NOTES ON THE IDENTITIES OF THREE MALESIAN
DENDROBIUM (ORCHIDACEAE: DENDROBIINAE)

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Abstract. Three Malesian species of Dendrobium are discussed regarding their typification and identity. Thus D. curvum is found to be based on a mixture and after lectotypification is proposed as the earlier name for D. rappardii; the previously obscure D. dactyliferum is found to be an earlier name for D. pandaneti; and D. triflorum is found to be a commonly misapplied name, which after typification is proposed as a synonym of D. geminatum.

Keywords: Malesia, Dendrobium, synonymy, typification

The genus Dendrobium Swartz is now recognized as the sole member of Subtribe Dendrobiinae. It is believed to have about 1600–1800 species, distributed from Sri Lanka to Tahiti. The plants are usually to be found as epiphytes, but a few species are exclusively terrestrial (e.g., D. metrium Kraenzl.). There is great diversity in the habit of the plants, ranging from those with tiny pea-shaped pseudobulbs, 5-m-long canes, to pendulous chandeliers of terete leaves.

During research on Indonesian Dendrobium, some problems were encountered while trying to locate type material of three species. The proposed resolutions are dealt with below.

TYPE: INDONESIA. Sumatra, W side of Barisan Range, Barong Bharu, Tapan, 1220 m, 10 June 1914, H.C.Robinson & C.B.Kloss 179 (Lectotype here designated: BM 000038209, image seen).
Heterotypic synonyms: Dendrobium rappardii J.J. Sm., Blumea 5: 308. 1943 syn. nov.
TYPE: INDONESIA. Sumatra, Bengkulu, Air Sablat Lebong, 650 m, 8 September 1938, P.W.Rappard 172 (Holotype: L0059462, image seen).
Eurycaulis rappardii (J.J. Sm.) M.A. Clem., Telopea 10, 1; 287. 2003.
Distribution: Indonesia (Sumatra).
Ridley (1917) cited two collections when establishing Dendrobium curvum, one from Sumatra and another found by John Hewitt in Quop, Sarawak, Malaysia. Neither collection could be located in BM or Kew, where the collections that are the basis for Ridley’s 1917 paper are generally stored. However, Ridley occasionally did not update annotations on specimens he studied when he had a late change of mind about the status of a plant he studied (e.g., Dendrobium korinchense Ridl. found under the manuscript name “Eria striatella,” and Eria sordida Ridl. found under the manuscript name “Eria ovatiflacteata”). A check of all Sumatran Dendrobium at BM finally revealed one of the sought-after collections, which had been named as D. crabro Ridley by Ridley and later determined correctly by Jeff Wood of Kew as D. rappardii. This specimen completely matches the protologue of D. curvum in leaf size, 5-cm-long inflorescence peduncle, laxly flowered 5-cm-long rachis, and large flowers with a broad curved mentum. Thus, we propose the Sumatran specimen (Robinson & Kloss 179) as lectotype, with the result that the later D. rappardii must be treated as a synonym of D. curvum.

The other collection (J.Hewitt s.n.) mentioned by Ridley from Sarawak we found at K (again not annotated with the name D. curvum but with a manuscript name “D. uncinulatum”), where it had been found by Jeff Wood to be an isotype of D. multiforum Ridley 1908 nom. illeg. (non Par. & Rchb.f. 1874), a taxon since renamed D. sarawakense Ames. This entity, like D. crabro mentioned above, is endemic to Borneo (Wood, 2014). All three taxa have in common a prominent curved mentum and belong to section Pedilonum Blume.

Dendrobium dactyliferum Rchb.f., Gard. Chron. n.s. 21: 638. 1884.
TYPE: WITHOUT KNOWN ORIGIN. I.F.Foerstermann s.n. (Holotype: W-R 21025, image seen).
TYPE: SINGAPORE. Bukit Mandai, 1893, H.N.Ridley 5029 (Syntype: SING); Johor Strait, January 1890, W.Nanson s.n. (Syntype: SING); Johor Strait, Tanjong Kopang, 1894, H.N.Ridley s.n. (Syntype: SING).
Distichorchis pandaneti (Ridl.) M.A. Clem., Telopea 10, 1; 282. 2003.
Distribution: Thailand, Malaysia, Singapore, Indonesia (Lingga Archipelago, Sumatra, Java, Kalimantan).
This species is well known and aptly named Dendrobium pandaneti, since it has a long, creeping rhizome adapted to
growing on Pandanus and palms, usually in lowland forests. However, while checking the description (and subsequently images) of the obscure D. dactyliferum, it became apparent that this entity is the older name for D. pandaneti, thus leading to the proposed synonymy above. The species is a member of section Distichophyllae J.D. Hook., a group well represented in Sumatra and Borneo.


**TYPE:** INDONESIA. Java: Mt. Gede and Mt. Salak, C.L.Blume 2028 (Lectotype here designated: L 0059933, image seen; possible Isolectotype: W-R 34323, image seen). Basionym: Desmotrichum geminatum Blume, Bijdr.: 332. 1825.

Homotypic synonyms: 

Heterotypic synonyms: Desmotrichum triflorum Blume, Bijdr.: 331. 1825 syn. nov.

**TYPE:** INDONESIA. Java: Mt. Salak, C.L.Blume 1897 (Lectotype here designated: L 0059934, image seen; possible Isolectotype: P 00368880, image seen). 


**Callista triflora** (Blume) Kuntze, Rev. Gen. Pl. 2: 655. 1891.

**Sarcopodium triflorum** (Blume) Rolfe, Orch. Review 18: 239. 1910.

**Epigeneium triflorum** (Blume) Summerh., Kew Bull. 12, 2: 262. 1957.

**Distribution:** Malaysia; Indonesia (Sumatra, Java).

**Dendrobium geminatum** is distinctive among the Javanese species of section Sarcopodium Benth. in flowering on immature growths and bearing geminate pseudoterminal inflorescences. Comber (1990) recognized three species of Epigeneium Gagn. (= Dendrobium section Sarcopodium) in Java, namely, E. geminatum, E. triflorum (with Desmotrichum elongatum Blume reduced to a variety), and E. cymbioides (Blume) Summerh. However, this treatment does not stand scrutiny because there may be up to 10 species in Java but only 4 available names at specific level. Another complicating factor is that type material of Desmotrichum elongatum has not been located, and application of the name is currently uncertain. Furthermore, the names D. cymbioides (Blume) Lindl. and D. triflorum are evidently misapplied in the herbarium and literature.

In an attempt to resolve the problems with the Javanese species of section Sarcopodium, an effort was made to locate the types of the relevant names. At first there seemed to be no type material of Desmotrichum triflorum until it was noticed that one of the supposed syntypes (Blume 1897) of Desmotrichum geminatum bore original labels of the former annotated by Blume. The enigmatic, brief diagnosis of D. triflorum is congruent with this material, mentioning that the pseudobulbs are ovate, compressed, but that the older ones are tetragonous (i.e., implying the plant flowers from the younger bulbs), and the leaves oval-lanceolate. The leaves of all other section Sarcopodium species described by Blume are ligulate to ligulate-oblong, but only exposed plants of Dendrobium geminatum have short, ovate-lanceolate leaves. We speculate that Blume later realized that Desmotrichum geminatum and D. triflorum were conspecific, and thus merged the material of the two, fortunately keeping the original labels.

In treating Dendrobium geminatum and D. triflorum as conspecific, we choose the name D. geminatum since its use is stable and uncontroversial. The material misnamed D. triflorum requires revision, as do all Javanese specimens of section Sarcopodium.

**Literature Cited**

