

Assessment of Water Quality in MithiRiver: Based on Fungi and Phytoplankton Population

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Abstract: *The present investigation of Mithi river, Mumbai was performed by analyzing various physicochemical parameters and water quality index and fungal and phytoplankton diversity for the evaluation of the deterioration level. The study was carried out for one month period during January 2024. Samples were collected every Sunday from six stations viz. Near ViharLake, Aarey colony Goregaon, Marol Andheri, vakola Santacruz, BKC and Mahim creek. The results obtained from different parameters studied were Temperature (33°C-24°C), pH (9.7-6.1), EC (974-26µs/cm), TDS (91-435 ppm), Salinity (0-20.5) and DO (0-1.7). Certain species of fungi were also isolated from Mithi river from which majorly there is indication of presence of Aspergillus and Rhizopus. SWI shows the adverse effect of pollution on Mithi river. WQI of Mithi River of station 1 and 2 showed good quality of water but as the river flows through densely populated city of Mumbai the water quality of Mithi river shows deterioration.*

Abbreviations: pH- Potential of Hydrogen, DO- Dissolved Oxygen, BOD- Biochemical Oxygen Demand, EC-Electrical Conductivity, TDS-Total Dissolved Solids, SWI- Shannon Wiener Diversity Index, WQI- Water Quality Index.

Keywords: Mithi river, Water sample, Physico-chemical parameters, Fungi, Phytoplankton, Pollution