



# First report of powdery mildew of *Capsella bursa-pastoris* caused by *Golovinomyces orontii* in Slovenia

Sebastjan Radisek<sup>1</sup> · Jernej Jakse<sup>2</sup> · Ting-ting Zhao<sup>3</sup> · Sung-Eun Cho<sup>3</sup> · Hyeon-Dong Shin<sup>3</sup>

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During the summer and autumn of 2017, several dozen plants of *Capsella bursa-pastoris* (L.) Medik. growing wild in a public park in Ljubljana (46°03'32"N 14°29'51"E), Slovenia, were found infected with a powdery mildew. Conidiophores arising from the lateral part of hyphae were erect, 100–240 × 10–12 µm, and producing conidia in chains with sinuate outline. Conidia were hyaline, ellipsoid to cylindrical-oval, 30–46 × 14–20 µm, and devoid of distinct fibrosin bodies. Germ tubes were produced at the perihilar position of conidia. Chasmothecia were not observed during our survey. To confirm the identity, genomic DNA was extracted from representative isolate IHPS-F50 and ITS region of rDNA was amplified using the primers ITS1F and ITS4 and sequenced (GenBank accession no. MG952279). A GenBank BLAST search revealed 99% similarity to *Golovinomyces orontii* ex *Capsella bursa-pastoris* from Switzerland (AB769458). Based on morphological characteristics and molecular analysis, the fungus was identified as *G. orontii* (group 2) (Castagne) V.P. Heluta (Braun and Cook 2012; Takamatsu et al. 2013). *Capsella bursa-pastoris* has been recorded as host plant of *G. orontii* in Germany, Poland, and Switzerland, but

not in Slovenia. Formerly, *Erysiphe cruciferarum* was recorded on *C. bursa-pastoris* in Yugoslavia (Amano 1986). To our knowledge, this is the first report of powdery mildew caused by *G. orontii* on *C. bursa-pastoris* in Slovenia. *Golovinomyces orontii* is regarded as species complex with very wide host range (Braun and Cook 2012). Therefore, information on the *Capsella* powdery mildew would be helpful for understanding this species complex. Voucher specimens are available in the phytopathological herbarium of the Slovenian Institute of Hop Research and Brewing (IHPS-F50), and in the Korea University herbarium (KUS-F29981).

## References

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✉ Sebastjan Radisek  
sebastjan.radisek@ihps.si

<sup>1</sup> Slovenian Institute of Hop Research and Brewing, Cesta Zalskega Tabora 2, SI-3310 Zalec, Slovenia

<sup>2</sup> Biotechnical Faculty, Agronomy Department, University of Ljubljana, Jamnikarjeva, 101, SI-1000 Ljubljana, Slovenia

<sup>3</sup> Division of Environmental Science and Ecological Engineering, Korea University, Seoul 02841, South Korea