First report of *Erysiphe arcuata* on *Carpinus betulus* in Romania

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Received: 24 September 2020 / Accepted: 29 December 2020 / Published online: 13 January 2021
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Keywords *Erysiphe arcuata* · Powdery mildew · *Carpinus betulus* · Romania

In Romania, *Carpinus betulus* L. is widely distributed in temperate deciduous forests, but is also cultivated in urban green spaces. During the field activities conducted in October 2017 in Romania, trees of *C. betulus* affected by powdery mildew were found in Iași city: several trees in a park (disease incidence 100%) and several dozen in a hedgerow in the Botanical Garden (disease incidence 75%). The symptoms displayed by the examined trees were visible on the upper surface of the leaves and the microscopic examination of the collected samples showed it to be a species of *Erysiphe* section *Uncinula*. Conidiophores were erect, cylindrical, measured 70–130 × 7–12 μm, with foot cells straight accompanied by 1–3 cells, forming conidia singly. Conidia were hyaline, ellipsoid, cylindrical or doliform, and 30–45 × 12–14 μm. Chasmothecia were amphigenous, scattered to gregarious, subglobose, dark brown, 85–130 μm in diameter, showing 9–17 appendages arranged equatorially, hyaline, flexuous, circinate at apex, measuring 150–275 × 5–6 μm, with one septum near the base. The number of asci varied between 4 and 6 per chasmothecium, which were sessile to short stalked, elliptical-ovoid, measuring 40–50 × 30–38 μm, and 2–6-spored. Ascospores were hyaline, elliptical-ovoid, and 16–22 × 10–15 μm. These morphological characteristics matched those of *Erysiphe arcuata* U. Braun, V.P. Heluta & S. Takam. (Braun et al. 2006). In order to confirm the morphological identification, the internal transcribed spacer (ITS) region of two specimens (voucher specimens I 185662 and I 185663) were amplified with the primers ITS1F and ITS4 and sequenced. The sequences were deposited in GenBank (accession Nos. MT889657 and

MT889658). A GenBank BLAST search showed 100% similarities with those of *E. arcuata* AB252473 (Braun et al. 2006) and AB362817 (Pastirčáková et al. 2008). To our knowledge, this is the first report of *E. arcuata* in Romania (Farr and Rossman 2020).

Acknowledgements The authors would like to thank Dr. Lucian Fusu for his help with the molecular analysis.

Data availability The samples (voucher specimens I 185662 and I 185663) are deposited in the Herbarium of Alexandru Ioan Cuza University of Iași, Romania (Index Herbariorum abbreviation: I). The sequences obtained in this study were deposited in GenBank (accession numbers MT889657 and MT889658).

Compliance with ethical standards

Conflicts of interest/Competing interests The authors have no relevant financial or non-financial interests to disclose.

Consent to participate Not applicable.

Consent for publication Not applicable.

Code availability Not applicable.

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