Abstract

The sediment of a core collected about 2 km north of Paquetá Island, Guanabara Bay, was submitted to pollen analysis, in order to recognize the dynamics of the regional vegetation, and the anthropic influence. Radiocarbon dating of a sample next to the bottom of the core indicates an age of 4.210 ± 40 14C yrs B.P (calibrated age). It was possible to establish four palynological zones. Starting at the bottom of the core, a decrease in palynomorph concentration, the presence of degraded pollen grains and spores, and the predominance of ombrophilous forest pollen grains were observed in the basal portion of Zone I. These data may indicate the presence of an exuberant Atlantic Forest, dominated by a marine regressive event. The concentration of well-preserved palynomorphs increased in Zone II, with the predominance of the ombrophilous forest vegetation also, and an expressive increase of hygrophytes, indicating more humid environmental conditions. Palynomorph concentration decreased again toward the top of Zone III, and the field vegetation was predominant. In the upper Zone IV occurred a strong decrease in pollen and spore concentration, with predominance of field vegetation also, and the appearance of exotic pollen grains, showing the anthropic influence at this time.

Keywords

pollen, Quaternary Palynology, Guanabara Bay, paleoenvironment