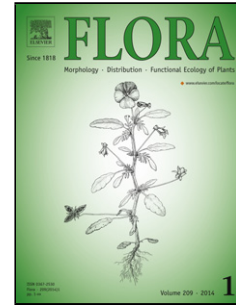


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Phytoplankton community structure of the Gangetic (Hooghly-Matla) estuary: status and ecological implications in relation to eco-climatic variability

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Highlights

- Open estuarine waters represented a diatom dominated phytoplankton assemblage, whereas the estuarine wetlands were inhabited by blue-green algae.
- Deprivation of any perennial freshwater discharge has enabled many stenohaline marine phytoplanktons to invade the estuarine system.
- About 97% of these phytoplankton taxa (365 species) are distributed in four major groups.
- The diatoms constitute 51.6 % of the phytoplankton diversity with 195 species, followed by the green algae (82 species), blue-green algae (59 species) and dinoflagellates (29 species).

Abstract

This study consolidated our understanding on community structure of phytoplankton of the Gangetic estuary (Hooghly-Matla) based on both bibliographic sources and field studies. A total of 378 species of phytoplankton taxa belonging to 196 genera and 109 families were reported from the Hooghly-Matla estuarine system which is among the major biodiversity hotspots of the world and plays a pivotal role as nursery ground for fish and shell species. Being an estuarine system its working as a sink for abatement of the pollutants and plays an important role in mitigating flood and other catastrophic changes mediated due to climatic

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