

Study on Freshwater Algal Biodiversity in Peechi Dam of Thrissur District, Kerala, India

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ABSTRACT: Microalgae have a key role in maintaining life on Earth. They comprise both the base of the food chain and act as major oxygen producers. Microalgae are also beneficial to aquatic ecosystems and make an excellent indicator of water pollution. The present study is an attempt to explore and take taxonomic account of the algal diversity found at the Peechi Dam, which lies across Manali River, a tributary of the Karuvannur River, Thrissur District, Kerala, that lies at 76°22'E longitude and 10°31'N latitude. Karuvannur River is one of the major freshwater sources of the Thrissur district, which flows through the famous Kole lands of Thrissur. The study was carried out over a period of one year, from June 2017 to May 2018. During the period of study, 48 species of phytoplankton were identified which come under 31 genera belonging to ten taxonomic classes. Out of these 10 species each belong to *Chlorophyceae* and *Zygnematophyceae* followed by *Bacillariophyceae* (9 species), *Euglenophyceae* (8), *Cyanophyceae* (5), *Xanthophyceae* (2), *Trebouxiophyceae* (1), *Coscinodiscophyceae* (1), *Mediophyceae* (1) and *Dinophyceae* (1). Two of the species *Xanthidium octocorne* Ehr. ex Ralfs and *Tetraplektron torsum* (Turner) Dedusenko-Scegoleva are new to Kerala.

KEY WORDS: Peechi Dam, Karuvannur River, Manali River, *Chlorophyceae*, *Zygnematophyceae*

INTRODUCTION

Freshwater algae constitute a very diverse group of organisms. The variety and beauty of their forms when viewed through a microscope has delighted biologists for more than a hundred years (Bellinger, Sigeo, 2010). Algal taxonomy is a key discipline in phycology and is critical for algal genetics, physiology, ecology, applied phycology, and particularly bioassessment (Manoylov, 2014). The role of microbial diversity in ecosystem functioning is becoming increasingly recognized. Hence, for any scientific utilization of water resources, plankton research is of primary interest. Algae, mostly autotrophic organisms, receive most of their nutrition from dissolved chemicals in the water. Thus, many authors believe that they should be good indicators of the conditions prevailing in the aquatic

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