

ADDITIONAL LIST OF CHLOROCOCCALES OF PUSHKER LAKE

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Algal flora of Pushker lake has been reported earlier, of all the classes, green algae dominated in the lake water. Almost all the orders have been represented but Chlorococcales had an edge over other algae of the lake. However 4 genera spread over 6 species of order Chlorococcales remained unnoticed. These are being reported in this communication.

Keywords : Chlorococcales; Green algae; Pushker lake.

Pushker lake of Rajasthan is a well known pilgrim place and attracts tourists from home and abroad. Since last few decades there is a surprising increase in the number of tourists and pilgrims, who have polluted the lake as has been reported earlier^{1,2}. Presently certain algal forms belonging to the order Chlorococcales, not reported so far are being added.

Water samples were collected from the different sites of the lake, periodically during winter months (Nov. - Jan.). The collected algal samples were centrifuged and preserved in 4% formalin. Microscopical studies were carried out pertaining to structure, dimensions and frequency of the algal forms. For dimensions, about 100 cells and coenobia were measured in random fields of view of the microscope. The average values were taken into the account. Identification has been rendered with the help of monographic work of Philipose³.

1. *Scenedesmus*

Three species of *Scenedesmus* were registered, which have not been on earlier record.

I. *Scenedesmus incrassatulus* Bohlin

Coenobia were mostly 2-4 celled. Cells were fusiform, curved and were arranged in linear series. The cells were 6-8 μ broad and 12-20 μ in length, on an average. Coenobium measured 10-25 μ in length and 12-20 in breadth.

II. *S. armatus*

The coenobia were usually 4-celled. Cells were with acute spines. Terminal cells were having a single long spine. The individual cells were 3-8 μ long and 7-16 μ broad on an average. Coenobium measured 7-16 μ in breadth and 12-25 μ in length.

III. *S. abundance*

The coenobia were 2-4 celled and were arranged in linear order. Individual cells were ovoid to oblong. External cells were with one or more median lateral spines. Internal cells were having one to two spines at their poles. Some of the coenobia were spineless, too. These were 3-8 μ broad and 5-15 μ long. Size of spine was 3.5-8 μ in length. Coenobia measured 5-30 μ in length and 5-15 μ in breadth.

2. *Schroderia planktonika*

The cells were solitary and free floating. These were curved & spindle shaped. Cells had spines on both ends. Cell size was 4-8 μ broad and 50-65 μ long.

3. *Coelestrum microsporum*

Cells of this genus were mostly spherical but sometimes these were ovoid in shape. Coenobia were 8-32 celled. In coenobia, cells were closely adjoined, having very small intercellular spaces. Size of the coenobia was 20-80 μ in diameter. Cells were 4-27 μ in diameter on an average.

4. *Treubaria triappendiculata*

Cells were three to four angled with broadly rounded and slightly concave angles. Each angle had a long and stout spines, tapered at end. Cells without spines were 5-12 μ in diameter and spines were 15-35 μ long.

Earlier Parvateesam and Mishra² have reported 10 genera of Chlorococcales spread over 22 species. According to them low temperature during winter months, added with high dissolved oxygen, low

CO₂ and high inorganic phosphates and ammonical nitrogen may be credited to the extensive growth of green algae including Chlorococcales. The fact may profitably be applied in the present observation.

References

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