

A study on chlorococcalean algae and their associate plants in Bankura district, West Bengal

PRASANTA MALLICK AND JAI PRAKASH KESHRI

Accepted : November, 2008

Key words : Chlorococcalean algae, Associate plants, Bankura district.

15 taxa of chlorococcalean algae viz., *Pediastrum angulosum* (Ehr.) Meneghini, *Pediastrum araneosum* (Racib.) Racib., *Pediastrum duplex* Meyen var. *duplex*, *Pediastrum ovatum* (Ehr.) A. Braun, *Pediastrum tetras* (Ehr.) Ralfs, *Sorastrum spinulosum* Nägeli, *Chlorococcum humicola* (Näg.) Rabenhorst, *Tetraedron bifurcatum* (Wille) Lagerh., *Tetraedron trigonium* (Näg.) Hansg., *Coelastrum proboscideum* Bohlin, *Oocystis borgei* Snow, *Kirchneriella obesa* (W. West) Schmidle, *Scenedesmus bijugatus* (Turp.) Kuetz., *S. dimorphus* (Turp.) Kuetz. and *S. quadricauda* (Turp.) Breb. have been described and illustrated. Here also mentioning 11 macrophytes including 9 angiosperms and 2 pteridophytes.

Chlorococcalean algae are one component amongst the great diversity of the primary producers which capture the sun energy in aquatic ecosystem. Thus, contributing to the food supply involving nutrient cycling. They are delicate indicator of environment. Algal samples are very commonly associated with different macrophytes (Heimans, 1969; Bland and Brook, 1974; Woelkerling, 1976; Brook, 1981). The district Bankura covers an area 6882 sq. km lies between 22° 46' to 23° 38' N latitude and between 86° 36' to 87° 46' E longitude. The district lies between the Chotonagpur plateau in the south and lower Gangetic delta in north. The district is fed by the rivers Damodar, Dwarakeswar and Kangshabati and their tributaries.

The algal samples were collected from different habitats of Bankura district. pH, temperature and ecological notes were recorded at the time of collection. The samples were preserved in 5 per cent formalin. Camera lucida drawings were made both from live and preserved sample using GFW (Bando, 1988) as mounting solution.

Twenty two blocks of the Bankura district were covered in the present study. The samples were collected throughout the year in different times. The pH of the different water bodies were ranges from 5.5-7. Most of the bandh were associated with macrophytes exceptionally few which were seen almost devoid of macrophytes.

Pediastrum angulosum (Ehr.) meneghini:

Philipose 1967, p.118

Colony without perforation, marginal cells broad, outer face emerginate, cell wall thick. Cells 30-36 μ m in diameter and 22-25 μ m long. (Figs. 2, 3)

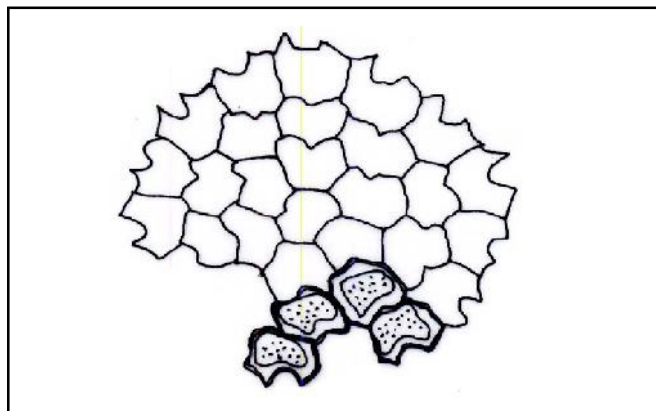


Fig. 2 : *P. angulosum* (Ehr.) Meneghini

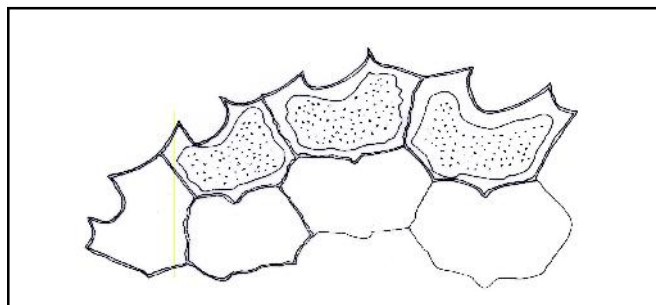


Fig. 3 : *P. angulosum* (Ehr.) Meneghini

Correspondence to:

PRASANTA MALLICK, P.G. Department of Botany, Hooghly Mohsin College, Chinsurah, HOOGHLY (W.B.) INDIA

Authors' affiliations:

JAI PRAKASH KESHRI, Phycology Laboratory, Department of Botany, University of Burdwan, BURDWAN (W.B.) INDIA

Paraneosum (Racib.) Racib.:

Philipose 1967, p.120, Figs. 42a, b;

Prescott 1962, p.221, pl.47, Figs. 4

Colony made up of 32 cells, circular 170-185 μ m in diameter Marginal cells closely arranged with lens shaped