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NEW DISEASE REPORT

First report of *Erysiphe corylacearum* on *Corylus avellana* and *C. colurna* in Slovenia

J. Zajc[1] | M. Rot[2] | D. Snoj[1] | M. Žerjav[1] | H.-J. Schroers[1] | B. Piškur[3] | N. Ogris[3] | A. Brglez[3]

[1]Agricultural Institute of Slovenia, Ljubljana, Slovenia

[2]Institute of Agriculture and Forestry Nova Gorica, Nova Gorica, Slovenia

[3]Slovenian Forestry Institute, Ljubljana, Slovenia

Correspondence
A. Brglez, Slovenian Forestry Institute, Večna pot 2, 1000 Ljubljana, Slovenia
Email: ana.brglez@gozdis.si

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An unusual powdery mildew was observed in three intensive *Corylus avellana* (common hazel) plantations in the Drava region of Slovenia in September 2020 and subsequently in numerous other plantations across Slovenia (e.g., Upper Carniola and Gorizia regions). In October 2022, the same powdery mildew was observed on *C. avellana* in forests, first in Central Slovenia and then in forests throughout the country. It was also observed on an ornamental *C. colurna* (Turkish hazel) in a park in Ljubljana.

The powdery mildew consisted of white mycelium covering areas between c. 2 cm in diameter and almost entire leaf surfaces. The mycelium produced simple conidiophores with broadly ellipsoidal conidia, 26–35 × 17–21 μm (mean 30 × 19 μm) and dark brown chasmothecia (Figure 1), 77–98 μm diameter, with up to 12, 77–103 μm long, hyaline appendages having multiple dichotomously branched tips. The chasmothecia contained 2–6 broadly obovoid asci, 45–62 × 39–51 μm, with hyaline ascospores, 20–25 × 14–19 μm (Figure 2). These characters correspond to those described for *Erysiphe corylacearum* (Braun & Cook, 2012).

Morphological identification of the powdery mildew from specimens collected in plantations and forests were confirmed by sequencing the ITS rDNA region. The obtained sequences (GenBank Accession Nos. OP937343–OP937346 and OP962432) and reference ITS-rDNA sequences (e.g., MW590692 from Romania, MN822722 from Switzerland, and MW031866 from Austria) were identical. Voucher specimens were deposited in the Mycotheca and Herbarium of the Slovenian Forestry Institute (Accession Nos. LJF 8106 and LJF 8113).

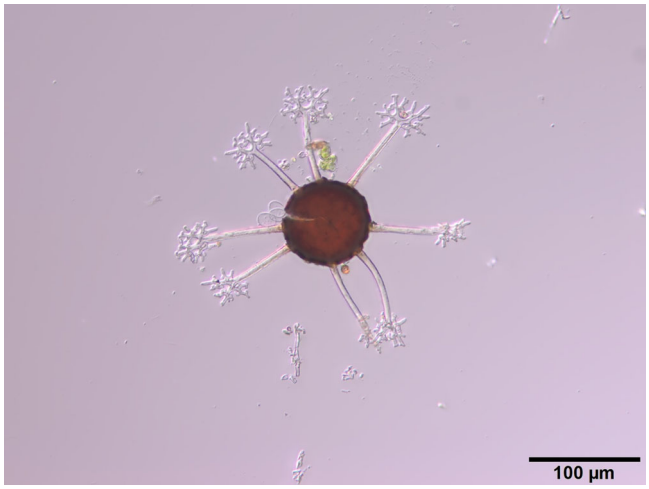

FIGURE 1 Dark brown chasmothecia of *Erysiphe corylacearum* with hyaline appendices and multiple regularly dichotomously branched tips produced on the lower leaf surface of *Corylus avellana*.

This is the first report of *Erysiphe corylacearum* on *Corylus avellana* and *C. colurna* in Slovenia. The disease was first reported from East Asia

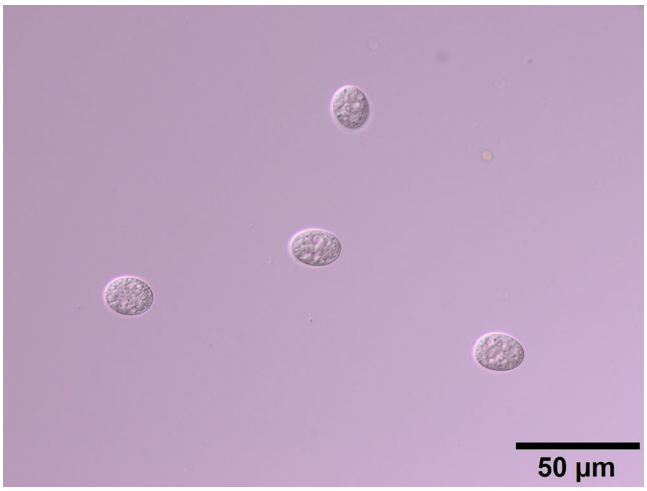

FIGURE 2 Hyaline ascospores of *Erysiphe corylacearum*.

(Takamatsu et al., 2015) and has been observed throughout Europe since 2019 (Beenken et al., 2022). The disease is known to cause significant damage to hazelnut orchards (Sezer et al., 2017), whereas its significance in forests remains to be explored.

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ORCID

N. Ogris https://orcid.org/0000-0002-4058-9417
A. Brglez https://orcid.org/0000-0001-7714-8458

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