Memecylon agastyamalaianum (Melastomataceae), a new species from India

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Abstract. Memecylon agastyamalaianum Santhosh, Raju & Shanavas, a new species of Melastomataceae from India, is described and illustrated. This new species is allied to M. manickamii C. Murugan, Sundaresan et Jothi.

Keywords: India; Kerala; Melastomataceae; Memecylon agastyamalaianum; New species.

Introduction

The genus Memecylon L. consists of about 150 species, mainly in the Old World tropics (Mabberley, 1987). In India, the genus is represented by about 33 species (Clarke, 1879; Santapau and Henry, 1972), of which 13 are endemic to peninsular India (Nayar, 1996).

The Agastyamalai “hot spot” lies between 8º51’-9º0’ N. latitude and 77º0’-77º05’ E longitude. It has an area of about 2450 km² and comprises three well protected wildlife sanctuaries, Chenduruni, Neyyar, and Peppara. Different altitudinal ranges, rich rainfall, and varied types of vegetation together make a unique flora with about 189 species exclusively endemic to this “hot spot.” The authors conducted an expedition as a part of an ex-situ conservation programme of the medicinal plants of Kerala. This resulted in the discovery of an interesting species of Memecylon, which was clearly different from the hitherto described species of the genus (Clarke, 1879; Gamble, 1919; Bremer, 1979; Murugan et al., 2000). This species is described and illustrated here as new.

Memecylon agastyamalaianum Santhosh, Raju et Shanavas, sp. nov.—TYPE: India, Kerala State, Thiruvananthapuram District, Agastyamalai Hills, Bonaccord, 850 m 8 July 1999, Santhosh Kumar TBG& RI 37656 (holotype: TBGT; isotype: K, CAL, MH).

Figure 1

Memecylon manickamii C. Murugan, Sundaresan et Jothi., arcte affinis, sed inflorescentiis axillaribus paucifloribus pedunculis brevibus (0.5 cm longis) teretibus, pedicellis 4-5 mm longis, slinder, pink; bracts 0.3-0.5 mm long. Flower buds obtuse-rounded at apex with exposed petals; expanded flowers 4-6 mm across. Calyx pink, campanulate, 1.8-2.2 mm across, shallowly 4-lobed, papillate on the outer surface. Petals 4, blue, broadly elliptic-obovate, to 2 × 2.2 mm, shortly clawed at base, acute or apiculate at apex. Disc shallowly striate. Stamens 8, equal; filaments slender, to 2.5 mm long; anthers 1 mm long, connective with a gland. Ovary unilocular, placation free-central; ovules 4-5; style subulate; 3-3.5 mm long; stigma simple. Fruit globose, 7-8 mm in diameter, crowned by calyx. Seed 1; embryo with wrinkled cotyledons and long hypocotyl.


Phenology. Flowering commences during June, and fruits are seen during August-September.

Etymology. The specific epithet refers to the type locality, the renowned biological “hot spot” of the Agastyamalai Hills.

Distribution. Known only from the type locality, Bonaccord in the Agastyamala Hills, at an altitude of 850 m.

Relationships. Memecylon agastyamalaianum is closely allied to M. manickamii C. Murugan, Sundaresan et Jothi., but is clearly distinguished by its few-flowered, axillary, short - peduncled (to 0.5 cm long) inflorescence; acute 4-angular branchlets; terete pedicules; and fairly long pedicels. Memecylon manickamii, in contrast, bears large shrubs or small trees, 2-3.5 m high; bark grayish-black, shallowly fissured; branchlets acutely 4-angular. Leaves opposite, 1.5-2.5 × 0.5-1 cm, elliptic, cuneate-attenuate at base, entire at margin, obtuse or emarginate at apex; midrib with indistinct intramarginal and lateral veins, coriaceous, drying dull greenish-yellow; foliar sclereid filiform. Inflorescences axillary 2-5-flowered umbellate cymes; peduncle 0.5 cm long, terete; pedicels 4-5 mm long, slender, pink; bracts 0.3-0.5 mm long. Flower buds obtuse-rounded at apex with exposed petals; expanded flowers 4-6 mm across. Calyx pink, campanulate, 1.8-2.2 mm across, shallowly 4-lobed, papillate on the outer surface. Petals 4, blue, broadly elliptic-obovate, to 2 × 2.2 mm, shortly clawed at base, acute or apiculate at apex. Disc shallowly striate. Stamens 8, equal; filaments slender, to 2.5 mm long; anthers 1 mm long, connective with a gland. Ovary unilocular, placation free-central; ovules 4-5; style subulate; 3-3.5 mm long; stigma simple. Fruit globose, 7-8 mm in diameter, crowned by calyx. Seed 1; embryo with wrinkled cotyledons and long hypocotyl.

Figure 1

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Figure 1. *Memecylon agastyamalaianum* Santhosh, Raju et Shanavas. A, Habit; B, A flower; C, Flower buds; D, Cross section of branchlet; E, Bract; F, Calyx, view from above; G, Calyx cup with ovary, longitudinal section; H, A petal; I, Stamens, lateral and frontal view; J, A fruit.
many-flowered terminal or subterminal long-peduncled (1-1.8 cm long) inflorescences, 4-angular peduncles, grooved branchlets, and shorter pedicels.

This species also resembles *Memecylon varians* Thw., an endemic species of Sri Lanka, but clearly differs in the smaller leaves with obtuse or emarginate apex, flowers with distinct pedicels, longer than the receptacle, and anthers with in size a well-developed gland. In *M. varians*, leaves are larger with acuminate-caudate apex, flowers with short pedicels, always much shorter than the receptacle, and anthers with or without a rudimentary gland.

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**Literature Cited**


