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First Report of Erysiphe sp. (Pseudoidium sp.) Causing Powdery Mildew on Ipomoea quamoclit L. from India

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**First Report of *Erysiphe* sp. (*Pseudoidium* sp.)
Causing Powdery Mildew on *Ipomoea*
quamoclit L. from India**

Ipomoea quamoclit L. commonly known as cypress vine is an herbaceous perennial ornamental plant belonging to the family Convolvulaceae. This plant is a native of Mexico and Central America and from some regions of India. It is reported as ornamental for its attractive foliage and bright flowers (Rehman *et al.*, 2020). Stem slender, annual, twiners, glabrous. Leaves 7.5-12.5cm long, pinnatipartite to the midrib into 8 to 20 pairs of linear patent segments (Bhagat *et al.*, 2008 and Singh *et al.*, 2001). The plant is medicinally important, used in treatment of cancer, breast pain and bleeding piles (Sultana and Mahbubur, 2016).

During the field survey of Jejuri, Dist. Pune, Maharashtra, India (17°25'35"N, 74°14'98"E, Altitude 990.05m) in September 2020, *I. quamoclit* was found infected with powdery mildew fungus (Fig. 1a, b). The voucher specimen was deposited in the Ajrekar Mycological Herbarium at Agharkar Research Institute, Pune (M.S.), India (Accession No. AMH-10304). The fungal material was mounted in lactophenol, stained with cotton blue and microscopically examined under the light binocular microscope.

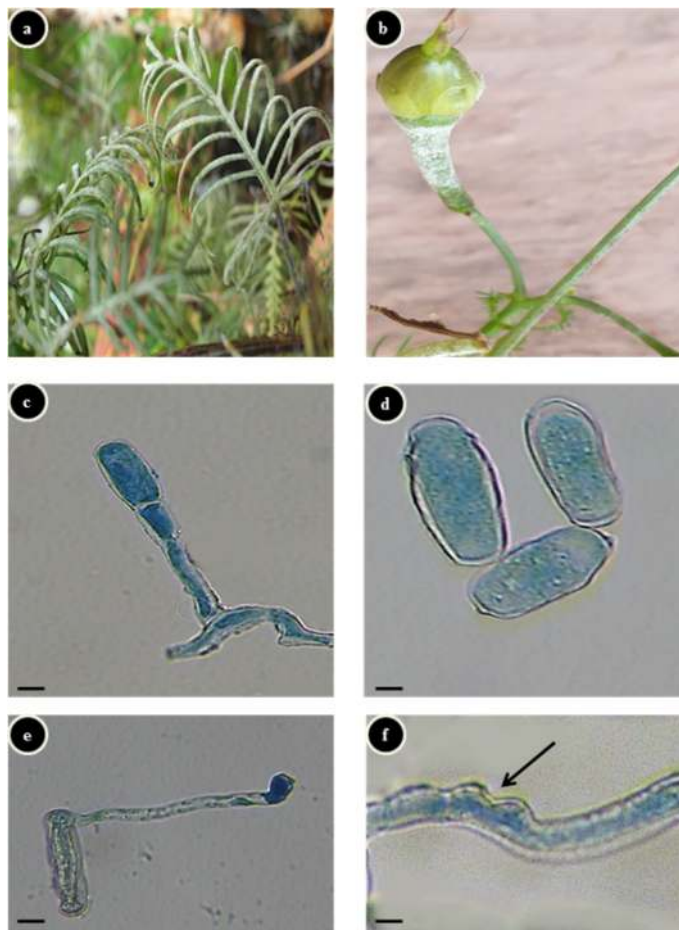


Fig. 1 a-f: a- Infected leaves of *I. quamoclit* b - Symptoms on young fruit and pedicel, c - Conidiophore (40 x), d - Conidia (40x), e - Germinated conidium, f - Arrow indicates bilobed hyphal appressorium (Bar, wherever marked = 20 μ).

During the microscopic examination only anamorphic stage was found. The anamorph morphologically characterized as: mycelium amphigenous, thin, forming patches; hyphae septate, hyaline, profusely branched; hyphal appressoria distinctly or slightly lobed (Fig. 1f). Conidiophores erect, arises from the upper surface of mycelium, foot cells straight to slightly curved, cylindrical up to 26.18-52.36 x 7.48-11.22µm average 35.06 x 9.11µm followed by 1–2 shorter cells (Fig. 1c). Conidia hyaline elliptical to cylindrical about 26.53-45.48 x 5.79-18.95µm average 34.29 x 12.88µm (Fig. 1d), fibrosin bodies absent and conidia formed singly. Germ tubes terminal or subterminal, more or less straight and about 14.96 to 74.80µm average 49.55µm (Fig. 1e).

Considering the combination of these symptoms and microscopic characters of powdery mildew fungus on *I. quamoclit*, pathogen had easily been identified as species of *Pseudoidium* (Braun and Cook, 2012). According to the new ICN rules, *Pseudoidium* Hammet. is now a heterotypic synonym of *Erysiphe* DC. The teleomorph was not observed throughout the study.

It is evident from the previous studies that this powdery mildew had not been reported on *Ipomoea quamoclit* from India (Jamaluddin *et al.*, 2004; Paul and Thakur, 2006; Hosagoudar and Agarwal, 2009; Braun and Cook, 2012). Therefore, this is the first report of powdery mildew caused by *Pseudoidium* sp. (*Erysiphe* sp.) on *I. quamoclit* from India. It is interesting to note

that *I. quamoclit* is native to Mexico and Central America, but powdery mildew had never been reported from there. However, this exotic ornamental plant in India has been found frequently affected by this fungus particularly in winter season.

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