First report of powdery mildew caused by *Golovinomyces magnicellulatus* on *Phlox maculata* in Italy

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During the summer of 2021, signs and symptoms of a powdery mildew appeared on plants of *Phlox maculata* grown in a private garden located in Campiglia Cervo (45°36'00"N 8°03'00"E, Biella province, northern Italy). The disease incidence was around 20% of 50 cultivated plants. A whitish amphigenous dense mycelium colonised leaves, stems and inflorescences. Cylindric foot-cells measured 32.6–86.1 × 9.7–12.3 µm and were followed by 1–3 shorter cells measuring 9.4–37.1 × 9.4–14.6 µm. Ellipsoid conidia measured 23.4–36.2 × 16.3–22.4 µm. Dark brown chasmothecia were 111.0–214.7 µm in diam. and contained 7–13 asci, 49.1–72.3 × 26.3–43.3 µm in size. Asci contained 2 ellipsoid to ovoid ascospores that measured 15.4–29.7 × 13.1–19.7 µm. Mycelium was collected from affected tissues and the DNA of the strain DB120721 was extracted using the E.Z.N.A. fungal DNA Mini Kit (Omega Bio-Tek, Germany). The Internal Transcribed Spacer (ITS) region of rDNA was amplified using primers ITS1/ITS4 (White et al. 1990) and a 532 bp sequence (GenBank accession No. MZ646300) was obtained. In BLAST analysis, the sequence showed 100% identity with *Golovinomyces magnicellulatus*. Leaves of *P. maculata* affected by *G. magnicellulatus* were gently pressed onto leaves of three healthy potted plants of the same host. Inoculated plants were maintained outdoors, at temperatures ranging from 15 to 25 °C. Three non-inoculated control plants were grown separately, in the same environmental conditions. First signs of powdery mildew appeared only on inoculated plants about 10 days

after the artificial inoculation. *Golovinomyces magnicellulatus* has been reported worldwide, on *Phlox* spp. (Farr and Rossman 2021). To our knowledge, this is the first report of *G. magnicellulatus* on *P. maculata* in Italy, where the same pathogen was detected on *P. paniculata* (Garibaldi et al. 2016). The spread of this destructive powdery mildew could pose a serious threat to the use of *Phlox* spp., which are widely used in gardens. Voucher specimens are available at the Agroinnova Collection, University of Torino.

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