

Microalgal morphotypes from the lower gangetic plain biotopes of West Bengal, India

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Abstract: *Microalgae are represent a group of photosynthetic prokaryotes as cyanobacteria and eukaryotes as other group of algae, which can colonize various habitats including terrestrial environment. Macroscopic biofilms were collected from alluvial plain soils and mangrove soils representing the Lower Gangetic Plains of West Bengal, India. The composition of the biofilms was investigated using light microscopy and field emission scanning electron microscopy of collected samples. In this study four simple trichal non-heterocytous morphotypes were found to be unique along with unicellular one. Three cyanobacterial and one green alga morphotypes clearly showed differences with respect to described taxa as based on most recent taxonomic classification and possibly represent new report from the Indian subcontinent. This study provides vital information on morphotypic diversity of microalgae from specific biotopes which can contribute key information on their biogeography and potential application for environmental management and remediation.*

Keywords: Biofilm, Morphotype, Biotope, Cyanobacteria, Green algae