TEXTURE OF SURFACE SEDIMENTS ON THE CONTINENTAL SHELF OFF KALPITIYA - NEGOMBO

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The surface sediments are distributed as patches and this is related to topographic features on the shelf. In general, a smooth gradation exists from coarse-grained sediments nearshore to fine grained sediments offshore on the continental shelf from Kalpitiya to Negombo, just as the topography shows a smooth gradually deepening continental margin. Broad features like the continental sheif from Negombo to Talavila is covered by a mixture of very coarse (2 mm - 1mm), coarse (1 mm - 0.5 mm) and medium sand (0.5 - 0-25m) and lesser amounts of fine (0.25 - 0.063 mm) sand. A linear band of very coarse sand to gravel (principally coral fragments) occur on the outer shelf off Negombo where sandstone reefs predominate. Off the Deduru and Maha Oya rivers the shelf sediments gradually change from very coarse grained near shore to fine grained on the mid shelf. Using Shepards (1954) classification, most sediments over the continental shelf off Kalpitiya - Negombo are sands and few samples are generally silty sands.

Sorting of sediments can be helpful in pointing out the agents of deposition. Moderately to good sorting characterizes the shelf sediments in the whole area. Bottom currents have winnowed and sorted much of the shelf sands. Areas adjacent to the Deduru Oya and Maha Oya have well sorted sediments, as a result of the action of strong currents that move along channels across the shelf during flood tide. Skweness values in the sediments of few areas show a systematic relation to other textural properties of the sediment. The fine grained patches of sediments south of Chilaw are positively skewed (a tail of fines) as those from the shelf off Deduru Oya. Negatively skewed sediments occur especially in the nearshore areas off Negombo and Marawila.

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