

# Impact of seasonal fluctuation on phytoplankton diversity in fresh water lake of Arekurahatti in Naval Gund of Dharwad

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**SUMMARY :** Physico-chemical analysis is considered to be the main feature to assess the quality of water for its best utilization for drinking and irrigation. There is a need to understand the interaction between climatic and biological processes in the water. In the present investigation, the monthly variation in different physico-chemical characteristics like pH, temperature, electric conductivity, alkalinity etc. were analyzed from May 2012 to April 2013, to know the water quality and impact of seasonal fluctuation on phytoplanktons in Arekurahatti lake of Naval Gund Taluk. The surface water samples from fixed spots were collected and analyzed at an interval of one month for a period of 12 months. The results revealed that the variations in pH, temperature and other physico-chemical parameters played an important role in the phytoplankton distribution in different seasons. Therefore, it can be concluded that Arekurahatti lake water can be used only for domestic purposes and not for consumption. It was also found that there was rich diversity of phytoplanktons especially Cyanophyceae and Bacillariophyceae members.

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