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Research

Studies on Homalomeneae (Araceae) of Borneo XXIII: a new rheophytic species of *Homalomena* (Punctulata Clade) from the Tau Range, Sarawak

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Homalomena cataractae is described and illustrated as a new species of Steenisian rheophyte belonging to the *Homalomena punctulata*-clade from the Tau range, Central Sarawak. A key to the species of the *Homalomena punctulata*-clade is provided.

Keywords: Araceae, Borneo, *Homalomena*, Punctulata Clade, rheophyte

Introduction

Homalomena is one of the largest genera of aroids occurring on Borneo, with 64 accepted species, and at least twice that number still to be described (Boyce and Croat 2020). The majority are terrestrial mesophytes, although a few are lithophytic (Wong and Boyce 2011), or helophytic (Wong et al. 2011). While some species occur habitually along riverbanks and on waterfalls (Ridley 1905, Kartini et al. 2015) no obligate rheophytes have been described for Borneo.

A molecular phylogeny of Asian *Homalomena* (Wong et al. 2013) resolved four main clades – *Homalomena*, *Chamaecladon*, *Cyrtocladon* and *Punctulata*, informally referred to as supergroups – all of which occur on Borneo, with *Punctulata* endemic to the island. The clades are well supported on characteristics of the blooms and florets. The spathe in *Homalomena* and *Chamaecladon* lacks a constriction, and both clades have pistillate florets consisting of an ovary and a staminode. In *Chamaecladon* the staminode is much shorter than the pistil, whereas in *Homalomena* the staminode equals the pistil. Staminate florets have two stamens in *Chamaecladon* and four in *Homalomena*.

Species of *Cyrtocladon* and *Punctulata* have constricted spathes and staminate florets each with four to six stamens and which in *Cyrtocladon* secrete conspicuous resin droplets between the florets (Hoe et al. 2016), while the leaf blades have well-developed posterior lobes. By contrast, species of *Punctulata* do not produce resin from between the staminate florets and the leaf blades lack posterior lobes, usually being decurrent on the petiole, or at most with broadly rounded bases. Two of the three subclades of the *Punctulata* clade (the *Insignis*-complex and *Punctulata*-complex) lack staminodes



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