First report of leaf spot and stem canker on *Malania oleifera* caused by *Neofusicoccum parvum* in China

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Received: 11 May 2021 / Accepted: 15 October 2021 / Published online: 3 November 2021
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Keywords *Neofusicoccum parvum* · Leaf spot · Stem canker · *Malania oleifera*

Malania oleifera Chun & S. K. Lee is an endemic economic tree species in China. During September 2019, brown leaf spots and stem cankers were observed on 3-year-old plants in Guangnan County, Yunnan Province. The disease incidence reached 5%. Isolations were made from surface-disinfected symptomatic leaves and stems on potato dextrose agar (PDA) at 25 °C. Colonies were initially white, then turned dark-gray with a fluffy aerial mycelium. Globose conidiomata developed after 10 days on pine needle surfaces in synthetic low nutrient agar (SNA) and measured 0.88–1.32 mm in diameter. Conidia were hyaline, unicellular, fusiform to ellipsoidal, measuring 14.70–21.98 × 5.36–7.06 µm (n = 50). Based on morphological characteristics, the fungus was identified as *Neofusicoccum parvum* (Pennycook & Samuels) Crous, Slippers & A.J.L. Phillips (Phillips et al. 2013). The internal transcribed spacer (ITS), the translation elongation factor 1-α (EF1-α) and the β-tubulin (β-tub) regions of a representative isolate (CGMCC3.20367) were amplified using primers ITS1F/ITS4, EF1-728F/EF1-986R and BT-2a/BT-2b, respectively. The sequences of the representative isolate (GenBank accession Nos. MZ127652, MZ153110 and MZ153111) showed 99% identity with the corresponding sequences of ex-type CMW 9081 of *Botryosphaeria parva* Pennycook

& Samuels, now *N. parvum* (AY236943, AY236888 and AY236917). To confirm pathogenicity, 5 mm mycelial plugs of CGMCC3.20367 were placed on leaves and 12 cm long-stem segments wounded with sterile scalpels. Controls were inoculated with sterile PDA plugs. Each treatment had six repeats. They were then individually incubated in closed glass containers at 25 °C and 80% humidity. After 10 days, irregular spots and necrotic lesions appeared on all inoculated leaves and stems, while no disease symptoms developed in controls. The fungus was re-isolated only from symptomatic leaves and stems. To our knowledge, this is the first report of *N. parvum* causing leaf spot and stem canker on *M. oleifera* in China and worldwide (Farr and Rossmann 2021).

Acknowledgements This study was funded by the National Natural Science Foundation of China (No. 32160008), the Major Science and Technology Project of Yunnan Province (No. 202002AA10007) and the Special Project of Yunnan Province Ten Thousand Talents Plan--Yunling Industrial Technology Leading Talents (No.2018-212).

Declarations

Conflict of interest The author(s) declare no conflict of interest.

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