



Fossil Club OF LEE COUNTY

OCTOBER 2011



Message from the President

Greetings to all members and friends of our Club.

Its an exciting time of the year for fossil collecting. The Orlando Club just held their annual Fossil Fair, the Peace River water level has dropped enough so we can hunt there, and the Club has set up several field trips to quarries in the vicinity. There is a trip in mid-October and another in November so try to attend the October meeting and get signed up! Some of our members went on a trip to the Crystal River area to collect echinoids---see Gunther Lobish's article in this months newsletter. The Club is also planning a trip to the University of Gainesville---Dr. Charles O'Connor is setting up the details and will update us at the October meeting.

Our Club will hold its annual Fossil Show on Saturday, December 3rd at the Calusa Nature Center. Some members have already donated fossil items for the kid's dig, silent auction, and other games. As we have done in the past, we will give all of the children a gift pack. If you want to donate any items, please bring them to the October or November meeting. If we have any extra material, we will hold it for our Annual Auction in March. The Show fliers have been printed and will be available at the October meeting. Several members have been involved in the Show preparations, so let's thank them for their support. At the November meeting, we will ask for members to sign up to help with the many tasks that need to be done on Show day. Our Shows have been more successful each year, thanks to many people who have pitched in to make it happen.

The money we make from our Show and from our Annual Auction gives us the opportunity to do some great things for our local community. We make a donation each year to the Calusa Nature Center who is kind enough to let us use their facilities. As most of you know the Nature Center provides a wholesome environment for the children of our community. Our Club also makes donations to scholarship funds at the University of Florida and University of South Florida to help deserving students who are pursuing degrees in paleontology. The universities are most appreciative of our Club and they reciprocate to us by always being willing to provide us with speakers and supporting our requests to visit their labs.

Our speaker this month is a paleontology student from the University of Florida who is working on her masters degree. She will tell us about the work she has been doing regarding the evolution of horses in North America and how museums portray this information to the public. In addition to her presentation, we will have our regular program including Show and Tell and the monthly raffle. Thanks to all of you who support the raffle with donations and by buying tickets. The raffle is getting bigger and better!

I look forward to seeing everyone at the October meeting. Regards, Bill

Next Meeting

Our next meeting will be October 20th 7:00 pm at the Iona House at the Calusa Nature Center.

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Cherie Neat, Newsletter
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Bill Shaver, Speakers
Louis Stieffel, Auctioneer
Kathy Arnold, Club Merchandise
Pam Plummer, Club Badges
Ray Seguin, Membership
Joshua Frank, Refreshments
Dean Hart, Refreshments co-chairman
Gunther Lobish, Pit Trips
Michael Siciliano, Raffle and Dive Trips
Coby Pawlowski, Youth Activities Director
Hollie Tiner, Club Photographer
Gunther Lobish, Invertebrate Education
Louis Stieffel, Vertebrate Education

2011 SCHEDULE FOR REFRESHMENTS

October—Marc Cantos
November—Need a Volunteer
December—Holiday Dinner

Thanks to everyone for their support and thanks to Joshua Frank and Dean Hart (refreshment committee) for organizing this club function. Everyone is invited to participate and your efforts will be greatly appreciated. The Club will reimburse you for your expenses. See our Treasurer for details.

SPEAKER FOR OCTOBER 2011

Luz Helena Oviedo, currently doing research on horse evolution as depicted in U. S. museums, is our speaker for October. Luz Helena is currently pursuing her Masters degree in Science Communications at the University of Florida. Dr. Bruce MacFadden of the University of Florida Vertebrate Paleontology Department stated that Luz Helena studies were partially funded from our contribution to the Ken Erickson Scholarship Fund. Her presentation will center on her research on horse evolution and how that evolution is presented by museums to the public.

MINUTES OF SEPTEMBER MEETING THE FOSSIL CLUB OF LEE COUNTY

Date: September 15th, 2011
Place: Iona House, Calusa Nature Center
Attendance: 43

Presided by: Bill Shaver

Bill opened the meeting and thanked the members who have written articles for the newsletter. He encouraged all members to participate and help keep the newsletter interesting, educational, and informative.

The subject of field trips was discussed. There are tentative trips for October, November, and Dr. Charles O'Connor is setting up a trip to the University of Florida Museum of Natural History. Other trips are in the works.

The status of the Annual Fossil Show, which will held on Saturday, December 3rd, 2011 was discussed. Fliers for the show will be available in early October.

Dr. Greg Herbert, University of South Florida gave a most interesting presentation on "Ice Ages".

Bill thanked Bob, Kathy, and Coby Pawlowski for donating the refreshments and also thanked Marc Cantos for volunteering to do refreshments for October. Bill also thanked Kathy, Kevin and Joe Arnold for handling the Club merchandise every month.

The Show and Tell segment was done by Linda Warner, Ron Seavey, Coby Pawlowski, and Gunther Lobish.

WEB SITES & LOCATIONS OF INTEREST

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Fossil Club of Lee County: www.fcolc.com

Museum of Natural History @ Gainesville
www.flmnh.ufl.edu/

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

Southwest Florida Fossil Club
www.southwestfloridafossilclub.com

Orlando Fossil Club
www.floridafossilhunters.com

PEACE RIVER Water Levels
www.canoeoutpost.com

Mark Renz's Fossil Expeditions
www.fossilx@earthlink.net

Smithsonian Natural History Museum
www.mnh.si.edu
Florida Fossil Clubs
www.fossil-treasures-of-florida.com

Picking Up Isolated Native American Artifacts
<http://dhr.dos.state.fl.us/archaeology/underwater/finds>

Calusa Nature Center and Planetarium 3450 Ortiz Av, Fort Myers Tel 239-275-3435
www.calusanature.com

Imaginarium 200 Cranford Ave, Fort Myers
www.cityftmyers.com/imaginarium

Southwest Florida Museum of History 2300 Peck St., Fort Myers www.swflmuseumofhistory.com

The Bailey-Matthews Shell Museum, 3075 Sanibel-Captiva Rd, Sanibel, FL www.shellmuseum.org

Randell Research Center PO Box 608, Pineland, FL
www.flmnh.ufl.edu/RRC/

Cracker Museum at Pioneer Park in Zolfo Springs, FL Tel 863.735.0119

Lost in Time, 4719 69th Street, N. St Petersburg, FL 33709, Tel. 727-541-2567 Owner Brian Evensen

Tampa Bay Fossil Club
www.tampabayfossilclub.com

Cape Coral Friends of Wildlife Burrowing Owls
www.ccfriendsofwildlife.org

HUNTING FOR ECHINOIDS

On Saturday the 1st of October Pam, Donna, Jack Boyce and I met in Crystal River to collect on the 40 mile canal which is just up the road. Everything is not as the maps have it printed as there is now a park along the South side of the canal which has a bike trail and bridal paths. We drove into the park on a dirt road, found a bare mound off rocks and sand and decided to check it out. We had found two small flat echinoids when a Park Ranger pulled up in a golf cart. We spoke to him for awhile and were told we could collect any invertebrates but vertebrate fossils were not to be taken and would result in major fines if we were caught doing so. Not a problem as we were after invertebrates anyway. We drove a little further where the road crossed the bike path and were now driving along the edge of the canal. We stopped and went over a small ledge to get to the edge of the canal. The tide was out and this area was covered in Oysters, rocks and black mud, very nasty but luckily we had good enough footwear to keep from getting cut up by the Oysters. After a bit we started to see the outlines of the Echinoids in the mud and even found some in the low wall itself. When we were done collecting a section we would drive past the car ahead and start collecting a new area. It really turned out great, I don't think any one has collected here in some time. I don't know how the others did but I found over 175 specimens at least half in very nice condition.

We will be setting up a date to go back,
anybody interested???

Good Hunting, Gunther

SCHEDULE OF EVENTS AND SPEAKERS

Oct. 20th—Luz Helena Oviedo (UF) Horse Evolution

Nov. 17th—Kim Westberry Field Plaster Jacketing

Dec. 3rd—Annual Fossil Show
@ Calusa Nature Center

Dec. 15th—Club Holiday Dinner
@ Zion Lutheran Church

Jan. 19th, 2012—Greg Shanos Meteorite Lecture

Feb. 16th, 2012—Dr. Charles O'Connor
Panama Paleontology Project

Mar., 2012—Club Annual Auction
@ Zion Lutheran Church

Fossil Hunting in Panama, part 2

Charles O'Connor



Part 1 - Charles O'Connor and his spouse Cindy Bear travel to Panama to explore the mountain jungles, and volunteer with PIRE, a multi-year project to advance knowledge of extinct faunas and floras as important new Miocene and Pliocene fossiliferous deposits are being uncovered. They wash and sort matrix, and spend lab time using stereomicroscopes to help Catalina Pimiento study paleo-shark habitat 10 million years ago.

The opportunity for Panama fieldwork soon arrived, and I talked myself onto the first few available outings. The three sets of locks are also being enlarged and modified to conserve water. Currently, 46 million gallons of fresh water are dumped to sea on every lock transit. A large area of land (jungle) bordering the Canal is set aside as non-developable to ensure an adequate supply of rainwater for the passage.

We travelled to a nearby restricted access construction site, right alongside the Canal, that hosted an army of men and earth moving machines. Because one team member forgot his ID badge in the morning rush, we were delayed for awhile, but eventually reached our scorching, muggy site. I was still recovering from a moderate case of traveler's illness (though we had been very careful with choosing safe food and water), and this outing, combined with the heat and humidity, almost killed me. We scoured the hillsides, previously scraped by giant earthmovers, to find 10 million year old shark's teeth and any other fossils. The pickings were pretty slim, to my expectations, but other sites in Panama contain larger teeth. At one site, nine of us searched for 1.5 hours and collectively found two Meg teeth, both under 1.5 inches and missing the roots (mine was the larger one!). Fortunately,



the researchers were very happy to get the new specimens, which were of importance.

The next couple of days found us at a remote site which was much more rewarding. We - Bruce MacFadden (Curator

of Vertebrate Paleontology at the Florida Museum of Natural History), Doug Jones (FLMNH Director and Curator of Invertebrate Paleontology, Roger Portell (FLMNH Collections Manager of Invertebrate Paleontology), Catalina Pimiento, and other paleontologists explored an elevated quarry site that was a high energy beach site 12 million years ago.

Several small shark teeth, crabs and assorted marine fossils were found, but the big discovery was of a juvenile sea cow skeleton, approximately 4 feet long. Only a few ribs were initially exposed, but with two days' efforts (and 9 people assisting in shifts), we were able to uncover and extract the young dugong (the cranium/mandible is still on site, waiting to be discovered). The excavation was quite difficult, because much rock had to be chiseled away, the skeleton undercut, a plaster jacket applied, and finally the very heavy specimen carried down a medium sized, steep cliff. Several trips, to a not so nearby town, scored important supplies including iron rebar poles, extra plaster, jugs of water, and rolls of medical gauze. We dug a small ditch to divert the groundwater around the dig site, but the plaster had a problem drying sufficiently – thank goodness our supply trove included many rolls of duct tape that we put to good use. The find may be significantly important as a transitional link between dugongs and manatees.



As exciting as this fieldwork was, it was even more rewarding to spend many long, quality days with professional, highly personable paleontologists, whose "war" stories were all very riveting. Richard, in particular, shared a few choice Cuban and Haiti adventures. Once, his drinking water filter malfunctioned and he was forced to strain rainwater from Haitian cow pastures through his underwear, boil it, and then imbibe. I mused that it might be difficult explaining away the clothing color at a public laundry.

We did have a few friends who were perplexed by the satisfaction we gained from this unconventional vacation; however, when we explained that we have helped advanced science and experienced slices of time and parts of Panama most will never see, they understand a bit more why we hope to return again to Panama to assist and to enjoy time with old and new friends.

Photos and video here: <http://www.flickr.com/photos/pcppire/sets/72157627297020322/>

More information on PIRE
and the Panama Canal Project:
<http://www.flmnh.ufl.edu/panama-pire/>

Questions? rcoc77@embarqmail.com



River Fossil Diving

I experienced scuba diving in a river for fossils for the first time at the end of this July. I have logged over 100 dives in Venice in search of fossils, since Melanie and I became dive certified 2 years ago. In Venice, the conditions range from 20 ft of visibility on the best days, to no visibility on the worst days. Even on the worst days, I can usually read my gauges, except for one day in Venice when I was sent down to check the visibility and found it completely black at the bottom. I surfaced after a few seconds of that, and the captain called the dive. That was my only previous experience with zero visibility blackout conditions. On average visibility in Venice is 3-5 ft and that works out great for fossil hunting.

A friend of mine, Bill Eberlein, dives for fossils in rivers in Georgia. He has found some remarkable fossil beds in his rivers. You can see his finds at megateeth.com. He is also at all of the major fossil shows in Florida, including ours. After talking with him about diving a while ago, and the conditions he faces, I kept asking myself if I would be able to do it. Bill invited me to dive with him a year ago, but I wasn't ready. In late July of this year, I felt I was up to the challenge and wanted an adventure. There are plenty of hazards for scuba diving in his area. There are sharks, sting rays, stone crabs and physical hazards in some areas. 95% of the time you can't see anything. The other 5% of the time, you can actually read your gauges with some effort when they're held right up to your mask with a light shining directly on it.

The morning of the dive, we met at 4:45am. I followed Bill and his captain Gene to the dock while it was still dark. When we were at the dive site, it was still pretty dark out. Bill started his dive. I took an extra 15 minutes to convince myself to take the plunge, then I did. I had never experienced an entire dive in darkness before. I had a hand held dive light, but it only gave a glow around the flashlight for 6 inches or so. Once on the bottom, it was blacked out from the debris for most of the dive. It was absolute zero visibility.

Where we were diving was a depression that was about 3 ft deeper than the surrounding river bottom and an area about 30 ft. X 90 ft. The total depth we were at was 33 ft. Surrounding this depression were 2 sloping walls of sand, which didn't seem to hold fossils at this location, and 1 wall of mud, and one wall of clay. I had the best luck in the 1-2 ft deep clay. Some megs were suspended in the clay, and others were on the hard, smooth limestone bottom below the clay. The clay was so dense in some areas, it was very tough to force your hands into it. I found myself using so much energy to get into the clay, that I went through the air in my tanks much faster than usual.

I found 7 megalodon teeth, 2 mako teeth, 3 whale vertebrae, and some whale inner ear bones using 6 tanks of air on 2 days of diving. The trip was very thrilling, and a fossil diving dream come true.

-Joshua Frank

Fossils found by Joshua Frank on his recent dive trip in Georgia



Three Whale Vertebrae



Megalodon Teeth



TRICKERY OR TREAT!!

Buying Vertebrate fossils—beware!!

This month I want to talk a bit about unscrupulous or unknowing fossil dealers/collectors who sell fakes. Counterfeiting is done all across the collecting hobby, with the more rare and valuable objects having the more attempts at trickery. Fake Pre-Columbian pottery is especially rampant and you can buy Pre-Columbian pottery on eBay for \$15. So, come on!! Use your noggin!! Think!! If real, it should cost Thousands!! Old documents, paintings, prints, signatures, jewels—are all faked. Fossils, also. Read on to learn to be wary.

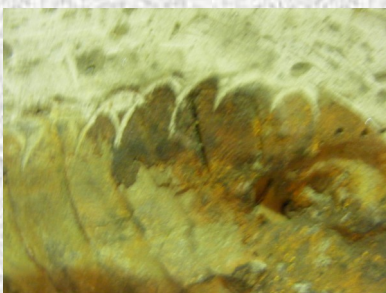


There are known places that produce fake fossils, but as values rise on rare ones, other fakes come to market. Rare Trilobites from Utah, and Russia also, have been discovered as man-made, or reconstructed from partials or resins. Some of the very large Megalodon shark teeth are expertly repaired to increase value. A simple glue repair is one thing, but a reconstruction of a large area of the fossil, without disclosure, is fakery and deceiving and dishonest.

Since it is a crime, punishable by death, to sell Chinese fossils from mainland China, a cottage industry has sprung up with poor, but talented, citizens actually making fossils. It is not a crime to sell fakes. The only Chinese fossils that you have a chance at getting, that are real, are from old stock, or from Hong Kong, where it is still legal to export. Even so, many are doctored. It makes you wonder why no one has taken the time or effort to clean the matrix from a totally intact, rare, ancient fossil carnivore skull? Wouldn't you think that the hard, yet sandy, *matrix?*, could be picked off, and the value increased tenfold by the whole fossil skull being properly prepped and displayed? Yet most of these are **still encrusted**. Hmmm... There have been many fabulous fossils discovered in China, but they are national treasures. Keep that in mind, next time you see one for sale.



Even though lots of fossils from Morocco are real, many are fake, also. So, you must look carefully for repair and reconstruction. The rarer and showier and expensive the fossil is, the more careful you must be. Lots of the larger Mackerel shark teeth enamel blades have been reattached to the root, and not necessarily the same tooth's root! If you look close, you can almost always see that telltale white plaster line, even though sometimes the repair is very good. I've seen many larger, more expensive fossils that are **TOTALLY** man made. The most common is the Mosasaur double jaws with usually three teeth, but sometimes more, in the top and also the bottom. It's a red flag when you see one store selling 50-60 of these RARE jaws, at once! and all looking almost the same. The teeth are real Mosasaur teeth, but the roots are made of plaster, and the jawbone is pieced together from small slivers of real fossil bone, put together with lots of putty/plaster/epoxy. These "jaws" are **always** in a block of matrix, but exposed to see the sides of the jaws. The matrix is a sandy/rocky/glue/epoxy mix that simulates rock. If these things were sold as composites, it would not be so bad, but they are sold as real. (If real, you would expect to see these jaws freed of the matrix, for a real nice fossil display). I recently saw one that was damaged, and the fake was totally exposed for what it was! The jawbone was thin pieces of pieced together bone, laid onto the fake matrix, that came apart when this "jaw" fell off the shelf and broke. I have seen an **entire** crocodile skull, and part of the vertebra column, reconstructed from bits of bone, using mostly real teeth, with fake roots and attached to fake matrix. At \$2800 it is a very showy, but very pricey, total reconstructed, totally fake skull. Lots of the Trilobites from that area of the world are also fake. Some are actually 100% resin, laid on top of a matrix rock. The resin is carved to match the looks of a



rare Trilobite. The eyes, though, are never as detailed as they should be. And the trilobite is almost always totally complete and laid out flat and perfect, many times on a slight hump in the rock to show it better. Even exceedingly rare ones are shamelessly faked. Rarely is a 400 million year old Trilobite so perfect as these are. Sometimes the resin is used to fill in missing parts of the body. They also take two, or more, different trilobites and put them together. New species are created!! Be wary of these fossils. The craftsmen making these fossils are very good indeed. It is what they do for a living. If you have any, in your own collection, examine them carefully. If fake, label as such and do not pass them on to others, especially as being real.

Since I do not own any of these fossils, I took some pictures in a local tourist store that sells them. The first picture is of an obviously fake Crocodile skull, with a few real teeth put in to entice you to part with your money! The next two pictures are of the Mosasaur jaws I spoke of. You can probably even see in these pictures that they are manmade. But, for \$700, who's complaining? There was about ten of these at one time, all looking the same, all in matrix block, and none prepped free of matrix and displayed as such! The fourth picture is of what is called a Mosasaur skull, but the teeth look more like Crocodile. It has a spinal column, but the vertebrae are aligned backwards and the skull is totally fake with bone fragments plastered on and fake roots holding mostly real teeth. The smallest tail vertebra (not pictured) look more like fish than anything else. Actually the whole spinal column that is curled up around the skull, for a great visual appeal, is assembled from several different types of vertebra, with none probably from an actual Mosasaur! The next two pictures show an ammonite, cut and polished on matrix. However, you can see the glue line where the ammonite was attached to the matrix. The next group of pictures show a death assemblage of ammonites and a cephalopod, and a plate showing a death assemblage of three starfish. If you just see one of these ammonite plates, they look cool, but as you scan the surroundings and see about ten of these plates, all looking very similar, it makes you wonder how these ancient animals all knew how to die in the same positions?? Yes, four ammonites around a cephalopod, every time!! And the starfish?? Extremely cool, except for the fact that they are carved from the rock and painted. If real, it would be cool, but this way, it is just expensive carved, painted fake rock starfishes! The last pictures show a large trilobite. It is not bad looking until you look close and see the intentionally broken rock, painted to look like a Trilobite. Around the edges it is actually filled in with resin and painted. Yes, a very large, world class----FAKE!! People—PLEASE be careful!! Most of these are easy to spot, if you care to, and not caught up in the excitement of spotting a new fossil.

Also, please go to our club website: www.fcolc.com and at the bottom of the main page you will find links. One is labeled fake fossils. Please look at this and scroll through different pages and topics on this link, so as to learn more about this. You can also Google- Fake Fossils- and see what you come up with. You will see fakes offered for sale at fossil shows, various tourist destination stores, online at EBay, etc. By learning more of this you will be better protected from spending your hard-earned money on trickery, and can make better choices. Good luck.

Any member who thinks they have a fake, please bring it to the next meeting you attend, so we can look at it and help you decide.

Louis Stieffel,
Vertebrate education

