



## Description of *Pseudopestalotiopsis kubahensis* sp. nov., a new species of microfungi from Kubah National Park, Sarawak, Malaysia

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### Abstract

A survey on the diversity and distribution of microfungi was carried out, during which a distinct *Pestalotiopsis*-like taxa was isolated from green leaves of *Macaranga* sp. from Kubah National Park, Sarawak. The phylogenetic analysis of DNA sequences from the internal transcribed spacer gene region (ITS1, 5.8S and ITS2) of the rDNA shows this species to form a distinct clade from the *Pestalotiopsis*, and cluster with the genus *Pseudopestalotiopsis*, a new genus which was recently carved out from the *Pestalotiopsis*. This species differs from closely related *Pseudopestalotiopsis* species such as *Ps. cocos*, *Ps. indica* and *Ps. theae* by its conidial characters such as its unknobbed apical appendages and shorter basal appendages. The new microfungal species, *Ps. kubahensis* is hereby described based on morphological and molecular data as the fifth species in the genus *Pseudopestalotiopsis*.

**Keywords** – ITS – *Macaranga* – *Pestalotiopsis* – saprophytic

### Introduction

The genus *Pseudopestalotiopsis* was recently carved out of *Pestalotiopsis* Steyaert, which was recently reviewed, which resulted in two other genera being separated from *Pestalotiopsis*, namely, *Neopestalotiopsis* and *Pseudopestalotiopsis* (Maharachchikumbura et al. 2014). The colour of the median cells have consistently been observed as the major delimiting character with which species cluster together in *Pestalotiopsis* into three main clades, as lightly-coloured concolourous median cells, versicolourous median cells and darkly-coloured concolourous median cells (Maharachchikumbura et al. 2014; Song, Maharachchikumbura, et al. 2014), then followed by the other conidial characters, as observed in molecular studies. It was based on this three different pigmentation patterns that the genus *Pestalotiopsis* was split into three genera as, i) the genus *Pestalotiopsis*; to accommodate species with lightly-pigmented concolourous median cells, ii) the genus *Neopestalotiopsis*; to accommodate species with versicolourous median cells, and iii) the genus *Pseudopestalotiopsis*; for species with dark concolourous median cells (Maharachchikumbura et al. 2014). In line with the recent re-classification, we describe in this paper a new species of *Pseudopestalotiopsis* isolated from *Macaranga* sp., a dominant plant species of the lowland dipterocarp forest in Sarawak, Malaysia.