



Observations and Studies on floral diversity in Lake Mendki, Tahsil  
Bramhapuri of District Chandrapur, Maharashtra state (India)

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Abstract: Floral diversity is an important criterion for determining the suitability of water for irrigation and drinking purpose. Lake Mendki has greatest importance for humankind. Plankton is the most sensitive floating community which is being the first target of water pollution. The diversity of phytoplankton and macrophytes in lake Mendki have been observed and studied throughout the study period (2014-15). On the basis of lake water floral diversity in general, lake Mendki is found to be mesoeutrophic. In the present observation and studies, total 58 species of phytoplankton were recorded during the study period. Also floating (*Azolla* sp., *Lemna* sp.), submerged (*Hydrilla* sp., *Ceratophyllum* sp.) and emergent (*Typha* sp.), vegetation were observed, in addition to algae (*Spirogyra* sp., *Chara* sp., and infrequent *Hydrodictyon* sp., etc.). Therefore, lake Mendki has rich number of species and biodiversity of aquatic flora.

Keywords: lake Mendki, phytoplankton and macrophytes diversity, mesoeutrophic.

Introduction: Plankton is the most sensitive floating community which is being the first target of water pollution, thus any undesirable change in aquatic ecosystem affects diversity as well as biomass of this community. The food chain in Lake Ecosystem is very simple comprising phytoplankton and aquatic vegetation as primary producers, zooplankton as primary consumers, small fishes as secondary consumers and large fishes as tertiary consumers. Some notable studies on phytoplankton diversity have been made by Ariyadej et al., 2004; Ravishankar et al., 2009; Shankar and Mrutunjaya, 2012; Ramesha and Sophiya., 2013; and Komala et al, 2013). The lentic ecosystems have long attracted attention of ecologists, both for their importance as a source of drinking water and the development of fisheries. To employ scientific method for aquaculture, understanding of environmental conditions prevailing in the water body is essential. Therefore, the present investigation has been attempted to study on diversity of phytoplankton and macrophytes in lake during the study period.

Biodiversity contribute both directly and indirectly to human such as food for good health, security, social relationship, life and freedom for choice etc. According to Harrison et al;

