



New plant records for Tamil Nadu State, India

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ABSTRACT

Didymoplexis seidenfadenii Sathish & Ormerod, Ixora agasthyamalayana Sivad & N. Mohanan, Kunstleria keralensis C. N. Mohanan & N. C. Nair, Melochia nodiflora Swartz, Merremia cissoides (Lam.) Hall. f. and Synedrella vialis (Less.) A. Garay, are reported here as additions to the flora of Tamil Nadu. A brief description with relevant notes is provided for the easy identification of taxa in the field.

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Introduction

During our floristic exploration in various places of Tamil Nadu resulted in the discovery of many interesting taxa. While scrutinizing our herbarium collections, we found that six taxa such as *Didymoplexis seidenfadenii* Sathish & Ormerod, *Ixora agasthyamalayana* Sivad & N. Mohanan, *Kunstleria keralensis* C. N. Mohanan & N. C. Nair, *Melochia nodiflora* Swartz, *Merremia cissoides* (Lam.) Hall. f. and *Synedrella vialis* (Less.) A. Garay, which has not been reported earlier from Tamil Nadu (Henry *et al.*, 1987; Matthew, 1983 & 1999; Manickam *et al.*, 2003 & 2004; Murugan & Gopalan, 2006; Nair & Henry, 1983; Pallithanam, 2001; Ravikumar *et al.*, 2004; Stephen & Vajravelu, 1999). Hence, they are discussed here with updated nomenclature, brief description and relevant notes for easy identification of the taxa in the field. All the cited specimens are deposited in the herbaria of Saraswathi Narayanan College (SNC), Madurai.

Didymoplexis seidenfadenii Sathish. & Ormerod in Manilal & Sathish., Orch. Memories 182. 2004; Fernando & Ormerod in Rheede 18(1): 12. 2008. (ORCHIDACEAE).

Saprophytic herbs, 6-14 cm high; tubers fusiform, basally tapering into a narrow root-like structure. Flowers yellow, 1-3, in terminal cymes. Dorsal sepal ovate, brownish outside, 3-veined, punctate, fused basally with the petals. Petals yellow, oblong or oblong-ovate, 3-veined, punctate. Capsules oblong, 2-3 cm long.

Fl. & Fr.: January-March.

Distribution: India (Kerala & Tamil Nadu) & Sri Lanka.

Ecology: Rare in the Wet evergreen forests.

Specimens Examined: Tirunelveli District: Fern house to Sengaltheri route, Kothayar hills, R. Kottaimuthu 220180.

Notes: This species was described by Sathishkumar & Ormerod (2004) based on the specimens collected from Agasthyamalai. The present collection from Kothayar hills, not only forms a new report to Tamil Nadu but also extends its known distribution.

Ixora agasthyamalayana Sivad. & N. Mohanan, Bot. Bull. Acad. Sinica 32: 313. 1991; Gopalan & Henry, Endemic Pl.

Agasthiyamala 281. 2000; Mohanan & Sivad., Fl. Agasthiyamala 322. 2002. (RUBIACEAE).

Small trees, 2-3 m high. Leaves opposite, decussate, elliptic or elliptic-oblong, 12-22 x 6-8 cm, base cuneate, acutel at apex, margin entire-slightly wavy, lateral veins 15-20 pairs. Stipules broadly triangular, pubescent inside. Flowers white with pinkish shade, in lax compound corymbs; peduncles long, articulated, 12-15 cm long. Berries didymous, 0.8-1 cm across, 2-seeded.

Fl. & Fr.: February-March.

Distribution: India (Kerala & Tamil Nadu). Endemic.

Ecology: Rare in Evergreen forests.

Specimens Examined: Kanyakumari District; R. Kottaimuthu 220080.

Notes: This species was considered to be endemic to Kerala and it has so far been reported only from the Western slopes of Agasthyamalai. The present collection of this endemic species from Kanyakumari hills forms new report to the state of Tamil Nadu as well as extends the known distribution towards south of the Western Ghats. In addition to that, the present collection of this species forms a second collection after type collection and from other than the type locality, nearly after twenty years.

Kunstleria keralensis C.N. Mohanan & N.C. Nair, Proc. Indian Acad. Sci. (Pl. Sci.) 90: 207. 1981; Manilal, Fl. Silent Valley 84. 1988; Sanjappa, Legumes Ind. 199. 1992; Ramesh & Pascal in J. Bombay Nat. Hist. Soc. 90: 325. 1993; Sasidh. & Sivar., Fl. Pl. Thrissur For. 146. 1996; Sivar. & Mathew, Fl. Nilambur 223. 1997; Mohanan & Sivad., Fl. Agasthiyamala 214. 2002; Anil Kumar et al., Fl. Pathanamthitta 183. 2005. (FABACEAE).

Climbing shrubs; bark scaly. Leaves compound, imparipinnate, 5-7 foliolate, rachis 5-12.5 cm long; leaflets elliptic-oblong / lanceolate, 7-18 x 3-6.2 cm, margin entire, caudate-acuminate with blunt tip at apex, acute to rounded at base, lateral nerves 4-7 pairs, reticulation prominent, deeply impressed above and strongly raised beneath.

Fl. & Fr.: So far not collected.

Distribution: Western Ghats (Karnataka, Kerala & Tamil Nadu). Endemic.

Ecology: Occasional in Evergreen forests.

Specimens Examined: Kanyakumari District; R. Kottaimuthu 220185.

Notes: *Kunstleria keralensis*, a new genus recorded for India and a new species in the genus has been described by Mohanan & Nair (1981) based on the specimens collected from Quilopn District, Kerala. Since then it is reported from various places of Western Ghats of Kerala (Manilal, 1988; Sasidharan & Sivarajan, 1996; Sivarajan & Matthew, 1997; Mohanan & Sivadasan, 2002; Anilkumar *et al.*, 2005). Ramesh & Pascal (1993) has reported this species from Karnataka. The present collection from the evergreen forests of Kanyakumari and Tirunelveli hills of Tamil Nadu extends its known distribution further south in the Western Ghats.

Melochia nodiflora Swartz, Nov. Gen. Sp. Pl. Prodr. 97. 1788; C. A. Baker & R. C. Bach., Fl. Java 1: 405. 1963; Sreekumar & al., in Journ. Bombay Nat. Hist. Soc. 78:424. 1981; Maiti & al., Journ. Econ. Tax. Bot. 3: 178. 1982; K.C. Malick in B.D. Sharma & Sanjappa, Fl. India 3: 442. 1993. *Melochia borbonica* Cav., Diss. 6: 321. 1788. *Riedlea nodiflora* (Swartz) DC., Prodr. 1: 491. 1824. *Riedlea borconica* (Cav.) DC., Prodr. 1: 491. 1824. *Mougeotia nodiflora* (Swartz) HBK, Nov. Gen. Sp. 5: 330. 1823. (STERCULIACEAE).

Woody shrubs, 1-1.5 m high. Leaves simple, alternate, broadly ovate or ovate-lanceolate, 7-12.5 x 2-6.2 cm, margin serrate, base cordate, acuminate at apex, sparsely pubescent on both surfaces, lateral nerves 6-12 pairs, distinct. Petioles 0.5-3.5 cm long. Stipules lanceolate, 0.4-0.6 cm long, ciliate. Flowers white, subsessile, in axillary clusters. Bracts ovate-lanceolate, foliaceous, 0.5-1 cm long. Sepals 5, ovate-lanceolate, 0.2-0.3 cm long, hairy. Petals 5, spatulate, white with pink veins. Stamens 5. Ovary sessile; styles 5, connate at base. Capsules globose, reddish, grooved, septically dehiscent. Seeds ovoid, angular.

Fl. & Fr.: September – November.

Distribution: Native of Tropical America.

Ecology: Common near the waste lands.

Specimens Examined: Madurai District: Behind the waste lands of Thiagarajar College, 180m, 23-10-2010, R. Kottaimuthu 20000

Notes: This species is indigenous to Tropical America. In India, it has been so far reported only from the state of Kerala. The above collections from Tamil Nadu form new report to the state.

Merremia cissoides (Lam.) Hall.f. in Engl., Bot. Jahrb. Syst. 16: 552. 1893; Van Oostroom, Fl. Surinan 84. 1932; Biju & al., in Journ. Bombay Nat. Hist. Soc. 90: 121. 1993. *Convolvulus cissoides* Lam., Tabl. Encycl. 1: 462. 1791. *Ipomoea cissoides* (Lam.) Griseb., Fl. Br. W. Ind. Isl. 473. 1861; Trimen, Handb. Fl. Ceylon 3: 212. 1895; Alston in Trimen, Handb. Fl. Ceylon 6: 202. 1931. (CONVOLVULACEAE).

Climbers; branchlets glandular. Leaves palmately compound, leaflets 5, sessile-subsessile, elliptic, 3-6 x 1-1.8 cm, margin toothed, base cuneate, apex acuminate, mucronate. Flowers dull white, axillary, solitary; pedicel glandular, 3-4.5 cm long; bracts linear, 1.2-1.5 cm long, glandular pubescent. Sepals 5, dissimilar, broadly ovate, 1.5-2 x 0.3-0.5 cm, margin wavy, apex acuminate. Corolla campanulate, tube 0.6-0.8 cm long. Stamens 5, subequal, filaments broadened at base. Ovary 4-celled; style 0.6-0.8 cm long; stigma 2, globose. Capsules depressed with orbicular seeds.

Fl. & Fr.: November-January.

Distribution: New world countries, Africa, Ceylon and India (Kerala & Tamil Nadu).

Ecology: Rare; in open places.

Specimens Examined: Dindigul District: Gandhigram University campus, 195m, R. Kottaimuthu 8005.

Notes: This species is native to Tropical America. In India, it has been so far reported only from the state of Kerala. In Tamil Nadu, this species has not been reported so far. Hence, the present collection forms new report to the state.

Synedrella vialis (Less.) A. Garay in Proc. Am. Acad. 17: 217. 1882; Ahuja & Pattaskar in Ind. For. 95: 267. 1969; Rao & al., Fl. Ind. Enum. Astera. 74: 1988; Naithani & Chandra in Jour. Bombay Nat. Hist. Soc. 86(2): 272. 1989; Hebbar & al., in Ind. For. 461. 2002; Brij Lal & al., in Ind. For. 135(1): 89. 2009. *Calyptocarpus vialis* Lees. Syn. Gen. Comp. 221. 1832 & in Linnaea 269. 1834; DC. Prodr. 5: 630. 1839; Mc Vaugh & Smith in Brittonia 19: 270. ff. 4-6. 1967; Peng & Kao in Bot. Bull. Acad. Sin. 25: 172. 1984. (ASTERACEAE).

Prostrate herbs, rooting at nodes. Leaves simple, opposite, ovate, 2-3.2 x 1-1.5 cm, basally 3-nerved, margin entire-serrate, base acute-cuneate, acute at apex, pubescent on both surfaces. Heads heterogamous, axillary, usually solitary, pedunculate or sometimes two, when two one pedunculate and another sessile; peduncles 2.5-3 cm long, hairy; outer involucre bracts 4, herbaceous, ovate-oblong or oblong-lanceolate, ciliate along margin; inner bracts linear-lanceolate, 0.3-0.5 cm long. Ray florets ligulate, 5-9, yellow, 3-lobed at apex. Disc florets tubular, limb 4-lobed. Achenes dimorphic, dorsally compressed, narrowly winged, crowned with 2-3 spines.

Fl. & Fr.:

Distribution: Native to Southern USA, Mexico and West Indies.

Ecology: Rare in moist, shady localities.

Specimens Examined: Dindigul District: On the way to Palamuthir sholai, Alagar Hills, 290m, R. Kottaimuthu 22001

Note: In India, it was recorded for the first time from Poona Cantonment area (Ahuja & Pataskar, 1969). Subsequently, Naithani & Chandra (1988) found its occurrence in Uttar Pradesh. Later it is recorded from Jammu (Mangotra & Bhellum, 1988) and Karnataka (Hebbar *et al.*, 2002). The present collection from Alagar Hills forms a new report not only to the flora of Tamil Nadu, but also to the Eastern Ghats.

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