

Table 1 Comparative morphological characteristics of *S. atra* var. *microspora* (Mathur and Sankhla) and *S. microspora* (present isolate).

Character	<i>S. atra</i> var. <i>microspora</i> (Mathur and Sankhla)	<i>S. microspora</i> (present isolate)
Colony	Black, with central portion dark and outer rings light in colour.	Uniformly brown colonies.
Mycelium	Subhyaline to hyaline branched, septate, measuring 2.4–4.0 μm in diameter.	Hyaline, septate measuring 1.5–2.5 μm in diameter.
Conidiophores	48–80 \times 2.4–4 μm brown, 2–3 septate, the apical cell paler in colour with swollen tip.	50–55 \times 2.5–3 μm , hyaline at young age but the apical cell became dark olivaceous towards the apex at maturity, upper part of apical cell rough walled.
Phialides	5–8 in number, obovate to clavate, subhyaline to light brown 6.4–8 \times 2.0–2.4 μm .	2–6 in number, obovate to pyriform hyaline, detachable 8–9 \times 4–5 μm .
Conidia	Borne in chain, elliptical, smooth having two guttules smoky brown, 6.4–8 \times 2.4–3.2 μm .	Arising singly, at young age elliptical to pyriform, becoming globose, coarsely roughened, enclosing no guttules, blackish brown, 5–6 μm in diameter.

firming the identity of the fungus. Thanks are also due to Dr R. R. Das for providing laboratory facilities.

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1. *Munsell Soil Colour Charts*. Munsell Colour Macbeth Division of Kollmomen Corporation, Baltimore, Maryland, 1975.
2. Martin, J. P., *Soil Sci.*, 1950, 69, 215.
3. Warcup, J. H., *Nature (London)* 1950, 166, 177.
4. Jong and Davis, E. E. *Comb. nov. Mycotaxon.*, 1976, 3, 448.
5. Bilgrami, K. S., Jamaluddin and Rizwi, M. A., *Fungi of India*, Part 2, Today and Tomorrow's Printers and Publishers, New Delhi, 1981.
6. Mathur, B. L. and Sankhla, H. C., *Sci. Cult.*, 1966, 32, 92.

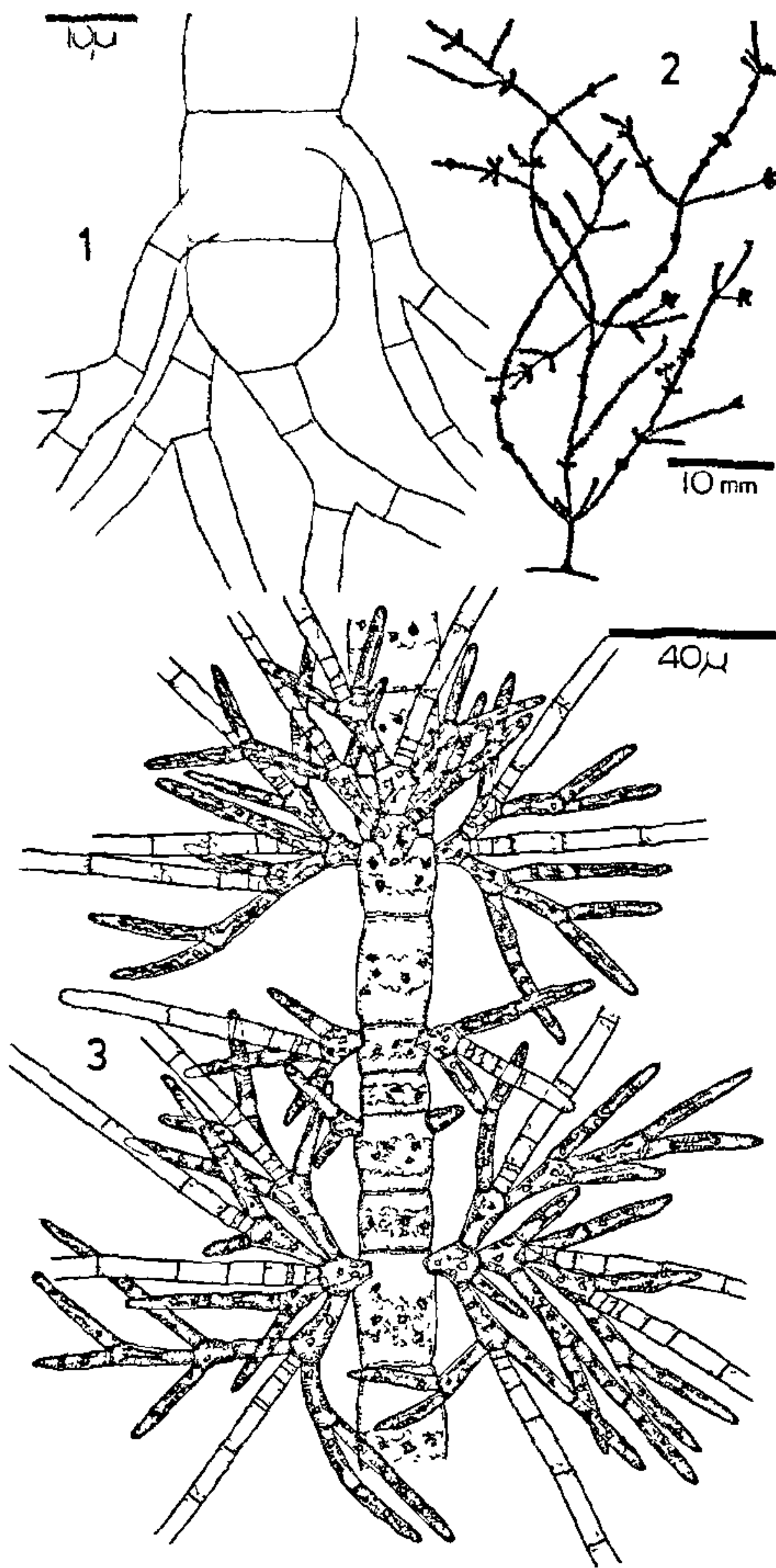
DRAPARNALDIA CHAMPLAINENSIS COOK (CHAETOPHORALES—CHLOROPHYTA): AN ADDITION TO THE INDIAN FLORA

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THE genus *Draparnaldia* Bory is represented in India only by three species viz., *D. plumosa* Agardh^{1,2}, *D. acuta* (C. A. Ag.) Kutz^{3,4} and *D. iyengarii* Tiwari et al^{5,6}. During the course of our study of Chaetophoralean forms of India, the authors found *D. champlainensis* Cook (figure 2) in a fresh water stream of Madhya Pradesh. *D. champlainensis* was first described from lake Champlain in USA⁷. Thereafter it has not been reported from any other part of the world. Long filaments of the plant were collected from a permanent fresh water stream of village Bandhogarh in Satna district of Madhya Pradesh during May 1983.

Plants upto 9 cm in length (figure 2) were attached to the stone pebbles and exposed roots of angiosperms by their rhizoidal branches originating from the basal cells of the axis (figure 1). Occasionally, at the originating points of long lateral, hyaline rhizoidal branches were developed which irregularly coiled around the main axis and formed a sort of cortication. However, cortication is not so pronounced as reported for *D. champlainensis* by Cook. Filaments are profusely branched, branches always originating just below the septa. These are of two types: (1) Short laterals or branches of limited growth (figure 3) formed in whorls from most of the cells and covering the entire axis and giving a beaded appearance to the filaments. (2) Long laterals or branches of unlimited growth which are modified short laterals and which are also formed usually in whorls of four at irregular intervals. Usually in a particular whorl of long lateral, all laterals are nearly equal in length but there is a tendency to have one long lateral more pronounced. Cells of the main axis are barrel shaped. They measure upto 30 μm in width and 10–45 μm in length and contain a parietal girdle of chloroplast with usually upto four pyrenoids. Each of the short laterals produces upto four hyaline hairs (figure 3) from its basal portion. Hairs are upto 5 μm in breadth. Terminal cells of the laterals are long, attenuated at their distal portion but never produce hairs. Cells of the short laterals are upto 8 μm in breadth and 60 μm in length. These contain a parietal band of chloroplast with two pyrenoids, often covering the entire space of the cell.



Figures 1–3. *Draparnaldia champlainensis* Cook. 1. Showing Rhizodal part. 2. Habit of the alga. 3. Main axis having short laterals.

The present alga is similar to the type description in the shape of the cells of the main axis and short laterals and in the girdle shaped chloroplast with several pyrenoids. The number, position and the trichothallic growth of the hair are also the features showing resemblance with *D. champlainensis* Cook.

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1. Sarma, Y. S. R. K. and Khan, M., *Algal Taxonomy in India*, To-day & Tomorrow's Publishers, New Delhi, 1980, p. 43.
2. Randhawa, M. S., *Proc. Indian Acad. Sci.*, 1936, 4, 36.
3. Patel, I. A. and Vaidya, B. S., *J. Bombay Nat. Hist. Soc.*, 1972, 69, 237.
4. Shaikh, A. A. and Vaidya, B. S., *Phykos*, 1972, 11, 64.
5. Tiwari, G. L., Pandey, D. C. and Pandey, R. S., *Phycologia*, 1979, 18, 237.
6. Tiwari, G. L. and Pandey, D. C., *Recent Researches in Plant Sciences*, 1979, p. 28.
7. Cook, P. W., *J. Phycol.*, 1970, 6, 62.

SOME SAPROLEGNACEOUS FUNGI PARASITIZING *MACROBRACHIUM LAMARREI* H.M. EDW. AND THEIR EGGS

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WHILE surveying the pathogenic fungi associated with freshwater prawn and their eggs, some diseased specimens of *Macrobrachium lamarrei* H.M. Edw. carrying infected eggs (figure 1) were collected from river Rapti, Gorakhpur district in August 1982. Detailed microscopic observations in the laboratory revealed that about 80% of the eggs, clasped within the appendages, were covered with fungal mycelia and the abdominal region of the prawns also showed mycelial threads coming out (figure 2). Cottony outgrowths were clearly visible on the surface of the infected eggs (figure 3). The infected eggs were opaque and whitish in appearance while the healthy eggs were transparent and light green in colour.

Fungi involved in the infection were isolated on boiled hempseed halves in sterile distilled water. Their unifungal, bacteria-free cultures were prepared on the lines described earlier¹⁻³. The isolates were identified