



A new endemic species of *Trigonachras* (Sapindaceae) from Sabah, Malaysia (Borneo)

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Abstract

A new species of *Trigonachras* from Borneo is described and illustrated. *Trigonachras postardanjeisin* is endemic to the ultramafic soils of the Tawai Forest Reserve in Sabah, Malaysia (Borneo). It is morphologically close to the widespread *Trigonachras acuta* but differs by its glabrous inflorescence and infrutescence axes and fruits. The two species also differ by their ecology and distribution. Line drawings are provided for the new taxa, along with discussions of its morphological affinities and preliminary risk of extinction assessment.

key words: new species, South-East Asia, taxonomy, ultramafic soil

Introduction

The Sapindaceae family (sensu Buerki *et al.* 2010, but slightly different from Acevedo-Rodríguez *et al.* 2011) is well diversified in Malesia with ca. 235 species classified into 42 genera, and constitutes an important element of the humid forests (Adema *et al.* 1994). The family is also important for the regional economy, including *Dimocarpus longan* Loureiro (1790: 233) and *Nephelium lappaceum* Linnaeus (1767: 125) (Adema *et al.* 1994). However, recent phylogenetic analyses based on plastid and nuclear DNA sequences have challenged the monophyly of several genera of Sapindaceae occurring in this area, e.g. *Arytera* Blume (1849: 169) and *Cupaniopsis* Radlkofer (1879a: 498) (Buerki *et al.* 2012a). This new evidence requires some additional taxonomic work to circumscribe generic delimitations within South-East Asian Sapindaceae. The authors, together with a team from the Sandakan Herbarium of the Sabah Forestry Department, have recently conducted fieldwork in Sabah, in the Malaysian part of Borneo, to expand their taxon sampling in Sapindaceae and Pandanaceae by collecting genera and species not included in their previous phylogenetic analyses (see Buerki *et al.* 2009 for Sapindaceae; Buerki *et al.* 2012b for Pandanaceae). During this fieldwork, an unknown collection of a large and locally dominant flowering tree of Sapindaceae (Buerki *et al.* 338) was collected in the Tawai Forest Reserve (Bukit Tangkunan) growing on ultramafic soil (Fig. 1). Further observations conducted at the herbaria of Sandakan (SAN) and Singapore (SING) allowed matching this specimen with a fruiting collection from the same locality (Leopold & Amin SAN 75360) in the genus *Trigonachras* Radlkofer (1879b: 116) and previously described by Leenhouts as *Trigonachras* sp. nov. A. (Leenhouts 1988: 207). In his taxonomic treatment of the Malesian genus *Trigonachras*, Leenhouts (1988) recognized eight species and three additional morphological entities—these entities were not formally described due to the incomplete material, notably missing flowers. However, Leenhouts (1988) and Adema *et*