

FOSSIL EDUCATIONAL DIG KITS

PCS Lee Creek Phosphate Mine, Aurora, North Carolina Miocene-Pliocene Time Period (15-4.5 Million Years Ago)

Have you ever wanted to search for your own fossils? These grab bags are a fun way to start! Each kit contains numerous fossils. Most of the fossils you'll find are invertebrate shells, coral, bone fragments, fish and shark tooth fossils. When you first look at the material in the kit, you may not see much. But many of the fossils in the kit are very tiny, so you'll need to look at each piece in the kit individually in order to find them. Then you may want to go through it again to see if there are any fossils you missed. It is fun to examine the fossils with a magnifying glass or microscopes after you find them. This kit will provide lots of fun searching, learning, and observing!

Lee Creek Info

On the south shore of the Pamlico river in North Carolina near the Outer Banks lays an open pit phosphate mine still in operation. The Potash Corporation of Saskatchewan (PCS) is currently operating a large phosphate mine in Aurora. This mine produces some of the finest fossil shark teeth in the world and the region is known as "Lee Creek" by most. In the process of prospecting for phosphate, the mine digs through several fertile fossil-bearing formations. This gives paleontologists and fossil enthusiasts a unique opportunity to collect and study this rich fossil bearing material. The shark teeth from Lee Creek are highly prized by collectors due to their exceptional preservation and excellent coloration.

There are four recognized formations each with its respective representation of an epoch in time. They are in order of oldest first, PUNGO RIVER (Lower Miocene), YORKTOWN (Early Pliocene), CHOWAN RIVER (Late Pliocene), and JAMES CITY (Pleistocene). It is currently believed that the Pungo River layer once existed as a sub-tropical marine environment.

Approximately 50 species of sharks alone are found in the Lee Creek mine. Other fossils exist and represent skates, rays, bony fishes, mammals (mainly marine), reptiles (turtles) and a host of marine invertebrates. Lee Creek is a world-class site for some of the finest shark fossils. Being a land site, the detail and preservation exhibited by these shark teeth are nothing less than outstanding - some of the finest marine fossils known. The PCS mine also dumps piles of fossil bearing sediments at the town's museum for visitors to search through.

Your General Guide to Lee Creek Fossils in the kits



Barnacles

Blanus sp. are small volcano looking objects. They are often found attached to other things like coral or clams.



Sea Urchin spines

Echinoids had spines for protection. These are remnants of them. Sea urchins ate clams and other shelled animals.



Coral

Solenastrea sp. are abundant and easy to identify with star shaped markings along the body. Each hole had a living organism.



Various Shark Teeth

Numerous small shark teeth can be found in every bag of matrix. Sharks shed teeth throughout their entire life which is why so many are found here.



Ray Teeth

Rays are closely related to sharks but their teeth are quite different. They are elongated bar shaped teeth. Teeth were mostly for crushing food.



Various Shark & Ray Teeth

Here are more shark and ray teeth. Lower left is a nice *Hemipristis* tooth. You will find lots of good small teeth in this matrix if you look close.



Crab Claws

Crab claw pieces, like these, are relatively abundant in this site.



Crab Claw Close-up

A close up shows some better detail that will help you.



Another Crab Claw

Notice the curve and the ridges. They are good indicators for what you have.



Various Bones

Bones are from fish and perhaps some mammals. Most are smooth from water action.



Coiled Shells

Conus adversarius shells are curled like these. Related to snails, these were marine.



Various Shells

Clams, scallops (pectin), other gastropods and other shelled creatures are abundant and hard to identify.