Hirschfeldia incana, a new host report for white blister caused by *Albugo candida* in Turkey

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Abstract. Severe symptoms of white blister caused by *Albugo candida* were detected on *Hirschfeldia incana* during surveys in late spring in the Şanlıurfa district of the south-eastern Anatolia region in Turkey. This is a new host report for *A. candida* in this country.

Hirschfeldia incana is a common plant of waste ground in Turkey and is widespread in different continents of the world. Its leaves and seeds are edible and it is also cultivated for bees to increase honey production. During surveys in late spring of 2007 in the Şanlıurfa district of the south-eastern Anatolia region in Turkey, typical and severe symptoms of white blister disease were observed on plants of *H. incana*. Infection was generally localised on some branches of plants. Infected branches and buds were hyperplastic, being ~3–4 times thicker than healthy ones. The pustules were white. Sori were common on branches, mostly coalescent (Fig. 1), individual sori rarely being found, and measuring $0.5\text{--}1.2 \times 1\text{--}4$ mm in diameter.

Fig. 1. Sori symptoms of *A. candida* on branch and buds of *Hirschfeldia incana*.

Sori were mostly circular, ellipsoidal or irregular shapes and formed blisters up to 3 mm in height. Approximately 80–90% of the infected branches were covered with these sori. Sporangia were more or less spherical and hyaline, uncommonly punctuate on the surface and measured $13\text{--}24\text{ }\mu\text{m}$ in diameter. Sporangiphores were hyaline and $16\text{--}25 \times 27\text{--}48\text{ }\mu\text{m}$ with many being narrow at the base and broadening to the apex. Based on macroscopic and microscopic characters, and the host being in the Brassicaceae, the pathogen on *H. incana* was identified as *Albugo candida* (Glawe *et al.* 2004). *Albugo candida* has been reported on other species in the Brassicaceae in recent years (Koike 1996; Jacobson *et al.* 1998; Zapata *et al.* 2005). To our knowledge, this is the first report of a white blister disease caused by *A. candida* on this host in Turkey. A specimen has been lodged in the Herbarium of the Agricultural Faculty of Harran University.

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