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DISEASE NOTE

First report of white root rot caused by *Dematophora necatrix* on *Aronia melanocarpa* in Turkey

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Aronia melanocarpa (Michx.) Elliott, known as black chokeberry, is a deciduous shrub. In 2021, symptoms of white root rot were observed on 20% of 250 plants surveyed in a 0.4 ha field in Trabzon province, Turkey (41°1′31"N, 39°33′41"E). Disease symptoms involved yellowing and wilting of leaves, root and crown rot. White mycelial mats appeared on stem near the soil surface. Infected tissues were surface-disinfected with 1% NaOCl solution for 1 min and placed on potato dextrose agar (PDA). Petri dishes were kept at 23 °C for 5 days. Ten isolates from each separate plant showed characteristic pyriform swellings of 7 to 10 µm wide in the septa union of mycelia. The fungus produced mycelial cords, initially white, but turning grey to black with time. Conidiophores were erect, branched once or twice, bearing conidia in two rows in the apical fertile parts of 20 to 65 × 7 to 8 µm in size. Conidia were unicellular, hyaline, elliptical with a truncated base and measured 3 to 5 × 2.5 to 3.2 µm. No perithecia were observed. These characteristics were consistent with the description of *Dematophora necatrix* R. Hartig (teleomorph *Rosellinia necatrix*) (Wittstein et al. 2020). In addition, the internal transcribed spacer (ITS) and beta-tubulin DNA regions of the reference isolate Am-1 were sequenced using the primer pairs ITS1/4 and T10/Bt2B and deposited in GenBank (ITS: MZ157019, beta-tubulin: MZ189256. The sequences showed 100–99.7% identity with *R. necatrix* strain CBS349.36 (GenBank Accession Nos. ITS: AY909001, beta-tubulin: KY624310). Pathogenicity tests were performed on 2 year-old-plants of *A. melanocarpa* cultivar Nero with five replicates. The plants were inoculated by placing 4 g of wheat seeds colonized by *D. necatrix* in contact with the roots of each plant. Six weeks after inoculation at 25 °C, inoculated plants developed wilting and root rots with white mycelium, while control plants remained symptomless. The pathogen was reisolated from the roots of inoculated plants. To our knowledge, this is the first report of *D. necatrix* causing white root rot on *Aronia melanocarpa* in Turkey (Farr and Rossman 2021).

Declarations

Ethical statement This article does not contain any studies with human participants or animals.

Conflict of interest All authors declare that they have no conflict of interests.

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