First report of collar rot on *Ananas lucidus* caused by *Athelia rolfsii* in Brazil

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Received: 27 May 2020 / Accepted: 8 April 2021 / Published online: 19 April 2021
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Keywords Curagua · Southern blight · Wilting

Ananas lucidus Miller (Bromeliaceae) is an ornamental pineapple popularly known as curagua. This plant has great economic value for indigenous peoples of the Brazilian and Venezuelan Amazon, who use its fiber in local crafts. Therefore, it is important to know which diseases limit plant growth. During July 2017, on a curagua plantation (3 ha) in São José de Ribamar, Maranhão, Brazil, severe wilting was observed in approximately 300 plants. Pieces of tissue from 25 plants sampled with collar rot symptoms were sterilized and plated on potato dextrose agar (PDA) containing streptomycin sulfate (0.5 g/l). All isolations were done at the same time. After 3 days of incubation at 26 °C, there were dense and cotton-like aerial mycelia on the dishes. After 21 days of incubation, the pure culture developed abundant globoid to irregular sclerotia, initially white and then brown with 1 to 3 mm diameter. Morphological characteristics of colonies on PDA were useful for identifying *Athelia rolfsii* (Curzi) Tu & Kimbrough (anamorph *Sclerotium rolfsii* Sacc.) (Mordue 1974). The identity was confirmed by amplification and sequencing of a 703 bp fragment of ITS region using ITS1/ITS4 primers (GenBank accession No. MT337402) (White et al. 1990). Bayesian inference

showed 100% identity with *A. rolfsii* (KT750883). Pathogenicity tests were conducted on 20 healthy curagua plants (from same genotype) with two months of development. Mycelial plugs with 0.5 mm diameter were deposited at the base of ten plants. Ten control plants received only sterile PDA plug. After 30 days at (25 ± 2) °C, inoculated plants presented wilting similar to that observed in the field, and control plants showed no symptoms. *A. rolfsii* was re-isolated and identified morphologically from symptomatic tissue. This is the first occurrence of *A. rolfsii* causing collar rot in curagua in Brazil and in the world.

References

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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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