

# FAQs about Sharks' Teeth in Sarasota

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**Q:** Why are there so many fossilized sharks' teeth at Venice and Casperson Beaches in Sarasota County?

**A:** The short answer on why there are so many shark teeth at Venice Beach is that the Miocene-aged (16 – 23 million years old) Peace River Formation is exposed just offshore of Venice where it outcrops beneath the surface of the Gulf of Mexico. Erosion of the beach shoreline exposes these and other fossils, which accumulate along the beaches.

**Q:** Where can you find them? Venice and Casperson Beaches in Venice are famous for them, but can you find them at other Sarasota County beaches, too?

**A:** Shark teeth can be found on beaches up and down the west coast of Florida (and on the east coast as well); They have been found as far south as Bonita Beach but they are fairly rare south of Boca Grande. The best beaches for finding them are the beaches with a significant amount of "black sand" or "dark sand" mixed in with our regular white quartz sand. When you find a beach that is dark enough that the sand is too hot to walk on barefoot in the summer, you are likely on a good beach. All those small black grains are actually phosphate and small particles of fossilized bone and teeth. Venice is a good spot because the host formation (Peace River Formation) is fairly near the surface at that location and so the currents erode away the deposits and the teeth get washed up on the beach (as well as significant deposits offshore that attract divers and snorkelers).

**A:** How do you find them? What equipment, if any, do you need? Is there a best time of day to look for them? Any other tips/techniques?

**Q:** The best time of day is in the morning, before the other beachgoers pick over the good stuff. Also, after a storm is usually a good time for teeth and shelling. You can just use your eyes to spot them and your hands to pick them up, or you can get a sifter of some sort to wash away the sand from the gravel and shell so you can spot the teeth. Many people use a metal sifter with ¼-inch holes in it on the end of a handle that they sell in the beach stores and bait shops in the area.

## ***More information:***

Throughout the end of the Oligocene and into the Miocene, sea-levels fluctuated and clays and sands became common deposits. The Miocene Epoch (23 – 5.3 mya) was a time of unique conditions across Florida. In the Early Miocene, the Appalachians were uplifted, erosional rates increased, and continental siliciclastic sediments filled the Gulf Trough. Siliciclastic sediments began encroaching southward upon the carbonate depositing environments. Large deposits of phosphorite accumulated as cool, nutrient-

laden ocean water bathed Florida. These deposits are mined today and account for a significant portion of the phosphate produced in the United States. Unique creatures also existed in Florida at this time. Large sharks patrolled the near-shore marine environments preying on whales. Horses, saber-toothed cats and elephants roamed the land. Many of these creatures left behind their bones in Miocene deposits. A prized fossil from this time period is the tooth from the giant extinct Caracharodon megalodon shark. These teeth can exceed six inches in length and belonged to an animal that may have been fifty feet long!

The following links are an assortment of technical and not-so-technical resources that have general information about fossils in Florida, including sharks' teeth:

<http://www.dep.state.fl.us/geology/geologictopics/geohist-2.htm>

<http://www.dep.state.fl.us/geology/geologictopics/fossils/fossil-collecting.htm>

<http://www.fossilguy.com/sites/venice/>

[http://www.venicetravelplanner.com/sharks\\_teeth/index.html](http://www.venicetravelplanner.com/sharks_teeth/index.html)