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Micro-Environmental Change in the Coastal Area of Bangladesh : A Case Study in the Southern Coast at Shitakunda, Chittagong, Bangladesh

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Abstracts - Although Foraminiferid are very small members of marine and brackish water fauna they are often present in large numbers and constitute and important element of the meiofauna*. They possess hard parts in the form of tests (or Shells) which on death are preserved in the sediment and are therefore interest to geologists or researchers (Murray,J,W.1979). So, They could be remaining in the sedimentary layer as a proxy data. As because Present is the key to the Past. This research is an attempt to find out the Micro-environmental Change in the coastal Area of Bangladesh accompanying with a new technique, that is population analyze the marine micro faunas (Foraminiferid) in the bottom sediments. Laboratory analysis in the Geography and Environmental Studies, reveal that in the local Foraminiferid assemble zone of Chittagong coast (Shitakunda), they have been nonappearance. This is clear indications that present environmental condition for the sustainable micro fauna sp is not suitable. On the other hand It is indicating the hazardous coastal pollution which influences the sustainability of faunas themendously in this region.

Keywords : *Meiofauna, Foraminiferid.*

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The Foraminiferid are classified as protozoa's because they consist of a single cell which is made up of cytoplasm with one or more nuclei. Foraminiferid are aquatic, mainly marine group of Foraminiferid are also classed as Protozoa. The classification is as follows: Phylum PROTOZOA, Subphylum SARCODINA, Class RHIZOPODEA, Order FORAMINIFERIDA, Suborder TEXTULARIINA, MILIOLINA & ROTALINA (Loeblich and Tappan, 1964). With respect to the marine habitats that Foraminiferid occupy, they can be divided into following species:

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Table 1: Marine habitats of Foraminiferid.

Criteria of Marine environment	Salinity and Environment
Hyoisaline	Salinity < 32 0/00 (Brackish water)
Marginal Marine	Salinity ranges between brackish and marine and include marsh, lagoon and estuarine environments
Normal Marine	Salinity 32-37 0/00 (Open marine)
Hypersaline	Salinity >37 0/00 (Restricted salt water environment).

On the other hand Foraminifera Sp used to identify the water Salinity and Environmental as an Assessment tools. In my study in the local Foraminiferid assemble zone of Chittagong coast (near Sitakunda Kumira), Foraminiferid have not been appearance when bottom sediment analysis in the Laboratory [Environment Lab of Geography and Environmental Studies, University of Chittagong, Bangladesh, It also noticeable that only 30 g. marine sediments sample are analyzing through a microscope at 20 X magnification.]. They might be eliminated or present environmental condition. It may indicate that the water is not suitable for their existence. Or it might be indicating the hazardous coastal pollution that influences the micro-fauna tremendously. It very alarming side that if the meiofunas eliminate from the coastal environment it will be great negative impact on coastal ecological system. As a result we will gradually lose the fish communities as well as biodiversity at the climax.

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