

One-Person: Aurora, NC Fossil Trip by Dave Lines

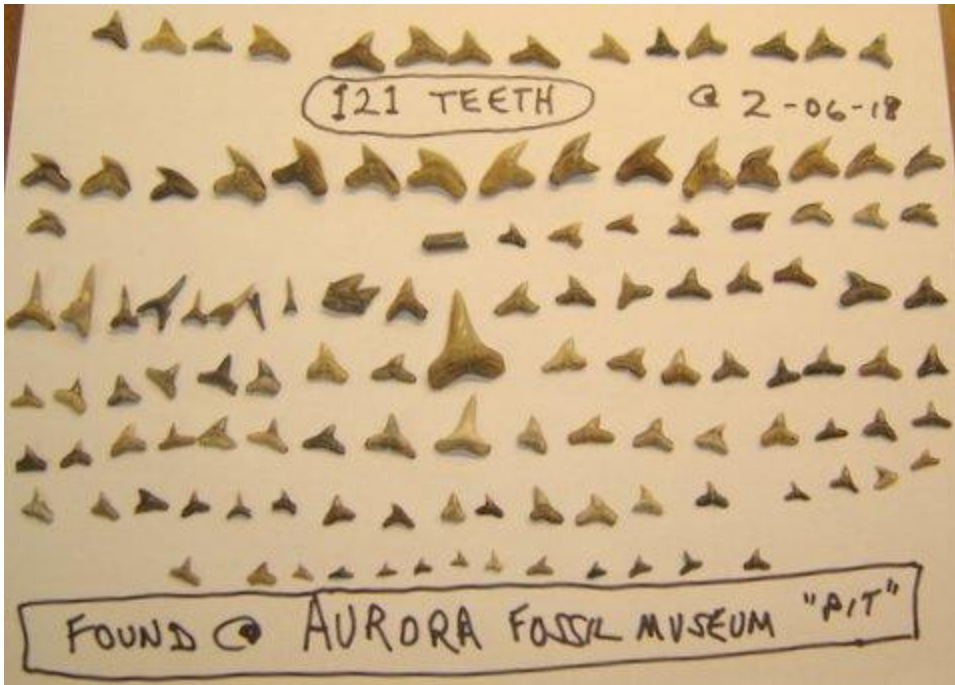
What a great place to go! A museum brimming with huge "megs" (term for "megalodon" giant shark teeth), lots of one-of-a kind fossils from "tiny" to "tremendous", a wonderful store full of minerals, fossils, books and interesting stuff and a two large outside piles of material from the PCS Phosphate Mine containing sharks teeth and other neat fossils where visitors can dig and keep what they find --- and it is all "free" --- it does not cost a penny. Wow! Is that SUPER or what!?!

If you are ever in eastern North Carolina, you owe it to yourself to go see this incredible little museum. It is truly a gem.

As you can see from the various photos, I had a productive trip and a lot of fun.



These are some of the interesting and varied fossils I found. Note the porpoise teeth -- I had to ask the volunteer staff of the museum to identify them.



I found lots of perfect sharks teeth which is amazing because the material in the "sandboxes" at the Museum is pumped as a "slurry" for several miles through large (15 inch?) diameter steel pipes.



I found an equal number of damaged teeth.



This very helpful sign was placed adjacent to each pile to help identify the many types of fossils.



This is one of the piles -- it is at least 6 feet deep and about 30 feet by 30 feet in size. The piles are replaced several times a year.



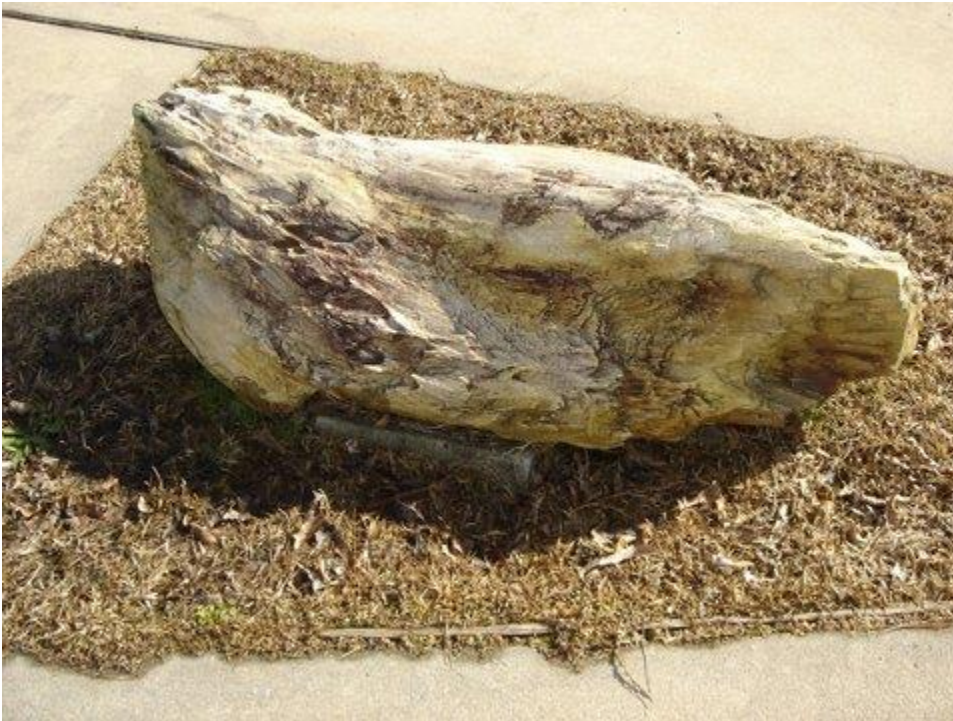
Immediately after a rain is the best time to search the piles because the sand/dirt is washed away. How many teeth do you see in this pic? (The winner will receive a special prize at our February meeting.)



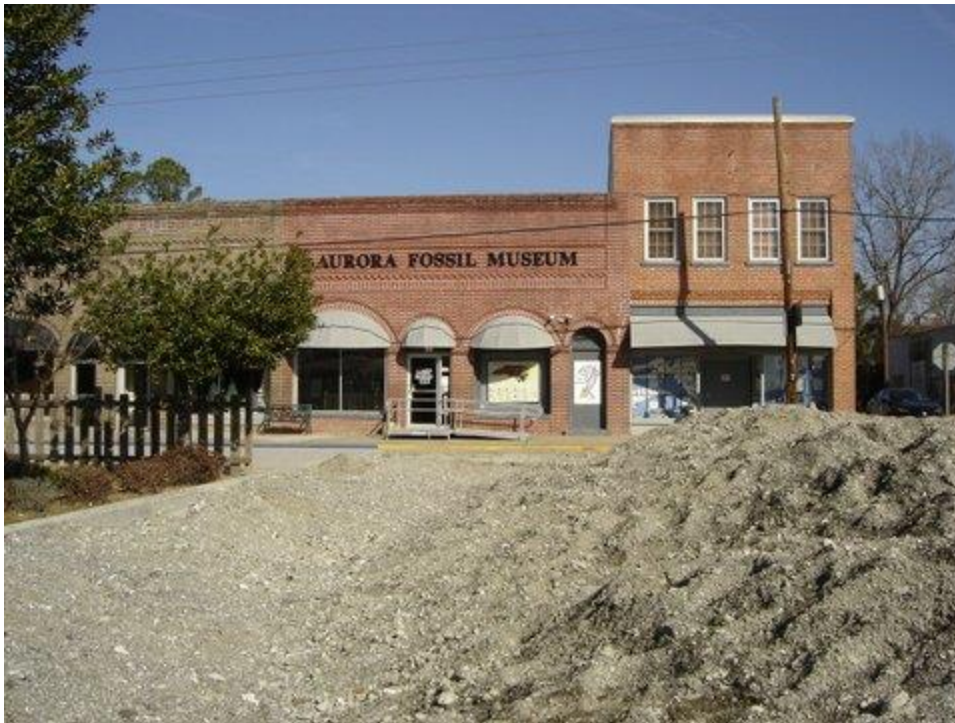
Another pic of same pile.



This shows the Fossil museum which faces a small park which has a covered picnic pavilion.



This piece of petrified wood sits near the flagpole in the park.



A pic of the other pile on the opposite side of the park.



This is one of the old "dredge" buckets from the PCS Phosphate Mine. It is HUGE --- a sign on it says the bucket could dig (in one day) the equivalent of 25,000 pickup truck loads of material.



This meg is 7 inches long -- the staff emphasized it was a "cast" to deter theft.



These are real.



Lots of neat fossils.



These cow shark teeth (7 gill?) are rare.



Check out the "squalodon skull" --- very rare.



These are megalodon shark vertebrae --- the "white" vertebra in the lower right corner is from a 12 foot modern white shark. Imagine how large the megalodon sharks were --- absolutely gigantic! They ate whales.



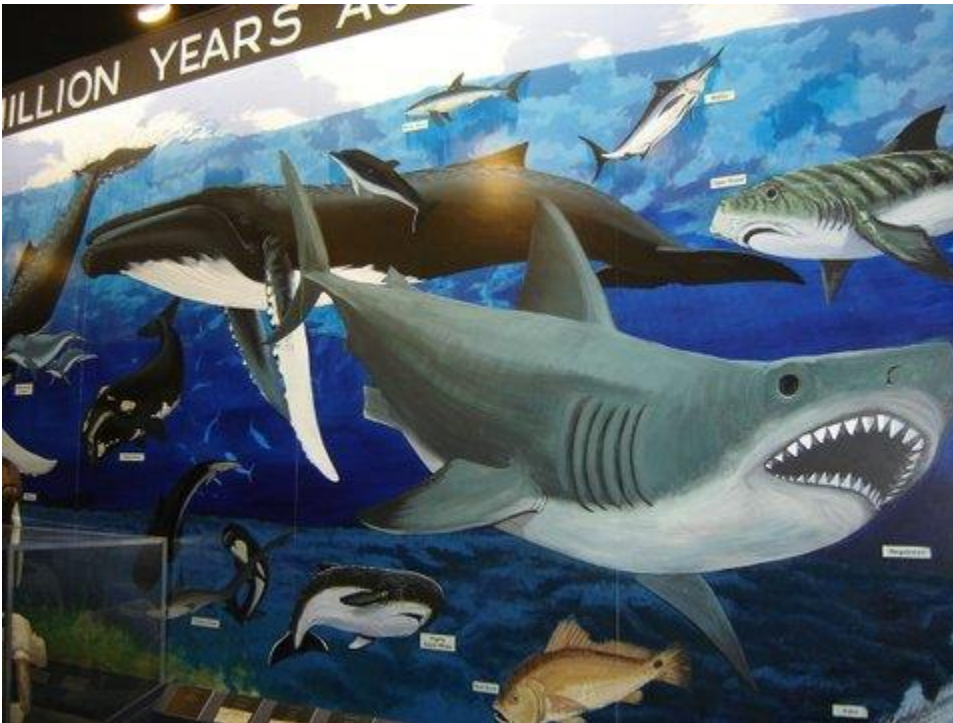
These megs are the real deal --- perfect and 6 inches long.

EXTINCT GIANT WHITE SHARK
Carcharocles(Carcharodon) megalodon
This giant shark existed along the world's coastlines feeding primarily on whales and other sea mammals from about 25 million years ago until its extinction about 2 or 3 million years ago. Based on its huge teeth, scientists estimate its maximum length at 70'. If correct it would be the largest marine predator that ever lived. The PCS Aurora Mine is known as a world-class site for finding beautifully preserved teeth from this creature, examples of which are displayed here. The "blond" teeth are primarily, possibly exclusively, found in Pliocene Basal Yorktown sediments at Aurora. Oxidized black teeth are found associated with an unconformity at the base of the Yorktown and probably represent reworked teeth from eroded older sediments no longer present in this area. The relationship between "megalodon" and the modern Great White is a subject of much scientific debate. Some believe it is ancestral to the modern Great White and others believe it is an evolutionary dead end. This debate is unlikely to be conclusively resolved anytime soon.

A very interesting sign in the museum.



This is a portion of a megalodon's set of teeth. A "set" is extremely rare.



2 walls in the 4 room museum were covered with a mural.



This shows one of the museum rooms. The skeleton in the center is a 15 foot long "toothed whale".



One room had Native American artifacts --- these two "scrapers" were manufactured from meg teeth.



One of the large displays of Native American artifacts.



Check out the 10 inch long spear blade at top.

DATES	STAGE	SUB-STAGE	NORTH COASTAL REGIONAL PHASES	PHASE CHARACTERISTICS
1650	HISTORIC		CAROLINA ALGONKIAN	
800	WOODLAND	LATE	COLINGTON	MORE PRODUCTIVE HYBRIDS (CORN)
		MIDDLE	MOUNT PLEASANT	ORGANIZATION OF CHIEFDOMS AND STATE RELIGION
		EARLY	DEEP CREEK	AGRICULTURE CORN, SQUASH, MELONS ETC. INTRODUCTION OF BOW AND ARROW CERAMICS
1,000	ARCHAIC	LATE	SAVANNAH RIVER	IDEA OF DOMESTIC PLANTS-SUNFLOWER
3,000		MIDDLE	GUILFORD MORROW MOUNTAIN HALIFAX STANLY	MODERN CLIMATE PERIOD BEGINS
4,000		EARLY	KIRK	INTRODUCTION OF POLISHED STONE TOOLS
6,000	PALLO-INDIAN	LATE	PALMER	END OF PLEISTOCENE
8,000		EARLY	HARDAWAY CLOVIS	
14,000				

TRIBAL ORGANIZATION

BAND ORGANIZATION SEASONAL CAMPSITES

A very useful sign showing the eras of Native American culture and the type of artifacts typical during those eras.



This is a close-up of that toothed whale.



This is picture of a picture showing "George Powell, Jr." (3rd from left) and the incredible set of meg teeth he found at the PCS Mine. He donated it to the Smithsonian Museum and they gave him 2(?) sets of casts. When he lived in the DC area he once gave a presentation to our club with one of the sets of casts. The last I heard was that George now lives in Greenville, NC. I think he still allows people to contact him and come see his collection.



A new rule saying that sifting screens should be no larger than 12" x 12" with 1/4" mesh. I did not use a screen --- I simply used a 3 prong scratcher to slowly scrape away the material in the piles to expose the teeth -- the big one were easier to spot, but it was also possible to

find very little ones also. Again, the best time to search the piles is immediately after a rain because the teeth are easily seen right on top --- but be advised --- the locals know this and are there at sunrise for the easy finds. I also used a long handled shovel to dig down into the pile for the freshest material. However you choose to do it, you definitely will find fossils there.