



Fossil Club of Lee County

November 2007

Message from the president

Brrrrrr!! Wintertime again!! At least it feels that way with the temperature dropping down into the 50's, which for us in South Florida is cold!! This means that the rivers will be getting cold, so wet suits may be needed soon for those hardy members who want to fossil hunt. The water is still low and mostly clear, so if you don't mind the cold, the hunting is still good!! Rain seems to be a wish only, as we need some, but we won't be seeing any soon. Surface hunting is always harder without rain, but if you know of a place, it can still be productive, but go slower and go lower!!

This month, our speaker will be Bruce McFadden and next month, December, we will have our annual Christmas meeting, where we have a pot luck meal and the annual member show-n-tell, best of the best!! I look forward to seeing you guys at both meetings. I don't have a speaker yet for January, but am working on it. Last month, as per many requests, we had a micro matrix fossil hunt at the meeting. Lots of neat little fossils were found, including some tiny fossil shells and lots of little shark teeth. Kelly even found a nurse shark tooth in the Peace River gravel!!

I am starting to collect donations for the Annual Fossil Auction in March so start bringing what you have to donate, fossil and other. I know it seems early, but it takes

November Meeting

Our next meeting will be held on Thursday, November 15th at 7:00 p.m. at the Calusa Nature Center located at Ortiz and Colonial Blvd.

Bruce McFadden will be speaking to the club this month. He will talk about fossil hunting in Peru, looking for the megalodon shark. Bruce is definitely someone you want to hear, so make plans to come to the meeting.

planning for it to be a success and it is coming up in March!! Last year we had a record auction, and it would be good to do it again!! Ray Seguin always donates heavily to the auction, but other members need to help out also, OK?

The weather is beautiful, so go do some fossil hunting, or at least some fossil site hunting, and enjoy these beautiful days.

Louis

Theories about Megalodon Extinction

This summer the Florida Museum of Natural History in Gainesville invited all the Florida fossil clubs to participate in the opening day ceremonies of their new exhibit, Megalodon--the Greatest shark that ever lived. Several of us from our club went, set up a display table and met lots of attendees and answered lots of questions. Around mid morning I met a gentleman, at our booth, that has been in fossil hunting in Florida for many years. He is actually one of the pioneers of Florida river diving. His name is Cliff Jeremiah. Cliff has produced very many shark jaw replicas of the Megalodon and these are displayed in many places, not only in the museum in Gainesville, but in many places all around the world. In the process of research, as well as interactions with other collectors and the acquiring of the teeth needed to place in these jaws, Cliff has formulated some theories on the possible cause of extinction of the Megs.

Cliff made the argument, that from observations, as well as his experience in the field, that the Megalodon died off from lack of available food. He bases this on the fact that the ancestors of the Meg, which we know from their teeth, had very little mutant pathologies in their teeth. Rarely do we find a tooth from Meg's predecessors that are deformed. However--it is fairly common to find Megalodon teeth with pathological deformities. He believes that as these sharks evolved to such a large size, they depleted most of the readily available food supplies, and started dying off, either from starvation, disease, or lack of reproduction. As the shark population diminished, they started inbreeding, thus allowing the opportunities to develop mutations in the teeth. This would have been

the beginning of the end of the line for these ultra-large sharks, as their reproductive cycles did not permit rapid birth rates so as to keep up with deaths. Large animals reproduce slowly, so are the first to experience population declines. Thus the Megalodon shark was too successful for it's own good!! It grew too large for the large food supply it required.

This is only a theory, not a proven fact, but it makes a good, perhaps very viable argument, and may be worth more research. I have another "sub-theory" that I think may be more suited towards the Megalodon sharks we find here in Florida. We all know, that to find the biggest Meg teeth, on a more consistent basis, the coastal Carolina rivers are the place to look. The Meg teeth found in Florida, especially South Central Florida, where the Bone Valley formation is prevalent, though you can occasionally find a large one, they are usually much smaller. It has been suggested that this area may have been a breeding ground, but, to me that doesn't make sense. Sharks of today, to my knowledge, do not gather in schools or certain specific places to give birth, and I can't see them doing it differently in the past. I would think, after giving birth the mom would be hungry and not think twice about chowing down on some baby or juvenile sharks that were not hers. Also, since we actually know so little about shark reproduction and birthing it is hard to make that argument convincing, at least to me. I think that these sharks acted like lots of other animals over time, inasmuch as they evolved to meet the environment. Perhaps the seas got shallower and they were semi-trapped, or the food supply more slowly degraded than in other areas. Either of these possibilities, or others, may have affected shark growth rates, thus a sort of dwarfism occurred, like the dwarf mammoths marooned on islands or the Key deer of the Florida Keys. This would explain the smaller teeth as they were

coming from smaller sharks. These megs, like all the others, would have suffered from slow birth rates and thus eventually gone extinct. I have actively collected the small little "button" teeth for several years, and I can easily say that most of them that I have been able to acquire are from Florida. It is no secret that we find smaller Meg teeth, and I would love to know the real reason why that is so. Perhaps my theory of dwarfism is valid, as well as Cliff's on extinction, but only further research can prove or disprove that for sure. If someone reading this article has any further thoughts on this topic, I would love to hear from them.

Louis

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**Calusa Nature Center
Volunteer Opportunites**

The Calusa Nature Center and Planetarium is looking for volunteers for their Sixth Annual WINK/Lite 93.7 Holiday Arbor Lites and Embarq Holiday Laser Show, nightly from Thursday, **December 13th through Sunday, December 23rd**, from 5pm to 9:30 pm. Positions available are boardwalk attendants, face painters, laser show attendants, parking attendants, Santa's elves, children's craft table, hot chocolate servers, membership/admissions table, Santa and Santa's photographers.

Contact Kim Pierce at (239) 275-3435.

Please write to tell me when you volunteered and how long. This helps our club get a good rate for our meeting place.

Leslie, Loretta, Herb and I volunteered at Halloween and had a lot of fun. It is not hard and you are bound to see someone you know.

Refreshments

November: Pam Plummer

Christmas Pot Luck: Everyone

From the Associated Press

Wisconsin

Three-year-old boy finds woolly mammoth tooth

LA CROSSE - Gary Kidd had a pretty good idea that what his 3 year old grandson had found was no rock, but the tooth of a woolly mammoth. That's because he had found one himself nine years ago.

Kaleb Kidd was playing Monday at a family friend's property near La Crosse when he spotted what looked like an unusual rock. "Grandpa, what's that?" Kaleb asked. He told his grandson it looked like the tooth of the extinct woolly mammoth.

Next stop was the Mississippi Valley Archaeology Center at the University of Wisconsin—La Crosse, which confirmed that it was indeed, the tooth of a mammoth.



6 inch piece of deer tine found by Sandy after Louis stepped over it. Burnt Store Rd. construction site. Tip missing.