

Studies on seasonal variation of *Chroococcales* (Cyanophyta), Goalpara district, Assam, India

■ S.J. DEKA, G. C. SARMA AND P. DEKA

SUMMARY

In the present investigation of Goalpara district, the total number of *chroococcales* were fifty seven. From the total number of species twelve numbers of genera were like *Gomphosphaeria* 1.75 per cent, *Chlorogloea* 1.75 per cent, *Coelosphaerium* 3.50 per cent, *Dactylococopsis* 3.50 per cent, *Synechocystis* 3.50 per cent, *Merismopodia* 5.26 per cent, *Gloeothece* 5.26 per cent, *Aphanothece* 7.01 per cent, *Microcystis* 12.28 per cent, *Aphanocapsa* 14.03 per cent, *Chroococcus* 15.78 per cent and *Gloeocapsa* 26.31 per cent. The *Gloeocapsa* species diversity were maximum where *Microcystis flos-aquae*, *Microcystis lamelliformis*, *Microcystis aeruginosa* dominant in post-monsoon season. The flora was found to be abundant during post-monsoon and occasionally found in pre-monsoon and monsoon season.

Key Words : Seasonal variation, *Chroococcales*

How to cite this article : Deka, S.J., Sarma, G.C. and Deka, P. (2012). Studies on seasonal variation of *Chroococcales* (Cyanophyta), Goalpara district, Assam, India. *Internat. J. Plant Sci.*, 7 (1) : 27-31.

Article chronicle : Received : 15.07.2011; **Sent for revision :** 03.08.2011; **Accepted :** 26.10.2011

Algae that form the source of food and oxygen for heterotrophic organisms in aquatic habitats, directly affect primary productivity by forming first circle of food chain. Algae have a great significance, since these primary producers are used in biomonitoring as indicator organisms of water pollution (Shekhar *et al.*, 2008), in ecological studies of extraordinary environments such as mangroves (Saravanakumar *et al.*, 2008) or in exploring sustainable water resources (Bhuiyan and Gupta, 2007). Cyanobacterial inoculation was found to have a significant additive effect at all levels of nitrogen fertilizers applied in the form of ammonium sulphate (Aiyer, 1972). Some evidences indicated that the part of the nitrogen requirement for the rice crop (25-35%) could be met by using Cyanobacteria as biofertilizer (Rai *et al.*, 2000). *Cyanophyceae* are almost

universal in distribution but their fluctuation and abundance depend upon their surrounding environment. A few studies have been made on the fresh water *Cyanophytes* in India (Talukdar, 1997; Sing, 1985; Kaushik, 1987; Tiwari and Chauhan, 2006; Sridhar *et al.*, 2006; Tas and Gonulol, 2007; Santhilkumar and Sivakumar, 2008; Laskar and Gupta, 2009). Taxonomic study of *Chroocophyceae* (Cyanophyta) was carried out (Ghose, 1927 b). The present study aims to provide information on the taxonomy of *Chroococcales* (Cyanophyta) was recorded for the first time from Goalpara district.

Study area :

Goalpara district is located on the southern part of the river Brahmaputra having a large area of wet lands and many other ecologically attractive spots of the globe. Goalpara district is located approximately 25° 33' to 26° 12' N latitude and 90° 7' to 91° 5' E longitude. The climate is hot and humid in summer and dry cool season in winter. On the basis of temperature and rain fall the season of the place is divided mainly to winter, pre-monsoon, monsoon and post-monsoon. The maximum atmospheric temperature may rises up to 32°C

MEMBERS OF THE RESEARCH FORUM

Author to be contacted :

S. J. DEKA, Department of Botany, Gauhati University, GUWAHATI (ASSAM) INDIA

Address of the co-authors:

G. C. SARMA, Department of Botany, Gauhati University, GUWAHATI (ASSAM) INDIA

.....

P. DEKA, Department of Geography, Goalpara College, GOALPARA (ASSAM) INDIA