



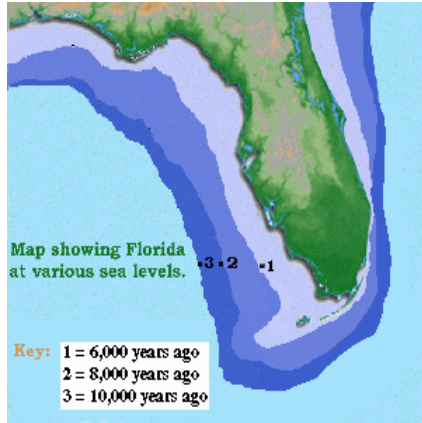
# The Tortoise's Burrow At Hugh Taylor Birch State Park

Hugh Taylor Birch  
State Park

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## Florida in a Conch-shell ~ an ancient legacy

Different studies of science, such as paleontology and geology have uncovered a dynamic story on the evolution of Florida. Here we will attempt a page-eye view into that superbly complex story that might open your curiosity to more research! We can begin this very brief story at 280 million years ago when it is strongly theorized that there was one giant supercontinent called Pangea. At this time the place where Florida would eventually form was lodged in a central, desert region of this mega-



continent. This place lay in proximity to the future North America, Africa and South America, and geological data shows some ancient soil connections of Florida with parts of Africa. It is known that over time, the continental plates drift over the planet. And so goes the story that the giant landmass split, creating the Atlantic Seaway. This Seaway, of course, would eventually become the Atlantic Ocean. The newly split continents drifted slowly and even crashed into each other along their way to the configuration that we know today. In fact, when Laurasia crashed into Gondwana, some millions of years later, the Appalachian mountains were formed. This new mountain range was as high as the Himalayas. Over the eons, the Appalachians, like all mountains, wore down. But where did all of this sediment go?

Meanwhile, in the new, warm central area of the Atlantic seaway, coral reefs and other shelled creatures flourished. Once again, for eons, generations lived and died, replaced by subsequent generations. The result of their hard-bodied sediments was a hugely complex structure that hinged off of the newly forming North American continent. This structure is called the Florida Plateau (and its sister, the Bahamian Plateau) and is why we have so much coral, coquina, limestone and other type of fossil rocks—as well as a complex system of springs in the state.

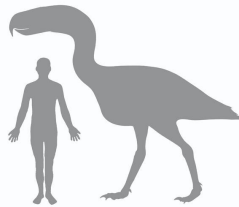
The Earth also oscillates

through broader seasons of extreme temperature called Ice Ages and Interglacial Ages. Currently we are within an Interglacial Age. During periods of Ice Ages the world's waters are stored up in the poles and extend into huge glacial sheets. During Interglacial Ages the waters melt, the glaciers disappear and sea levels rise by hundreds of feet (Note: Human influence on this Interglacial Age is a very new factor that cannot be underestimated with likely, catastrophic results). Consequentially, the Florida Plateau has been exposed much more during Ice Ages even tripling in size. It has also been nearly submerged, reduced to a

sequence of islands like the Bahamas. During the times of high sea levels, sands were brought up and spread all over the Florida Plateau. During these same times the Appalachians were slowly wearing away, eroding into the lands that would someday become defined as Georgia, South Carolina and Florida. This is why Florida has such sandy soils, while also containing rich, mineral sediments such as quartz or iron. During the times of the Florida Plateau formation, rising

and lowering sea levels and eroding mountains, life on the rising peninsula was hardly static. Marine life took stunning shifts from the extinction of giant crustaceans like Sea Scorpions or the globally dominating Trilobites. Ocean dinosaurs eventually ruled the waters, such as Ichthyosaurus. At the same time, sharks arose and eventually brought Megalodon off our shores, which was the shark of nightmares, reaching the size of the largest whales today.

During recent interglacial periods, when the size of Florida spread out into extensive savannas, the peninsula was host to a myriad of phenomenal creatures such as Giant Armadillos, Giant Ground Sloths, ancient, primitive Horses (the size of dogs), Giant Tortoises, Giant Snakes and Alligators. Certain Mammoth and Mastodons thrived on the ancient



Florida savannas. With all of this so-called Megga-Fauna comes Megga-Predators. Smilodon, or the Sabre-toothed Lion was a common top predator in all of North America, including ancient Florida. He was rivaled only by the Severe Wolf, whose back stood nearly as tall as a grown man. A surprising top predator was a giant terror bird known as the Titanus, which stood up to twelve feet tall and was a fierce hunter. All of this information is a mere drop in the bucket to what

is out there, and even to which fossils might be found in our rivers and lower areas. Want to learn more? Check out Dr. Robin C. Brown's excellent book, Florida's Fossils. There are also excellent resources on Florida Geology that will begin your exploration of this unique land!

### FTL—Sea Turtle Tips!

#### Sea Turtle Season



will continue

through October of this year. To help successfully assist our endangered sea turtles please remember to NOT approach a mother sea turtle if she is on shore to nest. Mother sea turtles are very shy and can lose their eggs if they are frightened. Do NOT use white lights on the beach at night. Use RED L.E.D. flashlights to minimize confusion to both adult and baby sea turtles and please convey this to others. If you see baby turtles walking toward the road or appearing to be confused, contact the Sea Turtle Emergency Response Call at 954.328.0580 or the FWC at 888.404.3922.

#### Monthly Eco-Tip!



Fishing is a great family activity that dates back to the beginning of our history. With increasing human demand and the current strain on oceans and fresh water bodies, regulations are put into place to protect aquatic life populations. It is an ethical practice to teach the young the value of all beings, including fish, to minimize damage caused by "catch and release" practices and to minimize the injury of unwanted fish. As of August 1, 2009 the Department of Environmental Protection and Florida State Parks will require Fishing Licenses for all guests, with the exception of seniors, children and special situations. For more information please see MyFWC.com or to purchase an annual license please call 1.888.347.4356