

Rediscovery of *Memecylon sisparens* Gamble (Melastomataceae) 110 years after Type collection

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Abstract

Memecylon sisparens Gamble, a rare, endemic and endangered species has been rediscovered from Anamalai Hills, Western Ghats, after 110 years since type collection other than type locality. Detailed description with illustration and distribution map is provided.

INTRODUCTION

Memecylon L. is a paleotropical genus and comprising about 300 species distributed from tropical Africa, Madagascar, S. and S.E. Asia and N. Australia to the Fiji Islands (Bremer, 1987). In India it is represented by about 30 species, of which 13 species are endemic to Western and Eastern Ghats of southern India. While conducting ethno botanical studies in the interior pockets of Anamalai Hills few plants of taxonomic and distributional interest were collected. One among them was a species of *Memecylon*. A critical study revealed its identity as *M. sisparens* Gamble was confirmed by comparing with the authentic specimen housed at Madras Herbarium (MH), Coimbatore. A perusal of literature shows that this species is so far known only by the type specimen collected from Sispara Ghat, Nilgiri Hills. Interestingly this species has also been collected outside the type locality and rediscovered after a period of 110 years. Because of its rarity, endemism and restricted distribution it is presented here in detail with description, distribution data and notes on ecology and conservation in order to facilitate better understanding of this little known taxon. The voucher specimen of this species is deposited in the herbarium of FRLHT, Bangalore.

Memecylon sisparens Gamble in Kew Bull. 1919: 227. 1919 & Fl. Pres. Madras 1: 356. 1957 (Repr. ed.); Vivekananthan in Nair & Henry (eds.). Fl. Tamil Nadu, Ser. 1-Analysis 1: 161. 1983.

Trees, to 5 m tall. Bark grey, vertically fissured. Branchlets glabrous, terete, sparsely lenticellate. Leaves simple, opposite, elliptic-lanceolate to lanceolate, 7-13 x 2.5-5 cm, thin-coriaceous, obtuse at base, acutely obtuse at apex, margin entire, thickened, recurved, brownish green when dry; lateral nerves 8-10 pairs, obscure; foliar sclereids narrowly filiform, annular at nodes of leafy stems, ca 1 mm long. Petioles 2-4 mm long, canaliculate, glabrous. Inflorescence a paniculate umbel, 1.2-1.8 cm long, 2-3 cm across, usually on the axils of fallen leaves and on old branchlets, occasionally in leaf axils; peduncles stout, 1-1.5 mm long, glabrous. Flowers 4-8 in each umbellule; bracts triangular-acute, 0.5 mm, glabrous; Pedicels filiform, glabrous, ca 5 mm long. Calyx campanulate, fused with the receptacle, obscurely 4-lobed with 8-radiating wings, ca 2 mm across, glabrous, pinkish. Corolla with 4 petals; petals ovate-triangular, ca 2 x 1.5 mm, hooded, shortly clawed at base, obtusely acute at apex, glabrous, blue. Stamens 8, equal; filaments filiform, glabrous. Styles filiform, glabrous, simple, ca. 4 mm long, slightly bulged in the middle. (Fig. 1 & 2)

Flowers: April - May. Fruits not collected.

Specimen examined: K. Ravikumar 97791, collected on the way to Udumanparai Kadar tribal hamlet, Valparai, Anamalai Hills, Coimbatore district on 08.05.1994 at an altitude of \pm 1400 m.

Distribution

This species is endemic to southern Western Ghats of Tamil Nadu, India. Reported earlier only from the evergreen forests of Sispara Ghats in Nilgiris, Tamil Nadu. The present collection is from Anamalai Hills, Coimbatore (Fig. 3).

DISCUSSION

This species was first collected by J.S. Gamble (*Gamble 14467*) from Sispara in June 1884 at about 1600 m altitude. There is a single specimen housed at the Madras Herbarium (MH), Coimbatore. Perhaps this specimen could be an isotype. The present collection is after 110 years, collected outside the type locality, after type collection. So far the fruits are not known.

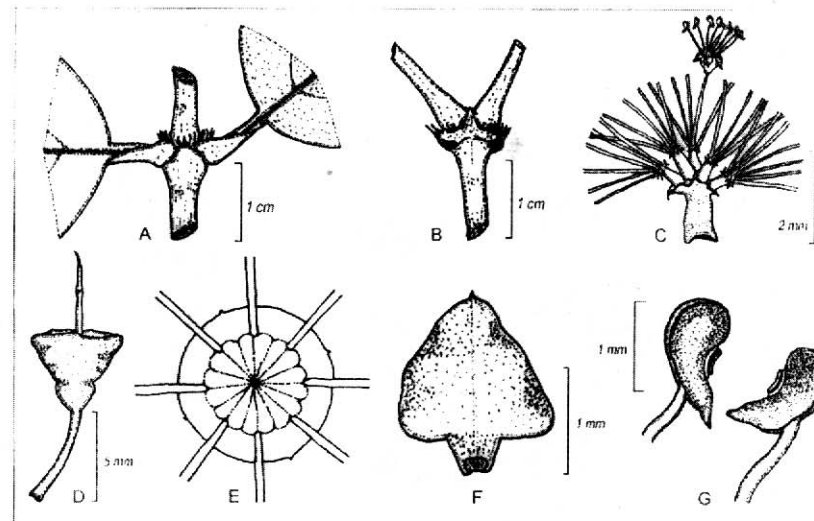
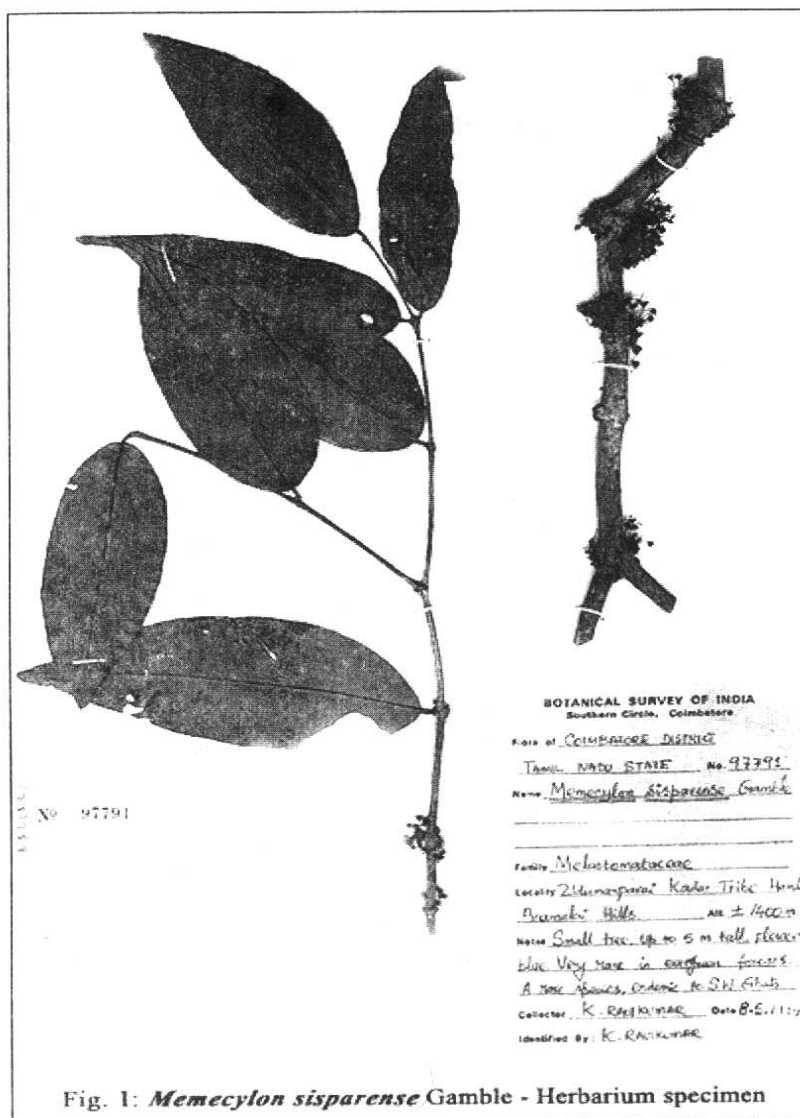


Fig. 2 : *Memecylon sisparense* Gamble - A & B - Nodes showing foliar sclerides; C - Inflorescence pattern; D - Calyx & Hypanthium; E - Calyx & Hypanthium - Aerial view (diagramatic); F - Petal; G - Stamens (lateral view)

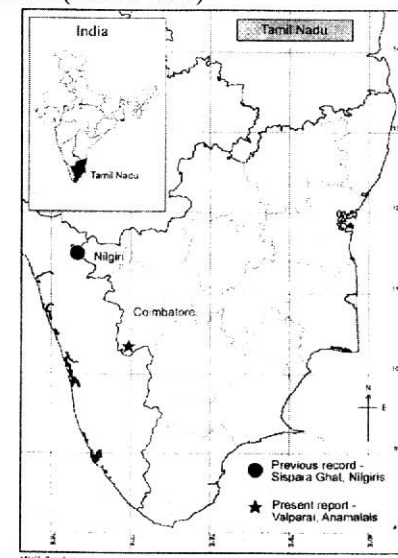


Fig. 3 : *Memecylon sisparense* Gamble - Distribution map

A.A. Ansari who supplied the taxon data sheet to the Red Data Book of Indian Plants (Vol. 3: 1990) remarked that this species is represented only by type specimen. He also stated that the scientists of Botanical Survey of India, Southern Circle could not relocate this species from the type locality despite repeated botanical explorations during the preparation of Flora of India. He opines that, large-scale habitat destruction for plantation crops could be one of the reasons for the disappearance of the taxon from the above locality. Therefore, the threat status could not be determined. However, Nayar (1996) has assigned the threat status as 'critical'. Urgent conservation measures are needed in order to protect this endemic, endangered and little known species.

The present collection from Anamalai Hills further extends its distribution towards south of the southern W.Ghats. It is so respondent to say that only one tree was noticed in the Udumanparai Shola. Even here the species is in precarious condition because it is in a cardamom estate owned by the *Kadar* ethnic community. Therefore it is suggested and essential that surrounding areas are to be explored in detail to determine the occurrence and population status of the species. The seeds can be collected for *ex situ* conservation purposes and should be reintroduced in the appropriate habitats of protected areas. Micro-propagation techniques particularly tissue culture can also be carried out for ensuring the conservation of the species.

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Literature cited

Bremer, K. 1987. in M.D. Dasanayake & F.R. Fosberg (eds.) *A revised handbook to the Flora of Ceylon*. Oxford & IBH Publishing Co. Pvt. Ltd., New Delhi. 6: 206-207.

Nayar, M.P. & A.R.K. Sastry (eds.) 1990. *Red Data Book of Indian Plants*. Botanical Survey of India, Howrah. 3: 180.

Nayar, M.P. 1996. *Hot Spots of Endemic Plants of India, Nepal and Bhutan*. Tropical Botanic Garden and Research Institute, Palode, Thiruvananthapuram. 197.

Vajravelu, E. in S.K. Jain & A.R.K. Sastry (eds.) 1983. *Plant Conservation Bulletin*. Botanical Survey of India, Howrah. 4: 28.