



ARTABOTRYS ZEYLANICUS VAR. KOTTAVASALIYANA (ANNONACEAE): A NEW VARIETY FROM SOUTHERN WESTERN GHATS

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ABSTRACT: A new variety of *Artabotrys zeylanicus*, belonging to family Annonaceae from Achankovil forests of southern Western Ghats is described and illustrated as *Artabotrys zeylanicus* var. *kottavasaliyana*. A detailed description, distribution, ecology and relevant taxonomic notes are provided.

Key Words: Annonaceae, *Artabotrys zeylanicus* var. *kottavasaliyana*, Southern Western Ghats

INTRODUCTION

Genus ARTABOTRYS R. Brown. Bot. Reg. 5: t. 423. 1820 of Annonaceae, about 100 species[1]: Old World tropics and subtropics; two species in Kerala viz. *Artabotrys hexapetalus* and *Artabotrys zeylanicus*[2]. Members of *Artabotrys* are climbing shrubs or woody lianas. Inflorescences 1 or few-flowered clusters; peduncle recurved, woody, persistent, forming a hook. Flowers bisexual, often fragrant. Torus flat or concave. Sepals 3, valvate, connate at base. Petals 6, in 2 whorls, pale yellowish, subequal, with each whorl valvate, base concave, apex connivent. Stamens many, outermost series sometimes forming staminodes; connectives apically dilated, apex truncate. Carpels 4 to many; ovules 2 per carpel, basal; stigmas ovoid, oblong, or clavate. Fruit apocarpous; monocarps fasciculate, sessile or shortly stipitate, ellipsoid-obovoid or globose, fleshy and berry like. Seeds 1 or 2 per monocarp, without an aril.

Artabotrys zeylanicus Hook. f. & Thoms. is considered as a typical Indo- Sri Lankan linkage taxa, occurring in semi-evergreen and evergreen forests of peninsular India and Sri Lanka. Most specimens of *A. zeylanicus* grow in the understory of forests and thickets at high elevations of 800–1300 MSL. Recent floristic exploration in the evergreen forests of Achankovil yielded some additional specimens of *Artabotrys zeylanicus*. Critical study with the literature and authentic specimens in various Herbaria revealed that our specimens do not agree with the described species. These studies resulted in the finding of a new variety, which is described and illustrated here as *Artabotrys zeylanicus* Hook. f. & Thoms. var. *kottavasaliyana* Jose & George, var. Nov. (Fig.1&2)

Type:—INDIA. Kerala: Kollam District, Kottavasal, ± 1050 m, November 25th 2011, Jose Mathew & K.V.George CMS02719(Flowering twig) (Holotype: CAL; Isotypes: Herbarium of the CMS college, Kottayam, CALI).

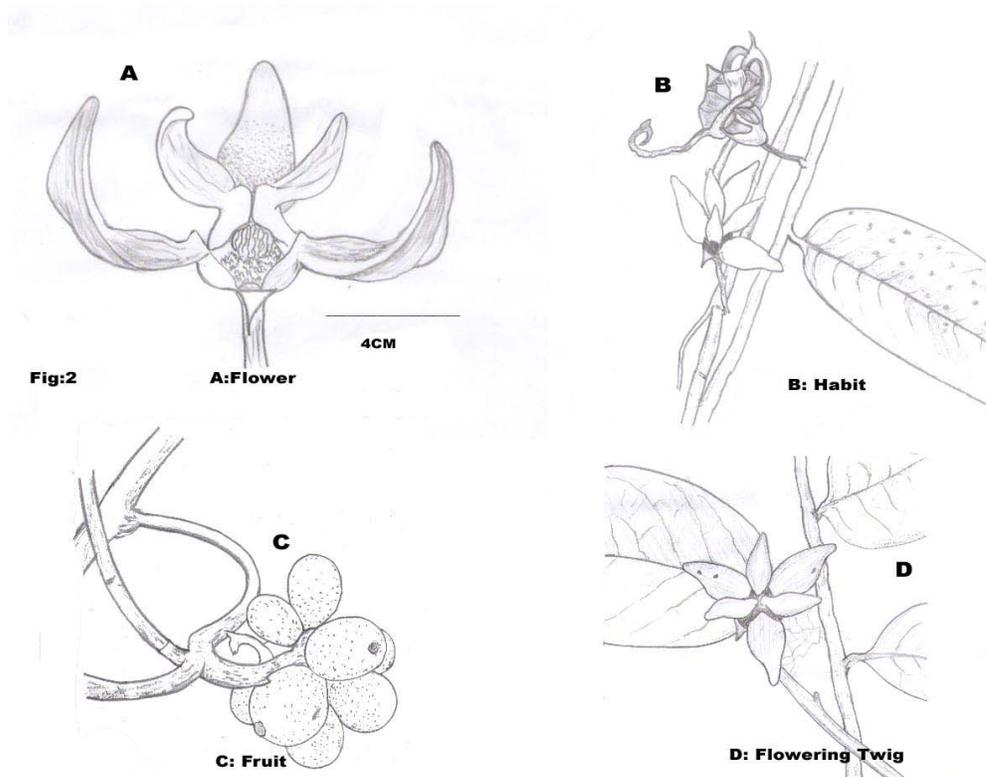
Woody climbers., Branchlets reddish, glabrous or glabrescent., Fully covered with lenticels, Petiole striate, 6–10 mm; leaf blade oblong, acute at both ends 15–21 × 7–9.5 cm, papery, abaxially glabrous, nerves 10–12 pairs; adaxially glabrous, secondary veins 8–16 on each side of midvein and adaxially prominent, base cuneate to acute, apex acuminate to acute. Single flowered. Pedicels 1.5–3 cm long, Flowers 3.5–4 cm in diam., fragrant. Sepals 3, green, ovate, 10–6 mm, sparsely puberulent. Petals 6, yellowish, oblong-lanceolate, 3–4.5 × 0.9–1.6 cm, outside basally densely pubescent, contracted nearly to base but basally expanded. Stamens oblong; connectives (torus) apically 3-angular red coloured. Carpels oblong, glabrous. Fruitlets ovoid, rounded at both ends, 2.5–4 × 2.5 cm, glabrous, apex conspicuously apiculate. Seeds pale brown, 1.5–2 cm, smooth, globose, densely packed Fl. Sept.-Mar., fr. Oct.-April.



Figure:1. *Artabotrys zeylanicus* var. *kottavasaliyana* Jose & George var.nov. A&B: Twig with Flowers
C: Leaves. D: Fruits

Table 1. Prominent morphological differences between *Artabotrys zeylanicus* var. *zeylanicus* and *Artabotrys zeylanicus* var. *kottavasaliyana*

Character	<i>Artabotrys zeylanicus</i> var. <i>zeylanicus</i>	<i>A.zeylanicus</i> var. <i>kottavasaliyana</i>
Colour	Stem :Green Mid rib of leaf : Yellowish Green	Stem: Red Reddish Midrib
Petiole	4.5-8 mm	6-10 mm
Leaf	13-18 x 5-7 cm	15–21× 7-9.5 cm
Lenticels	Few, lenticels < 0.1 mm diameter	Stem fully covered with lenticels of 0.2 mm
Flowers	Flowers few (Inflorescence)	Solitary
Torus	concealed by flat and broad yellowish green coloured connectives	concealed by flat and broad reddish coloured connectives
Fruit	2-3.5× 2.5 cm	2.5–4 × 2.5 cm



Distribution & Ecology: — Populations of the two varieties recognized here are well separated geographically and apparently by elevation (*Artabotrys zeylanicus* var. *zeylanicus* from below 900 MSL and *A.zeylanicus* var. *kottavasaliyana* from above 1000 m in evergreen forests). The new species grows in wet evergreen forests at \pm 1000 m, associated with *Nothopegia racemosa* (Dalz.) Ramam., *Memecylon gracile* Bedd., *Sageraea thwaitesii* Hook. f. & Thomson, *Symplocos macrophylla* Wall. ex A. DC ssp. *rosea* (Bedd.) Nooteb. and *Vepris bilocularis* (Wight & Arn.) Engl.

Etymology: The variety is named for the location in which first collected, and perhaps confined.

Conservation status:— The new taxa is seen in undisturbed evergreen forests of Achankovil valley belongs to Agasthyamala Biosphere Reserve. A total of 30 individuals were scattered along Kottavasal-Vellakaltheiri-Thoovalmalai strip.

Additional specimens examined: INDIA. Kerala: Kollam District, Vellakaltheri, \pm 1020 m, 24th January 2012, George & Teni CMS02799.

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