**Gastrodia** Brown (Orchidaceae), a genus of mycoheterotrophic orchids, is distributed throughout temperate and tropical regions of Asia, Oceania, Madagascar and Africa (Cribb *et al.* 2010, Govaerts *et al.* 2017). **Gastrodia** is characterized by fleshy tubers, the absence of leaves, united sepals and petals and two, mealy pollinia that lack caudicles. Several recent studies re-examined the diversity of **Gastrodia** in various Asian countries (Ong & O’Byrne 2012, Ong 2015, Suetsugu 2013, 2014, 2016, 2017, Hu *et al.* 2014, Huang *et al.* 2015, Hsu *et al.* 2016, Pelser *et al.* 2016, Tsukaya & Hidayat 2016, Metusala & Supriatna 2017). Consequently, **Gastrodia** now comprises more than 90 species, making it the most diverse genus of mycoheterotrophic vascular plants (Hsu *et al.* 2016, Suetsugu 2017). The distribution and species diversity of **Gastrodia**, however, remains somewhat unclear, since the species are easily overlooked in the wild due to their short flowering season and dwarf habit (Suetsugu 2016, 2017).

During recent herbarium studies at BO, we found a new locality of **G. spathulata** in West Java, Indonesia, a species previously considered to be endemic to Mt. Kinabalu, Sabah, Borneo (Wood 2011). We report the new locality of **G. spathulata** here and present a key to the species of **Gastrodia** in Java.

**Gastrodia spathulata** (Carr) J. J. Wood, The orchids of Mount Kinabalu 2: 355 (2011). — Fig. 1


**Note.** Although the specimen in BO was annotated ‘**Gastrodia javanica** (Blume) Lindl.,’ it is distinguishable from **G. javanica** based on floral features (i.e. corolla tube of **G. javanica** split along the lateral sepal margins almost to the base and lateral sepals connate only at the base. In contrast, the lateral sepals of **G. spathulata** are connate more than half their length; Fig. 1). The conspicuous characteristics of the **G. spathulata** are the almost entirely free, linear, spatulate pet-
als much shorter than the sepals (Fig. 1). Within Gastrodia, the aforementioned characters occur only in G. spathulata (Wood 2011) and agree with the original description of G. spathulata (Carr 1935). This collection represents the first discovery of G. spathulata in Java. Until now, G. spathulata has been recorded only from Mt. Kinabalu, Sabah, Borneo (Wood 2011). Considering that many botanical surveys result in the discovery of new species and new distribution records of Gastrodia in Asia (e.g. Tsukaya & Hidayat 2016, Suetsugu 2016, 2017), G. spathulata may occur more widely. Further exploration is needed to elucidate the distribution of G. spathulata.

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Key to the species of Gastrodia in Java (modified from Tsukaya & Hidayat 2016 and Metusala & Supriatna 2017).

1a. Petals almost entirely free, much shorter than sepals ................................................................. G. spathulata
1b. Petals connate more than 2/3 their length, slightly shorter than sepals .................................................. 2

2a. Plants 50 cm tall or more at flowering; corolla tube split along margins of lateral sepals almost to base .......... G. javanica
2b. Plants 40 cm or less tall; corolla tube split along margins of lateral sepals to 3/4 their length or less .................. 3

3a. Inflorescence with 1 or 2 flowers; stelidia on column projecting well beyond anther cap ......................... G. callosa
3b. Inflorescence with more than 2 flowers; stelidia as long as or shorter than anther cap ......................... 4

4a. Flowers 10 mm or less long; petals more or less spherical, 2 mm long ..................................................... G. verrucosa
4b. Flowers 13 mm or more long; petals 3.5 mm or more long ................................................................. 5

5a. Flowers 13 mm long; lip 6 mm long, sub-sagittate ............................................................................ G. abscondita
5b. Flowers 17 mm or more long; lip 7 mm or more long ................................................................... G. crispa

6a. Lip 7–7.6 mm long .......................................................................................................................... G. bambu
6b. Lip 10–12 mm long ....................................................................................................................... 7

7a. Lip as long as column ..................................................................................................................... G. selabintanensis
7b. Lip longer than column ..................................................................................................................

References


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