

RHIZOCLONIUM — A NEW RECORD FROM SAMBHAR LAKE

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Rhizoclonium is reported first time from Sambhar lake India. It is characterised by unbranched filaments possessing cylindrical cells clothed with epiphytic diatoms, bacterial chains and rods. It is being grown into axenic cultures for further morphological studies.

Keywords : *Rhizoclonium*; Axenic culture.

Marine algae from coasts of India are innumerable. On the contrary halotolerant algae from the salt lakes of the country are few on record. Rajasthan is rich in having three salt tracts — Sambhar lake, Didwana lake and Pachbhadra basin. Sambhar lake lies in the shallow depression of Aravalli hills at a latitude of 26°58'N and longitude of 75°55'E. It is about 35 Km in length and 3 to 8 Km in width covering an area of 235 Sq. Km. It is a tropical dystrophic and carbonate type of dry lake. The first record of algal flora Sambhar lake (Ratnam, 1943) included chlorophyceae too. While investigating the origin of salt in this lake, Godbole (1952) came across some five species of algae. Thereafter, few contributions have been extended by Gupta (1972); Subbaramaiah (1972) and Bhattacharya (1982).

The present paper reports the presence of filamentous green alga *Rhizoclonium* belonging to order cladophorales. It was collected from shallow water of the lake in the month of March along with a number of diatoms and blue-green alga like *Oscillatoria* and *Chroococcus*. The temperature and pH of lake water was $23 \pm 2^\circ\text{C}$ and 8.6, respectively.

The unbranched filaments of *Rhizoclonium* possessed cylindrical cells. Their length was about 2.5 times the breadth (Fig. 2). The cell wall was thick, firm and lamellose (Fig. 3) and clothed with epiphytic diatoms and bacterial chains and rods. The size of the cells varied from 25.0 to 62.5 μm in length and 12.5 to 25.0 μm in breadth. It comes close to *R. imdlexum* but differs from it in diameter.



Fig. 1. *Rhizoclonium* : Filament with epiphytes (X1600); Fig. 2 Filament showing cylindrical cells (X1600); Fig. 3 Filament showing lamellose cell-wall (4000).

However, the alga is being grown into axenic cultures for further studies in the laboratory. It might possess certain characters not observed in fresh water *Rhizoclonium*. Mass majority of blue-green algae are well known for their halotolerance but green algae are known to occur in salt lakes, with only exception of *Dunaliella* (Bhattacharya, 1982). The presence of *Rhizoclonium* in Sambhar lake is first on record from India.

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