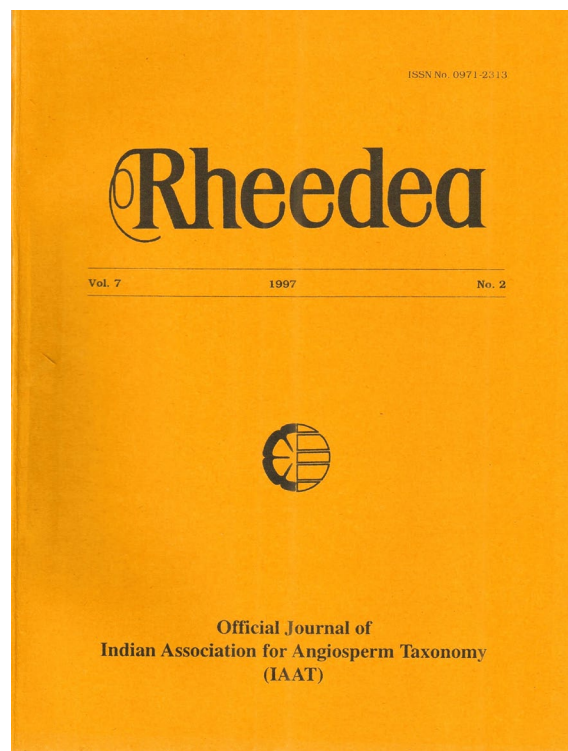




## A new Subspecies of *Symplocos macrophylla* Wall. ex DC. (Symplocaceae) from India

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## A new Subspecies of *Symplocos macrophylla* Wall. ex DC. (Symplocaceae) from India

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### Abstract

*Symplocos macrophylla* Wall. ex DC. subsp. *namboodirianus* Sivadasan et Mohanan (Symplocaceae), a new subspecies closely related to *S. macrophylla* (Wight) Nooteb. is described. It is characterised by small leaves usually with 4-6 pairs of lateral veins, solitary axillary flowers, and peduncles with 3-4 prominent scars of the early deciduous bracts.

### INTRODUCTION

*Symplocaceae* is a monogeneric family of woody plants, distributed both in Old World and New World tropics. The genus *Symplocos* Jacq. has about 250 species (Mabberly, 1987), in the eastern parts of Old World from Sri Lanka and India to Fiji in West Polynesia, and from Manchuria at 46° N to as far as New South Wales and Lord Howe Island at 32°S; in the New World from the NE USA to South Brazil (Nootboom, 1975, 1977). The genus is absent in African continent (Hore, 1983). Nootboom (1975, 1977) recognized two subgenera viz., *S.* subg. *Symplocos* and subg. *Hopea*. In India the genus is represented by 39 taxa belonging to 33 species (Hore, 1983).

Recent exploration of Agasthyamala Hills, at the southern end of Western Ghats, in the Thiruvananthapuram District of Kerala State, yielded a taxon quite different from any of the hitherto described taxa of *Symplocos* (Clarke, 1882; Gamble, 1923; Nootboom, 1975, 1977, 1981; Hore, 1983) and is described as a new subspecies of *Symplocos macrophylla* Wall. ex DC. belonging to *Symplocos* subg. *Hopea*.

***Symplocos macrophylla* Wall. ex DC. subsp. *namboodirianus* Sivadasan et Mohanan, subsp. *nova*. (Fig. 1)**

A *Symplocos macrophylla* Wall. ex DC. subsp. *microphylla* (Wight) Nooteb. differt, flore axillares, solitario, et pedunculis 3-4 cicatricibus prominentibus bracteis caducis.

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Type: India, Kerala State, Thiruvananthapuram District, Agasthyamala Peak, ca. 1700 m above MSL, 24 June 1993, *Mohanan 11442* (Holotype: B; Isotypes: CALI, K, L, MH, TBGT).

Small bushy trees, 4-6 m high, branchlets and peduncles glabrous. Leaves with petioles 0.3-0.6 cm long; lamina 2-4 x 1-2.5 cm, elliptic to ovate, obtuse to shortly acute at apex, attenuate at base, margins entire, glabrous, usually recurved at the upper half, midrib channeled above, projected below; lateral veins 4-6. Flowers axillary, solitary, 0.6-0.7 cm across. Peduncles 0.2-0.25 cm long, with prominent scars of the bracts when old. Bracts 3-4, 0.1-0.25 x 0.05-0.1 cm, ovate, glabrous, sometimes with few hairs when young, caducous. Calyx tube 0.15-0.2 cm long, ca. 0.1 cm diam. at top; lobes 5, 0.2-0.25 x 0.1-0.15 cm, ovate, glabrous or sparsely ciliate on margin. Corolla greenish-white, rotate; lobes 5, 0.4-0.45 x 0.1-0.15 cm, ovate-lanceolate, shortly connate at extreme base. Stamens many, unequal, grouped in bundles of varying numbers, adnate to extreme base of corolla tube; filaments of inner stamens 0.15-0.2 cm, and of outer stamens 0.25-0.4 cm long. Disc 5, conoidal, pilose. Ovary 0.15-0.2 cm long, ca. 0.1 cm diam., 3-celled; ovules 1-2 in each cell, pendulous; style 0.25-0.3 cm long, sparsely pilose at base; stigma capitate, minutely papillate. Drupe 1.2-1.5 x 0.5-0.6 cm, oblong, cylindrical with persistent calyx lobes at top. Seed usually 1, 1-1.25 cm long, 0.3-0.4 cm wide, oblong.

*Flowering and fruiting:* May - July.

*Distribution:* Hitherto known only from the type locality where only very few plants were present.

*Ecology:* *S. macrophylla* subsp. *namboodirianus* is found among the subtropical montane vegetation of Agasthyamala, at high altitudes of ca. 1700 m above MSL.

*Etymology:* The subspecific epithet is in honour of Prof. A.N. Namboodiri, former Director of Tropical Botanic Garden and Research Institute, Thiruvananthapuram for his contributions in the field of plant conservation.

*Relationship:* The characters manifested by *S. macrophylla* subsp. *namboodirianus* qualify it for inclusion in *Symplocos* subg. *Hopea*. The new subspecies resembles with *Symplocos macrophylla* Wall. ex DC. subsp. *microphylla* (Wight) Nooteb. in general habit, size and shape of leaves, etc. But the usual occurrence of fewer number (4-6) of lateral veins in leaves, and solitary axillary flowers are strikingly distinguishing characters of *S. macrophylla* subsp. *namboodirianus* in contrast to the possession of more number of lateral veins (6-10) in leaves and 2-4-(many)-flowered axillary racemose inflorescence in *S. macrophylla* subsp. *microphylla*.

The new subspecies also resembles *Symplocos monantha* Wight in having axillary solitary flowers, and fruits with similar shape, size, etc. But *S. macrophylla* subsp. *namboodirianus* has elliptic to ovate with obtuse to shortly acute tipped, entire leaves; and caducous bracts leaving prominent scars on peduncles. *Symplocos monantha* has elliptic-lanceolate, acuminate-tipped, serrate-margined leaves, and persistent bracts.

A new Subspecies of *Symplocos macrophylla* Wall. ex DC.

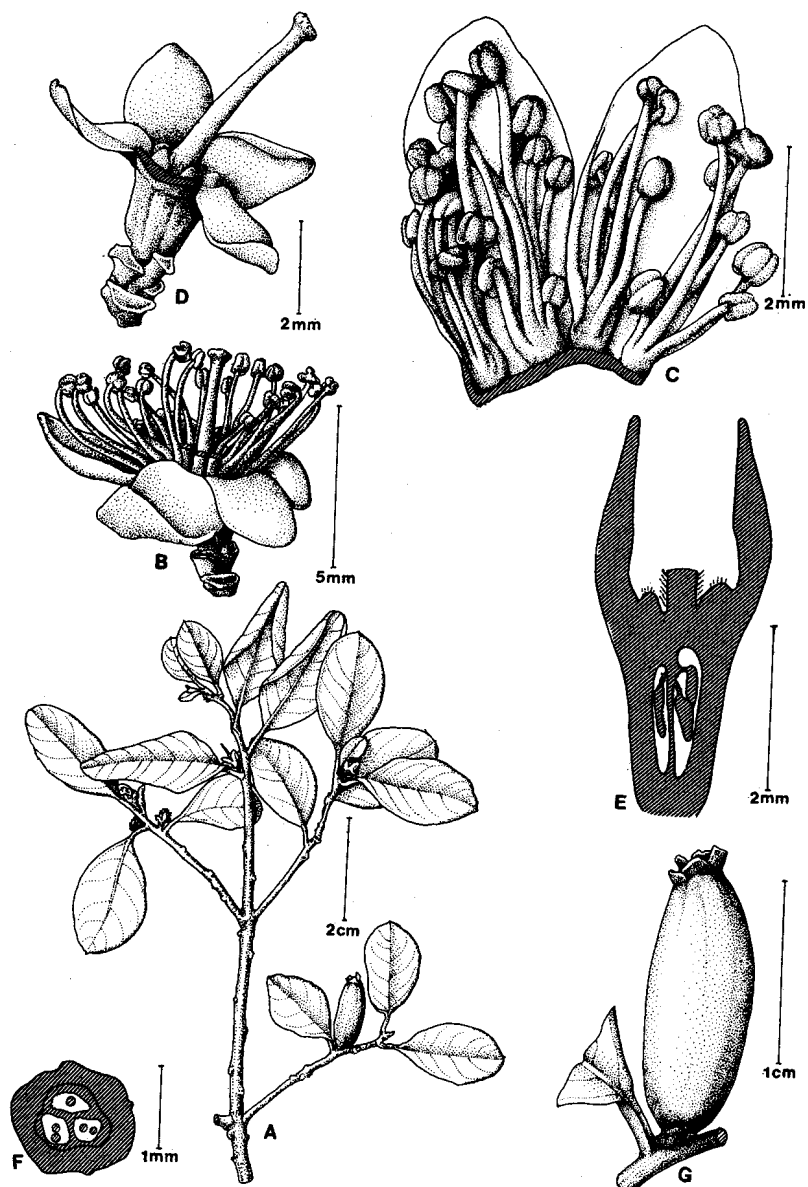


Fig. 1. *Symplocos macrophylla* Wall. ex DC. subsp. *namboodirianus* Sivadasan & Mohanan - A: Habit, B: flower; C: A portion of corolla with attached stamens; D: Flower with stamens and petals removed exposing the disc; E: Ovary - L.S.; F: Ovary - C.S.; G: Fruit.

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