

NEW DISEASE REPORT

First report of *Erysiphe salmonii* on *Fraxinus ornus* and *F. excelsior* in Slovenia

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In October 2022, powdery mildew symptoms were observed on young *Fraxinus ornus* and *F. excelsior* trees in multiple locations in central and western Slovenia. The affected *F. ornus* trees were growing in a mixed deciduous forest (western Slovenia) and in a mixed forest with an equal share of birch, sessile oak, spruce, sweet chestnut and sycamore (central Slovenia). The affected *F. excelsior* trees were growing in a mixed forest dominated by *Fagus sylvatica*.

The chasmothecia were brown to black in colour (Figure 1), formed on the upper and lower leaf surfaces, measured 76–130 μm (average 96 μm), and had 15–22 appendages, 113–147 μm long, 6–8 μm wide (up to 10 μm towards the tip), hyaline and brownish at the base, with spirally curved tips. The chasmothecia contained 2–5 ovoid asci, measuring 45–62 \times 27–44 μm with hyaline ascospores measuring 17–26 \times 11–14 μm (Figure 1). Based on these morphological characteristics, the fungus was identified as *Erysiphe salmonii* (Braun & Cook, 2012). Conidiophores and conidia were not observed.

Morphological identification of the powdery mildew from specimens collected was confirmed by sequencing the ITS rDNA region, and the obtained sequences (GenBank Accession Nos. OP962435 and OP962436) showed 100% identity with the reference ITS-rDNA sequences (e.g., MW265935 from Switzerland, OK383397 from Austria, and MW633028 from Romania). Voucher specimens were deposited in the Mycotheca and Herbarium of the Slovenian Forestry Institute (Accession Nos. LJF 8105, LJF 8107, LJF 8108).

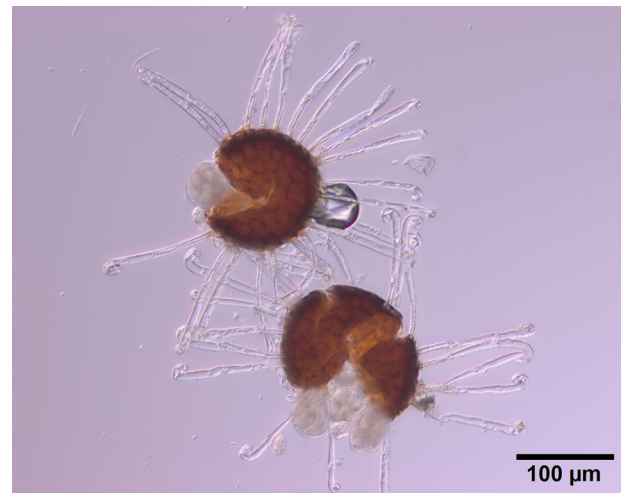


FIGURE 1 Dark brown chasmothecia of *Erysiphe salmonii* with hyaline appendices and spirally curved tips and ovoid asci with hyaline ascospores produced on both sides of the leaf surface of *Fraxinus ornus*

This is the first report of *Erysiphe salmonii* on *F. excelsior* and *F. ornus* in Slovenia. The disease is believed to originate from East Asia (Braun & Cook 2012) and has previously been observed in Ukraine (Heluta et al., 2017), Switzerland (Beenken & Brodtbeck, 2020), Austria (Voglmayr

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et al., 2021) and Romania (Chinan & Dascălu, 2022), suggesting that *E. salmonii* is spread throughout Europe. Further work is needed to determine the impact of *E. salmonii* on other *Fraxinus* species, including *F. angustifolia*.

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