



# First report of *Heterophoma verbasci-densiflori* on *Verbascum chaixii* “Album” in Italy

Angelo Garibaldi<sup>1</sup> · Domenico Bertetti<sup>1</sup> · Ilaria Martino<sup>1</sup> · Incoronata Luongo<sup>1</sup> · Maria Lodovica Gullino<sup>1</sup>

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In May 2023, about 50 seedlings of *Verbascum chaixii* “Album”, Scrophulariaceae family, grown in a glasshouse belonging to the Agroinnova Centre in Grugliasco (Torino province, Northern Italy) showed on leaves light brown necrotic spots that expanded irregularly to the entire leaf surface that rotted. Diseased plants died. Small fragments were excised from the margin of spots and plated on PDA (Potato Dextrose Agar). Olive green fungal isolates showed alternating and concentric rings and produced spheroidal brown picnidia measuring 99–221 × 96–181 (average 140 × 125) µm. Picnidia contained several ellipsoid, unicellular conidia measuring 3.3–5.5 × 1.2–2.2 (average 3.6 × 1.7) µm. The ITS and β-tubulin regions of the DNA of the strain 23/18–10 were amplified with ITS1/ITS4 (White et al., 1990) and Tub2fd/Tub4rd (Aveskamp et al., 2009) primers and sequenced (GenBank Accession numbers OR231806, OR672141 respectively). BLAST analysis of the 447-bp and 286-bp amplicons showed respectively 99.78% and 99.29% nucleotide identity with the ex-type CBS 127.93 (GenBank accession numbers GU237774, GU237639 respectively) of *Heterophoma verbasci-densiflori*. Pathogenicity test was carried out spraying leaves of 3 healthy plants of *V. chaixii* “Album” with a conidial suspension of the isolate 23/18–10. Three control plants of the same host were treated with sterile water. Plants were kept in a moistened chamber for 5 days and maintained at temperatures ranging from 20 to 32 °C. First necrotic spots appeared 7 days after the inoculation and *H. verbasci-densiflori* was constantly reisolated from symptomatic leaf tissues. *Phoma*

*novae-verbascicola*, synonym of *H. verbasci-densiflori*, has been reported on *V. nigrum* (Garibaldi et al., 2013) and *V. blattaria* whereas this is the first report of the pathogen on *V. chaixii* in Italy. Although the economic importance of this disease is at present limited, but the spread of *H. verbasci-densiflori* on *V. chaixii* could cause management problems in low maintenance gardens.

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✉ Domenico Bertetti  
domenico.bertetti@unito.it

<sup>1</sup> Centre of Competence AGROINNOVA, University of Torino, Largo Braccini 2, 10095 Grugliasco, Italy