

Vaucheria undulata Jao from Srinagar, J&K

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SUMMARY

Vaucheria undulata Jao of the section corniculatae of class Xanthophyceae has been collected from flower beds of one of the resident's house near Bhagat Barzulla, Srinagar (the summer capital of J&K state) during Nov., 2003. The present alga exhibited prominent features. *i.e.* spiralled siphons with lamellose oospore wall. Ecologically it preferred to grow in highly alkaline (pH 9.2), sand silty soil with 14 per cent of moisture and temperature ranging from 15-20° C. The present alga has been collected for the first time from India *i.e.* Srinagar, J&K state and constitutes a new record.

Key words : *Vaucheria*, Xanthophyceae, Spiralled siphons and Lamellose oospore Wall.

Family Vaucheriaceae represented by 9 sections (Woronina, Tubuligerae, Globiferae, Corniculatae, Anomalae, Androphorae, Piloboloidae, Contortae and Pseudoanomalae) of which only Corniculatae has been extensively studied from India (Randhawa, 1939; Saxena, 1962; Venkataraman, 1961; Patel, 1969; Santra and Adhya, 1976). As far as J&K state is concerned, no work on Vaucheriaceae has been done except for some stray references (Venkataraman, 1961; Saxena, 1962; Anand, 1977). Keeping this in mind, a survey on Vaucheriaceae of the State was conducted and collections were made from different habitats. During these explorations *Vaucheria undulata* Jao has been collected from flower beds of one of the resident's house near Bhagat Barzulla, Srinagar, summer capital of J&K state.

MATERIALS AND METHODS

V. undulata Jao forms yellowish green, soft filaments mat on the soil. Material, thus collected was kept under observations in the culture room with photoperiod of 16L:8D of inflorescence light of 464 lux, in Bold's Basal medium. Development of sex organs occurred after 2-3 weeks.

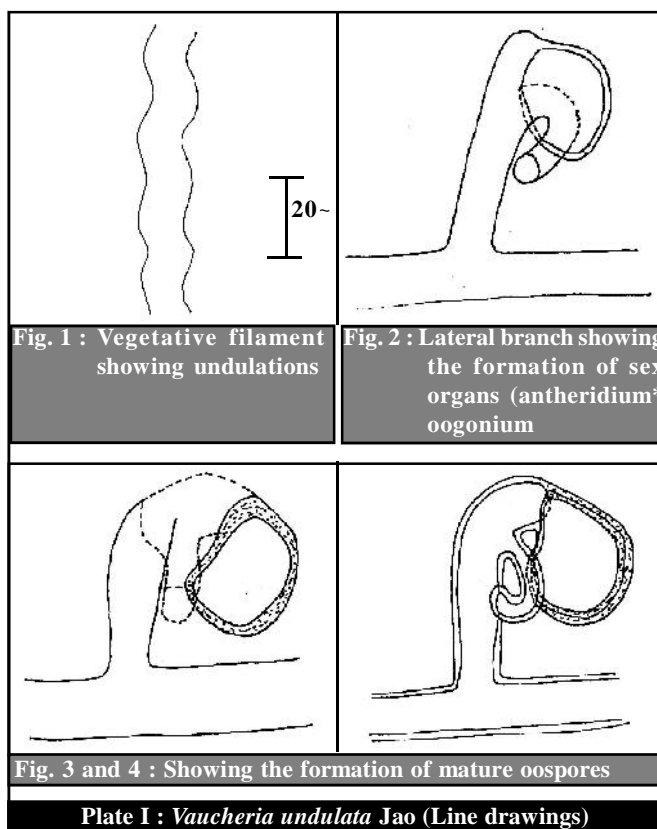
Filaments 26-46 μ broad, commonly spiraling especially thinner ones; oogonia one per fruiting branch, hemispherical, beak distinct, 50-58 μ broad and 60-70 μ long, antheridium single, pedicelled and circinate, opening by a terminal pore, 16-22 μ broad, oospore filling the oogonium, 60-70 μ broad and 80-90 μ long, membrane thick and lamellose (Pl. I, Fig. 1, 2, 3, 4; Pl. II Figs. 5, 6, 7, 8, 9, 10).

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**RESULTS AND DISCUSSION**

Present alga coincides with the description given by Venkataraman (1961) especially spiralled siphon and lamellose nature of oospore wall except for some variations in the size of oogonia. The present specimen possesses smaller oogonia (50-58 x 60-70 μ) than those described by Venkataraman, 1961 (62-71 x 80-84 μ). However, dimensions smaller (44-47 x 52-55 μ) than the present material have been recorded by Sarma, (1974). Sarma (1974) emphasized that the size should be given less importance since such variations are ecological than