



Four new species of *Scaphochlamys* (Zingiberaceae) from Peninsular Malaysia

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Abstract

Four new species of *Scaphochlamys* are described and illustrated, including preliminary conservation assessments. All the new species are endemic in Peninsular Malaysia.

Key words: endemism, ginger, taxonomy, Zingiberaceae, Zingiberales

Introduction

Scaphochlamys Baker (1892: 252) is a genus of small gingers distributed from Peninsular Thailand, through Peninsular Malaysia to Borneo and Sumatra. Currently, there are 35 species described and nearly 66% (23 species) are found in Peninsular Malaysia (Sam *et al.* 2010, Searle 2010, Meekiong *et al.* 2011). All the Peninsular Malaysian species are endemic, except for two that are also found in Thailand's southernmost provinces bordering Peninsular Malaysia. Southern Thailand has 5 species of which 3 are endemic while Borneo has 9 species and all are endemic, and Sumatra has 1 endemic undescribed.

The taxonomy of *Scaphochlamys* is extremely challenging because the genus is highly polymorphic (Holtum 1950, Larsen 1962, Smith 1987). There are many local species confined to a small area in the evergreen rainforest of the West Malesia. The current study on *Scaphochlamys* by the first author discovered that these areas of high diversity and endemism are closely associated with the sites of rain forest refugia in the geological past (Morley, 2000; Quek *et al.* 2007; Tnah *et al.*, 2013).

Holtum's comprehensive revision of the genus for Peninsular Malaysia recognised 19 species including 8 new ones, and he cautioned to expect many new taxa. Since then, a total of 17 species have been discovered across its distribution range: 3 from Peninsular Thailand, 5 from Peninsular Malaysia and 9 from Borneo; and one species, *S. longifolia* Holtum (1950: 91), was synonymised (Smith 1987, Sirirugsa & Larsen 1991, Jenjittikul & Larsen 2002, Poulsen & Searle 2005, Sam & Saw 2005, Sam *et al.* 2010, Meekiong *et al.* 2011). Meanwhile, extensive field collecting to remote and under-collected sites continues to uncover new taxa. Four are described here as new species.

Taxonomy

1. *Scaphochlamys baukensis* Y.Y. Sam, *sp. nov.* (Figs. 1–2)

Scaphochlamys baukensis is different from all other species of *Scaphochlamys* in its broad obovate leaves, small compact rachis and tiny flowers.

Type:—PENINSULAR MALAYSIA. Terengganu: Bukit Bauk Forest Reserve, Endemic Trail, 93 m, 13 July 2007, Y.Y. Sam FRI 68955 (holotype: KEP!, isotypes: AAU!, E!, KLU!, SAN!, SING!).

Rhizomatous herb, 30–40 cm tall. Rhizome 4–5 mm diameter, light brown internally, running horizontally on ground surface, covered by thick leaf litter. Successive shoots emerging from rhizome, 2.5–13.5 cm apart. Bladeless