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## RESEARCH ARTICLE

## MEMECYLON KURICHIARENSIS (MELASTOMATACEAE), A NEW SPECIES FROM THE WESTERN GHATS, INDIA

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**Introduction**

The genus *Memecylon* L. consists of more than 300 taxa, distributed mainly in the Old World tropics (Renner et al. 2007 onwards). A total of 67 taxa were described from the erstwhile British India (Clarke, 1879). Recent enumeration reveals that 49 taxa of this genus were reported from India (Das Das, 2015), of which 23 are endemics (Murugan & Gopalan, 2006). In India, the Western Ghats is the major centre of diversity with 30 species, including 23 endemics remarkably confined to the tapered forest patches of this 'hotspot' of Biodiversity (Gamble, 1919; Mohanan *et al.*, 2001; Viswanathan & Manikandan, 2001; Santhosh Kumar *et al.*, 2003; Manickam *et al.*, 2007; Sivu *et al.*, 2012, 2014).

During the field exploration for systematic studies in *Memecylon* of the Western Ghats, an interesting *Memecylon* was collected from Kurichiarmala, Wayanad District, Kerala, at altitudes between 1400-1600 m. Detailed observations and study revealed its novelty and distinctness from the hitherto known species, and is described and illustrated here as a new species.

***Memecylon kurichiarensis* Sivu, Aswathi. P & N. S. Pradeep sp. nov. (Fig. 1).**

**Type:** Peninsular India, Western Ghats, Kerala, Wayanad District, Kurichiarmala shola forest, ± 1436 m, 11° 36' 046" N and 75° 58' 092" E, 01-03-2008, Shola forest, 27 March 2008 (Fruiting), Sivu, A. R & M. K. Ratheesh Narayanan TBGT 61761 (Holotype: TBGT; Isotype MH).

Shrubs,  $\pm$  3 m high; branchlets terete, young shoots subterete or often quadrangular; bark greyish brown. Leaves opposite, oblong-lanceolate to narrowly elliptic-lanceolate, 4.5 - 10 x 1.5 - 3 cm, coriaceous, shining above and pale beneath, cuneate-attenuate at base, acuminate or obtuse to retuse at apex, slightly revolute at margin; nerves obscure, intramarginal nerves faint, 6 - 10 pairs; foliar sclereids columnar ramiform; petiole *ca.* 5 mm long, purple. Inflorescence cymose, axillary or lateral tubercles, 6 - 10 flowered, 10 - 20 mm across, peduncles *ca.* 5 mm long, purple; bracts ovate, *ca.* 0.6 mm long, purple; pedicels slender, 3 - 6 mm long, bluish-white. Flowers *ca.* 4 mm across, pink to bluish-white, buds obtuse. Calyx tube campanulate, *ca.* 2 mm across, shallowly 4 lobbed, white suffused with pale pink, disc rays faint. Petals 4, elliptic-ovate, obtuse at apex, *ca.* 2 x 2.2 mm, light pink to bluish-white. Stamens 8, equal, incurved in buds; filaments slender, 3.5 - 4.5 mm long, white or light blue; anthers curved, connective with a gland, 1–1.5 mm long, yellow brown. Ovary unilocular, 6 ovules, placentation free-central; style subulate, *ca.* 4.5–6 mm long; light blue; stigma simple. Berries globose, 1 - 1.5 cm across with persistent calyx, yellowish green, bluish black when mature. Seed 1 - 3.

**Phenology:** Flowering and Fruiting occurs during October to March

**Additional specimens examined:** India, Kerala State, Wayanad District, Kurichiarmala shola forest,  $\pm$  1436 m, 11° 36'. 046" N and 75° 58'. 092" E, 07 Oct 2010 (Flowering), *Sivu, A. R & N. S. Pradeep*, 65192 (TBGT).

**Distribution:** Known only from high altitude shola forests of Kurichiarmala hills of Kalpetta forest range, Wayanad, Kerala, India.

**Notes:** *Memecylon kurichiarensis* sp. nov., is closely similar to *M. lawsoni* and *M. wayanadense* but clearly distinct from these by the more profusely branched graceful habit, oblong-lanceolate to narrowly elliptic-lanceolate leaves with acuminate or obtuse-retuse apex, flowers with fairly long pedicels and the elliptic-ovate petals. A more detailed morphological comparison of these species is given in Table 01.

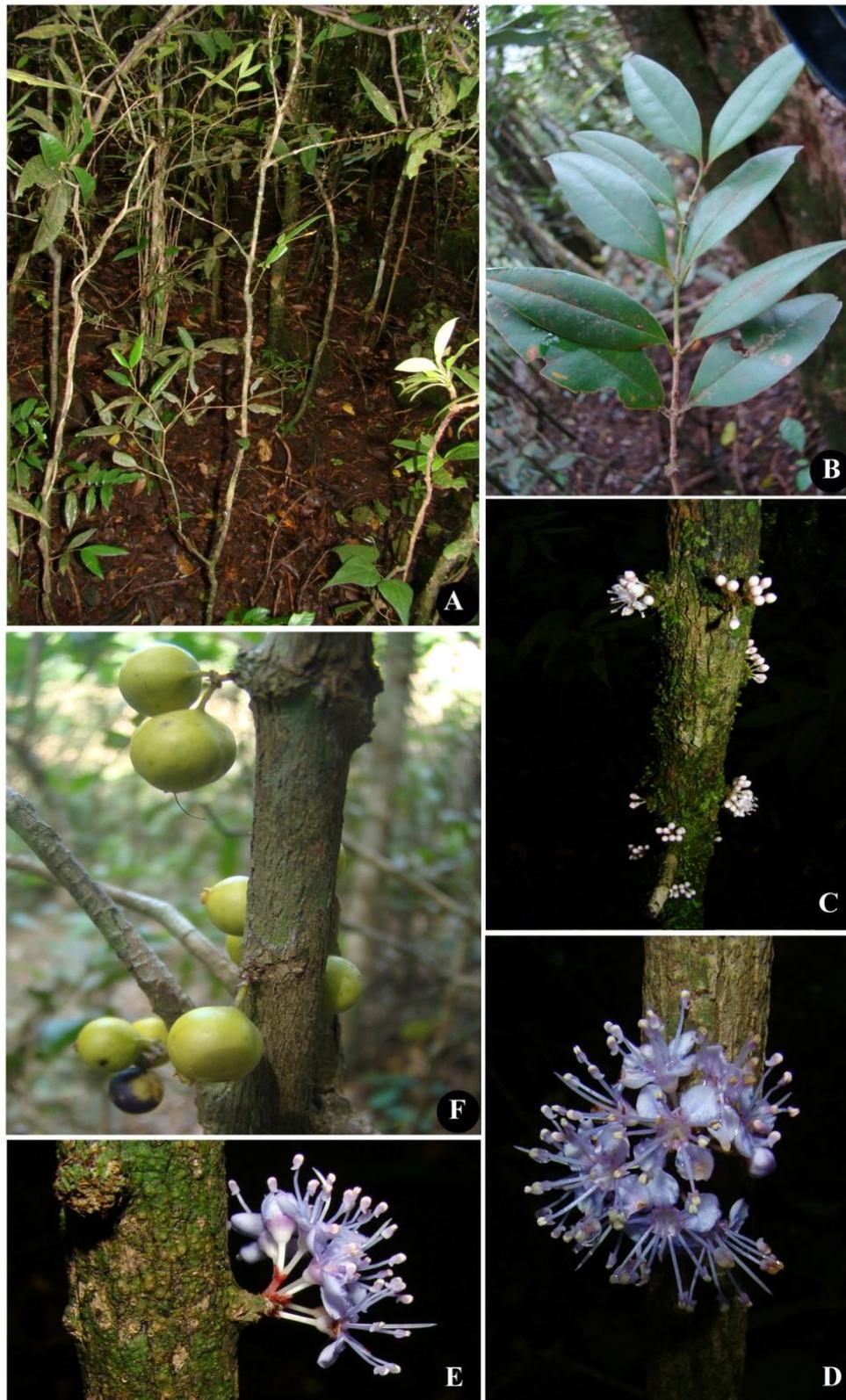
**Etymology:** The specific epithet denotes the type locality, Kurichiarmala, one of the floristically rich regions in the southern Western Ghats.

**Habitat and ecology:** The new species is distributed in the lower stratum of evergreen shola forests at an altitude ranges between 1400–1600 m. The other species commonly found in the habitat are *Ixora sivarajiana* Pradeep, *Litsea beddomei* Hook. f., *Glyptopetalum grandiflorum* Beddome, *Miliusa nilagirica* Beddome, *Ardisia pauciflora* Heyne ex Roxb., *Agrostistachys borneensis* Becc., *Dimocarpus longan* Lour., *Drypetes venusta* (Wight) Pax & Hoffm., *Epiprinus mallotiformis* (Muell.-Arg.) Croizat, *Drypetes wightii* (Hook. f.) Pax & Hoffm., etc.

**Conservation status:** Only five well-separated populations of the species were noticed in different sholas of Kurichiarmala hill ranges (vested forest) at altitudes of 1400–1600 m and each population was with less than 20 individuals. The habitats were interspersed with patches of grasslands rendering the populations prone to forest fire. Effective efforts are essential to protect the existing populations. In the absence of any detailed data on populations, the species is categorized as 'Data Deficient' (DD) (IUCN, 2012).

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**Fig. 01:** *Memecylon kurichyarensis* Sivu, Aswathi P. & N. S. Pradeep sp. nov.; **A.** Habit; **B.** Leaves; **C.** Buds; **D.** Inflorescence; **E.** Bark and cauliflory; **F.** Fruits

**Table 1.** Comparison of characters of *Memecylon kurichiarensis* and related species.

Characters	<i>Memecylon kurichiarensis</i>	<i>M. lawsoni</i>	<i>M. wayanadense</i>
Habit	Shrubs, $\pm$ 3 m	Shrubs, $\pm$ 1.5 m	Shrubs, 1.5-2m
Leaves	Oblong- lanceolate to narrowly elliptic -lanceolate; 4.5–10 x 1.5–3 cm	Lanceolate; 6–10 x 2–3cm	Linear-lanceolate; 5–8 x 0.7–1.3 cm
Leaf base	Cuneate to attenuate	Attenuate	Acute
Leaf apex	Acuminate or obtuse	Acuminate	Long acuminate
Inflorescence	Mainly on old stems, rarely axillary	Fascicles in axillary tubercles	Mainly in the leaf axils
Peduncle	Up to 5 mm long	Up to 1 mm long	Up to 3 mm long
Pedicel	Up to 6 mm long	Sessile	Up to 5 mm long
Buds	Obtuse at apex	Obtuse at apex	Acute at apex
Calyx tube	Campanulate, white with purplish-pink lobes	Campanulate, white to light blue	Campanulate, violet
Petals	Elliptic- ovate, pinkish white	Roughly ovate, light blue	Broadly ovate, clawed, white suffused with violet
Fruits	1–1.5 cm across	2–3 cm across	0.8–1 cm across

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