

## Dating of Shells from Pântano da Malhada, Rio de Janeiro

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The chronology of the formations of coastal planes in Brazil has been investigated by large number of geologists. Among few possible mechanisms one that drew larger attention is the relative marine sea level fluctuation in the past. Before 1974 geomorphological, biological and sometime pre-historical arguments have been used. After 1974 an extensive radiocarbon dating was carried out by several authors allowed to obtain sea level variations, especially in Holocene period for southeastern and southern coast [1]. For the northeastern coast of the state of Rio de Janeiro Castro et. al. (2014) have obtained sea level fluctuation curve between 8000 years ago and present, the maximum sea level occurred between 3.000 and 6.000 years ago. This study involved the so called low land in the county of Armação dos Búzios. During that period this region was under the sea. There has then a proliferation of molluscs and oysters [2]. The death of such molluscs produced a layer of shells in the soil before and after the sea level receded to the present one. In this paper the EPR dating of shells in different conditions to show that the result agrees with Castro et. al. (2014) result.

*Keywords:* Dating, Shell, Resonance Paramagnetic Electronic

We are thankful to FAPESP (Process number 2014/03085-0) for partial financial support and to FAPESP (Process number 2017/17116-2) for fellowship to M. B. Gomes.

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