

DISEASE NOTE

FIRST REPORT OF *MELAMPSORA EUPHORBIAE* ON *EUPHORBIA HIRTA* L. FROM MEXICO

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During November 2013, a few rust pustules (uredinia) were observed on the lower and upper sides of *Euphorbia hirta* leaves in Morelia (Michoacan state, Mexico). Uredinia were hypophyllous, golden-yellow, sub-epidermal erumpent and powdery, had a diameter of 0.3 to 0.5 mm and a height of 0.2 to 0.3 mm, and contained smooth-walled paraphyses intermixed with urediniospores. The heads of the paraphyses were clavate-capitate or capitate, 15.5 to 22.5 µm in diameter and had hyaline walls apically thickened up to 4 to 6 µm. Urediniospores were pale-yellow, pedicellate, variously shaped, as they included spherical, ellipsoidal and pyriform forms, measured 15-19×17-23 µm, and showed hyaline echinulate walls 1.0 to 2.0 µm thick. A small number of subepidermal telial sori forming dark gray crusts were also found on the leaves close to the uredinia. Teliospores were one-celled, prismatic, 13-16×27-48 µm in size, had smooth, light coffee brown walls 1.0 to 1.5 µm thick, apically thickened up to 2 µm. Scanning electron microscopy observations revealed that urediniospores were globose- or ellipsoid-shaped with fine echinulations. Based on the morphological characteristics and measurements, the rust was identified as *Melampsora euphorbiae* (León-Gallegos and Cummins, 1981). Samples were deposited in the Herbarium of the Faculty of Biology, Universidad Michoacana de San Nicolás de Hidalgo (UMSNH), Morelia, Michoacán, Mexico. To the best of our knowledge, this is the first record of *M. euphorbiae* on natural populations of *E. hirta* in Mexico.

The authors would like to thank Ministry of Foreign Affairs, Mexico for funding a postdoctoral fellowship to Dr. Irum Mukhtar and also acknowledge Institute of Metallurgical Research, Universidad Michoacana de San Nicolás de Hidalgo (UMSNH), Morelia, Mexico, for technical support in scanning electron microscopy.

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Received May 11, 2014

Accepted May 22, 2014

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FIRST REPORT OF BOTRYTIS BLIGHT CAUSED BY *BOTRYTIS CINEREA* ON *RUDBECKIA HIRTA* IN ITALY

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In February 2014, symptoms of a previously unknown blight were observed in plants of *Rudbeckia hirta* grown in an experimental glasshouse of AgroiInnova at Grugliasco (Piedmont, northern Italy). Necrotic areas appeared on leaves and stems that rotted and desiccated. A soft, grey mycelium developed on affected tissues. From infected plants a fungus was consistently isolated that produced a soft and grey mycelium, with branched conidiophores and unicellular, ovoid, conidia measuring 13.3-7.5×9.1-6.2 (average 9.5×7.2) µm. These morphological features were typical of *Botrytis cinerea* (Ellis, 1971). The internal transcribed spacer (ITS) region of rDNA was amplified using the primers ITS1/ITS4, and sequenced (GenBank accession No. KJ698646). BLAST analysis (Altschul *et al.*, 1997) of the 493 bp segment showed a 99% similarity with the comparable sequence of *Botryotinia fuckeliana* (KF667540). For pathogenicity tests, three healthy plants of *R. hirta* were sprayed with a spore and mycelial suspension (1.4×10⁴ conidia/ml) of the pathogen whereas controls were sprayed with water only. All plants were covered with plastic bags for six days. Three days post inoculation symptoms developed on inoculated plants from which *B. cinerea* was consistently reisolated. Control plants remained healthy. This is the first report of *B. cinerea* on *R. hirta* in Italy and worldwide.

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Received: April 26, 2014

Accepted: April 28, 2014