



Studies on the Homalomeneae (Araceae) of Borneo XXVI—A new and highly ornamental species of *Homalomena* [Punctulata Clade] from Triassic-Jurassic karst formations in SW Sarawak

WONG SIN YENG^{1,2,3,4} & PETER C. BOYCE^{3,5}

¹ Institute of Biodiversity and Environmental Conservation, Universiti Malaysia Sarawak 94300 Kota Samarahan, Sarawak, Malaysia.

² Harvard University Herbaria, Cambridge, MA, USA.

³ Department Biologie I, Systematische Botanik und Mykologie, Ludwig-Maximilians-Universität München, München, Germany.

⁴ sywong@unimas.my

⁵ boyce@biologie.uni-muenchen.de

Abstract

Homalomena benedikii is described and illustrated as a new species from Serian Division, SW Sarawak, where it is restricted to forested Triassic-Jurassic karst formations, and compared with the two most similar described species *H. cowleyae* and *H. imitator*, from shales in NE Sarawak and Brunei, and C Sarawak, respectively.

Introduction

Since 2008 the authors have described 33 new species of Bornean *Homalomena* Schott in Schott & Endlicher (1832: 20), almost all of which are geologically obligated and typically with restricted distributions, a few exceptionally so (Wong & Boyce 2011a). Noteworthy are those species restricted to forested karst (e.g. Boyce & Wong 2014a), and exposed shales (e.g. Boyce & Wong 2014b), the two geologies on Borneo with the highest degree of localized endemism, and for which there are numerous examples of seemingly vicariant speciation events (Boyce *et al.* 2010, Wong & Boyce 2011b, Wong *et al.* 2019).

Here we describe a localised endemic species restricted to forested Triassic-Jurassic karst formations in SW Sarawak (Galín *et al.* 2017, Hutchison 1989, 2005, Tate 2001), and which is most similar to two species occurring exclusively on forested exposed shales, one on the Setap Shales in Brunei and adjacent Limbang (*Homalomena cowleyae* Boyce & Wong 2014a: 59), and one (*H. imitator* Boyce & Wong 2014a: 62) on Rajang–Embaluh Group shales in Kapit (Galín *et al.* 2017). All three species belong to the Punctulata clade (Wong *et al.* 2013).

Taxonomy

Homalomena benedikii S.Y.Wong & P.C.Boyce, *sp. nov.* (Figs. 1, 4A)

Homalomena benedikii is most similar to *H. cowleyae* and *H. imitator* by the pistillate florets lacking a staminode, the length of the lower spathe exceeding that of the spathe limb, and by the staminate portion of the spadix not producing resin droplets. From both, *H. benedikii* is immediately distinguished by the leaf blades glossy bronze green adaxially and abaxially rich red-purple and lacking pellucid interprimary veins. *Homalomena benedikii* is further differentiated from *H. cowleyae* by the cuneate (not shallowly cordate) leaf blade base, the white and green (vs pink and white) spathe, the shorter spadix stipe (3 mm vs 6–8 mm), and by the cylindrical interstice staminodes with hemispherical tops (vs interstice staminodes irregularly polygonal). *Homalomena benedikii* may be additionally separated from *H. imitator* by the cylindrical (vs fusiform) spadix, coalescent (vs separate) stigmas, and the cream (vs waxy white) interstice staminodes occurring in a zone isodiametric to (not wider than) the base of the spadix.

Type:—MALAYSIAN BORNEO. Sarawak: Serian Division, Tebakang, Kampung Lobang Batu, Sungai Metang, 0°57'12.94"N 110°30'26.33"E, 103 m asl. 23 Dec. 2019, *Benedik Yos AR- 3413* (holotype SAR!).