



Short communication

Recollection of *Didymoplexis micradenia* (Rchb. f.) Hemsl. (Orchidaceae) from Western Javan populations

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Didymoplexis Griff. is a genus of mycoheterotrophic orchids which consists of about 20 species. The genus is widely distributed in the Old World tropics (Cribb & Whistler 2011). *Didymoplexis micradenia* (Rchb. f.) Hemsl. is one of the species which occur in Java.

The first record of this species in Java was made by Smith (1900) under the new species discovery, namely *Didymoplexis minor* J.J. Sm. He mentioned the Buitenzorg (now Bogor) as the locality. This information also has been used by him in his further treatment of the orchids of Java, *Die Orchideen von Java* (Smith 1905). A year before the time Comber (1990) published the latest comprehensive account of the orchids in Java, *Didymoplexis minor* has been listed as a synonym of *Didymoplexis micradenia* by Lewis & Cribb (1989). The latest state has been used by many recent authors, including Hsu & Chung (2007), Cribb & Whistler (2011) and last by Phueakklai *et al.* (2014).

The first discovery of *Didymoplexis micradenia* in Universitas Indonesia has been made around the year of 2012 to 2013. But, no good specimens were available, especially the flowers. Around the middle of October 2016, around 50 individual have been found and adequate materials have been collected in the form of spirit materials. The recently collected specimens were deposited in the herbarium of Bogor Botanical Garden (KRB).

Didymoplexis micradenia (Reichb. f.) Hemsl., J. Linn. Soc. Bot. 20: 311, 1883; Cribb & Whistler, Lankesteriana 11 (2): 135. 2011; Lewis & Cribb, Orch. Vanuatu 1989: 24; Hsu & Chung, Taiwania 52 (4): 360, fig. 2 & 3. 2007; Phueakklai, Bunpha & Tetsana, Thai. For. Bull. (Bot.) 42: 71. 2014. Type: Ovalau, Seemann 610 (holotype W n.v., isotype K n.v.).

Didymoplexis minor J.J.Sm., Bull. Inst. Bot. Buit. 7: 1. 1900; Die Orchideen von Java - Figuren Atlas, t. LII. 1908; Comber, Orchid Java 1990: 83. (Fig. 1)

Terrestrial herbs, achlorophyllous, holomycotrophic, leafless. Rhizome just or below the ground, fusiform or moniliform, 1.0–1.5 × 1.05 cm, pale brown. Roots few, 4 or more, white or flushed with bright yellow, especially at the apex, bearing nodules or not. Peduncle pale brown or white, 8.25–9.00 cm long, 1.2–2.0 mm diam., glabrous, with 4–5 scales, up to 3 mm long, obtuse. Racemes 1.6–3.6 cm long, flowers more or less 7–8, bracts ovate-triangular, acuminate, about 1 mm long, reflexed at fruiting. Flowers white, not opening widely, pedicels and ovary *ca.* 7 mm long. Sepals and petals connate at the base into floral tube. Dorsal sepals 7.5 mm long, adnate to petals for 3/4 of its length, forming a hood over the column, totally to *ca.* 3 mm wide, apex shallowly 3-lobed, apex of the central lobe rounded. Lateral sepals connate, free portion 2-lobed, obtuse or rounded, 6.25 × 1.50 mm. Lip cuneiform, 5.75 × *ca.* 2.5 mm, callus of 3 ridged brown papillae, apex rounded in outline, apical margin denticulate, rounded in outline, lateral margins erect, slightly incurved. Column white, 5.5 mm long, 2-winged at apex on both sides, foot *ca.* 0.5 mm long. Capsules cylindrical, 1.85–2.15 × 0.55 cm wide, peduncle lengthening to 17.5–20.0 cm or longer at maturity, *ca.* 2 mm diam., fleshy.



Figure 1. *Didymoplexis micradenia*, urban forest of Universitas Indonesia, Depok, West Java. **A**, Flowering individual; **B**, Plant showing the tuber; **C**, Close up of flower; **D**, Plant in fruiting stage (Photograph: Wendy A. Mustaqim).

Specimens Examined: INDONESIA, West Java Province, Depok, urban forest of Universitas Indonesia (Hutan Kota UI), Depok, West Java, 50–70 m, 10–13 October 2016, *W.A. Mustaqim & Reza Saputra* 1915 (KRB!).

Distribution: Indochina, Taiwan, Samoa, Vanuatu, New Caledonia, Fiji, Tonga, Niue, Palau, Vietnam, Thailand, Java (Depok (formerly part of Buitenzorg)).

Habitat: Shaded urban forest, once found in a forest margin, usually found in areas where herbs are absent or few. Several plant species exist around the localities, identified in the field, are listed in table 1.

Table 1. Plants grow in the localities of *Didymoplexis micradenia* in the urban forest of Universitas Indonesia, Depok, West Java.

Family	Species	Life form
Wild Native Species		
Araceae	<i>Amorphophallus variabilis</i> Bl.	Herbs
Araceae	<i>Alocasia cf. flemingiana</i> A. Hay	Herbs
Dilleniaceae	<i>Tetracera scandens</i> (L.) Merr.	Woody climbers
Dilleniaceae	<i>Tetracera indica</i> (Christm. & Panz.) Merr.	Woody climbers
Dioscoreaceae	<i>Dioscorea hispida</i> Dennst.	Climbers
Euphorbiaceae	<i>Macaranga tanarius</i> (L.) Mull. Arg.	Trees
Ferns	<i>Cyclosorus</i> sp.	Herbs
Ferns	<i>Pteris</i> sp.	Herbs
Ferns	<i>Nephrolepis</i> sp.	Herbs
Moraceae	<i>Ficus hirta</i> Vahl	Shrubs
Orchidaceae	<i>Zeuxine clandestina</i> Bl.	Herbs
Poaceae	<i>Cyrtococcum patens</i> (L.) A. Camus	Herbs (grass)
Primulaceae	<i>Ardisia humilis</i> Vahl	Shrubs
Rubiaceae	<i>Psychotria viridiflora</i> Reinw. ex Blume	Shrubs
Taccaceae	<i>Tacca palmata</i> Bl.	Herbs
Tiliaceae	<i>Microcos tomentosa</i> Sm.	Shrubs to trees
Verbenaceae	<i>Clerodendrum villosum</i> Bl.	Shrubs
Non-Native (Introduced) and Cultivated Native Species		
Araceae	<i>Caladium bicolor</i> (Aiton) Vent.	Herbs
Cecropiaceae	<i>Cecropia peltata</i> L.	Trees
Fabaceae	<i>Bauhinia cf. purpurea</i> L.	Trees
Fabaceae	<i>Gliricedia sepium</i> (Jacq.) Walp.	Trees
Meliaceae	<i>Swietenia macrophylla</i> King	Trees

Notes: The presence of this species show the significantly important role of this urban forest for the existence of this species in Java since this species has been recorded only from Depok (W), as mentioned in the previous literature (Smith 1905, Backer & Bakhuizen van den Brink 1968, Comber 1990). In fact, the locality which is an urban forest shows that the species also can be found in a human affected ecosystem. There is a doubt that this species probably is a relict of cultivation, but no previous record about the cultivation of this species are available.

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