

## **DISTRIBUTION OF PALEO COASTAL SEDIMENTS FROM AKURALA TO INDURUWA, WESTERN COAST OF SRI LANKA**

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Inland paleo coastal deposits up to Akurala were recorded indicating high sea levels in 6000 BP in Sri Lanka. The study is to find out the distribution of the paleo coastal deposits further North from Akurala along the western coast of the country. Hence the examined study area was a 25 km stretch from Akurala and Induruwa. The research was mainly based on the field observations to identify the distribution of paleo coastal deposits, their field characteristics and the characteristics of deposits. Found fossil shells were also identified to genus level. Based on the field observations geographical distribution was mapped using ArcMap 10.8. The texture of the sediments found were physically analyzed by sieving. The results reveal that the paleo coastal deposits are well deposited 2km inland from the present coast. The deposits are characterized with paleo beach rocks, precipitated paleo calcretes, paleo coastal sands, fossil shells and corals. The spatial distribution of the deposits show that those were located at an elevation of less than 20 m and dominantly spread in low elevated paddy fields and marshy areas which should be paleo lagoons. The paleo beach rocks and calcretes are located at a depth of 0.5 m while extending further down to depth of 1.5 m mixing with coastal sands and fossil shells. The marine and coastal shell species found in the study were *Meretrix* sp., *Gafrarium tumidum*, *Donax deltoides*, *Donax faba*, *Bullia vittata*, *Cerithidea* sp., *Morula* sp., *Pythia plicata*, *Terebralia palustris*, *Purpura persica*, *Cypraea moneta*, *Littoraria undulata* and *Trochus radiates*. As per the radiocarbon dates by Katupotha (1995) the deposits found at Akurala area are old as  $6170 \pm 7020$  BP and  $5350 \pm 80$  BP, hence those deposits found in the study area should also be formed during the same period.

**Keywords:** Inland paleo coastal deposits, High sea level, Beach rocks, Fossil shells, Coastal Sand

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