Notice for the PhD Viva Voce Examination

Mr Joel Jose (Reg. No. 1940097), PhD scholar at the School of Sciences, CHRIST (Deemed to be University), will defend his PhD thesis at the public viva-voce examination on Tuesday, 29 November 2022 at 10.30 am in the Syndicate Room, (Room No. 802), Ground Floor, Auditorium Block, CHRIST (Deemed to be University), Bengaluru - 560029.

Title of the Thesis	:	**Studies on the Fresh Water Algal Flora in Chimmony Wildlife Sanctuary**
Discipline	:	**Botany**
External Examiner (Outside Karnataka)	:	**Dr S R Senthil Kumar** Associate Professor and Head P G and Research Department of Botany St Joseph's College (Autonomous) Tiruchirappalli - 620002 Tamil Nadu
External Examiner (Within Karnataka)	:	**Dr Savitha M Murthy** Associate Professor Department of Botany Mount Carmel College No. 58, Palace Road, Vasanthnagar Bengaluru – 560052 Karnataka
Supervisor	:	**Dr Jobi Xavier** Associate Professor Department of Life Sciences School of Sciences CHRIST (Deemed to be University) Bengaluru -560029 Karnataka

The members of the Research Advisory Committee of the Scholar, the faculty members of the Department and the School, interested experts and research scholars of all the branches of research are cordially invited to attend this open viva.

Registrar

Place: Bengaluru
Date: 19 November 2022

ABSTRACT

Algae is a crucial organism in the environment. They help in maintaining the balance among different ecosystems. According to the geography and climatic conditions, Kerala has a suitable environment for algal growth. However, the algal biodiversity studies conducted in Kerala are significantly less. The wildlife sanctuary comprises a considerable scope for algal biodiversity. The Chimmony wildlife sanctuary is situated in Mukundapuram taluk of Thrissur district. It spreads over

85.067 km^2 with a water spread area of 10.1 km^2. Ten different sampling stations were selected across the wildlife sanctuary, and extensive field visits were conducted to identify and document thealgae with respect to three seasons (pre-monsoon, monsoon, and post-monsoon). The physicochemical parameters of water like dissolved oxygen, temperature, pH, alkalinity, total dissolved solids, light intensity, and rainfall amount were collected. In this present study, a total of 121 taxa belonging to 60 genera, 38 families, 24 orders, and 5 classes, namely Chlorophyceae, Bacillariophyceae, Euglenineae, Rhodophyceae, and Cyanophyceae, were identified from 10 different stations. The Bacillariophyceae and Chlorophyceae were the most dominant class in the study area. During the pre-monsoon season, the highest number of algal taxa were reported. The Chlorophyceae were dominant during the pre-monsooon season, while the Bacillariophyceae were dominant during the post-monsoon season. Cyanophyceae was dominant only during the monsoon season because of its sensitivity toward light. The ANOVA (Two-way) analysis showed no significant difference between stations, and there is a considerable difference between seasons for dissolved oxygen, alkalinity, temperature, and total dissolved solids. While pH, showed no significant difference between seasons and stations, light intensity showed a substantial difference between stations and seasons. The temperature and dissolved oxygen showed a negative correlation.The physicochemical parameters were changed according to the seasonal variation. Since algae actas a biological pollution indicator for all the water resources, studying algal flora according to the seasonal variation is crucial.

Keywords: Algal diversity, Seasonal variation, Chimmony Wildlife Sanctuary