

ON *GLOEOCYSTIS* NAEGELI FROM KERALA

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The Genus *Gloeocystis* Naegeli with 3 species has been recorded from Kerala.

Keywords : Algae; *Gloeocystis*; Taxonomy.

Knowledge of systematic accounts of freshwater Chlorophyceae of Kerala is mainly through the works of Philipose (1967), Suxena *et al.* (1973), Patel *et al.* (1977), Patel (1982), Patel and Gajaria (1987), Shaji *et al.* (1988, 1989) and Shaji and Patel (1990). From the above literature it appears that no body has paid attention to the order Tetrasporales of the state. Extensive collections of freshwater algae from Quilon district were made in the month of December 1987. These collections contained 3 species of *Gloeocystis* namely *G. ampla* Kg., *G. gigas* (Kg.) Lagerhm and *G. vesiculosq* Naegeli which are recorded for the first time from the state.

Systematic account

1. *Gloeocystis ampla* Kg. Fig 1.

Smith, 1950, p. 117, f. 56B; Prescott, 1951, p. 84, Pl. 3, fig. 17.

Cells ovoid arranged in amorphous or in somewhat irregular globular colonies and embedded in conspicuous gelatinous sheaths. Sheath of each cell or group of cells is not confluent but distinct and angular due to mutual compression. Cells have a diffuse chloroplast completely filling the cell and containing numerous starch granules. Cells 5-7 μm broad, 8-10 μm long.

Habitat : Planktic in a pond, Chathanoor (K-9).

2 *Gloeocystis gigas* (Kg.) Lagerhm. Fig. 3.

Smith, 1950, 0.117, fig. 56A; Prescott, 1951, p. 84, Pl. 3, fig. 16.

Colony composed of 4 spherical cells enclosed in conspicuous gelatinous envelope. Cells spherical with 2-3 homogeneous regular sheaths. Cells without sheath 14-15 μm diameter;

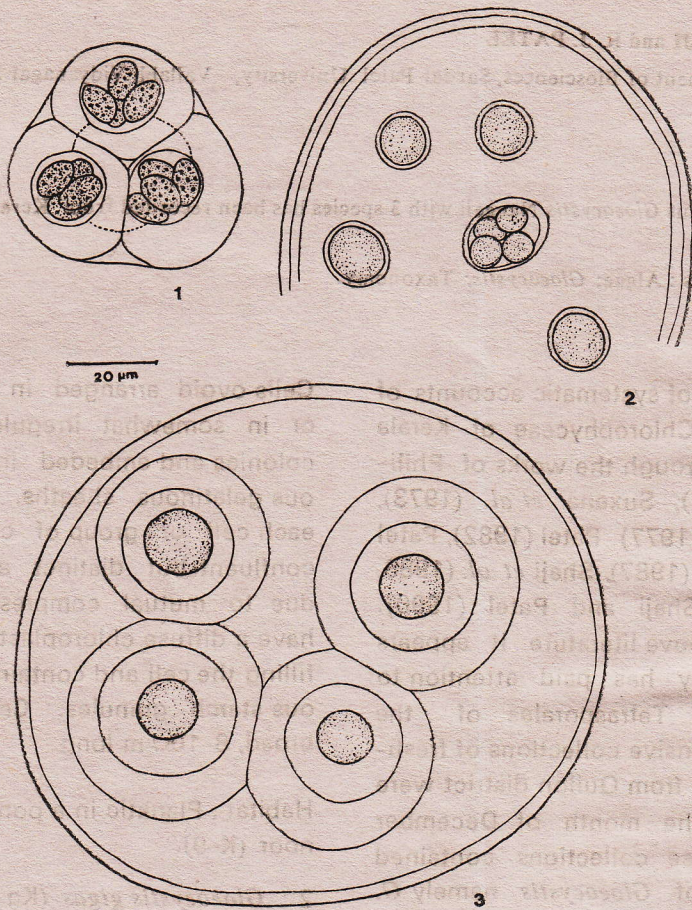


Fig. 1. *Gloeocystis ampla* Kg. Fig. 2 *G. vesiculosa* Naeg.
Fig. 3. *G. gigas* (Kg.) Lagerhm.

with sheath 26-45 μm diameter. Chloroplast completely filling the cell.

Habitat : Planktic in a pond, Chathannoor (K-9).

3. *Gloeocystis vesiculosa* Naeg. Fig. 2 Prescott, 1951, p. 85, pl. 85, fig. 15. Colony large, amorphous, cells widely arranged, spherical enclosed in less lamellated gelatinous envelope. Cells 10-12 μm diameter.

Habitat : Planktic in a paddy field, Meenad (K-3).

Because of some similarities between *G. gigas* and *G. vesiculosa*, Nurul Islam (1973) was of the opinion that both the species may belong to same taxon and suggested that these could be just growth stages of the same taxon. However in the present paper, because of the marked difference in their morphology both are considered as separate taxa.

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