

**SEASONAL VARIATION IN ALGAL DIVERSITY IN  
THE GORAI CREEK OF MUMBAI COASTLINE, MAHARASHTRA**

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**Abstract:** A research work carried out during June 2017 to May 2018 on the diversity of algae and their seasonal variations in the Gorai Creek of Mumbai coast, is reported here. Air and surface water temperatures varied from 27 to 34°C and 26 to 33°C respectively. The salinity values in ‰ varied between 5 and 35 with pH between 7.9 and 9.1. The dissolved oxygen content measured ranged 3.08 to 6.14 mg/l. The quantities of organic nutrients in µM viz., nitrate, nitrite, phosphate, silicate and ammonia were noted as 0.3-11.7; 0.03-1.9; 0.04-3.97; 20.01-199.74 and 0.001-0.8 respectively. In this study, presently 5 species of macro-algae were identified- Gracilaria, Ulva, Sragassum, Enteromorpha and Chaetomorpha. 82 species of micro algae were recorded from the families- Bacillariophyceae (55), Dinophyceae (15), Cyanophyceae (8) and Chlorophyceae (4). The maximum density of algae during stable hydrological conditions was during summer as well as pre monsoon seasons due to direct correlation to salinity. Comparatively less density of algae was found during the winter as well as monsoon seasons also with significant lower salinity during monsoon. The occurrence and density is hence directly dependent on seasonal patterns and species-specific environmental factors in estuarine areas.

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