

## New Distribution record of *Hemitrichia serpula* from Kolhapur, Maharashtra, India.

Ms. B.B. Naiknaware

K.B.P. College Pandharpur, Maharashtra, India

Email : [naiknawarebhagysfri@gmail.com](mailto:naiknawarebhagysfri@gmail.com)

Article Info	ABSTRACT
<p><b>Article History:</b> Received: 22<sup>nd</sup> August 2025 Accepted: 13<sup>th</sup> Sep 2025 Published: 21<sup>st</sup> Sep 2025</p>	<p>This study reports a new distribution record of <i>Hemitrichia serpula</i> (Fr.) a species myxomycetes belongs to family trichiaceae and order trichales, from Kolhapur, Maharashtra, India. The species was identified based on its morphological characteristics, including its distinct, pale ochre-coloured fruiting bodies and the unique features of the spore and capillitium morphology. The specimen was collected from decomposing bark of palm plant moist, shaded garden area of Department of Botany Shivaji University Kolhapur. This is the first recorded observation of <i>Hemitrichia serpula</i> from the Kolhapur region, expanding the known geographical distribution of the species in India. The significance of this new distribution record in understanding the biodiversity of saprophytic fungi in the Western Ghats. This record highlights the need for further mycological surveys to explore the richness of fungal diversity in understudied regions of India.</p>
<p><b>Keywords:</b>  <i>Myxomycetes</i>, <i>Trichiaceae</i>, <i>Hemitrichia</i>, <i>serpula</i>.</p>	
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## Introduction:

The plants belong to Araceae family i.e dead palm leaves and bark are good substrates for a number of Myxomycetes species (Pôrto et al. 1985; Villaró 1991; Alves & Cavalcanti 1996). Among them is *Hemitrichia serpula* (Scop.) Rost. (Trichiaceae), a cosmopolitan species characterized by its golden yellow to brown plasmodiocarps, spinulose capillitium and reticulate spores. This specimen has somewhat more robust capillitium (8-10µm diam.), with spiny spirals; it has the typical spore reticulation, with about 5-6 meshes across the diameter. Plasmodiocarps of *H. serpula* with reticulated spores and capillitium bearing long spines were collected in garden area of Department of Botany Shivaji University Kolhapur which fruited on palm trees, recently collected in this region.

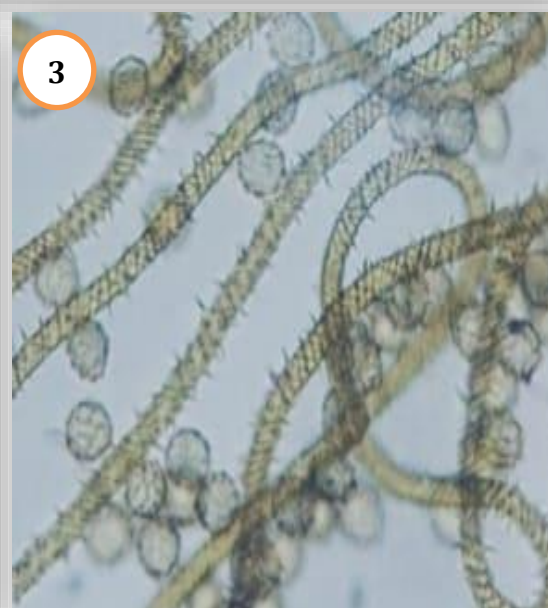
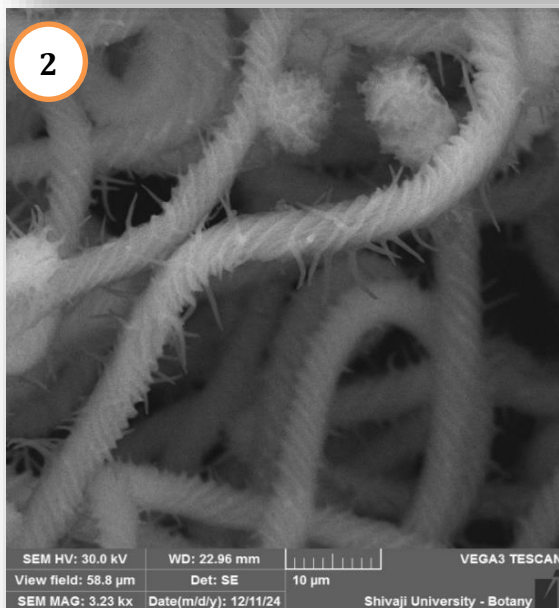
## Materials and Method:

Fructifications were collected on dead bark of palm tree during the moist season (December and January), in the botanical garden of Shivaji university Kolhapur. (4°5' - 4°15'S, 41°30' - 41° 40'W, 180m elev.) Traditional herbarium methods were used in collecting and dehydrating specimens (Farr1976). The material was observed through the light microscope (LM) under oil immersion objective (Teixeira 1971), and with the scanning electron microscope (SEM). Fructifications were prepared for scanning electron microscopy as follows:

capillitium and spores were placed on double adhesive cellophane tape mounted on a specimen stub, sputter-coated with gold (Fine coat sputter Quorum), and examined in a VEGA 3 SBU TESCAN Microscope. The nomenclature followed in this paper is that of Martin *et al.* (1983) and Martin & Alexopoulos (1969).

## Results and discussion:

*Hemitrichia serpula* specially characterized by its plasmodiocarp which is branched, reticulate, orange to yellow, shining. Hypothallus membranous, dark brown. Peridium single, membranous, persistent, yellow by transmitted light. Capillitium are tubular, elastic, bright yellow; capillitial threads are ornamented, branched, with short, scattered spines and spiral bands. Capillitium 4.5-6.0 (-8.0) µm diameter. Spores 10.0-16.0µm diameter. Irregularly reticulate, mesh 3.0-4.5µm large.



- 1) Habit of *Hemitrichia serpula*,
- 2) SEM Photograph of spiny capilitium and reticulate spores
- 3) light microscopic view of spiny capilitium and reticulate spores.

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