

## Geology and Geography

Pinckney Island is found in South Carolina's Coastal Plain which makes up two thirds of the State's land mass. Here Mesozoic and Cenozoic sediments and sedimentary rock overlay the crystalline rocks of the Piedmont. Running along South Carolina's coast from Horry County southward are the barrier islands and the more interior islands, known as sea islands. These sea islands are older than the ocean facing barrier islands and islands such as Pinckney were formed during the Pleistocene Epoch, which ended about 10,000 ybp. The Pleistocene Epoch was a time of sea level rise and fall.

Quoting from a UGA publication

"These islands were shaped before the last great continental ice sheet formed. At that time when sea level was about 6 feet above the present sea level, the beaches of the older islands formed. During the last freeze of the Pleistocene Epoch so much seawater was frozen that the sea level was lowered by 300 to 500 feet. At this time shoreline was nearly 80 miles offshore from the shoreline we have today." This publication gives the age of sea islands at about 35,000 years.

From Carolina Rocks, by Carolyn Hanna Murphy we learn

- Sea Islands are formed out of mainland sediments that were surrounded by water as sea levels rose.
- Some barrier islands attached to these isolated pieces of mainland
- Soils are rich enough to support forest of hardwood and pine as well as supporting farming. On these islands with a long growing season the famed long island cotton was grown.

Located at 32.2 N and 80.76W, between Hilton Head Island and the mainland, Pinckney NWR is bounded on the east by Skull Creek and on the west by Mackay Creek. Both of these bodies of water are saline. The climate of Pinckney Island is humid subtropical; average rainfall amounts are 50 inches per year with the summer months being the wettest.