

## **SEA LEVEL CHANGE INDICATORS IN A MANGROVE OF SEPETIBA BAY - RJ (BRASIL)**

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The studied area, the Guaratiba mangrove, is an integrant part of the Guaratiba/Sepetiba Coastal Complex, situated in the southwestern area of Rio de Janeiro State. Sea level changes promote a migration of the mangroves zones and a sucession of another vegetation species due to the variations: in the pattern and quantity of the fresh water influx; in the tax of sedimentation; and in the water salinity. In order to identify and, when possible, to date that migration, seven cores where collected, in a profile (SW-NE) almost perpendicular to the shoreline, in the mangrove. Sub-samples were taken for the following analyses: grain size; palinology; radiocarbon dating; malacology; and carbon stable isotopes in organic matter. The results showed initially the development of a deep bay sedimentation (basal bed) corresponding to a transgressive event. In bibliographic references, this event rise its maximum at 5100 years BP, with the sea level arriving to 4,8 meters above the actual. The zone corresponding to the regressive event is composed, mainly, by fine sand and medium to fine silt sediment, with the percent of sand growing up until the formation of a sandy bed. Bibliographic references indicate that gradual lowering of sea level beginning at 4900 years BP. With the beginning of a new transgression, we have a clay sediment deposition. Finally, with the beginning of a regressive event, occurs a sedimentation characteristic of a lagunar and mangrove area (fine to very fine silt). Bibliographic references indicate that this last event should be occured at 2400 years BP.