

***PEDIASTRUM BAREILLIANSIS* A NEW SPECIES IN INDIA**

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Abstract

Pediastrum bareilliansis sp. nov., collected from Dhopa pond, Bareilly district, U.P. India. is described.

Introduction

During the course of hydrobiological and limnological studies a species of *Pediastrum* Meyen was collected from a 30 sq m pond at Dhopa locality in Bareilly district, U.P., India.

Materials and Methods

The material collected during December, 1989 were preserved in 4% formalin and deposited in the Phycology Laboratory of Botany Department, Bareilly College, Bareilly accession numbers D-02 and D-03.

The identification and comparison of the present taxon is based on standard works by Abdul Sajam (1979); Iqbal *et al.*, (1990); Islam & Begum (1970); Pandey *et al.*, (1983); Patel (1970); Patel & Isabella (1977); Philipose (1967); Sharma *et al.*, (1985); Tiffany & Britton (1952); Willson & Hoffmeister (1953).

Systematic account Family - Hydrodictyaceae

Sub-family - Hydrodictyoideae Genus - *Pediastrum* Meyen

Pediastrum bareilliansis sp. nov. (Chlorococcales, Chlorophyceae) (Fig.1).

Colonies circulares, 8-cellulares; cellulae in annulis duobus dispositae; annulus interior constans ex 4 cellulis periphericis 12, cum pariete exteriori libero projecturis acuminatis; 4 cave praesentia inter annulos duos; cellulae interiores 20-23 μm longae, 18-22 μm latae, cellulae periphericae 36-42 μm longae, 38-42 μm latae, colonia 144-150 μm in diametro. Paries cellulae leavis.

Typus: Planktonic stagnum in loco Dhopa, dicto, m. Deco, d 12, 189 (D-02 & D-03 Nrs.).

Pediastrum bareilliansis sp. nov. (Chlorococcales, Chlorophyceae) (Fig.1).

Colony circular, 8-celled; cells arranged in two rings, inner ring consists of 4 cells which are triangular in shape enclosing a central cavity; peripheral cells 4 in number with outer free wall having acuminate processes and inner wall is concave; 4 cavities present in between the two rings of the colony; inner cells 20-23 μm long, 18-22 μm broad; peripheral cells 36-42 μm long, 38-42 μm broad; colony 144-150 μm in diameter. Cell wall smooth and a parietal chloroplast is present.

Type locality: Planktonic in a pond at Dhopa. December 1989, collection Nos. D-02 & D-03.

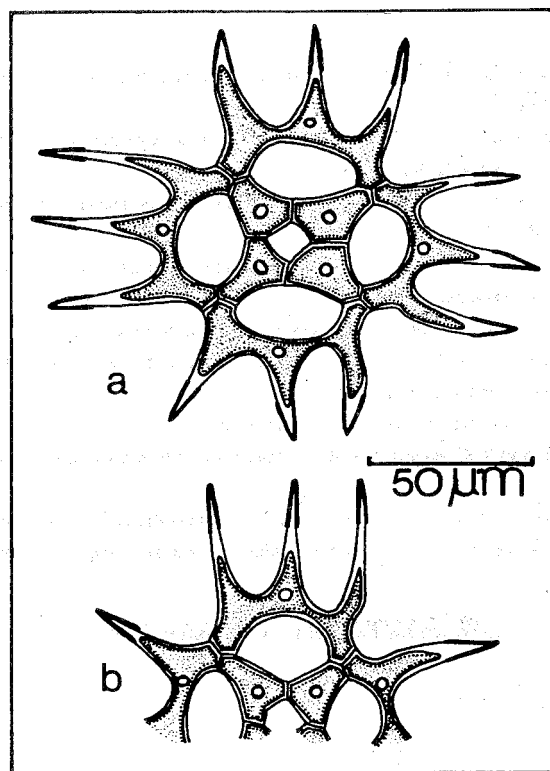


Fig.1a & b. *Pediatrum bareilliansis* sp. nov.

The alga differs from the existing species of *Pediatrum* in the presence of three acuminate processes arising from each outer cell. The ends of the processes have cap like structures which were observed clearly. The inner walls of the peripheral cells are concave. The inner cells are triangular in shape and are quite different from the marginal cells. The whole colony comprises of 8-cells present in two rings of 4 cells each. There are 4 cavities present in between the two rings of the cells and a single central cavity is enclosed by inner ring of cells. In all the five cavities are present.

The above unusual characters of the alga justify to name it as a new species of *Pediatrum* called *Pediatrum bareilliansis* Iqbal *et al.*, sp. nov. The epithet is named after the name of the place.

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