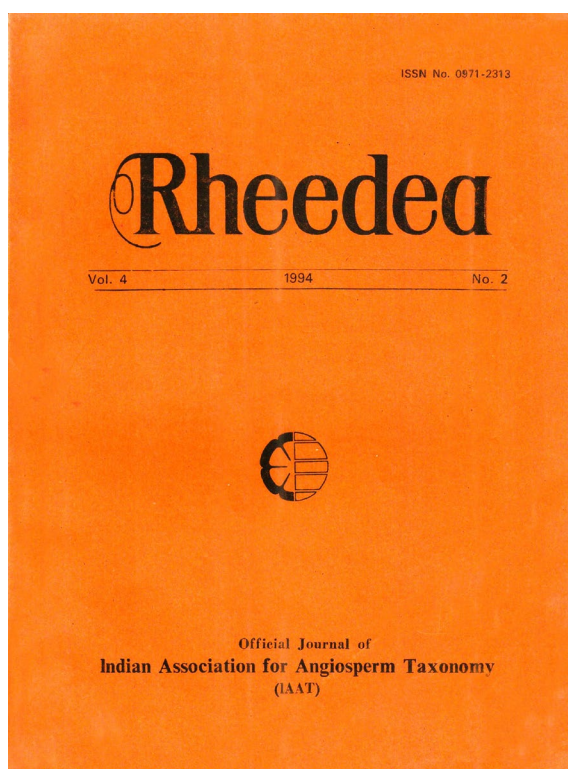




Voacanga grandifolia (Miq.) Rolfe (Apocynaceae): A new record for Southern Peninsular India

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Voacanga grandifolia (Miq.) Rolfe (Apocynaceae): A new record for Southern Peninsular India

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Abstract

The Malesian species, *Voacanga grandifolia* (Miq.) Rolfe, is reported for the first time from Southern Peninsular India. Detailed description, illustration and relevant notes are also provided.

Voacanga Thours. Is a genus of laticiferous trees or shrubs, highly valued in pharmaceutical research and industry for its alkaloids, mainly tabersonine, which is used as a depressor of central nervous system in geriatric patients (Mabberly 1987). It is closely related to *Tabernaemontana*, but can easily be recognised by green and pale spotted mericarps, pistil head coherent with anthers and calyx and style and stigma which are shed along with corolla. Distributed mainly in Africa, Madagascar and Malesian islands, the 25 species recognised earlier (Airy Shaw 1966), have now been reduced to 12, seven of them in Africa and 5 in Asia (Leeuwenberg, 1985), of which two Malesian species, *V. foetida* (Bl.) Rolfe and *V. grandifolia* (Miq.) Rolfe have been introduced in Indian gardens (Sahni & Bahadur 1979). The genus was first reported in the wild in India by Sahni and Bahadur (1979) who discovered *V. grandifolia* var. *glabrifolia* Bakh. f. in the forests of north Goa. Now, we have found it growing wild, along the banks of canals in Alappuzha town in Kerala of Southern Peninsular India. Here it propagates naturally by seeds. It is not known how it has come, but possibly it has reached the coastal town through seeds along with merchandise either from Goa or from the Asia Pacific islands. Whether its distribution in India extends throughout W. ghats is not yet known. However, as far as our knowledge goes, no one has recorded the species from anywhere else than Goa and hence it is published here as a new record from Southern Peninsular India.

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The most widespread of all asiatic species of the genus, this is reportedly, highly variable in the leaf size, pubescence and the petioled or sessile nature and the nature of fruit (either completely united or of two free mericarps). Often confused with the New Guinean *Tabernaemontana aurantiaca* Gaud., this can easily be recognised by their floral and fruit characters (Leeuwenberg 1985).

A description and detailed illustration based on specimens collected here are provided below for easily identification.

Voacanga grandifolia (Miq.) Rolfe, J. Bot. London 21: 202. 1883; Sahni & Bahadur, Indian Jour. Forestry 2: 33-35. 1979; Leeuwenberg, Agr. Univ. Wageningen pap. 85 (3): 55. 1985.

Pootia grandiflora Miq., Versl. en Meded. Kon. Akad. Wet. 6: 193. 1857 & Fl. Ind. Bat. 2: 417. 1857.

Orchipeda grandifolia Miq., Ann. Mus. Lugd. Bot. 1: 316. 1864.

Tabernaemontana celebica Miq., Ann. Mus. Lugd. Bot. 4: 139. 1869.

Voacanga grandifolia var. *glaberifolia* Bakh. f. in Back. & Bakh. f., Fl. Java 3: 229. 1965. (Fig. 1)

Dichotomously branched, laticiferous trees or shrubs, 2—6 m tall. Bark greyish or yellowish, smooth or pustular. Leaves opposite, often in unequal pairs, sessile or subsessile, amplexicaule; lamina broadly elliptic to oblanceolate, 24—47 × 8—16 cm, acute or acuminate at apex, rounded or auriculate at base, entire, green above, pale below; secondary veins 15—25 pairs, raised below, glabrous except on nerves below. Inflorescence long-peduncled, erect or drooping, first branching dichotomous, further branching cymose, laxly flowered, glabrous. Peduncle stout, 9—20 cm long. Flowers 5-merous, pedicelled. Pedicels to 2.5 cm long. Bracteoles deciduous, ovate, to 8 mm long. Calyx somewhat campanulate, divided to middle, glabrous, with many basal glands within and shedding with the corolla; lobes 5, suborbicular, almost as long as tube. Corolla large, rotate or salver-shaped, to 7 cm across; tube to 1.7 cm long, longer than calyx, twisted; lobes 5, overlapping to the left in bud, 2 cm across, obovate-truncate or rounded, spreading. Stamens 5, inserted at the mouth of the corolla tube; filaments short; anthers sagittate, to 5 mm long, cohering with the stigma. Disc 5-lobed, yellow. Ovary 2-carpellary, apocarpous, many-ovuled; style to 1.6 cm long; stigma acute with a ring at base. Fruits of two, recurved or divaricate mericarps, somewhat elongate-reniform or obovoid-oblong, yellow or green with many pale grey or brownish warts, glabrous, 7—8 cm long. Seeds many, ovoid, dark brown, to 8 mm long; testa rugose; aril orange red.

In this area, flowers of this species open at night (8—10 pm) and are very fragrant and white. The corolla later on change colour and become creamy

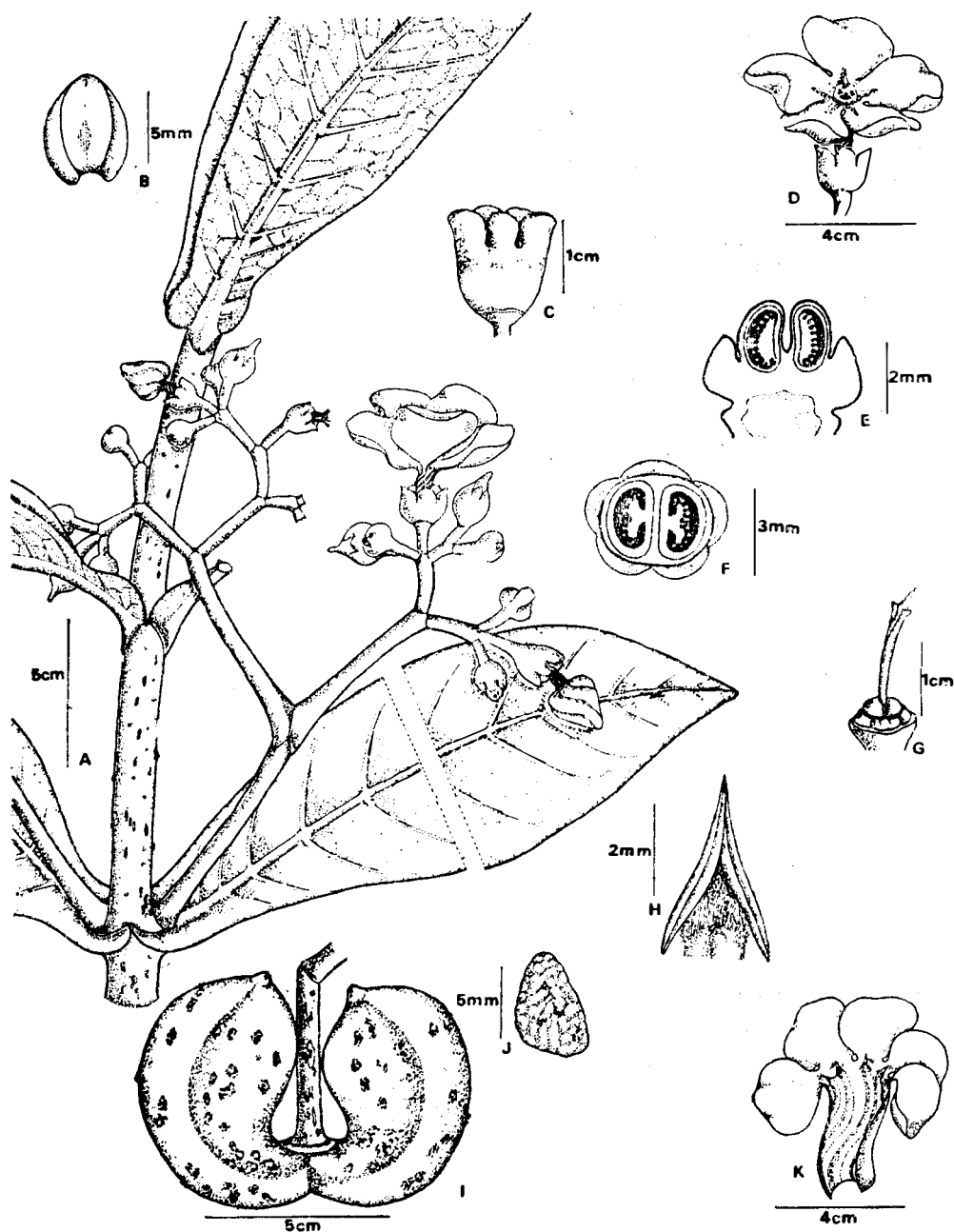
Voacanga grandifolia, new record for peninsular India

Fig. 1. *Voacanga grandifolia*. A. a flowering twig, B. bracteole, C. calyx, D. Flower, E. L. S. of ovary, F. C. S. of ovary, G. Pistil, H. single stamen, I. fruit, J. seed, K. corolla tube opened showing insertion of stamens.

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yellow by next noon, when they usually shed. Flowers and fruits are found throughout the year and the propagation is mainly by means of seeds.

Distribution: Malesia (Indonesia and Papua New Guinea) and India (Goa and Kerala).

Note: Sahni & Bahadur (1979) have identified the Goa material as *V. grandifolia* var. *glaberifolia* Bakh. f., distinguished by its glabrous leaves. Leeuwenberg (1985) has studied specimens of the taxon from throughout its range of distribution and has observed that this is a highly variable character. Consequently, he has sunk it in the synonymy of the species.

Sahni & Bahadur (1979) also erred in citing *Orchipeda grandifolia* Miq. as the basionym of *V. grandifolia*. They are, indeed, homotypic synonyms, but the former is antedated by *Pootia grandifolia* Miq.

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