



A new species of *Pestalotiopsis* from leaf spots of *Licuala grandis* from Hainan, China

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Abstract

A new species, *Pestalotiopsis licualacola*, was isolated from grey leafspots of *Licuala grandis* (ruffled fan palm). It is morphologically distinct in having relatively small, greyish brown conidia (16–20 × 3–5 µm), and 1–3 short apical appendages without knobs. Phylogenetic analysis based on combination of ITS, β-tubulin and *tef1* gene sequence data clearly distinguishes *P. licualacola* from other species in this genus, with ex-type sequence data in GenBank. Based on morphology and molecular phylogeny we describe it as a new species.

Key words: coelomycetes, phylogeny, taxonomy

Introduction

The ruffled fan palm (*Licuala grandis*) is a dainty palm with a height of approximately 2 m that originates in South East Asia, and is a rainforest understory palm (www.nationaltropicals.com.au/). During investigations of *Pestalotiopsis* in southern China, we have obtained many isolates of *Pestalotiopsis* spp. from diseased leaves of diverse plants, which we are using for novel compound screening as the genus is biochemically highly creative (Xu *et al.* 2010, Aly *et al.* 2011, Debbab *et al.* 2011, 2012). Among them was an undescribed species isolated from necrotic leaf spots from *L. grandis*. Morphological details are described and a comparison made with related species. Molecular characteristics based on the DNA sequences of three gene loci (ITS, β-tubulin and *tef1*) were also determined.

Materials & Methods

Morphological and cultural studies

Diseased leaves of ruffled fan palm were collected from Xinglong County, Hainan Province. Leaf samples were placed in clean paper bags and symptoms were recorded. A single conidium culture technique was preformed to obtain pure colonies of the fungi following the method outlined in Chomnunti *et al.* (2011). The colonies were transferred to 2% potato-dextrose agar (PDA) medium and incubated at room temperature (25°C). Sporulation was induced using sterilized carnation leaves, which were aseptically placed on the surface of the medium with growing mycelium. The morphology of fungal colonies was recorded following the method of Hu *et al.* (2007). Fungal mycelium and spores were observed under the light microscope