Blumea 58, 2013: 45–48
www.ingentaconnect.com/content/nhn/blumea

RESEARCH ARTICLE

http://dx.doi.org/10.3767/000651913X671281

# *Mapania sapuaniana* (*Cyperaceae*), a new sedge species from Sarawak

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**Key words**

Borneo
*Cyperaceae*
*Mapania*
Sarawak
taxonomy

**Abstract** *Mapania sapuaniana*, a spectacular new sedge species from Lanjak Entimau, Sarawak, is described and illustrated. It is closely related to *M. richardsii* and *M. borneensis* but differs in having broad leaves with a distinct pseudopetiole, reddish purple or maroon coloration on the underside of the leaf and petiole and an inflorescence composed of several spikes.

**Published on** 26 July 2013

## INTRODUCTION

*Mapania* Aubl. is a pantropical genus previously thought to comprise 84 species (Govaerts et al. 2007). Borneo and Peninsular Malaysia are considered to be centres of diversity for the genus with 25 and 16 species recorded, respectively (Simpson 1992). The genus is poorly known and includes many narrowly endemic species. There is little information on pollination biology and chromosome numbers and record of the morphological variation within the genus is rather limited (Meekiong et al. 2009). About 50 % of the species recorded for Borneo are endemic (Simpson 1992). However, there is still much to be learn about this genus, particularly from Borneo. The number of species may increase as more remote areas become accessible in Sabah and Sarawak (Shabdin et al. In press).

*Mapania* species are problematic to identify, due to the lack of good discontinuous morphological characters. Asian species, especially, show a wide range of morphological variation, where the appearance of the whole inflorescence changes as it matures, although individual structures remain constant in shape and size (Simpson 1992). Flowering and fruiting material is often essential for identification and requires dissection to enable the taxonomically important structures to be seen. Regardless of the morphological problems that occur in *Mapania*, their highly reduced inflorescence structure has led to differing interpretations and uncertain homologies (Muasya et al. 1998). Interpretation of the basic reproductive unit is difficult for all the genera within the tribe *Hypolytreae*, including *Mapania*. Various interpretations have been given (Simpson 1992, Bruhl 1995, Goetghebeur 1998) and we follow that of Simpson (1992), i.e. a basic inflorescence unit with a highly contracted axis giving rise to a pseudanthium, with the axis supporting several floral bracts (4–7 in *Mapania*) of which some or all have male flowers, the whole unit being surmounted by a bractless, apparently terminal female flower (Fig. 1).

Lanjak Entimau Protected Forest (LEPF) was constituted as a Wildlife Sanctuary in 1983 (Soepadmo & Chai 2000). The sanctuary comprises an area of 187 000 hectares that is adjacent to the border with Indonesia, and situated within Sri Aman, Sibu, Sarikei and Kapit divisions. Based on specimens from several herbaria (SAR, SING and K), only five species

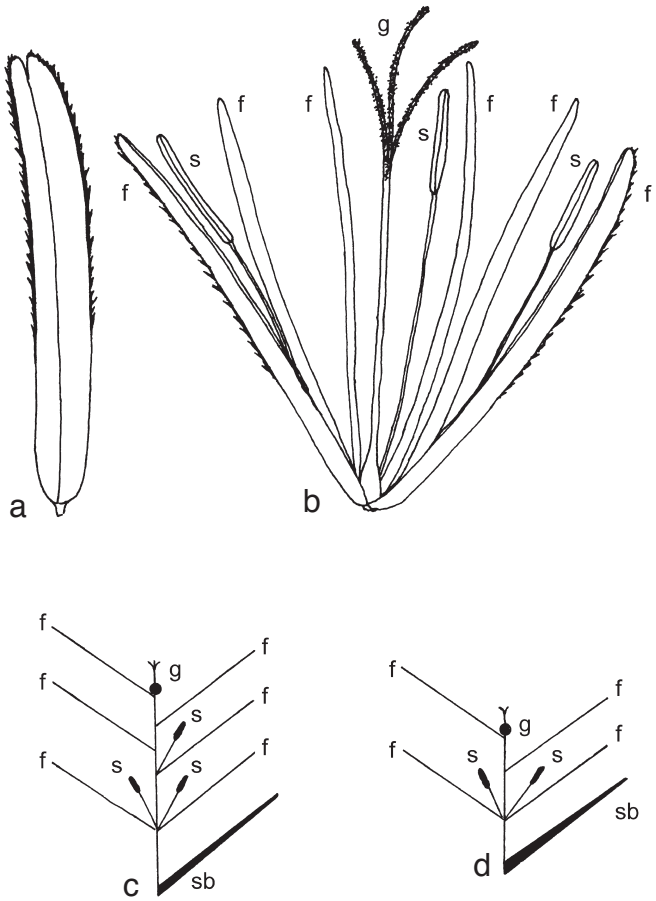


**Fig. 1** Generalised structure of the spicoid in *Mapania*. a. Spicoid with lowest two floral bracts unseparated; b. spicoid with lowest two floral bracts separated; c, d. schematic diagrams to interpret the structure of a spicoid with six and four floral bracts, respectively (axis exaggerated). sb = spicoid bract; f = floral bract; s = staminate flowers (stamens); g = pistillate flower (gynoecium). From Simpson (1992: 12).

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