



First Report of *Chlorotylum cataractum* (Kutzing 1843) in Malda District of West Bengal Along with Attempts of Its Monoculture.

Prasant Kumar Garai¹ and Sudipta Kumar Sil*

Department of Botany, University of Gour Banga, Malda-732103, West Bengal, India

¹prasantagarai11@gmail.com

*Corresponding author : sksbot@gmail.com

A perusal of earlier published records, available literatures and herbaria indicate that this alga have neither been collected nor reported so far from India. The present communication deals with the new reports of the occurrence of this alga, it is outcome of morphometrical investigation of the algal diversity of the class chlorophyceae in Malda district, West Bengal which forms a new record/report for the Indian subcontinent. This alga is not frequently reported in Indian subcontinent and it is the first report of such kind. The algae was collected from the river Mahananda in Malda district, West Bengal, India. This alga is specially characterized by the almost wholly unilateral branching. The general characteristics of cells are cylindrical, joint end to end in filaments. This alga is not frequently reported in gangetic West Bengal. In Malda district it is the first report of such kind. Unialgal culture was established and the culture was maintained for sixty days, maintaining $24 \pm 2^\circ\text{C}$ temperature, 80-90% humidity and 2000 lx light intensity BG 11 and CHU 10 mixture (1:1 v/v) was used as medium. Morphological observation was taken at every alternate day.

INTRODUCTION

English Bazar block is situated in Malda district in West Bengal, India. The sample was collected from Mahananda river (Nima Sarai, $25^\circ 01' 56.1''\text{N}$ $88^\circ 07' 59.3''\text{E}$) of Malda district. This alga belongs to the class of Chlorophyceae. The collection was done in early summer season (March). It occurs in running water which pH value 7.1 ± 2 . In taxonomy, *Chlorotylum* is a genus of green algae, in the family Chaetophoraceae. [1] This alga is specially characterized by the almost wholly unilateral branching and the general characteristics of cells are cylindrical, joined end to end in filaments. This alga is not frequently reported in gangetic West Bengal In India it is the first report of such kind.

Scientific Classification:

Domain : Eukaryota
Kingdom : Plantae
Division : Chlorophyta
Class : Chlorophyceae
Order : Chaetophorales
Family : Chaetophoraceae
Genus : *Chlorotylum*.
-Kutzing, 1843.

Type species.

Chlorotylum cataractarum.

MATERIAL AND METHODS

The specimen was collected from the Mahananda river of English Bazaar block (Malda district) of West Bengal. Freshly collected sample was preserved in 15.0 ml screw cap Borosil glass specimen vials. Some ecological parameters such as colour of the material, collected habitat, temperature, pH (portable pH indicator) were noted. Sample was collected from samplingsites, brought to laboratory and transferred to culture vessels. The samples were mounted with GFW [Glycerin 40%: Formalin: Distilled Water, 1:1:1] [Bando (1988)] and that microscopic observation were done. Unialgal culture was established and the culture was maintained for sixty days, maintaining $24 \pm 2^\circ\text{C}$ temperature, 80-90% humidity and 2000 lx light intensity. BG11 and CHU10 mixture (1:1 v/v) was used as medium. Morphological observation was taken at every alternate day. Measurement was done by the help of Olympus microscope and microphotographs were taken using Nikon Digital Camera (coolpix A100).

Vegitative cells rectangular in shape grew and conerted into sporangium. Numerous isospores were liberated at the end of incubation periods. Gradual changes in filament morphology was observed and represented here as pictorial documentation.