MEMECYLON RIVULARE BREMER (MELASTOMATACEAE) AN ADDITION TO THE INDIAN FLORA

While making a comparative study specimens of the genus Memecylon collected from kolli hills in connection with the preparation of the Flora of the region, one of the specimens, V.J. Nair 73848 collected from Kasaragod District of North Kerala deposited in Madras Herbarium (MH), Coimbatore, arouse our interest. The specimen had been wrongly determined as Memecylon umbellatum Burm.f. (=M. edule Roxb. var. ramiflora C.B. Clarke). Our critical studies attribute it to Memecylon rivulare Bremer, an hitherto unreported species from India. Further, two more old collections from Courtallum, Tirunelveli District, Tamil Nadu and Bangalore, Karnataka collected by R.H. Beddome and H.F.C. Cleghorn respectively erroneously identified as M. angustifolium Wight has been corrected as M. rivulare Bremer, by us.

This species is closely allied to Memecylon angustifolium Wight, another narrow-leaved species reported from Peninsular India and Sri Lanka. It can be easily differentiated from Memecylon umbellatum Burm.f. which has elliptic leaves and dries yellowish green. As it is an addition to the Indian Flora and significant from a phytogeographic standpoint, a full description with illustration and nomenclatural citation are provided.

Memecylon rivulare Bremer in Opera Bot. 50: 18. f. 8. 1979 & Fl. Ceylon 6: 220-221. f. 3C. 1987. M. angustifolium Wight var. attenuata C.B. Clarke in Hook. f., Fl. Brit. India 2: 563. 1879.

Shrubs, up to 2 m high; branches and branchlets subterete; bark ashy grey; nodes annular; internodes abbreviated, 2-4 cm long. Leaves decussate-opposite, narrow-elliptic, cuneate at base, entire, caudate and obtuse at apex, midrib prominent, sulcate above; lateral nerves obscure on both surfaces, coriaceous, dark brown above and pale brown beneath, shiny, glabrous, 2.8-5.8 × 0.8-1.5 cm; petioles 1.5-3 mm long. Inflorescence

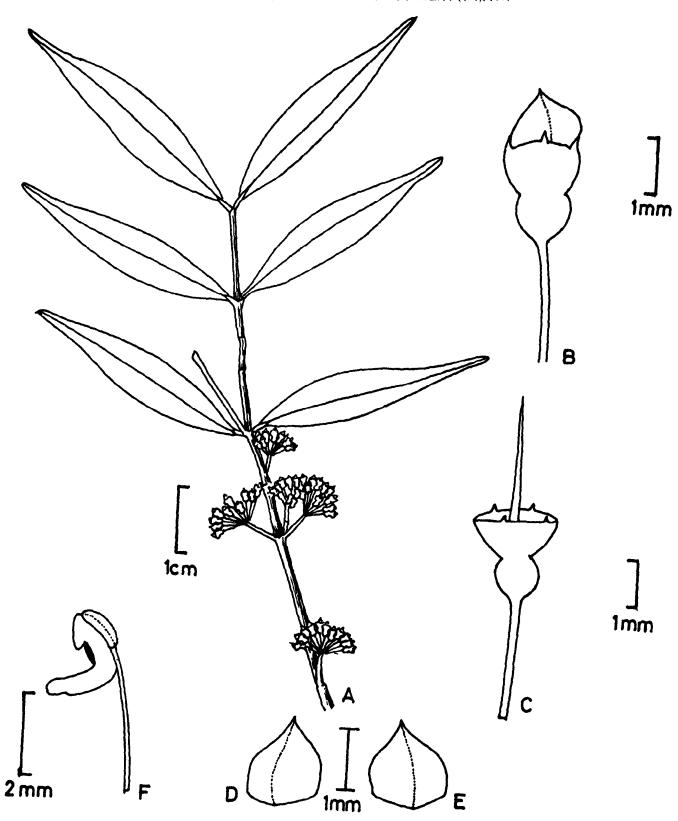
a simple or compound umbel, solitary or in pairs at each side, either at one side or in both sides, in leaf axils and at leafless nodes, each $0.8-1.4 \times 0.7-1.4$ cm; peduncles subterete, primary ones up to 3×2 mm; secondary ones up to 2.5×1 mm; pedicels terete, ca 3.5 mm long. Flowers purplish blue, 4-merous, bisexual with an epigynous disc. Receptacle campanulate-cyathiform, prolonged above ovary, continuous with calyx. Calyx shallowly 4-lobed. ca 0.5 × 2.1 mm; each lobe minute, triangular-apiculate at apex. Petals 4, imbricate in bud, quadrangular up to the calyx mouth, ovate above, oblique-apiculate at apex, ca 1.4×1.2 mm. Disc rays 8, anthers immersed in cavities by incurved staminal filaments in bud condition. Stamens 8, equal; filaments incurved in bud, straight, ca 1.8 mm long; anthers 2, opening by slits, $ca \ 0.4 \times 0.2$ mm; connectives attached ventrally with anthers, nearly axe-shaped with disc-shaped gland at middle dorsal surface, obtuserounded at base, $ca\ 0.6 \times 0.6$ mm. Ovary 1-celled; ovules numerous, attached to central placenta; style simple, ca 2.5 mm long. Immature fruits globose, ca 3 mm across.

Fl. & Fr.: April - May.

Habitat: Common; occurs along the river banks, at an altitude of about 250 m.

Distribution: India-Karnataka (Bangalore); Kerala (Kasaragod); Tamil Nadu (Courtallum). Sri Lanka: Galle, Kalutara, Kandy, Kegalle and Ratnapura Districts.

Notes: Memecylon rivulare differes from M. angustifolium in having leaves narrowly elliptic, widest at the middle, caudate and obtuse to rounded at the apex and shining above while in M. angustifolium the leaves apically obtuse to rounded in outline, not caudate and dull on both sides. Bremer (l. c. & Nord. J. Bot. 1: 63. 1981) points out that they differ furthermore in the arrangement of inflorescences and the embryo. The embryo of M. rivulare is of a peculiar type, hitherto known only from this species.



Figs. A - F: Memecylon rivulare Bremer - A. Flowering branch. B. Flower bud. C. Ovary with calyx and style. D - E. Petal: Dorsal and ventral views. F. Stamen (lateral view).

Specimens examined: INDIA: Karnataka, Bangalore, 1857, H. F. C. Cleghorn s. n. (Acc. No. 21486) (MH); Kerala, Kasaragod District, Kakadavu, ± 250 m, 11.5.1982, V. J. Nair 73848; Tamil Nadu, Tirunelveli District, Courtallum, R. H. Beddome s.n. (Acc. No. 21483) (MH). SRI LANKA: Western Province, Kalutara District, Morepitiya, ± 100 m, 8.6.1973, L. H. Cramer 4180; Locality unknown, without date, C. P. 3346 (Type) (MH).

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ADINANDRA COLLETTIANA T. K. PAUL (THEACEAE)— A NEW SPECIES FROM MYANMAR

Adinandra collettiana T. K. Paul typified by George Gallatly 829 from Myanmar is established as a new species. The new species is described and illustrated.

While working on the Theaceae of the Indian region, it was found that some specimens of the genus Adinandra Jack., deposited at Central National Herbarium (CAL) are merely named as "Adinandra collettiana nov. spec." by G. King. But so far this new species has not been published. After a study of these specimens the author is convinced that the specimens placed under this name represent a distinct species which needs to be described.

Adinandra collettiana T. K. Paul sp. nov. A. gallatlyi sed affinis foliis apice acutis, subacuminatis, vel obtusis, infra sparse et appresse puberule, pedicellis brevioribus (1.5-2 cm longis) distincte recurvatis, petalis apice acuminatis et staminibus longioribus (c. 5 mm longis) differt. Typus: Myanmar, Tenasserim, Jaepo, George Gallatly 829A (holotypus CAL; isotypi CAL).

Small tree, young stem and longitudinally striated, pubescent with short appressed simple hairs, ultimately glabrescent, vegetative buds silky pubescent. Leaves simple, exstipulate, alternate; petioles thick, stout, 0.5-1 cm long, channelled on upper surface, sparsely hairy or glabrous; lamina oblong, ovate-oblong or oblong-elliptic, base acute or obtuse, apex acute, obtuse or subacuminate, margins remotely serrate towards the apex, revolute, $5.5-15 \times 2.5-5.2$ cm. upper surface glabrous, lower surface with appressed simple hairs, glabrescent, lateral veins 15-20 on either side of the mid-vein, mid-vein channelled, prominent in the lower surface, subcoriaceous. Flowers axillary, solitary; pedicels 1.5-2 cm long, distinctly recurved with few scattered simple hairs towards the apex, glabrous: bracteoles 2, from base of flower, ovate-acute, 2-3 \times c. 2 mm, deciduous. Sepals 5, ovate to oblong. apex acute or obtuse, $8-10 \times 5-6$ mm, outside with appressed simple hairs, marginal portion thin, glabrous, inner surface glabrous, persistent. Petals 5, white, ovate-acuminate, equalling the sepals in

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