

## Studies on Schismatoglottideae (Araceae) of Borneo I – *Schismatoglottis meriraiensis*, a new limestone-obligated species with viviparous leaves

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### Abstract

*Schismatoglottis meriraiensis* P.C.Boyce & S.Y.Wong, is described from Bukit Merirai, an isolated forested Karst limestone outcrop on the Bintulu/Kapit border of N Central Sarawak. Additional to a suite of defining characteristics, *S. meriraiensis* is remarkable by possessing natural viviparous capabilities from whole, partial, and fragmentary leaves. This quality is shared with *Schismatoglottis puberulipes* Alderw. (expanded here to include *Schismatoglottis gamoandra* M. Hotta), and in a different expression (restricted to the mid-rib and terminal tubule of the blade), with *Schismatoglottis hayi* S.Y.Wong & P.C.Boyce, of the Multinervia Complex, to which *S. meriraiensis* and *S. puberulipes* are here assigned.

### Introduction

Bornean Araceae display a marked degree of geological obligations, of which association with Karst limestone is the best reported (see Boyce and Wong 2015 for a bibliography to date). In areas with spatially isolated limestone outcrops geological obligation is often associated with allopatric local endemism of individual species within clusters of related species (Ting et al. 2012; Wong 2010; Wong and Boyce 2011).

Here we describe a taxonomically novel locally endemic species from Bukit Merirai, an isolated forested Karst limestone outcrop on the Bintulu/Kapit border of N Central Sarawak, and most similar to two species, both limestone-restricted – *S. multinervia* M.Hotta (endemic to Mulu c. 200 km to the NE) and *S. hayi* S.Y.Wong & P.C.Boyce (Niah Caves c. 120 km to the north) of the Multinervia Complex (Wong and Boyce 2011).

Additional to a unique suite of defining characteristics, *S. meriraiensis* is remarkable for possessing naturally viviparous capabilities from whole, partial, and fragmentary leaves. This quality is held in common with shale-restricted Bornean *Schismatoglottis puberulipes* Alderw. (here expanded to encompass *Schismatoglottis gamoandra* M.Hotta), and shared, in a different expression (plantlets restricted to the mid-rib and terminal tubule of the blade), with *Schismatoglottis hayi*. Dimensions used in the descriptions are derived from fertile (i.e. mature) plants. Seedlings will have overall smaller measurements. In verifying geological occurrences for this paper we have been much assisted by the excellent geological map of Tate (2001).