

RESEARCH PAPER:

Planktonic chlorococcales from tributary of river Swarnrekha at Angara block Ranchi (Jharkand)

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Asian Journal of Environmental Science, (December, 2010) Vol. 5 No. 2 : 149-150

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SUMMARY

Fourteen species of order Chlorococcales were collected for the first time from the water of Pataka river near Angara block during Nov. 2008 to July 2009. These taxa were more dominant during summers. However, *Hydrodictyon reticulatum*, *Senedesmus dimorphous*, *S. bijuga*, *Pediastrum tetras* were recorded throughout the year and *Pediastrum* and *Senedesmus* were the most dominant genera with three and seven species, respectively.

Mahto, Ashmrita and Sahu, Radha (2010). Planktonic chlorococcales from tributary of river Swarnrekha at Angara block Ranchi (Jharkand). *Asian J. Environ. Sci.* 5(2):149-150.

Key words :

Chlorococcales,
Pataka,
Planktonic.

Chlorococcales are non-motile unicellular or colonial form of algal taxa belonging to order Chlorococcales. Enormous information is available on occurrence and distribution of chlorococcales from various parts of India (Philipose, 1967; Patel, 1970; Patel and Isabella, 1980; Das and Sahu, 1989; Habibe *et al.*, 1998; Kant and Vohra, 1999; Tiwari *et al.*, 2000; Tiwari and V.S. Chauhan, 2007).

Pataka river is the tributary of the river Swarnrekha. This river is situated in Angara block, south east of Ranchi district. It flows east side and meets with Swarnrekha at Silli block. In this river, many rapids are found and the condition of the river is semi-arid.

As there is no report of any kind of algal investigation in the Pataka river at Ranchi, Jharkhand near Angara, survey was made for the collection and identification of Order Chlorococcales algal specimen during the period of Nov. 2008 to July 2009. Present paper deals with the total 14 taxa belonging to order Chlorococcales.

MATERIALS AND METHODS

Algal collection was made during Nov 2008 to July 2009 from the several sites of the river Pataka. The sample was collected

periodically from different sites of the river. The collected samples were preserved in 4% formalin. The morphological studies were made in fresh material using light microscope and making their camera lucida drawing. Identification was done with the help of available literature and standard monographs.

RESULTS AND DISCUSSION

The results are summarized below according to the objectives of the study:

Enumeration and Description of the algal taxa:

– *Chlorella numicola* Naegeli

Cell rounded or spherical, Chloroplast cup shaped, cells 4-7 µm in diameter, habit – planktonic Nov., 2008 (Fig. 12).

– *Hydrodictyon reticulatum* (Linn.) Lagerhein

Cell cylindrical, network net hexagonal, cell 14-21 µm long, 5-7 µm broad, habit free floating (June-2009) (Fig. 3).

– *Pediastrum boryanum* (Turp menegh)

Cells 6.2-8 µm in diameter, No of cells 16 multinucleated arranged in a single layer, habit – planktonic. March-April 2009 (Fig. 1).

Received:
September, 2010
Revised:
October
Accepted :
November, 2010