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MESOTAENIUM NÄGELI (MESOTAENIACEAE, DESMIDIALES, CONJUGATOPHYCEAE) FROM WEST BENGAL, INDIA

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The present communciation deals with four taxa of *Mesotaenium* Nägeli viz. *Mesotaenium macrococcum* (Kützing) Roy and Bissette, *M. chlamydosporum* de Bary va, *M. chlamydosporum* var. *minus* (Reinsch) West and West and *M. degreyii* Turner var. *breve*. All of which are reported for the first time from West Bengal of these the latter three are being recorded for the first time from India.

Key words : *Mesotaenium*, new record, West Bengal, India.

Indian desmids were initially studied by Turner (1892), Wallich (1860) and Lagerheim (1888). Most of the studies were restricted to the Placcoderm desmids, but very little attention was paid to the Saccoderms. Recently Agarkar and Agarkar (1977), Ashtekar and Kamat (1979), and Asoka Kumar and Patel (1985), have reported *Mesotaenium berggrenii* (Wittrock) Lagerh and *Mesotaenium macrococcum* (Kützing) Roy and Bissette, *Mesotaenium mirificum* Arch. and *Mesotaenium caldariorum* (Lagerh.) Hansg. forma, *M. endlicherianum* Nägeli forma respectively. The four taxa have been recorded from Bankura and Purulia districts of West Bengal.

The specimens were collected from different habitats of Bankuar and Purulia districts of West Bengal. Specimens were preserved in 4% formalin; pH, temperature and details ecological notes were recorded simultaneously. Camera lucida drawings were drawn using preserved and live specimens both.

***Mesotaenium* Nägeli 1849**

Cells solitary or embedded in large numbers within a common watery gelatinous matrix; cells oval, either cylindrical to sub-cylindrical and with broadly rounded poles; contains a single axial, laminate chloroplast with one to several pyrenoids.

1. *M. chlamydosporum* de Bary var. *chlamydosporum*

Prescott *et al.* 1972, p. 8, pl. I, figs. 32, 33; Dillard 1990, p. 62, pl. 23, fig. 5. [Plate I, Fig. 1]

Cells oblong-cylindric, more than 2 times longer than broad, the poles broadly rounded chloroplast axial, narrow. L. 24-75 µm, W. 10-34 µm. Field No. PM-667.

Distribution : This is the first record of the species from India.

2. *M. chlamydosporum* var. *minus* (Reinsch) West & West

Prescott *et al.* 1972, p. 9, pl. I, figs. 34-36; Dillard 1990, p. 63, pl. 23, fig. 6. [Plate I, Fig. 2]

Cells cylindric, 2 times longer than broad, the pole somewhat attenuated, chloroplast axial. L. 18-22 µm, W. 9-11 µm. Field No. PM - 818.

Distribution : This is the first record of the variety from India.

3. *M. degreyii* Turner var. *breve* West

Prescott *et al.* 1972, p. 9, pl. I, figs. 1, 2; Dillard 1990, p. 63, pl. 23, fig. 8. [Plate I, Fig. 4]

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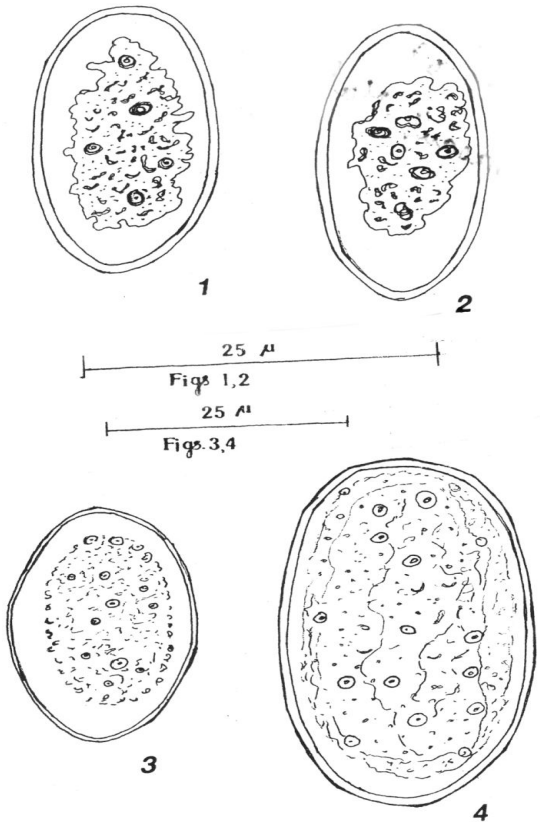
Table : Ecological Notes of samples

Field No.	Date	Locality	pH	Temp.	Ecological Notes
44	Nov. 19 2000	Birshingha, Bankura	5.5	26°C	Orange yellow colour algal mass attached on aquatic grass *Scirpus articulatus* Linn.
667	Dec. 01 2001	Sahebbandh, Purulia	5	24°C	Light green filaments and some whitish assemblages lodged on aquatic plants
818	Jan. 11 2002	Susunia, Bankura	5.5	19°C	Yellowish green assemblages lodged on submerged *Hydrilla verticillata* Casp.
1136	Feb. 17 2003	Bishnupur, Bankura	6	23°C	Brown & some creamish colour patch attached on submerged *Hydrilla verticillata* Casp.

Cells elliptic, more than 1.5 times longer than broad, poles rounded. Chloroplast laminate. L. 36-42 µm, W. 20-24 µm. Field No. PM-1136.

Distribution : This is the first record of the variety from India.



Legends of the figures

1. *M. chlamydosporum* de Bary var. *chlamydosporum*
2. *M. chlamydosporum* var. *minus* (Reinsch) West & West
3. *M. macrococcum* (Kützing) Roy & Bissett.
4. *M. degreyii* Turner var. *breve* West

4. *M. macrococcum* (Kützing) Roy & Bissett

Prescott *et al.* 1972, p. 11, pl. I, figs. 27-30; Dillard 1990, p. 63, pl. 23, fig. 10. [Plate I, Fig. 3]

Cells elliptic, lnger than broad; poles rounded, chloroplast axial. L. 26-28 µm, W. 15-16 µm. Field No. PM-44.

This is the new record of the species from West Bengal. Previously it was recorded only by Ashtekar and Kamat (1979) from Maharashtra.

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