

## Notes on *Rafflesia hasseltii* Suring. (Rafflesiaceae), a new record for Sarawak, Malaysia

AIDA SHAFREENA AHMAD PUAD<sup>1\*</sup>, WAN NUUR FATIHA WAN ZAKARIA<sup>2</sup>,  
CONNIE GERI<sup>3</sup>, RAMLAH ZAINUDIN<sup>4</sup> and A. LATIFF<sup>5</sup>

**Abstract:** *Rafflesia hasseltii* Suring., a new record from Tanjung Datu National Park, Sarawak, Malaysia is herein reported and described. The species is originally described from Sumatera and recently reported also from Kalimantan, Indonesia, with some notes given.

**Keywords:** Malaysia, new record, Sarawak, Tanjung Datu National Park

### INTRODUCTION

The genus *Rafflesia* R. Br. (Rafflesiaceae) is a holoparasitic plant with about 37 species recorded and distributed in Southeast Asia (Nais, 2001; Susatya *et al.*, 2006; Sofiyanti *et al.*, 2007; Barcelona *et al.*, 2009a; Barcelona *et al.*, 2009b; Balete *et al.* 2010; Wiriadinata and Sari, 2010; Barcelona *et al.*, 2011; Haji Adam *et al.*, 2013; Haji Adam *et al.*, 2016; Sofiyanti *et al.*, 2016; Susatya *et al.*, 2017). From the total species recorded, eight species occur in Borneo (Nais, 2001). *Rafflesia keithii* Meijer, *R. pricei* Meijer and *R. tengku-adlinii* Mat Salleh & Latiff occur in Sabah, while the little-known *R. borneensis* Koord., *R. ciliata* Koord., *R. witkampii* Koord., *R. hasseltii* Suring. and possibly *R. arnoldii* R. Br. are found in Kalimantan. Only one species occurs in Brunei namely *R. pricei* while three species are found in Sarawak namely *R. pricei*, *R. keithii*, and *R. tuan-mudae* Becc. The occurrence of *R. arnoldii* in Sarawak and East Kalimantan could not be confirmed as it could be mistakenly reported by Nais (2001). In records, *R. arnoldii* occurs in Sumatera, Indonesia (Nais, 2001; Bendiksby *et al.*, 2010). All members of this genus are obligate parasites, rootless and lack chlorophyll, thus they are dependent on various host plants for water, nutrients and survival (Nais, 2001). Currently, a total of 12 *Tetrastigma* (Miq.) Planch. (Vitaceae) species have been reported as the host plants for *Rafflesia* species, namely *T. curtisii* (Ridl.) Suesseng., *T. diepenhorstii* (Miq.) Latiff, *T. glabratum* (Blume) Planch., *T. scariosum* (Miq.) Planch., *T. loheri* Gagnep., *T. harmandii* Planch., *T. scortechinii* (King) Gagnep., *T. hookeri* (Laws.) Planch., *T. piscarpum* (Miq.) Planch., *T. cf. magnum* Merr., *T. papillosum* (Blume) Planch. and *T. rafflesiae* (Miq.) Planch. (Niyomdham & Kubat, 1987; Meijer, 1997; Latiff and Mat-Salleh, 2001; Nais, 2001; Barcelona *et al.*, 2006; Barcelona *et al.*, 2009b; Mokhtar *et al.*, 2016; Wan Zakaria *et al.*, 2016; Wicaksono *et al.*, 2017).

*Rafflesia hasseltii* Suring., which is now believed to be distributed only in Sumatera and south-west Borneo, was erroneously attributed to Peninsular Malaysia (Latiff and Mat-Salleh, 2000). Its misidentification in Peninsular Malaysia was later corrected and determined to be a new species, *R. azlanii* Latiff *et* M. Wong (Latiff and Wong, 2003). In Sarawak, *R. pricei* has been reported from Gunung Murud (Beaman *et al.*, 1988; Nais, 2001), *R. keithii* from Hose Mountains (Nais, 2001), *R. tuan-mudae* from Gunung Gading,

<sup>1</sup>Plant Resource Science and Management, Faculty of Resource Science and Technology, Universiti Malaysia Sarawak, 94300 Kota Samarahan, Sarawak, Malaysia

<sup>2</sup>Fletronics, No. 11, Jalan Persiaran Teknologi, Taman Teknologi Johor, 81400 Senai, Johor, Malaysia.

<sup>3</sup>Sarawak Forestry Corporation, 93050 Kuching, Sarawak, Malaysia

<sup>4</sup>Animal Resource Science and Management, Faculty of Resource Science and Technology, Universiti Malaysia Sarawak, 94300 Kota Samarahan, Sarawak, Malaysia

<sup>5</sup>School of Environmental and Natural Resource Science, Faculty of Science and Technology, Universiti Kebangsaan Malaysia, 43600 Bangi, Selangor, Malaysia

\*Corresponding author: apashafreena@unimas.my (Contact no.: +6082582945)