

# The Study of Phytoplankton and Zooplankton in Freshwater Tulsi Lake, Mandangad, Ratnagiri, Maharashtra, India

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**Abstract:** Aquatic microorganism mainly phytoplankton play an important role in the aquatic ecosystem. They serve as a food and shelter of other aquatic organism especially zooplankton. Phytoplankton acts as a biological indicator of water pollution. Tulsi Lake located at latitude 17.9686°N and longitude 73.2202°E. The Plankton sample were collected in once from all three sites of Tulsi Lake in monthly interval from January 2021 to December, 2021. The plankton sample were collected in sterile plastic bottles with the help of plankton net of mesh size 25 and diameter of pore 60µ. Phytoplankton material was preserved in 4% formalin solution at the site of collection. In the present research investigation, water body show variety of algal genera. Algal genera belong to groups Chlorophyta, Bascilariophyta and Myxophyta. Out of 19 Genera of Phytoplanktons 8 belongs to Chlorophyta, 5 belong to Bascilariophyta and 5 belong to Myxophyta. Algal study very essential for assessment of the good or bad condition of the fresh water lake/pond ecosystem. In all three sites of the lake, the results found to be average and more or less similar. So, it indicated that the lake not shown much eutrophic due to less presents of Pollutants and this is supported with the results of physicochemical parameters the lake water.

**Keywords:** Tulsi Lake, Phytoplanktons, Zooplanktons, etc.

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