



Temporal Variation of Phytoplankton in Idukki Reservoir, Kerala

Simimole Sebastian and Joice V. Thomas^{1*}

Department of Zoology, Alphonsa College, Pala, Kottayam-686 574, India

¹*NETFISH - MPEDA, Vallarpadam, Ernakulam-682 504, India*

**E-mail: joicevthomas@gmail.com*

Abstract: Phytoplankton diversity of Idukki reservoir during there seasons (pre-monsoon, monsoon and post-monsoon) was studied for a period of three years (2007-2010). Samples were collected from the surface area of reservoir on bimonthly basis from 16 stations. Five groups such as Cyanophyceae (Blue-green algae), Chlorophyceae (Green algae), Bacillariophyceae (Diatoms), Dinophyceae (Dinoflagellates) and Desmids represented the phytoplankton community in Idukki reservoir. A total of 37 species, belonging to 31 genera were found in the phytoplankton groups. Phytoplankton was more prevalent during the pre-monsoon season (747.3 l^{-1}) followed by post-monsoon season (662.56 l^{-1}) and monsoon season (217.51 l^{-1}), respectively. Significant variations in the total phytoplankton obtained in different seasons and stations studied. During pre-monsoon season, Chlorophyceae was found to be the dominant group (275.30 l^{-1}) which constituted 36.82% of the total phytoplankton. A total of 30 phytoplankton species were recorded in this season and the most dominant species was *Ankistrodesmus falcatus* (18.57%). During monsoon season, except Dinophyceae all other groups were present under 8 species. In post-monsoon season, all the 5 groups were recorded in the reservoir and Chlorophyceae, was found to be the dominant group (234.77 l^{-1}) accounted for about 35.43% of the total phytoplankton.

Key Words: Phytoplankton composition, Seasonal changes, Fresh water reservoir, Kerala
