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A NEW VARIETY OF *CANTHIUMERA GLABRA* (RUBIACEAE: VANGUERIEAE)

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ABSTRACT
MAHYUNI, R., CHIKMAWATI, T., ARIYANTI, N. S. & KUSUMAWATY, A. 2022. A new variety of *Canthiumera glabra* (Rubiaceae: Vanguerieae). *Reinwardtia* 21(1): 13–17. — *Canthiumera glabra* var. *laxiflora* (Rubiaceae: Vanguerieae), a new variety from Java and Sumatra is described. The new variety differs from the typical variety in having laxly branched inflorescences and is restricted to south Sumatra (Lampung) and southwestern Java.

Key words: *Canthium glabrum*, Indonesia, inflorescence form, Malesia.

ABSTRAK
MAHYUNI, R., CHIKMAWATI, T., ARIYANTI, N. S. & KUSUMAWATY, A. 2022. Varietas baru *Canthiumera glabra* (Rubiaceae: Vanguerieae). *Reinwardtia* 21(1): 13–17. — *Canthiumera glabra* var. *laxiflora* (Rubiaceae: Vanguerieae), varietas baru yang berasal dari Jawa dan Sumatra telah dipertelakan. Varietas baru ini dibedakan dari kelonggaran cabang perbungaannya dan memiliki sebaran terbatas di Sumatra bagian selatan (Lampung) dan Jawa bagian barat daya.

Kata kunci: Bentuk perbungaan, *Canthium glabrum*, Indonesia, Malesia.

INTRODUCTION

The tribe Vanguerieae is strictly defined by morphological characters such as axillary inflorescences, valvate corolla lobes, recessed stigmatic base, and ovaries with a solitary pendulous ovule. However, one of the problematic groups within Vanguerieae is the *Canthium* alliance, in which members of the alliance were distinguished in having characters such as axillary spines, presence of brachyblast, tufts of hair in stipules, unisexual or bisexual flowers, types of inflorescenses, shapes of calyx tube, and presence of hairs on corolla tubes.

Bridson (1992) laid out the foundation work on Vanguerieae, and subsequently Lantz & Bremer (2004) and Arriola *et al.* (2016) followed in utilising molecular and morphological data to distinguish groups within the *Canthium* alliance. Later, Wong *et al.* (2018) demonstrated that *Canthium s.s.* differed from other named genera in Vanguerieae through the presence of the axillary supernumery buds and spines. It should be noted that molecular studies by Lantz & Bremer (2004) and Razafimandimbison *et al.* (2009) lacked of materials from Southeast Asia and this rendered limited resolutions in their phylogenies.

One of the segregate genera of *Canthium s.l.* is *Canthiumera* K.M.Wong & Mahyuni, and it is typified by *Canthiumera glabrum* (Blume) K.M.Wong & Mahyuni (Wong *et al.,* 2018). In total, four species were recognised for *Canthiumera* and they can be distinguished based on the presence of hairs on leaf margin and

Fig. 1. Holotype of *Canthiumera glabra* var. *laxiflora* (*M. Jacobs 8297*).

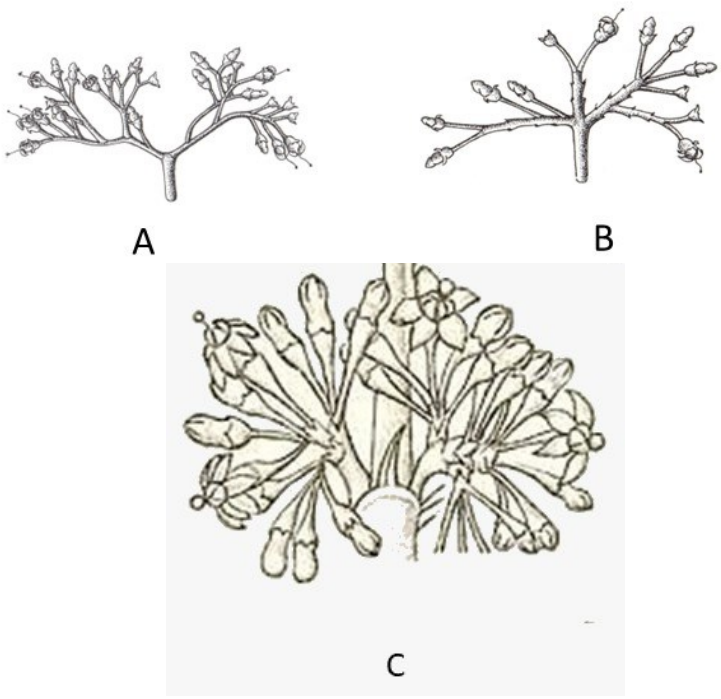

Fig. 2. A & B. *Canthiumera glabra* var. *laxiflora.* A. Sparse inflorescence type observed from *M. Jacobs 8297*. B. Sparse inforescence type observed from *Nengah Wirawan 197*. Drawn by Anne Kusumawaty. C. Dense inflorescence type of *Canthiumera glabra* var. *glabra.* (*Koorders 26702b*, Koorders & Valeton, Atlas der Baaumaten von Java).

morphological characteristics on floral parts (shape of corolla tube, length of calyx, and hairs on style) and shapes of pyrene. *Canthiumera glabrum* is a species distributed in Java, Bali, and Sumbawa, and it has distinct morphological characteristics from the other species, namely *Canthiumera robusta*, *C. siamensis*, and *C. neilgherrensis*, by its 1–1.5 mm long calyx, corolla lobes about the same length as the corolla tube, and a pubescent style.

While sorting through materials of *Canthiumera glabrum* at Herbarium Bogoriense, we came across specimens with distinct differences in inflorescence characteristics but otherwise matches well with other materials of *Canthiumera glabrum*. Based on this distinct morphological character, we hereby describe a new variety to accommodate these materials from Lampung (south Sumatra) and Ujung Kulon (extreme West Java). A description of this new variety and a map of its distribution are provided here.

MATERIALS AND METHODS

This study was conducted following a standard protocol for taxonomic studies in which morphological characteristics of vegetative and generative part were observed from preserved herbarium specimens at Herbarium Bogoriense (BO), Forest Research Institute of Malaysia (KEP), Sandakan Herbarium (SAN), Sarawak Forest Department (SAR), and Singapore Botanic Gardens (SING).

RESULTS AND DISCUSSION

Distribution of *Canthiumera glabra* includes Java, Bali, and Sumbawa. We are unable to establish if *C. glabra* var. *glabra* occurs in Sumatra. In general, morphological characters between *C. glabra* var. *glabra* and *C. glabra* var. *laxiflora* largely overlaps, with the exceptions of fruit pedicels of *C. glabra* var. *laxiflora* which is

Fig. 3. Flower buds of *Canthiumera glabra* var. *glabra* (Ridha, *s.n.*, Bogor Botanic Garden). Photo by Ridha Mahyuni.

shorter than those of the typical variety, *i.e., ca.* 0.5 mm long. The two varieties of *Canthiumera glabra,* namely *Canthiumera glabra* var. *glabra* and *C. glabra* var. *laxiflora* can only be distinguished by their inflorescence type. In addition, *Canthiumera glabra* var. *laxiflora* is found to be restricted to southwestern Java and the Lampung district of Sumatra.

Taxonomy

Canthiumera glabra var. laxiflora Mahyuni, *var. nov.* — TYPE: INDONESIA, Sumatra, Province of Lampung, NW of Kota Agung, 5° 23'S, 104°25'E, 350–450 m, 9 May 1968, *M. Jacobs 8297* (holotype BO!, isotype SING). Fig. 1.

This new variety has laxly branched subumbellate cymes, peduncle 3–5 mm long branches, which has 1–2 mm long.

Other specimens examined. INDONESIA, Java, Province of Banten; Ujung Kulon Nature Reserve, Mt. Pajung. 31 Dec 1963, *Nengah Wirawan 167* (BO). Sumatra, Lampung, no specific locality, 6 Jul 1965, *H.F. Sun 9935* (BO); Mt. Tanggamus, 27 April 1968, *M. Jacobs 8075* (BO); Baturadja, Dec 1928, *T. Hoelt s.n.* (BO).

Etymology. The new variety epithet refers to the laxly branched inflorescences.

Distribution. Endemic to southwestern Java and south Sumatra (Lampung Province) (Fig. 4). At present, precise distribution of this new variety is unknown, apart from the present localities in Bukit Barisan National Park and the Ujung Kulon Nature Reserve.

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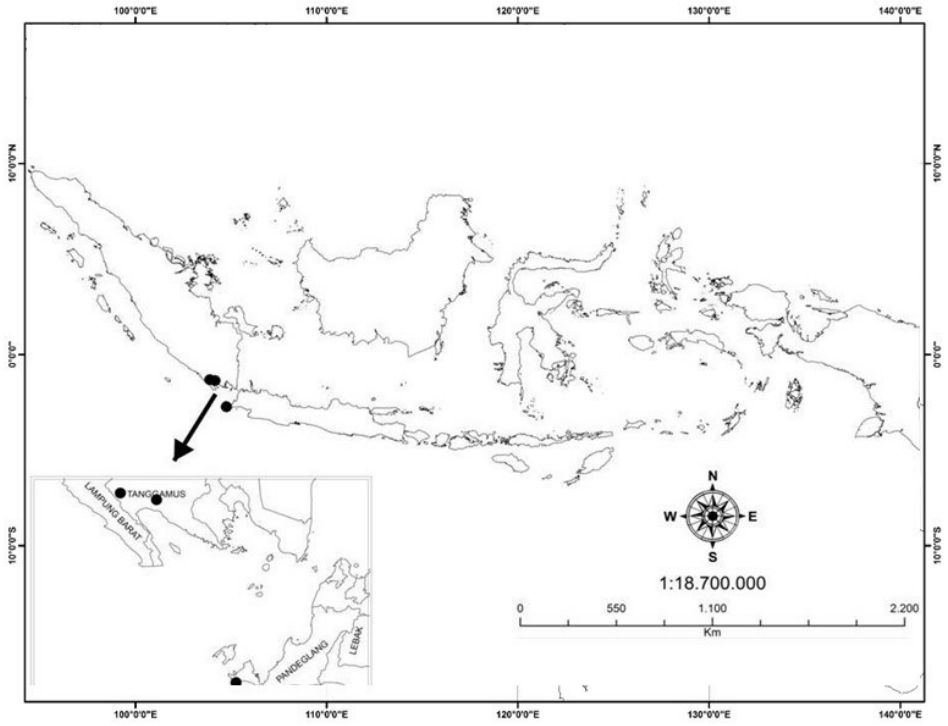

Fig. 4. Distribution of *Canthiumera glabra* var. *laxiflora.*

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