

Freshwater Volvocales (Chlorophyceae) from Thrissur Kole lands, part of Vembanad - Kol (Ramsar site), Kerala, India

Tessy Paul P^{1*} and R Sreekumar²

¹ Department of Botany, Christ College (Autonomous), Irinjalakuda, Kerala, India

² Department of Botany, Maharajas College (Autonomous), Ernakulum, Kerala, India

* Corresponding author : tessyjohnt@gmail.com

Abstract

The present paper is a systematic documentation of Volvocales (Chlorophyceae) with photomicrographs, from the Kole lands of Thrissur, Kerala, India, which is a part of Vembanad - Kol, a declared Ramsar site of Kerala. This study describes three species of *Pandorina* Bory, one species each of *Eudorina* Ehrenberg, *Pleodorina* Shaw and *Volvox* Linnaeus with their distribution in India. The seasonal and spatial variation of the taxa also analyzed. *Pandorina* Bory and *Eudorina* Ehrenberg are the pollution tolerant algae, considered indicative of enriched waters and providing evidence of pollution of water in the study area.

Key words : Volvocales, Chlorophyceae, Freshwater algae, Ramsar site, Vembanad – Kol

1. Introduction

The Thrissur Kole lands are part of the Vembanad - Kol, a declared Ramsar site of Kerala, India (<http://www.ramsar.org>). The Kole lands form a unique freshwater ecosystem and are the rice granary of Thrissur and Malappuram districts of Kerala [1]. The Kole lands geographically distributed in Mukundapuram, Chavakkad and Thrissur taluks of Thrissur district, Kerala are designated as 'Thrissur Kole' (10,187 ha.). The present paper deals with the Volvocales (Chlorophyceae) found in the Kole lands of Thrissur district, Kerala.

The Indian Council of Agricultural Research published the monograph of Volvocales of India [2], and has formed the basis of research to all phycologists in India and the world. The information regarding the freshwater algae of Kerala is inadequate [3]. The Volvocales were reported from Ithikkara River [4], Vamanapuram River [5], Thrissur Kol wetlands [6], temple tanks [7, 8] and Idukki [9] from Kerala.

There are reports regarding the Volvocales of India from Maharashtra [10, 11, 12, 13, 14, 15], Tamil Nadu [2, 16, 17, 18], Goa [19], Agra [20], Bihar [21,22], Pune [23], Jharkhand [24], Madhya Pradesh [25, 26, 27], Karnataka [28], Uttar Pradesh [29, 30] and West Bengal [31, 32].

2. Materials and Methods

The present investigation is based on the collections of water samples from the Kole lands of Thrissur district, Kerala [33]. The study area lies between 10^o20'2" to 10^o40'2" North latitudes and 75^o