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Print & Online available on https://jbsd.in
ISSN: 2229-3469 (Print); ISSN: 2231-024X (Online)
Research Article

First report of powdery mildew on *Tecoma capensis* caused by *Pseudoidium* sp. in India

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Article Info

Received: 06-03-2025,
Revised: 16-05-2025,
Accepted: 05-06-2025

Keywords: *Erysiphe* sp – *Pseudoidium* sp – *Tecoma capensis*

Abstract

In September 2024, leaves of *Tecoma capensis* with typical symptoms of powdery mildew were collected in the Botanical Garden of Yashavantrao Chavan Institute of Science, Satara (Maharashtra) India. Based on its morphological characters, the pathogen was identified as *Pseudoidium* sp. (*Erysiphe* sp.). This is the first report of powdery mildew on *P. venusta* in India.

INTRODUCTION

Tecoma capensis (Bignoniaceae), also commonly known as flame vine or orange trumpet vine. This plant is originally native to Southern Brazil, Bolivia, Northeastern Argentina and Paraguay; It is a widely cultivated as garden species.

During September 2024, the occurrence of powdery mildew in its anamorph stage was observed in the Botanical Garden of Yashvantrao Chavan Institute of Science Satara, M.S. India (17º42.940'N, 73º48.786'E,) altitude733m. Later on, this disease was also collected from different localities of the district. Symptoms included white powdery growth consisting of epiphytic mycelia and conidia on adaxial and abaxial leaf surfaces (Fig.1a, b). Severely infected plants were defoliated, andthe pathogen was collected in its anamorph stage and readily identified as *Pseudoidium* sp. (*Erysiphe* sp.).

MATERIAL & METHODS

Infected leaves samples were collected, and symptoms were examined by light microscopy. A reference specimen HAL 2963 F was deposited in the Geobotany Herbarium of Martin Luther University, Halle, Germany.

RESULTS AND DISCUSSION

Mycelium amphigenous, effuse or in thin patches, persistent; hyphal appressoria lobed, solitary 3–7µm (Fig.1f). *Conidiophores* erect from top of mother cell, foot-cells cylindrical, straight, somewhat curved, smooth walled, hyaline, 15 – 45× 5 – 14µm, followed by predominantly a longer and 1–2 shorter cells, occasionally by a cell or cells of approximately the same length, forming conidia singly (Fig. 1c). *Conidia* cylindrical, ellipsoid, ovoid, smooth walled, hyaline, 25 – 45 × 12 – 21µm without fibrosin bodies (Fig. 1d), germ tubes terminal or showing longitubus pattern, smooth walled, hyaline (Fig.1e).Telomorph not observed. According to the combination of these features, based on morphotaxonomic features the present pathogen is treated as *Pseudoidium* sp.

Tecoma capensis infected by different pathogens reported by (Rajak & Pandey 1985, Pande & Rao VG.1995, Kamal 2010) However, there is no record of *Pseudoidium* sp. on *T. Capensis* from India or elsewhere (Bilgrami et al. 1991, Jamaludin et al. 2004, Paul & Thakur 2006, Pande 2008, Hosagoudar & Agarwal 2009, Braun & Cook 2012,). Therefore, this is the first report of *Pseudoidium* sp. on *T. Capensis* in India.

Acknowledgement

The authors sincerely thank Prof. Uwe Braun for providing literature and valuable suggestions. Thanks, are also due to Head Department of Botany and Principal of Karmaveer Bhaurao Patil Mahavidyalaya, Pandharpur (Autonomous) Dist. Solapur, Maharashtra, India

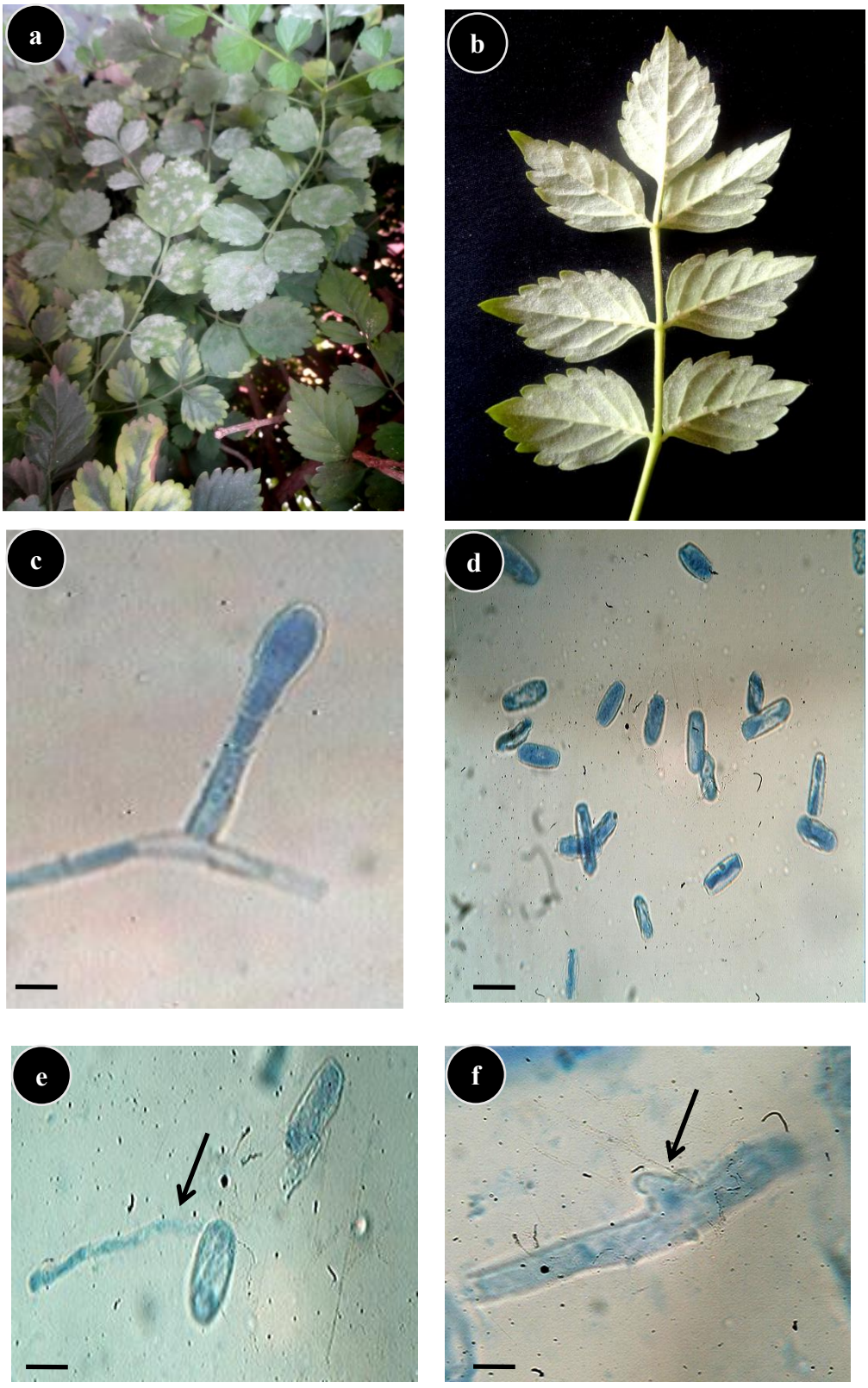

Fig. 1 – a Infected host showing powdery mildew symptoms. B Symptom on abaxial fleaf surfaces. c Conidiophores with conidia . d Conidia at 45x. e Arrow indicates shoulder type germination of conidium. f Arrow indicates bilobed hyphal appressorium. **(Bar, a-f= 20 µm).**

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Cite this article

Madane AN and Thite SV, 2025. First report of powdery mildew on *Tecoma capensis* caused by *Pseudoidium* sp. in India. *Bioscience Discovery,* **16**(3):27-29.