

New plants records from Marudhamalai hills of Coimbatore District, Tamil Nadu State. (India)

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Abstract: Specimens of the genus *Grewia* L. collected from Marudhamalai hills and Campus of Tamil Nadu Agricultural University, Coimbatore were identified as *G. flavescence* A. Juss., *G. tillifolia* Vahl. var. *leptopetala* (Brandis) T. and *G. villosa* Willd., which were not recorded for the Coimbatore district so far. This paper records them with nomenclature, descriptions and notes.

Introduction: Genus *Grewia* L of the family Malvaceae (formally placed in Tiliaceae) represented by 150 species is distributed in tropical warm regions of the world.

In India, *Grewia* accounts for 31 species (Daniel & Chandrabose, 1993). Earlier, Chandrabose & Nair (1988) records only two species from Coimbatore. They are *G. tenax* (Forssk) Fiori and *G. abutilifolia* A. L. Juss. In the analysis of the of Tamil Nadu, India, Vajravelu (1983) list 23 species for the state of Tamil Nadu.

During the exploration in Marudhamalai hills, Agricultural University campus of Coimbatore district, a few specimens of genus *Grewia* L. were collected. After the critical examination and perusal literature scrutiny, it is found that these species not recorded so far from Coimbatore district. Hence, in the present paper, it is reported here as three new additional species of genus *Grewia* for Flora of Coimbatore District, Tamil Nadu State. The paper presents nomenclature, brief description and ecological notes to facilitate easy recognition of this species in the field.

Grewia flavescens A. Juss In Ann. Mus. Natl. Hist. Nat. Paris 4: 91. 1804; Narayanas w.w. & Rolla Rao in J. Indian Bot. Soc. 29: 187. 1950; Daniel & Chandrab. in Sharma & Sanjappa, Fl. India 3: 498. 1993. *G. pilosa* Wight & Arn., Prodr 1: 78. 1834, non. Lam. 1789; Mast. in Hook. f., Fl. Brit. India 1: 388. 1874; T. Cooke, Fl. Pres. Bombay 1: 151. 1958 (Repr.). *G. carpinifolia* sensu Mast. in Hook. f., op. cit. 387 non A. L. Juss. 1804.; Vajravelu in Nair & Henry, Fl. Tamil Nadu 1: 43, 1983.

Tamil: *Cencadacci*

Large shrub, 2-3 m tall. Leaves 1.5-12 x 1-5 cm, ovate-elliptic, oblong or ovate-oblong, subcordate or rounded at base, usually acute or, rarely obtuse



Image 1: *Grewia flavescence* A.L.Juss



Image 2: *Grewia tillifolia* Vahl.

at apex, serrate, scabrous above, tomentose beneath, 3-nerved. Flowers yellow, axillary cyme; ovary ca 2 x 0.5 mm, subglobose or ovoid, pilose; style pilose; stigma bifid. Drupes 7-15 x 5-10 mm, 2-4 lobed, globose when not

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Image 3: *Grewia villosa* Willd.

lobed, yellowish brown, stellate-tomentose with crustaceous rind. Seeds 3-4 x 2-2.5 mm, acute at apex, rounded at base, shiny.

Fls & Frts: June to December.

Illus: Talbot., For. Fl. Bombay Pres. & Sind 1: 162, f. 99. 1909. (*G. pilosa*).

Distrib.: Rare, along the roadside of Marudhamalai hills.

Note: A distinct species with long yellow petals, three-nerved leaves and the peduncles longer than the pedicels.

Specimens examined: Tamil Nadu State - Coimbatore District, Marudhamalai hills, 23 Jan. 2011, Paithane V.A. 290.

Grewia tiliifolia Vahl. var. ***leptopetala*** (Brandis) T.Cooke, Fl. Pres. Bombay 1: 142. 1901. *G. leptopetala* Brandis, Indian Trees 180.1909. *G. tiliifolia* Vahl. var. *argentea* Burret in Notizbl. Bot. Gart. Berlin-Dahlem 9: 659.1926; Narayansw. & Rolla Rao in J. Indian Bot. Soc. 179. 1950. Daniel & Chandrab. in Sharma & Sanjappa, Fl. India 3: 511, f. 140. 1993. Tamil: "Cadacci", "Sadachi", "Thadachi".

Trees, 6-15 m tall. Leaves 1.7-36 x 1-24 cm, elliptic, elliptic-ovate or ovate-rotund, obliquely cordate at base, acuminate or rounded at apex, serrate to crenate-serrate, glabrous to hairy above, sparsely pubescent or tomentose beneath, 5-nerved. Flowers yellow, 10-15 mm across, 3-6 in axillary cymes. Ovary ca 1.2 mm across, globose, sparsely hirsute or villous; style glabrous; stigma 4-lobed. Drupes 2.5-5 mm across, distinctly 2 lobed; lobes globose, sparsely hirsute or glabrous.

Fls. & Frts: April to September.

Illus. : Bedd., Fl. Sylv. t. 108. 1871; Talbot, For. Fl. Bombay Pres. & Sind 1: 161. f. 98. 1909.

Distrib.: Cultivated in Tamil Nadu Agricultural University and wild in Marudhamalai hills.

Note: Absence of glands on petals and glabrous nature is peculiar to this variety, which separate it from the *Grewia tiliifolia* Vahl var. *tiliifolia*.

Specimens examined: Tamil Nadu State -Coimbatore District, Tamil Nadu Agricultural University campus 23 Jan. 2011, Paithane V.A. 289; Marudhamalai hills.23 Jan 2011, Paithane V.A. 292.



Agricultural University campus 23 Jan. 2011, *Paithane V.A.* 289; Marudhamalai hills. 23 Jan 2011, *Paithane V.A.* 292.

Grewia villosa Willd. in Ges. Naturf. Berl. Neue Schr. 4: 205. 1803; Mast. in Hook. f., Fl. Brit. India 1: 388. 1874; Vajravelu in Nair & Henry, Fl. Tamil Nadu 1: 45. 1983; Daniel & Chandrab. in Sharma & Sanjappa, Fl. India 3: 515, f. 141. 1993. Tamil: *Kullai*.

Small trees or shrubs, 1.5-2 m high. Leaves 3-20 x 3-12 cm, rounded-ovate, orbicular or cordate at base, rounded to abruptly acuminate at apex, crenate or serrulate, ciliate along, scabrous above, villous beneath, 5-nerved. Flowers 10-12 mm across, in axillary, extra-axillary or leaf-opposed cymes. Ovary ca 2 mm across, subglobose, densely villous; stigma lancinate. Drupes 1-1.5 cm across, subglobose, obscurely 4-lobed, yellowish-red, villous.

Fls & Frts.: August-October.

Illus.: Daniel & Chandrab. in Sharma & Sanjappa, *op. cit.*

Distrib.: Along the temples on Marudhamalai hills slops. Note: The degree of pubescence on all parts with dull yellow colour turning reddish coloured petal peculiar to this species.

Specimens examined: Tamil Nadu State, -Coimbatore District, Marudhamalai hills. 23 Jan. 2011, *Paithane V.A.* 291.

Concluding note: In the exploration for the flora of Tamil Nadu State Chandrabose & Nair (1983) recorded throughout the district. However, when Nair & Henry (1988) explored for flora of Coimbatore the occurrence of the above species was not mentioned. So present paper shows occurrence of *G. flavescens* A. L. Juss., *G. tiliifolia* var. *leptopetala* (Brandis) T.Cooke, *G. villosa* Willd as a new records for the Coimbatore district flora of Tamil Nadu.

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The Indian Alliance for Zero Extinction is actively seeking to promote communication, collaboration and cooperation between conservation NGOs, GOs and communities in India to work towards holistic conservation action of species that occur only in a single location and have a very high risk of extinction being assessed as either Critically Endangered or Endangered as per the IUCN Red List of Threatened Species. There are currently 17 recognized AZE species in India and several more that are in the process of being formally recognized. Information on the Alliance and the process is available at www.zooreach.org/indianaze.