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PLANT PORTRAIT

9. *Amorphophallus campanulatus* (Roxb.) Bl. ex Decne. (Araceae).

Amorphophallus campanulatus (Roxb.) Bl. ex Decne., *Nouv. Ann. Mus. Hist. nat. (Paris) ser. 3*, 3: 366 (1834).

Basionym: *Arum campanulatum* Roxb., Hort. Beng. 66 (1813).

Ic. (selected): Roxb., Pl. Corom. 3, t. 272 (1819); Hook., Curtis's bot. Mag. t. 2812 (1828); Blume, Rumphia 1, t. 32, 33 (1835); Wight, Ic. Pl. Ind. Or. 3, t. 782, 785 (1843-45); Hook. f., Curtis's bot. Mag. t. 6978 (1888), as *A. virosus* N.E. Br.; Engl., Pflanzenfam. 2, 3: 127 (1889) and Pflanzenreich 23C: 76, fig. 27 (1911), same illustration but now as *A. rex* Prain ex Hook. f.; F.M. Bailey, Qd Agric. J. n. ser. 1, t. 15, 16 (1914).

The illustration is largely based on *Must 1154* (CANB, DNA, K, NT) as well as on the photograph and description published by Harmer (1976). The identification of this specimen was checked at Kew.

Perennial herb with often a large, somewhat flattened tuber from which early in the season an inflorescence and later a compound leaf is produced. *Leaves* 1-1.5 m long, with a stout petiole less than half as long and irregularly spotted; lamina deeply dissected into 3-5 main raches, each usually at least once more dichotomously divided and pinnately dissected, or lobed towards the apices, and often with only a narrow ridge or wing of leaf tissue connecting the lobes; leaflets or lobes lanceolate-elliptic, rarely ovate, more or less acuminate especially terminal ones. *Inflorescence* 20-40 cm long with usually three pale bracts on the basal stalk and one large coloured one (= spathe) sheathing the lower part of the spadix; in flowering stage spathe forming an obconical cup around the spadix, with the margins and the larger terminal point spreading or later reflexed and more or less flabby-undulate, deep purplish-maroon on top abruptly changing to yellow inside the cup; spadix ending in a deep maroon, cone-like appendage, often with a few irregular folds particularly when older, overtopping and broader than numerous simple male flowers (above) and female flowers (below) on the thinner floral axis; male portion of spadix consists of numerous two lobed anthers each of which is sometimes widened upwards and dehisces towards the apex; female portion of spadix is longer and consists of numerous pistils each with a sessile 2-3 loculed ovary surmounted by a style at least three times as long, terminating in a prominent tri-, rarely bilobed stigma, distinctly papillose. *Fruits* fleshy, orange-red.

The impressive flowering inflorescences of *A. campanulatus* deserve to be illustrated again in order to draw attention to its occurrence on the Australian mainland. This extension of its wide distribution from northern India throughout most parts of Malesia as well as Melanesia and Polynesia is not unexpected but not recorded in the literature. It is, however, not clear why a spectacular plant such as this has not been previously recorded from the vicinity of Darwin. If it was introduced, this could have occurred before European settlement as the tubers are eagerly eaten by the indigenous peoples throughout its distribution range (Engler, 1911). In Australian territory Bailey (1914) and Harmer (1976) reported this from Darnley Island and the vicinity of Darwin, respectively.

The latter identifies the species as *A. variabilis* Bl. seemingly a mis-identification by Specht (1958). It is possible that Bentham's prior record of *Brachyspatha variabilis* sensu Benth. (1878), non (Bl.) Schott from near Darwin prompted this identification, but his description of the inflorescence clearly indicated that the single specimen should be identified as *A. galbra* Bail. as Engler (1911) pointed out. The fact that Engler specifically mentioned that the specimen in question was unusual in several respects does not indicate that it should be transferred to an entirely different group of species.

Alternatively, the problem may be that the leaves of *A. campanulatus* are very

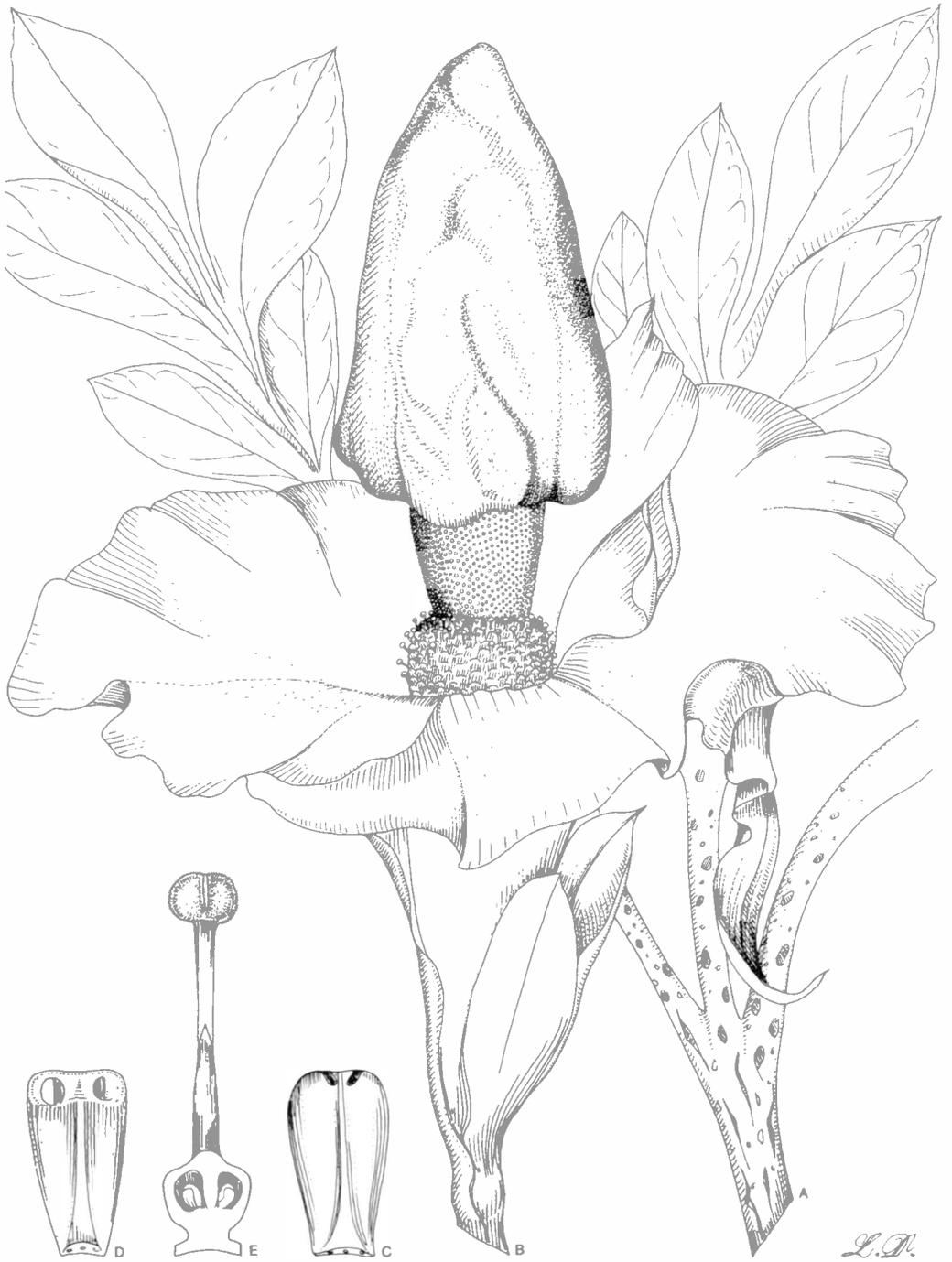


Fig. 1. *A. campanulatus*, A, part of compound leaf, $\times 1/2$; B, inflorescence, $\times 1/2$; C, anther in rear view, $\times 10$; D, anther in front view, $\times 10$; E, pistil with cut ovary, $\times 5$.

similar to those of *A. galbra* which is more common and in the literature often confused with *A. variabilis*, a species which does not occur in Australia. The difficulty with identification is aggravated by the fact that the leaves are produced at a stage when the diagnostic flowers of the plants are not available.

It is noteworthy that the plants figured by Baily (1914) from Darnley Island (SE of Daru, Papua New Guinea) have an abruptly tapering appendage which is much shorter than the rest of the spadix, while the appendages are comparatively longer and acutely conical on plants from near Darwin. The latter are described as being 20-25 cm long by Harmer (1976) but this could not be confirmed in specimens investigated. Throughout the entire range of the species appendage length varies much and as only few specimens are available it is difficult to comment on the significance of this variation. Judging by the variation in size of the various organs as indicated in the literature and, for instance, the wide range given by Backer & Bakhuizen van den Brink (1981) it seems as if those few specimens available were specifically selected to fit the size of herbarium sheets. Therefore, measurements of various parts of the plants are usually not indicated in the above description because it is considered that they might prove to be more confusing than helpful.

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