First record of *Chaetomium globosum* causing leaf spot on *Arachis hypogaea* in China

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Received: 7 October 2021 / Accepted: 1 February 2022 / Published online: 2 March 2022
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In 2020, *Arachis hypogaea* grown in a greenhouse showed leaf lesions and a 20% disease incidence rate. In 2021, *A. hypogaea* cultivated in the field showed the same symptoms and a 3% disease incidence rate. Leaf lesions began as chlorotic lesions near the margins and progressed to necrotic lesions with chlorotic halos. The affected leaves ultimately withered and fell. Diseased leaves were surface disinfested in 75% ethanol for 20 s, rinsed in sterile water, placed on PDA, and incubated at 25 °C in the darkness. Fungal colonies were initially white, then light brown, and finally turned olivaceous green to gray. The ascocarps were ovate, dark brown, with many appendages, which were brown and flexuous. The hyphae were septate, and ascospores (8.1–12.8 × 6.8–8.84 µm in size, n=50) were broadly ovate, and slightly pointed at both ends.

Molecular identification was performed by sequencing the ITS (White et al. 1990) region and beta tubulin gene (Glass and Donaldson 1995) region (MZ474664 and MZ484689) of a representative isolate, ZHX8, which showed 100 and 99.75% similarity, respectively, to *C. globosum* (MH858130 and KT214742). Phylogenetic analysis of concatenated ITS and beta tubulin sequences confirmed

the classification. A pathogenicity test was conducted using 10, 2-week-old seedlings by spraying leaves with an aqueous ascospore suspension (10⁶ spore mL⁻¹), and control plants were sprayed with water. All the plants were incubated in the greenhouse at 25 ± 2 °C. After 10 days, the edges of leaves inoculated with ascospores were chlorotic, similar to the original symptoms observed in the field, whereas the control plants remained healthy. Koch's postulates were satisfied after reisolating *C. globosum* from spray-inoculated leaves. *C. globosum* has been reported on *Punica granatum*, *Cannabis sativa* and *Brassica oleracea* (Alam et al. 2021). To our knowledge, this is the first report of *A. hypogaea* leaf spot caused by *C. globosum* in China.

Supplementary Information The online version contains supplementary material available at <https://doi.org/10.1007/s42161-022-01070-w>.

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Publisher's Note Springer Nature remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.

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