the world's most important fossil sites. Now, more than a century after its discovery, a compelling sequel has been unearthed: 42 kilometres away in Kootenay National Park, a new Burgess Shale fossil bed has been located that appears to equal the importance of the original discovery, and may one day even surpass it.

A paper published today in the scientific journal *Nature Communications* describes Kootenay National Park's new 'Marble Canyon' fossil beds for the first time. The authors suggest that the area and its extraordinary fossils will greatly further our understanding of the sudden explosion of animal life during the Cambrian Period.

The find was made in the summer of 2012 by a team from the Royal Ontario Museum (ROM, Jean-Bernard Caron), Pomona College (Robert Gaines), the University of Toronto (Jean-Bernard Caron, Cédric Aria), the University of Saskatchewan (Gabriela Mángano) and Uppsala University (Michael Streng).

"This new discovery is an epic sequel to a research story that began at the turn of the previous century. There is no doubt in my mind that this new material will significantly increase our understanding of early animal evolution," said Dr. Jean-Bernard Caron, Curator of Invertebrate Paleontology at the ROM, Associate Professor at the University of Toronto and the study's lead author. "The rate at which we are finding animals - many of which are new -- is astonishing, and there is a high possibility that we'll eventually find more species here than at the original Yoho National Park site, and potentially more than from anywhere else in the world."

In a short 15-day field season, the researchers collected thousands of specimens representing more than 50 species, several of which were new to science. Incredibly, many of the species previously known from Yoho are better preserved in Kootenay, retaining very fine, never-before-seen anatomical details that are important for understanding the shape of the animal 'family tree.'

The new site parallels Yoho in its spectacular richness of arthropods, a group that today represents more than 80% of all living animals, including insects, spiders and lobsters.

Another curious similarity between Marble Canyon and the original discovery is that both sites would still be buried today if not for the dedicated exploratory work of scientists.

In 1909, world-renowned paleontologist Charles Walcott spent a summer exploring Yoho National Park's mountainous topography in search of hidden treasures, only to stumble upon what he would later name the Burgess Shale on the final day of his field season on August 29. Similarly, in 2012, a ROM field expedition led by Caron spent part of their summer in search of the next big paleontological discovery.

"We were already aware of the presence of some Burgess Shale fossils in Kootenay National Park," said Dr. Robert Gaines, a geologist from Pomona College, who along with Caron and colleagues had spent August 2008 at a much smaller fossil deposit in the park located near Stanley Glacier. "We had a hunch that if we followed the formation along the mountain topography into new areas with the right rock types, maybe, just maybe, we would get lucky -- though we never in our wildest dreams thought we'd track down a motherload like this."

Just like Walcott a century before, a hunch led Caron and his team to a talus slope high in the Canadian Rockies. Along this rocky slope they found a startling variety of fossils that immediately caught their attention. The researchers then pinpointed the source of the fossils to higher up on the slopes and began to excavate the fossils layer-by-layer.

"It didn't take us very long at all to realize that we had dug up something special," added Gaines. "To me, the Burgess Shale is a grand tale in every way imaginable, and we are incredibly proud to be part of this new chapter and to keep the story alive and thriving in everyone's imagination."

"We are very excited to go back to the field this summer," said Caron. "One of our main goals is to discover more new species."

Continued on page 9

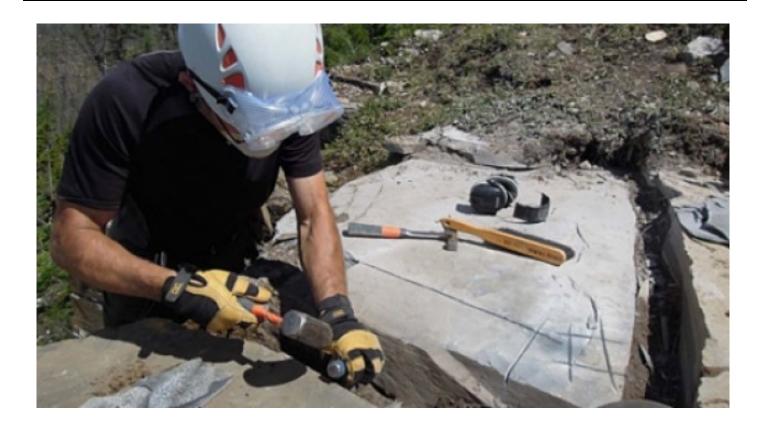
Continued from page8

The new fossil site is protected by Parks Canada, with the exact location remaining confidential to protect its integrity. Future visitor opportunities have not been ruled out.

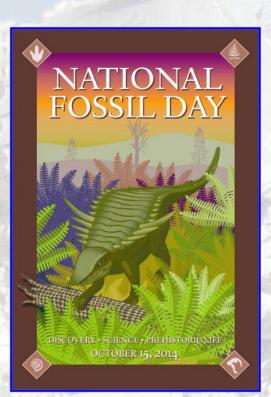
#### **Burgess Shale facts:**

- This new finding is the latest in a recent string of Burgess Shale discoveries, including confirmation that Pikaia, found only in Yoho National Park, is the most primitive known vertebrate and therefore the ancestor of all descendant vertebrates, including humans.
- In over 100 years of research, approximately 200 animal species have been identified at the original Burgess Shale discovery in Yoho National Park in over 600 field days. In just 15 days of field collecting, 50 animal species have already been unearthed at the new Kootenay National Park site.
- Some species found at the new Kootenay site are also found in China's famous Chengjiang fossil beds, which are 10 million years older. This contributes to the pool of evidence suggesting that the local and worldwide distribution of Cambrian animals, as well as their longevity, might have been underestimated.
- The original Burgess Shale site in Yoho National Park was recognized in 1980 as one of Canada's first UNESCO World Heritage Sites. Now protected under the larger Rocky Mountain Parks UNESCO World Heritage Site, the Burgess Shale attracts thousands of visitors to Yoho National Park each year for guided hikes to the restricted fossil beds from July to September. Both Parks Canada and the Burgess Shale Geoscience Foundation lead hikes to the fossils.
- All the Burgess Shale fossil specimens in the Marble Canyon area of were collected under a Parks Canada Research and Collection permit and are held in trust for Parks Canada at the Royal Ontario Museum in Toronto

Below: Jean-Bernard Caron extracting fossils from the shale.



## "Fossils at the Museum"



## National Fossil Day Celebration!

Saturday, October 4<sup>th</sup>, 2014 South Florida Museum Bradenton, Florida



Come join us in celebrating this year's <u>National Fossil Day</u>. The South Florida Museum is excited to be a host institution this year and to partner with local and state agencies, organizations and clubs. Guests can come and meet real paleontologists and geologists who work everyday to uncover the secrets fossils reveal about our ancient Earth.

Location: South Florida Museum, 201 - 10th St. West, Bradenton, FL 34205

- Time: Museum hours 10 a.m. to 8 p.m. Special Family Night Event extended hours. Clubs and Vendor Displays 11 a.m. to 5 p.m.
- <u>Cost</u>: Special ½ price admission to museum all day! \$9 adults, \$8 Seniors 65+, \$7 children, kids under 4 FREE. Outside Fossil Display Tables & Free Kids Dig Pit Sponsored by Mosaic
- <u>Activities</u>: Speakers, Fossil Displays, Fossil Giveaways, Kids Fossil Dig Pit, Junior Paleontologist Badge Program presented by the De Soto National Memorial Park Rangers, Special Screening of Sea Monsters: A Prehistoric Adventure at 4:15 pm in the Bishop Planetarium (a National Geographic film, unrated family friendly, 40 min), Stone Knapping Demonstrations, and more!

#### 2014 National Fossil Day Florida Sponsored by:



10

# FOSSIL FESTIVAL

## The Fossil Club of Lee County December 6, 2014 9am-5pm

@ The Shell Factory and Nature Park 2787 N. Tamiami Trail North Ft. Myers, FL 33903

#### Children's Dig

Fossils and Minerals for Sale

Gemstone Cutting Demonstrations

Silent Auctions & Grand Raffle

Flint Knapping Demonstrations

Free Fossil Museum & Fossil Exhibits

Admission \$3 (children under 12 FREE) Fun for the Whole Family ! www.fcolc.com

## **Fossil Festival** December 6th 2014 9am-5pm **(a)** The Shell Factory and Nature Park 2787 N. Tamiami Trail North Fort Myers, FL 33903

Free Fossil Museum & Fossil Exhibits

Children's Dig

Fossils and Minerals for Sale

Gemstone Cutting Demonstrations

Silent Auctions & Grand Raffle

Flint Knapping Demonstrations

Admission \$3 (Children under 12 Free)

Fun for the Whole Family !

Sponsored By The Fossil Club of Lee County www.fcolc.com



#### PRESERVING THE PAST FOR THE FUTURE

## **Ist Annual Fossil EXPO**

#### Saturday, November 8, 2014 9:00 A.M. to 4:00 P.M.

Punta Gorda Women's Club and Historical Society Building I 18 Sullivan Street, Punta Gorda FL 33950





MOSAIC

This exciting event will have vendors from all over Florida selling magnificent fossils, minerals, Shark Teeth Books and Custom made Fossil Jewelry A portion of proceeds from the EXPO will be used to fund student scholarships & research grants

Many other activities including;

- Lectures by Nationally known paleontologists
- Free Children's area to dig for fossils
- Refreshments and more!

Vendors and Collectors interested in table space should contact

CHUCK FERRARA at 941-769-2725 or JAY LEV at 941-575-9981

Admission for Adults \$3.00 Children under 12 years are Free!

Presented by the Southwest Florida Fossil Society Inc.