



AQUATIC HYPHOMYCETES FROM NANDURBAR DISTRICT OF MAHARASHTRA

C. M. Pawara

S. P. D. M. College, Shirpur Dist. Dhule, Maharashtra, India.

Abstract:

The present paper deals with four species of Aquatic fungi belonging to three genera of hyphomycetes isolated from foam samples collected from the Tapi river of Nandurbar District. The foam spora of this region represents mixture of both tropical and temperate species. All the four species are being reported for the first time from Nandurbar district of Maharashtra. Brief notes and illustration are given for each taxon. Geographical distribution of each species in India is also provided.

Key Words: Aquatic Hyphomycetes, Nandurbar, Maharashtra.

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Introduction:

The occurrence of water borne hyphomycetes was studied from various parts of India by Ingold and Webster (1973), Subramanian and Bhat (1981), Shridhar *et. al.* (1992), Galiyah and Manoharachary (1987), Agrawal *et. al.* (1990), Sati and Tiwari (1997), Sati *et. al.* (2002), Rajshekhar and Kaveriappa (2003).

In Maharashtra, these fungi were reported by Thakur (1977), Patil and Kapadnis (1980), Talde (1981), Patil (1998), Borse and Patil (2006), Borse and Patil (2007). In the present investigation four species of aquatic hyphomycetes studied from foam samples from the Tapi river of Nandurbar District were reported.

Materials and Methods:

The foam samples were collected from the Tapi river of Nandurbar District during September 2023. Soon after collection in small plastic vials, the foam was fixed by adding a few drops of formalin acetic acid alcohol (FAA) mixture. They were latter scanned under microscope in the laboratory for the presence of conidia.

The encountered fungal species were identified with the help of Ingold (1975), Marvanova (1997). The

distributions of these fungi were confirmed with the help of Kamat *et. al.* (1971), Bhide *et. al.* (1987), Bilgrami *et. al.* (1991), Sarbhay *et. al.* (1986, 1996), Shridhar *et. al.* (1992), Jamaluddin *et. al.* (2004) and relevant literature.

Result and Discussion:

Actinospora megalospora Ingold (Plate - 1, Fig. 1)
Trans. Br. Mycol. Soc., **35**: 66 - 70

Conidia: hyaline, branched, the main body globose or ovoid 35 - 50 μm diameter with 4 - 5 μm long, slender, straight, colourless arms or branches 100 to 180 μm long, 8 μm wide and 1 - 4 septate.

Habitat: Conidia found in foam samples of the Tapi river.

Distribution in India: Maharashtra (Patil and Kapadnis, 1980; Patil V. R. and Borse B. D. 2015), Karnataka (Sridhar and Kaveriappa, 1982, 1989d, 1992), Kerala (Sridhar and Kaveriappa, 1985a), Uttar Pradesh (Mer and Sati, 1989), Andhra Pradesh (Sarma and Manoharachary, 1989; Sridhar and Kaveriappa, 1988c).

Triscelophorus acuminatus Nawawi (Plate - 1, Fig. 2)
Trans. Br. Mycol. Soc., **64**: 346, 1975.

Conidia: tetra radiate, each consist of a main axis



tapering gradually to about 0.5 μm at the apex, up to 8 - septate, not constricted at the septa. Main axis 44 - 66 μm long and 3.5 - 5 μm at the widest point. The arms are connected to the basal cell by a very narrow, thread like isthmus. The arms are slightly shorter (21- 54 X 3 - 4.5 μm) than the axis.

Habitat: Conidia found in foam samples of the Tapi river.

Distribution in India: Karnataka (Sridhar and Kavariappa, 1982, 1988a, Ramesh and Vijaykumar 2000), Kerala (Sridhar and Kavariappa, 1985a), Western Ghat (Raviraja, Sridhar and Barlocher, 1996), Maharashtra (Borse and Patil, 2006; Ahire *et. al.* 2009, Patil *et. al.* 2011; Nemade *et. al.*, 2009, 2010), Madhya Pradesh (Chaudhari *et. al.* 2016).

Triscelophorus monosporus Ingold (Plate - 1, Fig. 3)

Trans. Br. Mycol. Soc., **26**: 151

Conidia: tetra radiate, hyaline main axis with 3 lateral branches. Main axis with a septum just above the point of origin, 40 - 60 μm long, 4 - 5 μm wide above the base and 1.5 μm at the apex. Lateral branches arising in whorl below the septum of the main axis, 30 - 40 μm long, constricted at the point of attachment.

Habitat: Conidia found in foam samples of the Tapi river.

Distribution in India: Tamilnadu (Ingold and Webster, 1973), Maharashtra (Patil and Kapadnis, 1980; Patil V. R. and Borse B. D. 2015), Karnataka (Sridhar and Kaveriappa, 1982, 1986b, 1989b; Ramesh and Vijaykumar 2000), Kerala (Sridhar and Kaveriappa, 1985a), Western Ghats (Raviraja *et. al.*, 1996), Madhya Pradesh (Chaudhari *et. al.*, 2016).

Wiesneriomyces laurinus (Tassi) Kirk (Plate - 1, Fig. 4)

Trans. Br. Mycol. Soc., **82**: 748

Coindia chain: 7 - 9 celled, 60 - 90 μm . long with individual cells 9 - 11 μm , long x 3 - 3.5 μm wide.

Habitat: Conidia found in foam samples of the Tapi river.

Distribution in India: Tamilnadu (Ingold and Webster,

1973), Maharashtra (Patil and Kapadnis, 1980, Ahire *et. al.* 2009, Patil V. R. and Borse B. D. 2015), Karnataka (Sridhar and Kaveriappa, 1982, 1986b, 1989b; Ramesh and Vijaykumar 2000), Kerala (Sridhar and Kaveriappa, 1985a), Western Ghats (Raviraja *et. al.*, 1996), Madhya Pradesh (Chaudhari *et. al.* 2016).

Conclusion: Conidia of *Triscelophorus acuminatus* and *Triscelophorus monosporus* were observed in most of the foam samples. Conidia of *Actinospora megalospora* and *Wiesneriomyces laurinus* were rarely observed.

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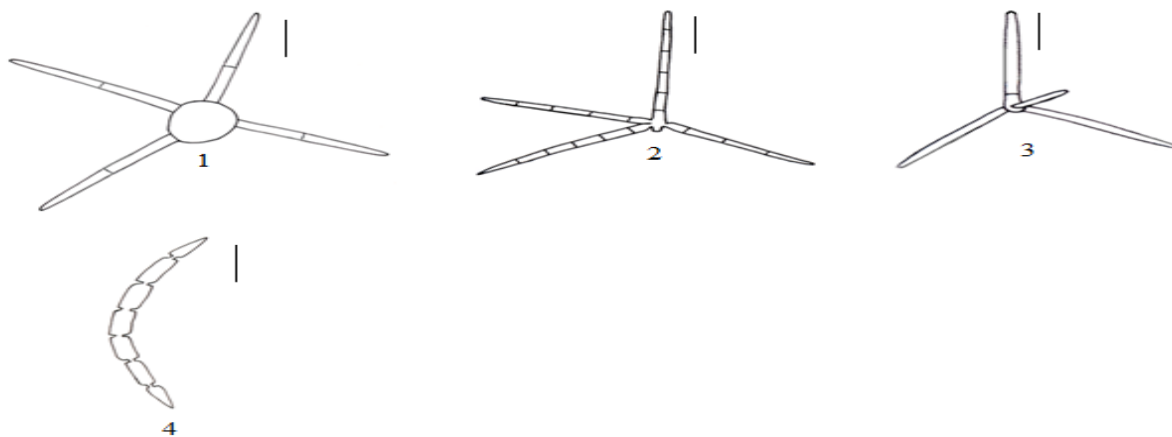
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Plate - 1



Figures:

- 1) *Actinospora megalospora* Ingold 2) *Triscelophorus acuminatus* Nawawi
3) *Triscelophorus monosporus* Ingold 3) *Wiesneriomyces laurinus* (Tassi) Kirk

Scale bar: 1 cm = 20 μ m

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