First report of *Podosphaera xanthii* causing powdery mildew on *Xanthium strumarium* in India

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Xanthium strumarium (Asteraceae) is a notorious weed and has been extensively naturalized in India as a common weed (Oudhia and Dixit 1994). During September and October 2016, a powdery mildew infection was observed on leaves of *X. strumarium* in Satara District of Maharashtra, India. Symptoms appeared as sparse white colonies, which subsequently developed abundant growth on adaxial leaf surfaces. The morphological examinations of the fungus revealed mycelium amphigenous, in irregular patches or effuse, thin to dense, evanescent to persistent. The hyphal appressoria were slightly nipple-shaped and solitary. Conidiophores were erect, arising from the upper surface of hyphal mother cells, mostly towards one end of the cell. Foot cells were cylindrical, 40–80 × 10–13 µm, sometimes slightly constricted at the basal septum or slightly swollen at the base, followed by 1–3 shorter

cells. Catenescent conidia, ellipsoid-ovoid to doliiform, 29–42 × 16–21 µm, with germ tubes ± lateral, simple to forked. Chasmothecia were not observed. Based on the morphological characteristics, the pathogen was identified as *Podosphaera xanthii* (Braun and Cook 2012). A reference specimen (HAL-2912F) was deposited in the Herbarium of the Martin Luther University, Halle, Germany. Total fungal DNA of one representative isolate was used for amplification of the internal transcribed spacer (ITS) ribosomal DNA using universal primers ITS5 and ITS4 (White et al. 1990), sequenced and deposited in GenBank (accession No. KX369236). BLASTn analysis showed 100% identity with that of *P. xanthii* from *Verbena bonariensis* from Japan (AB462804). To our knowledge, this is the first report of *P. xanthii* on *X. strumarium* in India.

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