

# New records of Chaetophorales (Chlorophyta) from West Bengal, India

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Four rare members of Chaetophorales, viz. *Chaetophora attenuata* Hazen, *Gomontia holdenii* Collins, *Microthamnion kuetzingianum* Nageli and *Pseudulvella americana* (Snow) Wille have been described for the first time from West Bengal.

**Key-words**— Chaetophorales, New records, West Bengal, India.

## INTRODUCTION

IN consideration with the magnificent diversity of the algal flora of West Bengal, the work on Chaetophorales (Brühl & Biswas 1923, Randhawa 1958, Saxena 1962, Sarma & Mustafa 1983, Sarma & Kargupta 1983, 1987, Kargupta et al. 1986, Kargupta 1996, Kargupta & Sarma 1991, is very little known. Present report adds four new records from West Bengal which otherwise are rare and infrequently distributed in India.

Algal samples were collected from different regions of West Bengal. The samples were preserved in FAA with glycerine (50 ml/litre of the preservative). pH and temperature were recorded at the collection spots. Camera Lucida drawings were made from the preserved material within 6 months from the date of preservation.

## OBSERVATION

**1. *Chaetophora attenuata*** Hazen (Hazen 1902, p. 213, pl. 39, f. 1-2; Prescott 1962, p. 118, pl. 13, f. 4, 5; Printz 1964, p. 202, pl. 57, f. 1-2).

Plate 1, Figs. 1-3

Thallus an irregular colony, heterotrichous; prostrate cells nearly rounded, 17  $\mu$   $\times$  21-25  $\mu$ ; cells of primary axis mostly cylindrical, 8  $\mu$   $\times$  21-33  $\mu$ ; branching alternate or di- or trichotomous, originating from near or far from the upper end of cells; branch

cells cylindrical, rarely constricted, 6-8  $\mu$   $\times$  17-29  $\mu$ , sometimes terminating in colourless hair; chloroplast parietal, filling half the circumference of the cell; rhizoids developing frequently from cells of axis and branches.

**Collection:** No. AKG 462, 13.11.1980, superficially attached with *Vallisneria* leaf in a bil (pH 7.0, temp. 22.5°C) of Kupai (Dt. Birbhum); No. AKG 748, 12.1.1982, associated with *Jussiaea* sp. in a pond (pH 7.5, temp. 25°C) of Belgaon (Dt. Birbhum).

**Distribution:** Andaman and Nicobar Islands (Prasad & Misra 1980); Bihar (Sinha & Das 1963-64, 1965); Karnataka (Krishnamurthy 2000); U.P. (Sarma & Shashikala 1980).

**2. *Gomontia holdenii*** Collins (Printz 1964, p. 214, pl. 59, f. 6-9)

Plate 2, Fig. 7

Thallus filamentous, growing within shells of a mollusk; cells quadrangular to irregular, thick walled, 6-13  $\mu$   $\times$  6-13  $\mu$  in size; chloroplast diffuse, completely filling the cell, uninucleate, akinetes terminal and often in series, ellipsoid to irregular, thick walled, 13-26  $\mu$   $\times$  16-33  $\mu$ ; rhizoids long unicellular.

**Collection:** No. AKG 40, 11.1.1980, growing within the shells of a snail associated with *Cladophora* sp. in a pond (pH 7.5, temp. 21°C) of Tantipara (Dt. Birbhum).

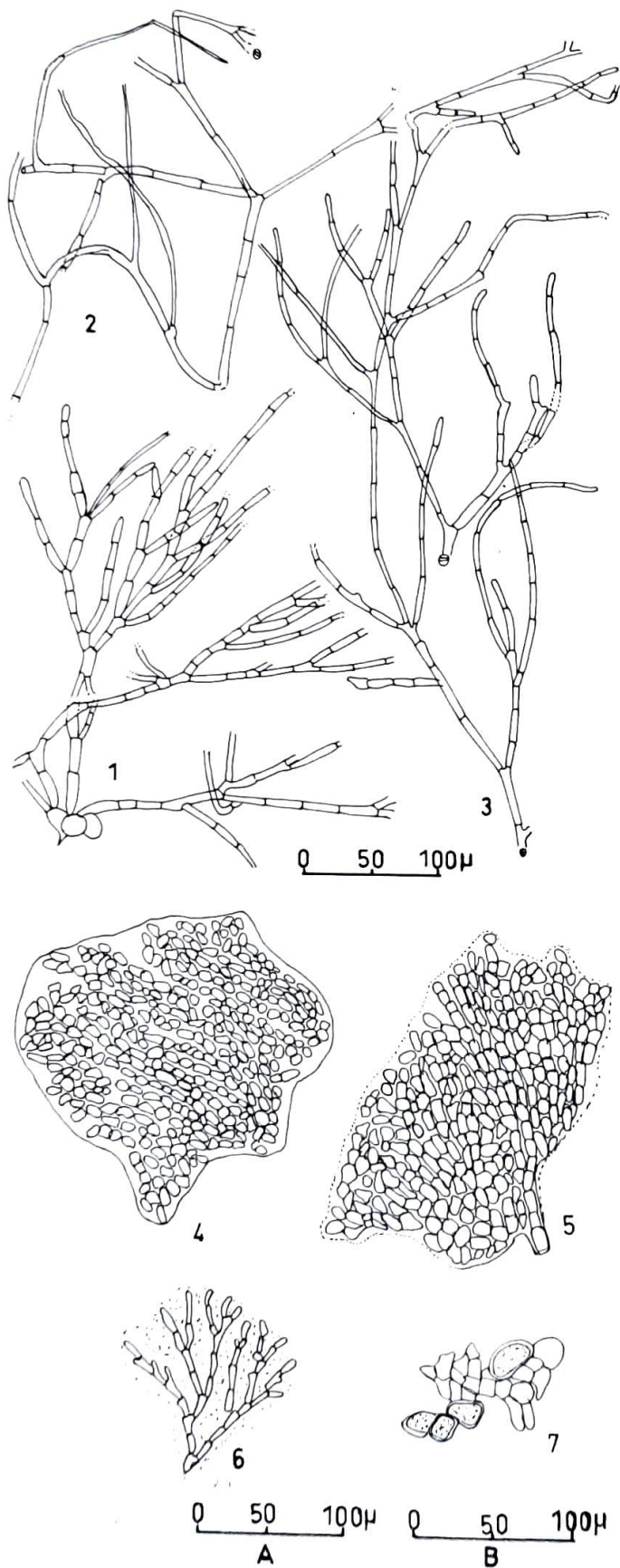


Fig. 1-7. 1. *Chaetophora attenuata* Hazen (Figs. 1-3), 2. *Gomontia holdenii* Collins (Fig. 7, Scale A), 3. *Microthamnion kuetzingianum* Wille (Fig. 6, Scale A), 4. *Pseudulvella americana* (Snow) Wille (Figs. 4, Scale A), (Figs. 5, Scale B)

*Distribution*: Maharashtra (Kamat 1975).

**3. *Microthamnion kuetzingianum*** Wille (Prescott 1962, p. 122, pl. 11, f. 4; Printz 1964, p. 286, pl. 88, f. 1-8; Starmach 1972, p. 421, f. 431, 432)

Plate-2, Fig. 6

Thallus erect, fragile, 124-126 m × 137 m in dimension filamentous, branched; branching lateral at lower part, dichotomous at upper part; young branches sometimes without separation wall; cells 4-5 m × 10-25 m, cylindrical; chloroplast single, parietal; pyrenoids absent.

*Collection*: No. AKG 630, 16.3.1981, free floating in association with aquatic grasses and *Eichhornia* sp. in a dighi (large tank) (pH 7.0, temp. 27.5°C) of Sagardighi (Dt. Murshidabad).

*Distribution*: U.P. (Khan 12970, Yadava & Pandey 1976).

**4. *Pseudulvella americana*** (Snow) Wille (Prescott 1962, p. 124, pl. 15, f. 6; Printz 1964, p. 294, pl. 91, f. 2-4)

Plate 2, Figs. 4-5

Thallus prostrate, discoid, irregular, surrounded by mucilage, 99-125 m × 141-158 m; chloroplast single, parietal or diffuse, uninucleate.

*Collection*: No. AKG 7, 9.1.1980, attached on aquatic grasses in a pond (pH 8.5, temp. 22.5°C) of Suri (Dt. Birbhum); No. AKG 57, 12.1.1980, attached on aquatic weeds in a pond (pH 7.0, temp. 24.5°C) of Lovepur (Dt. Birbhum); No. AKG 77, 17.1.1980, attached on *Nymphaea* sp. in a pond (pH 6.5, temp. 28.5°C) of Gusoro (Dt. Birbhum).

*Distribution*: Tamilnadu (Philipose 1946); U.P. (Singh et al. 1981).

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