

FOSSIL CLUB OF LEE COUNTY

OCTOBER 2014

Letter from the President

Hello all! I hope this finds all of you in good health and spirits and yearning to get out and do some fossil collecting!

Well, the rivers and creeks are not cooperating, as our rainy season has kicked in a little later than the norm and the water is still very high for this time of the year. There are other opportunities awaiting, however, from land sites to eBay to fossil shows. You can collect, but in a different way. If you find a land site, the rains will actually help! There is nothing so good as a fresh washed fossiliferous pile of material. It's like picking oranges right off the tree!!

I attended the National Fossil Day show in Bradenton, along with a LOT of other folks, and had a great time. On the way home, since it was our anniversary, my wife and I stayed over a night in Sarasota. The next day as we leisurely drove home, as usual I was on the lookout for fresh diggings. After spotting and stopping a couple of times to investigate spots, and finding very few fossils, I finally found a good looking place. However, of course, even though it was new construction and nothing but dirt, it already had No Trespassing signs. I will not get arrested for fossils, so I had no intention of hunting. However, looking at the sign I saw handwritten, NO FOSSIL HUNTING. Under that was NO HIKING, and then further down, it read NO DOG WALKING. Well, I HAD to get out and look closer. Yes, next to the sign and going into and all over that area I saw boot tracks and next to that was large dog paw prints! So, some one decided that if they brought the dog along, it

wouldn't be considered fossil hunting. Well, I can only guess that person was asked to leave and then they wrote the NO DOG WALKING on the sign. Got to love it! We just want to hunt! But folks, it's getting harder all the time. So, be careful out there. A jail stay is NOT worth a few fossils. Especially on your anniversary!

I want to thank Dave and Jeanne Seehavey for stepping up and volunteering to be in charge of the fossil store. It is very much needed and appreciated.

The September meeting refreshment volunteer was Phil and Louise Briskin. However, they had a last minute medical issue and had to miss the meeting. They asked me to stop by and get the items they had and when I got there also had money to pay for pizza which they had preordered to be delivered to the meeting! Wow! Such a magnanimous gesture. And they donated everything. Thank you so much from all of us!

The October refreshment person is Marc Cantos and Cathy Behrle. He wants everyone to come with an appetite.

The November meeting will be moved to the Dolphin Room at the Shell factory. They will handle refreshments. Mark this change of venue on your calendar. PLEASE!!!

The speaker for September was Matt Hayes. We sure do appreciate him traveling from Tampa to present to us. And it was very interesting as well. The Speaker for October

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will be Charles OConnor, and the speaker for November will be Herbert Knodel, from Rotunda Rock. Please attend and listen to these interesting presentations.

The show and tell featured fossil of the month of October will be Sloth, and also carnivore of your choice.. And, of course, any other fossils you want to bring!

We will have sign-up sheets at this meeting for the Mosaic trip on January 3 It will be chosen by a lottery, as the trip will over booked. 30 members are allowed. Please only sign up once. Remember, any fossil festival volunteer gets an extra entry into the lottery to go on this trip.

See you at the meeting!!

Louis



NOTICE:

The location of the Fossil Club of Lee County general meeting--for the month of **NOVEMBER**--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.

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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

Dave and Jeanne Seehavey, Merchandise

David Sheehey, Librarian

Michael Siciliano, Raffle and Dive Trips

Louis Stieffel, Auctioneer, Vertebrate Education,

Speakers, Newsletter editor, FOSSIL project representative

FCOLC MINUTES OF 9/18/14 MEETING

Louis Steiffel called the meeting to order. 38 in attendance

Dave and Jeanne Seehavey volunteered to handle merchandise sales & service.

Phil Briskin responsible for evenings refreshments. He was thanked in absentia.

Mark Cantos responsible for October meeting refreshments.

Louis discussed the many upcoming shows and fairs as listed in last months newsletter.

Phil Briskin is working on a number of land trips. Mosaic mine trip will be January 3, 2015.

Speaker Matt Hayes did titled presentation "Rows of Teeth & World of Whorls".

Fossil of month for October 16th meeting to be sloth * carnivore's.

Louis solicited articles from members for the newsletter.

Did show and tell, with featured fossils being tortoise & bear.

Had refreshment break.

Drew door prices and held dollar auction.

By secretary Al Govin

The speaker for October will be Charles O'Connor.

He will talk on Florida's paleo heritage, mainly animals, with an explanation of the Great Biotic Interchange with South America and the spread of species.

He will also include new info on Panama and the ongoing fossil recovery during the canal widening project.

Charles has some impressive, well earned, credentials and we are glad to have him.

Some of his accomplishments and interests are:

Director of the Fossil Club of Lee County

Worked in the Vertebrate Paleo Lab, FL Museum of Natural History

Golden Apple Teacher 2102

MS Science Teacher of the Year 2014

MS Environmental Teacher of the Year 2011

SW Audubon Educator of the Year



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Public Fossil display

Al Govin and Louis Stieffel recently put in a fossil display at the Northwest regional Library on Chiquita Blvd. This is between Mariner high School and a Middle school, so it will get a lot of views by students. The display is for September through the end of October. We have put fossil displays in other libraries throughout the county, from pine Island to Ft Myers beach. Helping promote the science of Paleontology is part of the club mission statement. Don Lindsey is in the process of setting up a fossil display at the Cape Coral cultural center. Next month we will show pictures. We have club brochures, and membership forms, available as handouts whenever we show the fossils.



National Fossil Day

October 4, 2014 was the date of our local Florida celebration of National Fossil Day. held at the South Florida Museum, in Bradenton, Florida, it was a well attended event and enjoyed by all. Our own **Zach Deyo** was in charge of the kid's dig. Mosaic Mining set the dig up, and it was seeded with donated fossils from many different contributors. Zack was able to keep all of the children digging and enjoying their time as well as identifying most of their finds.



National Fossil Day

Because of a bit of surgery I recently underwent I am slightly behind on this month's newsletter. However, because of that, I am able to report on the National Fossil day activity.

Pam Plummer has again spearheaded the preparations for the local National Fossil Day Show. She was able to get agreement from the South Florida Museum, in Bradenton, to hold

it there. The South Florida Museum is the largest natural and cultural history museum on Florida's Gulf Coast. It offers exhibits as well as educational programs. The Parker Manatee

Aquarium as well as the Bishop Planetarium are located in this museum. Exhibits include ancient history, natural history and archeology. From the giant Megalodon jaws to the full sized

fossil Mastodon and the Chipola Shell exhibit, it was a great setting for the NFD and a very nice place to host this annual event.

Attendees ranged from the Florida Natural History Museum exhibits, the Fossil Project, The Florida Paleontological Society, The Fossil Club of Lee County, The Southwest Florida Fossil Society,

The Florida Fossil Hunters, Knapping demonstrations, Florida Geological Survey, Ollie Tipton, Greg Shanos, Mosaic, Florida Geological Foundation and others.

Next month's newsletter will have a more complete article on this great event, by Pam Plummer



When you can't go fossil collecting!

The rainy season leaves many of us Peace River addicts in the lurch and I've read plenty of suggestions to help us through the lean times but by the time September rolls around, I've already organized and labeled my fossils, repaired and prepped my gear, etc., so here's a couple more ideas for the off-season.

#1. **Go for a hike.** Hiking is great exercise for building up your digging endurance when you get back in the river and, over the years, I've found plenty of animal bones in the woods to use for a little comparative anatomy. Animal skulls, like the adult deer skull and fawn mandible in the photo present a great opportunity to gain understanding about some of the fossil teeth you find, for example, position in the jaw and tooth variations between herbivores and carnivores.

#2. **Trade some stuff.** My ex-sister-in-law (and still my friend) is a geologist. What luck! I recently traded her a box of Apollo Beach sand for the great little fossils in the photo, all new to my collection. The rice-looking fossils are **fusulinids** that died out in the Permian extinction. **Crinoid stems** are at the top of the photo and below them are some **brachiopods**. I realize that not everyone is lucky enough to have a geologist in the family but I suspect it would be fairly easy to find some fossil hunters on the internet (try www.thefossilforum.com) who would be willing to trade. You can use a P.O. Box if you're worried about strangers showing up on your doorstep.

#3. **Visit museums.** The Florida Museum of Natural History in Gainesville (<http://www.flmnh.ufl.edu/>) would make a good weekend trip, the Cracker Trail Museum in Zolfo Springs (<http://www.hardeecounty.net/crackertrailmuseum/collections.html>) has a fossil collection if you want the security of at least being close to the Peace River, or you can visit the ever-expanding fossil collection at The Shell Factory in Fort Myers (<https://shellfactory.com/>) and see our esteemed club member, Pam Plummer, at work.

Whatever you decide to do, fear not! The dry season is almost here.

Aimee Hankel



Shark teeth evolution and ID

There is much confusion with fossil shark tooth collectors over the different species involved in the evolution of the Megalodon shark. I wrote Dr. Gordon Hubble for his learned opinion. He has given permission for reprint in the newsletter.

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Gordon,

Louis Stieffel here, from the Fossil Club of Lee County. I have a tough fossil shark tooth issue and you are the only person I know that can answer it.

I have confusion over the different species names being bandied about over the transition from the mackerel sharks, Odontaspis, to the Megalodon. Especially the Auriculatis, Angustidens and Chubentensis.

I think the first two are basically the same shark and the Chubentensis and Meg are also the same. With some transition between the two groups from cusped to non-cusped. Yet I consistently see shark teeth on online fossil sites being called all sorts of names yet looking the same. There are lots of wild ideas out there, but most of it is pure guessing by folks who have done no real studying or research into these different species. I looked at all my fossil books containing shark teeth and am still perplexed.

If you could, when you have a few moments, please help me sort this out? I try to help club members, but without knowing it myself, I can't do it. Or, refer me to material I can delve into myself? Either way, I greatly thank

you for your time. And your hard earned knowledge.

Respectfully,

Louis Stieffel

President

Fossil Club of Lee County

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Louis,

That is a tough issue. There are many different opinions on this topic. There are several problems when dealing with the study of fossil shark evolution:

1. We only have teeth to evaluate and no soft body parts or skeletons.
2. Deformed teeth are not uncommon adding to the difficulty in identifying shark fossils.
3. A shark species exists for so much longer than a typical mammal species (Mammal species - 1 million years; shark species - 10 million years +) and the rate of change is so slow that it is difficult to say when one species ends and the next begins. A single shark species can therefore span several geological time periods.
4. We have different scientists in different countries giving the same species different names.
5. In some species the teeth change shape as the shark grows.
6. In some species (Lamnoid sharks) the embryos are growing and shedding teeth in utero and these many times have a different shape than the adult tooth form.
7. Then you always have the added problem that commercial dealers would tend to use as many different identifications as possible because that presents more different species, and thus more sales.

So I haven't answered your question, but I don't know if there is a good answer. So we have:

Carcharocles aksuaticus - first appeared 51 million years ago

- " auriculatus - 50 million years ago
- " poseidoni - 38 million years ago
- " sokolovi - 34 million years ago
- " angustidens - 30 million years ago
- " chubutensis - 25 million years ago
- " megalodon - 17 million years ago until about 2 million years ago.

This would take into account all of the known species. But I agree with you that C. auriculatus covers many of the listed species from C. aksuaticus through sokolovi and perhaps even C. angustidens. C. chubutensis is very similar to Meg except that meg got considerably larger. But, then some Megs have lateral cusplets too, and some Chubutensis don't have any cusplets.

Then to further confuse the issue the European scientists have changed the scientific names on all of the megatoothed sharks. Thus Carcharocles has been changed to Otodus except for Meg, and it is now Megaelachus megalodon.

The identification of fossil sharks is not a perfect science. It makes for a lot of disagreement, a lot of speculation, a lot of scientific papers presenting new theories and identifications, and a lot of fun watching all of this unfold.

Sorry that I cannot give you a more definitive answer, but I think that basically you have the right approach to this problem.

Gordon

Largest Megalodon!!

Recently, on one of the fossil sites on Face Book, a discussion was held about the largest Megalodon tooth. I wrote Dr. Gordon Hubbel, the world's leading authority on Fossil Sharks. I figured if anyone would know for sure, he would.

We hear a lot of stories, but if it is to be considered to be the largest, it must be officially recognized as such, not just hearsay. This is what Dr. Gordon said.

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Gordon,

It's me again. (Louis) With another question, probably one that you have been asked countless times. What is the record for the largest Meg tooth ever found, and verified?

I was told earlier that it was 7.25" slant, but I thought you had a bigger one? I'm thinking the largest is around 7.6 or something? We all hear about different sizes, but you are the authority.

thanks,

Louis Stieffel

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Louis,

I have a Meg that measures 7 1/4 " (18.4 cm) on the slant and 6 3/4" (16.5 cm) perpendicular height. I haven't seen any larger than this although I have seen a couple that were this same size.

Gordon





Capt. Mike is the owner of Aquanutz dive charters, located in Venice Florida. He has been fossil diving in the Venice area for over 10 years. For the past 2 years, Capt. Mike brings his beautiful treasures to our fossil show..This year will be no different, as once again he will be a vendor selling beautiful shark teeth and other fossils he finds..**Capt Mike has also generously donated a beautiful 4 1/2 " megalodon shark tooth for our GRAND RAFFLE at our fossil show this year at the SHELL FACTORY, DEC. 6th.....**From Every member of the club, we would like to say **thank you! CAPT. MIKE**....SEE YOU AT THE



Captain Mike Konecnic



Also at the FLMNH
A *T. rex* Named Sue
Jan. 24 - Sept. 13, 2015

Tyrannosaurus rex has long commanded respect and sparked curiosity in the mind of the public, and Sue is the most famous *T. rex* of all. At 42 feet long and 12 feet tall at the hips, her skeleton inspires as much awe today as she did 67 million years ago. In the featured exhibit "A *T. rex* Named Sue," explore how this remarkable creature interacted with its world and what we can learn from studying its bones. Revel in the sheer magnitude of a fully articulated, life-size skeleton cast while learning about Sue's movement, vision and sense of smell. Enjoy family-friendly interactives, climb into the dig pit to uncover fossils and learn about dinosaurs through touchable bone replicas and other hands-on activities. Follow Sue's sensational journey from the Cretaceous period and sedimentary rocks of South Dakota to the U.S. courts and finally the world. Come to the Florida Museum to experience the largest, most complete and best preserved *Tyrannosaurus rex* ever discovered!

Megalodon: Largest Shark that Ever Lived

Oct. 4, 2014 - Jan. 4, 2015

The largest shark ever known is returning to Gainesville! Be consumed with awe at Megalodon, the gigantic prehistoric shark that once cruised the world's oceans. Walk through the full-scale jaw of a 60-foot-long shark sculpture to learn the story of this fantastic ancient creature, including its size, structure, diet, lifespan, relatives, neighbors, evolution, extinction and new science that continues to reveal Megalodon's tale. The object-rich exhibit features fossil specimens from several collections and life-size, scale models of other fossil and modern sharks. Tooth-shaped display units include actual Megalodon fossils, and the exhibit is rich in hands-on, family-friendly activities.



These are two great fossils submitted for the fossil find of the month by Michael Sicaliano

He has been diving during the summer rainy season while the rest of us has been wishing. Found in the Venice gulf waters, Mike was able to score his very first Rhino tooth. It is a rare upper molar. He also found a weird tooth which we were not sure about until asking Dr. Richard Hulbert at the FLMNH. His reply to the question of what is it and could it be a barracuda tooth: Yes, barracuda teeth can have roots (rare but it happens). It appears you have one! Richard
 So, Mike, great finds. TWO rare fossils!! Keep it up!!



The Biggest, Baddest Dinosaur Ever Has Been Discovered



Pedestrians walk past the newly erected replica of the Spinosaurus, the largest predatory dinosaur to ever roam the Earth, in front of the National geographic Society in Washington on Sept. 8, 2014 by Taboola.

Most of North Africa is no more than a sun-scorched desert today, but 95 million years ago the landscape was crisscrossed by rivers, dotted with marshes and populated with all sorts of reptilian monsters. The German paleontologist [Ernst Stromer](#) stumbled on this lost world back in 1912. Among the fossils he brought back to Munich were a few bones from a strange-looking predator he called *Spinosaurus aegyptiacus*—notably a long, thin jawbone studded with sharp teeth and a backbone festooned with enormous spines. The animal was clearly a predator, and the bones were so

Unfortunately, most of Stromer's fossil collection was destroyed in an Allied bombing raid during World War II, leaving just his drawings and descriptions. That record has obsessed University of Chicago paleontologist Nizar Ibrahim since he read about them as a child, and, says Nizar, "I always wanted to go back to do the same thing Stromer did a century ago."

A few years ago, he did. The results have just appeared in a [new report in Science](#). And it turns out that *Spinosaurus* was even stranger than Stromer realized. "There are so many ways it was unusual," says Ibrahim, "that it's hard to come up with my top three favorites." At nearly 50 ft. long, he says the creature was in fact bigger than *T. Rex*—the biggest predatory dinosaur ever found, by about nine feet. "It had a long snout like a crocodile," he says. "It had a big sail on its back."

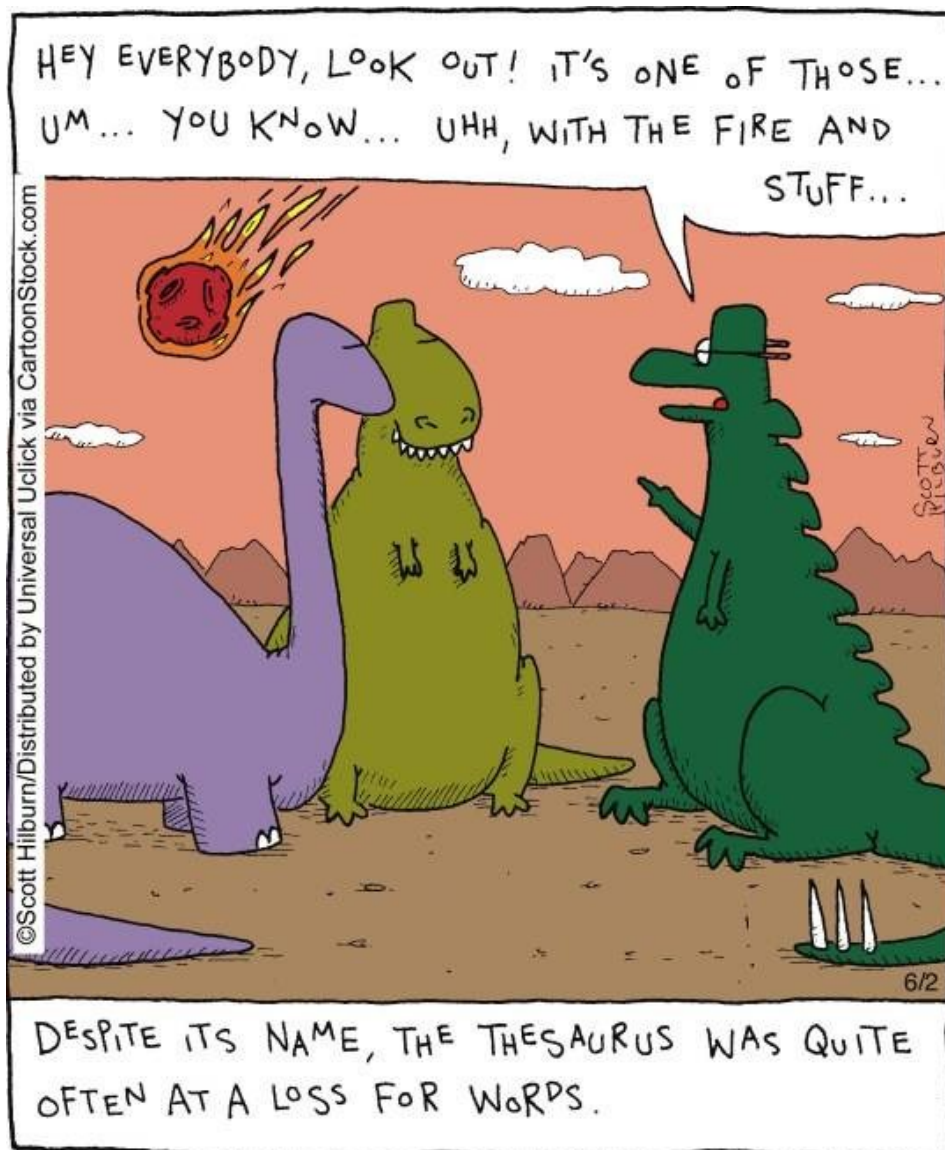
And perhaps most important from a scientific perspective, *Spinosaurus* is the first swimming dinosaur ever discovered ([ichthyosaurs](#) weren't dinosaurs, so they don't count). "It had relatively puny hind legs," says Ibrahim's University of Chicago colleague [Paul Sereno](#), who co-authored the new paper, "with wide feet and flat claws that are ideal for paddling."

Its tail, unlike that of *T. Rex*, was flexible, which would have helped propel it through the water, and its nostrils

were high up on its head, allowing it to breathe as it searched for its underwater prey—freshwater sharks, among other things. “The skull,” says Ibrahim, “resembles the skull of fish-eating crocodiles, and the tip of the snout, with its slanted, interlocking teeth, is like a fish-catching trap.” The sail—the biggest ever found on a dinosaur—was almost certainly used to attract females, since it didn’t have a rich system of blood vessels that would have marked it as an adaptation for getting rid of excess heat. For that reason, says, Sereno, “It was probably brightly colored.”

If *Spinosaurus* is the biggest, weirdest predatory dino ever found, and the tale of its discovery a mystery story lasting nearly a century, the way it was reconstructed was almost equally unusual: the scientists digitized Stromer’s old drawings of the bones he’d found, digitized images of the bones *they’d* found, and merged them with a computer to figure out what the whole creature must have looked like—a process you’ll see, along with the story of *Spinosaurus*’ discovery and rediscovery, on a National Geographic/NOVA special airing on PBS on Nov. 5 at 9 p.m. You can see *Spinosaurus* itself, meanwhile, at the National Geographic Museum in Washington, D.C., starting September 12.

And if *Spinosaurus* itself isn’t strange enough to grab you, there’s plenty more to come. “We’ve collected an entire menagerie of strange predators,” says Ibrahim, “and we’ll be publishing more papers. I’m interested in *Spinosaurus*, but also in the world it lived in. *Spinosaurus* had bizarre adaptations,” he says, “but they make sense once you understand the bizarre river system it ruled.”



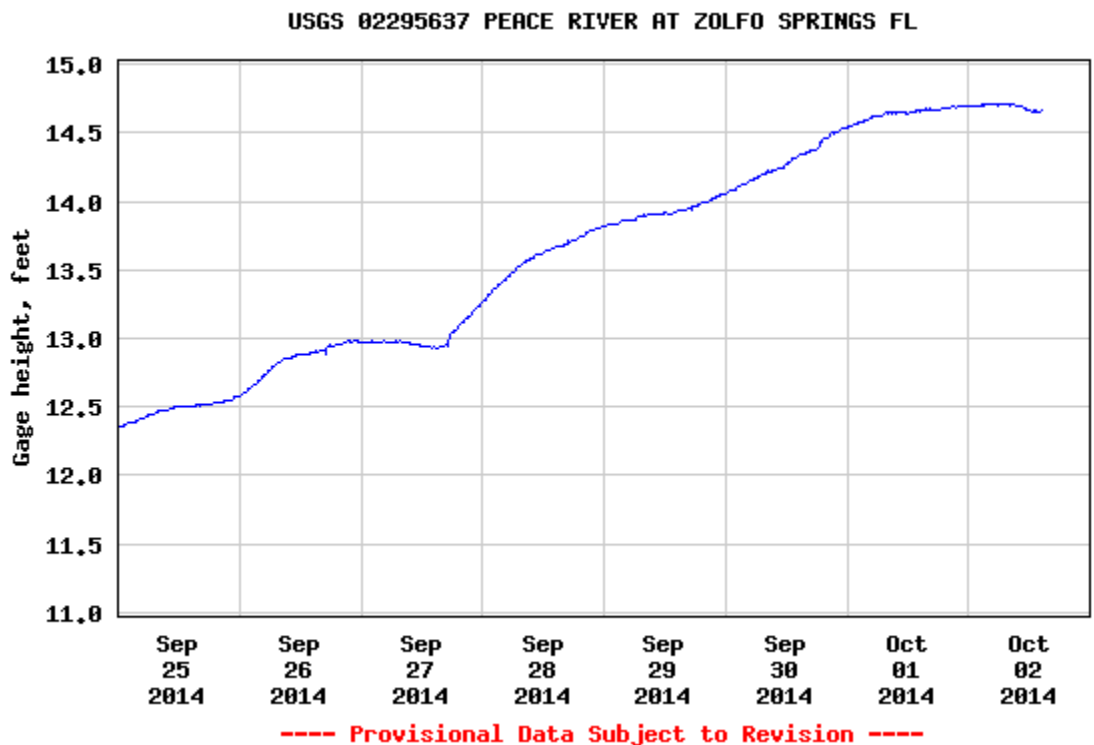
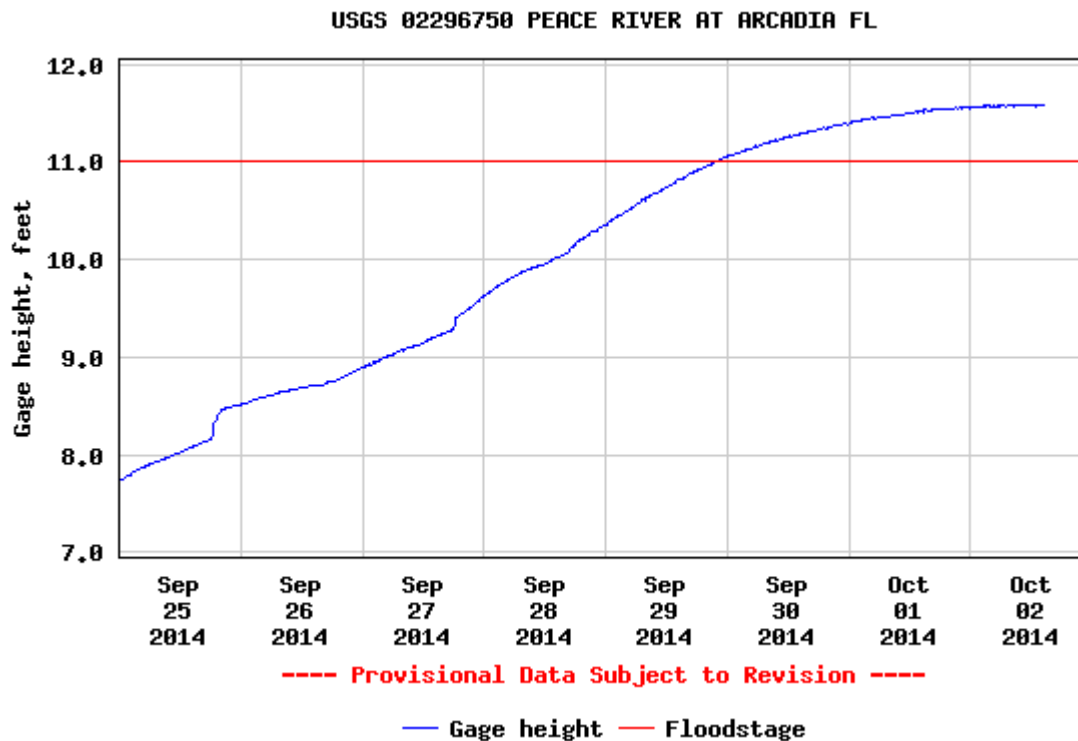
River and Creek Levels

The river and creek levels are important to us. Here is the USGS link to monitor the water gauges.

A couple of helpful guidelines are 5' at Zolfo and 1.25 feet at Arcadia. When the river is at these levels, or lower, you can easily gain access and dig in low water.

As you can see from this very recent look, the river is NOT even close to being low enough to hunt! The red line is flood stage.

<http://waterdata.usgs.gov/fl/nwis/rt>



FOSSIL FESTIVAL


Sponsored by

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

@ 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
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PRESERVING THE PAST FOR THE FUTURE

1st 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
118 Sullivan Street, Punta Gorda FL 33950



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.