

Cyanobacterial flora from fresh water habitat of Bokaro Thermal Power Station (Dist. Bokaro) Jharkhand, India

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SUMMARY

The present study deals with the systematic enumeration of 25 taxa of cyanobacterial flora collected from fresh water habitat of Bokaro thermal power station. They have been reported for the first time from this area. Species rich genera are *Microcystis*, *Chlorococcus*, *Aphanocapsa*, *Aphanothece*, *Oscillatoria*, *Lyngbya* and *Calothrix*. The objective of present work is to prepare a status report of diversity in cyanophycean assemblage.

Key words : Cyanobacteria, Diversity, Fresh water habitat

Cyanobacteria (blue green algae) form important phytoplankton components in most tropical waters. They represent a large group of photosynthetic prokaryotic microbes. They are almost aquatic and if terrestrial they are bound to inhabit damp environment (Sharma and Tripathi 2003).

Bokaro Thermal Power Station (BTPS) is situated in Bokaro district of Jharkhand state. It is one of the major power producer of Jharkhand. It is along 'Konar river' basin which is the tributary of river 'Damodar'. It is 120 Km away from the state capital 'Ranchi'.

Although several workers have explored the cyanobacterial flora of fresh water habitat of the country (Srivastava 1989, Jha and Sharma 1995, Subramanian 2000, Pal 2003, Tripathi 2006, Bisnoyi 2007, Puri 2008) but cyanobacterial flora from Bokaro thermal power station has not been explored earlier. An attempt has been made therefore to communicate blue green algae from this place by the author.

MATERIALS AND METHODS

To study the cyanobacterial diversity, samples were collected after regular visit during March-09 to September-09 from fresh water habitat in and around BTPS and also the bank of Konar river. Specimens have been preserved in 4% formaline. Temporary slides were made and studied under standard research microscope. The camera lucida diagrams were drawn for measurement of vegetative and reproductive organs. Identification was done with the help of keys presented in standard monographs prepared by algologists.

RESULTS AND DISCUSSION

The results obtained from the present investigation as well as relevant discussion have been presented under following heads :

Systematic enumeration:

- Pl. 1 Fig.1
Microcystis robusta (Clark) Nygard
Gelatinizing cell, 1.5µm in diameter
- Pl. 1 Fig. 2
Microcystis marginata (Menegh.) Kuetz.
Cells 3-6µm in diameter, closely arranged with gas vacuoles
- Pl.1 Fig. 3
Chroococcus minutus (Kuetz.) Nag.
Cells spherical in group of 2-4 with sheath, 12-15 µm in diameter.
- Pl. 1 Fig.4
Chroococcus pallidus Nag.
Cells single, seldom up to 8 in elliptic oblong colonies, 10-12 µm in diameter.
- Pl. 1 Fig.5
Gloeocapsa rupestris Kuetz.
Cells without sheath 6-9 µm in diameter.
- Pl. 1 Fig.6
Aphanocapsa koordersi Storm.
Cells loosely arranged, 2-3 µm in diameter.
- Pl. 1 Fig. 7
Aphanocapsa brunnea Nag.
Cells 4.5-5.5 µm in diameter.
- Pl. 1 Fig.8
Aphanothece pallida(Kuetz.)Rabenh.
Cells 5-8 µm in diameter.
- Pl. 1 Fig. 9
Aphanothece bullosa(Menegh.)Rabenh.

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