

might influence the per cent repeats of a genome. However, the true significance of low amount of repetitive sequences in *S. nigrum* genome is not clearly understood.

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ON MESOSPORA SCHMIDTII WEBER VAN BOSSE (RALFSIACEAE, PHAEOPHYCEAE) FROM THE ANDAMAN ISLANDS

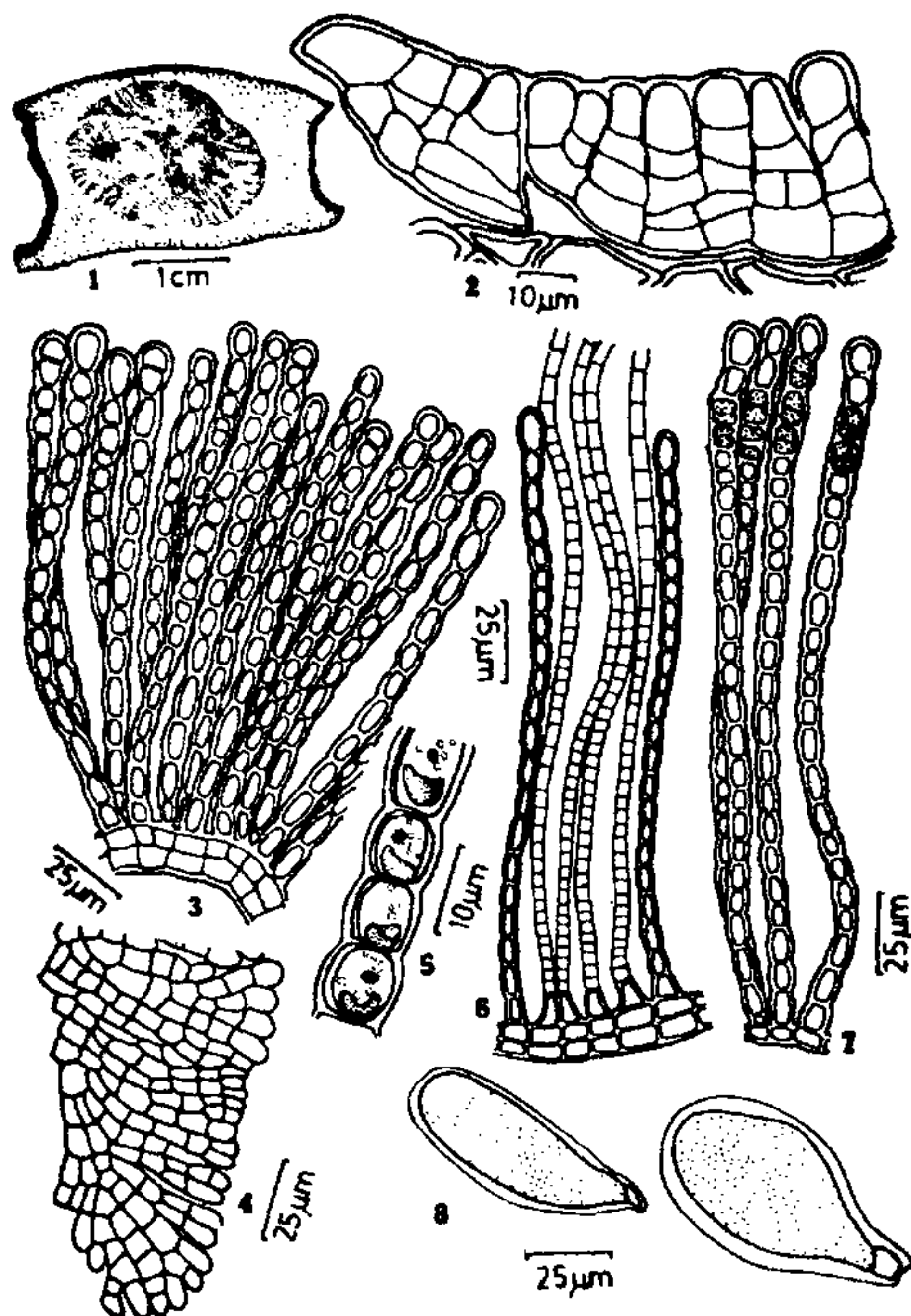
V. KRISHNAMURTHY and M. BALUSWAMI

University Botany Laboratory, Chepauk Campus,
Madras 600 005, India.

THE genus *Mesospora* was established by Weber van Bosse¹ with *M. schmidtii* as the type on the basis of material collected in Indonesia. Later it was reported from Malayan Archipelago², Vietnam³, Solomon Islands⁴ and Japan⁵. This is the first report of this genus from Indian coasts.

During a visit to the Andaman islands the authors collected *Mesospora schmidtii* Weber van Bosse from Chiryatapu, about 20 km from Port Blair. The alga grows epiphytically on roots of *Rhizophora* sp (figure 1) as thin, circular to irregular brownish crusts with marginal growth (figure 2), about 335 μm thick and 2-3 cm in diameter. The thallus has a basal disc composed of 1-4 layers of cells, from which somewhat clavate erect filaments arise (figure 3). The branching of filaments of the basal disc can be seen by scrapping the erect filaments. The diverging basal filaments laterally adhere to form a disc (figure 4). Erect filaments are held together loosely and are easily separated by applying slight pressure. Cells of the basal layers are radially cylindrical or barrel-shaped, 10-11 μm long and 6-10 μm high. The erect filaments are composed of upto 28, slightly barrel-shaped cells, which are about 6 μm broad and 12 μm high. The tip cell of each erect filament is slightly enlarged, about 9 μm broad and 9-18 μm high. Each cell has a single plate-like chromatophore and several fucosan vesicles (figure 5). Hairs in groups are produced in the place of erect filaments from the basal layer (figure 6). Plurilocular sporangia are intercalary in position on erect filaments, located 1-3 cells below the apex of erect branches. Each plurilocular sporangium may consist of a single linear series of two to four cells, each of which appears to divide by both longitudinal and transverse walls. The plurangium measures 22-31 μm in length and 6-8 μm breadth (figure 7). It must be stated that totally mature sporangia have not been observed. Examination of lower parts of the erect filaments revealed the presence of unilocular sporangia on plants distinct from those having plurilocular sporangia, had a small stalk cell, and were club-shaped, 71-99 μm long and 25-35 μm broad (figure 8).

Habitat: Growing on roots of *Rhizophora*, collected at Chiryatapu, Port Blair on 4.3.1982. Leg. V.



Figures 1–8. *Mesospora schmidtii* Weber van Bosse. 1. A crust on root bark of *Rhizophora*. 2. Part of vertical section of the thallus through the edge showing the marginal cell. 3. Part of vertical section of the thallus showing 2 layered basal system and free, clavate erect filaments. 4. A portion of the laterally adhered, divergent basal filaments. 5. Cells of the erect filaments showing single plate-like chromatophore and fucosan vesicles. 6. Part of vertical section of the thallus showing the occurrence of a group of hairs. 7. Part of vertical section of the thallus showing intercalary plurilocular sporangia. 8. Unilocular sporangia.

Krishnamurthy, A. K. S. K. Prasad and M. Baluswami and deposited in Herb. No. 6534 at Centre for Advanced Studies in Botany, University of Madras, Madras.

Boergesen⁶ described *M. vanbossae* from the Easter Island and Feldmann⁷ described *M. mediterranea* from the Mediterranean. Recently Tanaka and Chihara⁵ transferred *Ralfsia pangoensis* Setchell⁸ and

Ralfsia pangoensis Setchell var. *galapagensis* Setchell et Gardner⁹ to *Mesospora*.

The present alga shows all features of *M. schmidtii*. It resembles *M. mediterranea* to some extent in having occasionally two-layered basal system and in the size, shape and number of cells in the erect filaments. However, it differs from *M. mediterranea* in having plate-like chromatophore and absence of rhizoidal growth from the basal system. The unilocular sporangium of *M. schmidtii*, moreover is elongated and club-shaped. The length of the sporangium always exceeds three times its breadth, whereas in *M. mediterranea* the sporangium is more globose, the length never exceeding twice the breadth of the sporangium.

The Andaman alga also differs from *M. vanbossae* in the limited number of layers of cells in the basal disc. Tanaka and Chihara⁵ discussed *M. pangoensis* and opined that this species resembles to a large extent *M. schmidtii*. In the absence of knowledge regarding the plurilocular sporangium of the former species, it would seem best to identify the present alga as *M. schmidtii*.

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11 February 1986

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