NOTE

Memecylon clarkeanum Cogn. (Melastomataceae) - a Threatened Species, New Record for India

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(Manuscript received 1 Febuary 2012; accepted 22 March 2012)

ABSTRACT: *Memecylon clarkeanum* Cogn., an endemic and threatened species of Sri Lanka characterized by narrowly filiform foliar sclereids is reported and described as a new record for India from Wayanad, Kozhikode, Malappuram and Palakkad districts of Kerala.

KEY WORDS: India, *Memecylon clarkeanum* Cogn.

INTRODUCTION

The genus *Memecylon* L. was established by Linnaeus in 1753 with a brief description of *M. capitellatum* from Ceylon. *Memecylon* today comprises about 300 species in Asia (Mabberley, 2008; Bremer, 1979, 1987), 70 in Africa and 78 in Madagascar (Jacques-Felix, 1984, 1985). In peninsular India as per the recent estimate the genus is having 29 species with 18 endemic species to the Western Ghats (Clarke, 1879; Gamble, 1919; Mohanan et al., 2001; Viswanathan and Manikandan, 2001; Santhosh Kumar et al., 2003; Manickam et al., 2007). While working on the 'Molecular systematic studies on the genus *Memecylon* L. of the Peninsular India', the authors collected interesting specimens of *Memecylon* from the evergreen forests of Vaduvanchal and Kunchome of the Wayanad District, Aruvanpara of Silent Valley National Park, Nilambur of Malappuram District and Thamarassery Ghat of Kozhikode District of Kerala. After critical study of the specimens with relevant literature and matching with the type specimen (C. P. 2468) it was identified as *Memecylon clarkeanum* Cogn., a taxon narrowly distributed in Sri Lanka and hitherto unknown to Indian flora. This constitutes the first authentic record of this species from India and the same is reported here as a new addition to the Indian flora with full citation, description, phenology, distribution, and specimens examined along with color photographs to facilitate further collection, identification and conservation.

TAXONOMIC TREATMENTS

Memecylon clarkeanum Cogn. in DC. Mon. Phan. 7: 1141. 1891; Trimen, Handb. Fl. Ceylon 2: 217. 1894; Bremer, Opera. Bot. 50: 24.1979 & in Dassanayake & Fosberg, Rev, Handb. Fl. Ceylon 6: 213. f. 3B. 1987. *M. heyneanum* Benth. in Wall. ex Wight & Arn. *var. latifolia* Clarke in Hook. f., Fl. Brit. Ind. 2: 560. 1879. Lectotype: C.P. 2468**.** Fig. 1.

A large shrub or small tree, 2-2.5 m tall. Stems up to 2-4cm in diameter, branchlets subterete; bark brownish grey, shallowly fissured. Leaves opposite; petiole stout 7-8 mm long; lamina elliptic to lanceolate, widest below the middle, 8-20 × 3-6 cm, base cuneate and narrowed, margin slightly revolute, acute to acuminate at apex, thin coriaceous, shining above, pale beneath, midrib with indistinct intramarginal and lateral veins, drying dark green on both sides; foliar sclereids filiform, irregularly elongate and with short and often long branches. Inflorescence a fascicle, 1-3 flowered, sessile *ca.* 1.5 mm across, congested on the leaf axils and at leaf less nodes; pedicels absent or shorter than the receptacle; bracts ovate lanceolate, *ca.* 1.5 mm long, light green. Flower 4-6 mm across, pale blue; buds acute; calyx campanulate or cup shaped 2.2-2.8 mm across, truncate and often with 4 shallow slits, yellowish or white, disc smooth or shallowly striate; petals 4, broadly elliptic-obovate, shortly clawed at the base, acute or apiculate at apex, 2 × 2.2 mm, pale blue;

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Fig. 1. ***Memecylon clarkeanum*** **Cogn. A: Habit of the plant. B: Dorsal view of leaves. C: Flowers in leaf axils and inter nodes. D: A fully opened flower. E: Shallowly fissured bark. G: Fruits with persistent calyx.**

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stamens 8, equal, incurved in buds, filaments slender, *ca.* 5.5 mm long, yellowish white, anthers curved, *ca.* 2.1 mm long, connective with a gland, yellow or brownish; ovary unilocular, 10-12 ovules, placentation free-central, style subulate, 5 mm long, yellowish white, stigma simple. Fruits globose, berry, 8-10 mm across with persistent calyx, yellowish green, bluish black at maturity; seed 1.

Flowering and Fruiting: November-March.

Distribution: India (Kerala) and Sri Lanka.

Ecology: associated species and conservation status: *Memecylon clarkeanum* is distributed in the lower stratum of evergreen forests at an altitude ranges between 500-900 m asl. mainly along the western slopes of the Western Ghats in the northern Kerala. Small population of this species is located in the evergreen forests of Kunchome and Vaduvanchal of Wayanad District, Thamarassery Ghat of Kozhikode District, Nilambur of Malappuram District and also in the Silent Valley National Park of Palakkad District. Populations of this species are fragmented and are represented by a few scattered individuals. There is no continuity in distribution from the southern to the northern populations. The southern-most population is located in the evergreen forests of Silent Valley National Park and the northern-most population is in Kunchome forest of Wayanad. Altogether the distribution of this species is restricted to less than 100 km^2. The populations at Nilambur, Thamarassery Ghat and Kunchome are adjacent to National and State Highways and the quality of habitat is declining continuously.

The associated species commonly found in the habitat are *Arenga wightii, Atalantia monophylla, Baccaurea courtallensis, Desmos lawii, Goniothalamus wynaadensis, Humboldtia brunonis, Ixora brachiata, Knema attenuata, Meiogyne ramarowii, Myristica malabarica Nothopegia travancorica, Phaeanthus malabaricus, Polyalthia fragrans Syzygium laetum, Syzygium mundagam, Syzygium munronii,,* and *Vateria indica*. *Memecylon clarkeanum* is assessed by World Conservation Monitoring Centre and listed as Vulnerable A1c ver 2 in IUCN red list category and criteria (IUCN, 2011).

Specimens examined : INDIA, Kerala, Wayanad District, Kunchome, 17-12-2008, *Ratheesh Narayanan M.K. & Sivu. A. R.,* 63600 (TBGT, MSSRF), Vaduvanchal, 14-11-2010, *Ratheesh Narayanan M. K. & Sivu A. R*., 1354 (MSSRF, TBGT); Kozhikode District., Thamarassery Ghat, ± 450 m, Fl & Fr. 11°30'.244'' N 76° 01'.875'' E, 18-02-2011, *Sivu. A. R., Ratheesh Narayanan M.K. & Pradeep N.S.*, 65185 (TBGT, MSSRF), Kuttiyadi Ghat, 9th curve, 17-12-2008, *Sivu. A. R*., 65101 (TBGT); Malappuram District., Nilambur, 08-11-2008, *Sivu. A. R.,* 63597 (TBGT). Palakkad District, Silent Valley National Park, Way to Parathodu, ± 800 m, 19-06-2008, *Sivu. A. R. & Pradeep N.S*, 63537 (TBGT).

Notes: Bremer (1979) treated *Memecylon clarkeanum* Cogn. in a wider sense accommodating *M. discolor* Cogn. After having a careful study on these two species, Bremer (1987) treated them separately giving ample taxonomic justification. Both the species are differed mainly in their foliar sclereids, texture, shape of leaves etc. Sclereids are narrowly filiform in *M. clarkeanum,* whereas in *M. discolor* it is less elongated and columnar (vertically oriented). Further, these two species are differing by their shape of lamina. In *M. clarkeanum* leaves are thin, larger and more widely elliptic to lanceolate in outline. In some regional floras of Kerala this specimen is represented as *M. lawsonii*. It is an entirely different species of Gamble which is reported from the south east region of Wayanad in 1919. The false interpetiolar septum with inflorescence is also a character of *M. lawsonii* but the leaf is narrowly elliptic to lanceolate. The Indian species, *M. heyneanum* Benth. (=*M. jambosoides* Wight) is probably an allied to *M. clarkeanum* but clearly distinguished by the very prominent intramarginal and lateral nerves which justifies its species status.

ACKNOWLEDGEMENTS

Authors are grateful to the Director, Tropical Botanic Garden and Research Institute (TBGRI), the Executive Director, M. S. Swaminathan Research Foundation (MSSRF), for providing facilities and support. The logistics provided by the Kerala Forest Department for the fieldwork are thankfully acknowledged.

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Memecylon clarkeanum Cogn. (野牡丹科) — 一種在印度的瀕危新紀錄種

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（收稿日期：2012 年 2 月 1 日；接受日期：2012 年 5 月 29 日）

摘要：*Memecylon clarkeanum* Cogn. 是一種瀕危的斯里蘭卡特有種，本文首次發現其在印度的新紀錄分佈，發現地點分別在印度喀拉拉邦的維亞納德區、喀立柯區、馬拉普南區和柏拉卡德區；該物種特徵為葉部厚壁細胞較為狹窄。

關鍵詞：印度，*Memecylon clarkeanum* Cogn.。

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