



# MORPHOLOGICAL STUDIES OF CLADOPHORALES FROM BALRAMPUR (U.P.), INDIA

S. P. M. Tripathi, J. P. Tiwari and D. D. Tiwari

Department of Botany, M. L. K. P.G. College, Balrampur - 271 201 (Uttar Pradesh), India.

## Abstract

The present paper deals with 5 taxa of order Cladophorales, which include 24 genera, 15 species and 2 varieties. *Cladophorella calicola* *Rhizoclonium hieroglyphicum* Kuetz and *Arnoldiella glomerata* are being reported for the first time from Balrampur, they constitute new record for the area.

**Key words :** Algae, Cladophorales, Balrampur.

## Introduction

A good deal of work has been done concerning the occurrence and distribution of Cladophorales in India (Randhawa and Venkataraman, 1961; Kamat, 1974; Prasad and Kumari, 1979; Verma, 1981; Prasad and Mishra, 1982; Saha, 1985; Sharma and Keshari, 1993; Kargupta, 1994; Keshari, 1996; Mahto *et al.*, 1996; Suseela and Drwivedi, 2001; Mishra *et al.*, 2002; Pingale, 2005; Rath and Adhikari, 2005; Jawale, 2006; Nurkhede and Ragothaman, 2007).

Balrampur lies under Tarai region. Due to low land area water accumulation at different places are common in rainy season. Different natural aquatic habitats in form of ponds, lakes, puddles and canals are present which harbour rich Cladophorales assemblages.

## Materials and Methods

Sample collection have been made from different localities of Balrampur (Sep-2015 to Feb-2016). Sample were preserved in 5% formalin with little amount of glycerine. Photomicrography was done by Nikon lavo fot with attached camera. The taxa were identified using classical monograph (Tiffany and Britton, 1952; Prasad and Jain, 1974; Islam and Alam, 1980).

## Results and Discussion

5 taxa 24 genera 15 species and 2 varieties of Cladophorales are collected at Balrampur (table 1). *Cladophorella calicola* Fritsch, *Rhizoclonium hieroglyphicum* Kutzing and *Arnoldiella glomerata* Fritsch have been reported for the first time from Balrampur. *Pithophora varia* Wille and *Pithophora oedogonia* Wittrock have been described on the basis of size of akinetes (Tiffany and Britton, 1952). Prasad and Jain (1974) have reported 2 species of Pithophora from Lucknow. Prasad and Vijay kumari (1978) have described 6 species of Cladophorales from Lucknow. Prasad and Jain (1979) have reported 4 species of Cladophorales. Gajaria (1979) have reported 2 taxa of Cladophorales from Gujrat. Kant and Gupta (1994) have reported 3 taxa of Cladophorales from Leh Kashmir. Gujrati and Kanhere (1998) have described 33 species of Cladophorales from Khargoan district. 2 new varieties of Cladophora is reported first time from Balrampur. *Cladophora glomerata* var. *vanDen* Hoek and *Cladophora inter media* foslie var. *inflata* have been reported.

**Table 1** : Algal taxa of order Cladophorales collected at Balrampur, U. P., India.

S. no.	Order Cladophorales
1.	<i>Cladophora glomerata</i> Kuetz var. Van Den Hoek
2.	<i>Cladophora flexuosa</i> (Griff) Harvey
3.	<i>Cladophora crystalline</i> (Roth) Kutzling
4.	<i>Cladophora pellucida</i> (Hudson) Kutzling
5.	<i>Cladophora intermedia</i> foslie var. <i>inflata</i>
6.	<i>Cladophora insignis</i> Kutzling
7.	<i>Cladophora aegagropila</i> Rabenhorst
8.	<i>Cladophora crispata</i> (Roth) Kutzling
9.	<i>Cladophora gracilis</i> Kutzling <i>expans</i> Collins
10.	<i>Cladophora clavuligera</i> Grunow
11.	<i>Cladophora furutosa</i> (Griff) Harvey
12.	<i>Pithophora sumatrana</i> (Witr) Mont
13.	<i>Pithophora mooreana</i> Collins
14.	<i>Pithophora cleveana</i> Wittrock
15.	<i>Pithophora varia</i> Willie
16.	<i>Pithophora oedogonia</i> Wittrock
17.	<i>Pithophora polymorpha</i> Wittrock
18.	<i>Rhizoclonium crassipellitum</i> West and West
19.	<i>Rhizoclonium pachydermum</i> Kjeillmann
20.	<i>Rhizoclonium hieroglyphicum</i> Kutzling
21.	<i>Rhizoclonium tortuosum</i> Dillwyn
22.	<i>Cladophorella calcicola</i> Fritsch
23.	<i>Cladophorella sundarbanensis</i> Kutzling
24.	<i>Arnoldiella glomerata</i> Fritsch

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