



Some Rare and New taxa from Karandamalai, Southern Eastern Ghats, India

R. Kottaimuthu*

Centre for Research in Botany, Department of Botany, Saraswathi Narayanan College, Madurai-625 022, Tamil Nadu, India.

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ABSTRACT

Karandamalai is one of the floristically rich hill ranges in Eastern Ghats harbors many rare, endemic and endangered plants. During 2006-2007, the present author has made extensive botanical explorations in this hill range which resulted in the collection of several interesting plants. A total of 23 species belonging to 21 genera under 14 families were discussed in the present communication. This includes one new species *Tylophora thiyagarajariae* R. Kottaimuthu and four new records for Eastern Ghats. A new name *Caralluma ravikumariae* R. Kottaimuthu, is proposed for *Caralluma adscendens* var. *gracilis*.

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Introduction

The Eastern Ghats, one of the richest floristic and phytogeographical regions of India, form a discontinuous range of mountains extending over 2000 km between the rivers of Mahanadi and Vaigai along the Eastern Coast of India across the states of Orissa, Andhra Pradesh and Tamil Nadu. Karandamalai is part of Southern Eastern Ghats¹ and situated 43 km from the District of Madurai. It is adjoined by Ariyalur hills in the west and towards the northwest and northeast it is surrounded by the Sirumalai and Perumalai hills, respectively². It lies between 10° 15' to 10° 21' north latitude and 78° 9' to 78° 15' east longitude. The altitude from foothill to the highest Jandamedu ranges from 180 to 916 M with undulating terrain. The vegetation ranges from scrub forests, deciduous forests and moist deciduous riparian forests. In spite of its rich floristic wealth Karandamalai is under-explored, though few sporadic collections were made by earlier workers²⁻¹³.

Intensive seasonal floristic collections were made from different sites of Karandamalai during 2006-2007. Field data including height, colour and nature of bark (inside and outside), colour of latex and other exudates, presence of buttress, odour and colour of vegetative and floral parts were recorded. Separate collections were made for dioecious plants. For parasites, details of the host plants were also recorded. Delicate materials were pressed immediately. The collected specimens were preserved or pressed immediately.

The herbarium specimens were prepared as per the standard specification¹⁴⁻¹⁵. Processed herbarium specimens are deposited in the herbaria of Ashoka Trust for Research in Ecology and the Environment (ATREE), Bangalore. The specimens were critically studied with pertinent literatures and comparing with authentic specimens available in the Madras Herbarium (MH) and Ashoka Trust for Research in Ecology and the Environment (ATREE) herbarium.

Systematic Enumeration

The enumeration follows the alphabetical order of the families. The species are enumerated with their correct nomenclature, phenology with relevant notes. A photo-plate is also provided.

Acanthaceae

Strobilanthes ciliatus Nees in Wall., Pl. Asiat. Rar. 3: 85. 1832; Hook. f., Fl. Brit. India 4: 439. 1884; Gamble, Fl. Pres. Madras 2: 1039. 1924.

Shrub, 1-1.5m tall; stems terete, fimbriate at nodes. Leaves elliptic-lanceolate, 10 - 18 x 3 - 5cm, acute, decurrent at base, margin serrate, acuminate at apex, prominently lineolate above, not so beneath; secondary veins 5-7 pairs, raised above, impressed beneath. Inflorescence spike, axillary, 2 - 2.5 cm long, glabrous. Capsules not collected.

Flowering & Fruiting: March-May.

Distribution: India (Kerala, Karnataka, Maharashtra, Goa & Tamil Nadu)-Endemic.

Specimens examined: Dindigul District, Karandamalai, along the stream banks of Elanikudai aruvi, 402m, RKM 870; on way to Kallanai valley, 456m, RKM 899.

Asclepiadaceae

Caralluma carinata (Grav. & Mayur.) R. Kottaimuthu **stat. nov.** *Caralluma adscendens* (Roxb.) R. Br. var. *carinata* Grav. & Mayur. Bull. Madr. Govt. Mus. (n.s.) N. H. 4(1): 16. 1931. Type: Lecto(icono)type, Graveley & Mayuranathan 1931: t. 2: 6.

Succulent herbs, 50-80 cm high; stem distally attenuate, unbranched. Leaves scaly, caducous. Flowers purplish, pendulous. Corolla campanulate, hairy. Follicles lanceolate, tapering at apex.

Flowering & Fruiting: January-February.

Distribution: India (Tamil Nadu)-Endemic.

Specimens examined: Dindigul district, Karandamalai, foot hills & rocky slopes, 200-380 m, RKM 3218 & 3492.

Note: Graveley & Mayuranathan (1931) while revising the genus *Caralluma* for India; they recognized 5 varieties under *Caralluma adscendens*. However, most of these show consistent morphological and floral variations and deserve species rank. *Caralluma carinata* is one of the most beautiful and distinct species. It can be easily distinguished from its allies by its pendulous flower and unbranched stem.

Caralluma ravikumariae R. Kottaimuthu **nom. nov.**

Caralluma adscendens (Roxb.) R. Br. var. *gracilis* Grav. & Mayur., Bull. Madr. Govt. Mus. (n.s.) N. H. 4(1): 14. 1931. Type: Lecto(icono)type, Graveley & Mayuranathan 1931: t. 2: 5.

Succulent herbs, 50-80 cm high; stem distally strongly attenuate and much branched. Leaves scaly, caducous. Flowers purplish, erect. Corolla rotate, yellowish with chestnut brown striations on lower half and dark purple on upper half, hairy. Petals 5, chestnut brown in colour, the pale expanded portion of the petals larger in proportion to the dark folded portion. Follicles paired, lanceolate, 5-9 cm long, glabrous; seeds many, obovoid.

Etymology: The specific epithet is named after Dr. K. Ravikumar, FRLHT, Bangalore for his valuable contribution in the field of angiosperm taxonomy.

Flowering & Fruiting: march-April.

Distribution: India (Tamil Nadu)-Endemic.

Specimens examined: Dindigul district; Karandamalai, Eastern slopes, 345 m, RKM 3600 & 3647.

Note: *Caralluma adscendens* var. *gracilis* Grav. & Mayur., occupies an intermediate position between *C. attenuata* Wight and *C. carinata* (Grav. & Mayur.) R. Kottaimuthu, but may be distinguished from *C. attenuata* by its acute stem, small flowers and by its pale expanded portion of the petals larger in proportion to the dark folded portion and differs from the later in having much branched stems, erect slender pedicels and by its rotate corolla. Later authors¹⁷⁻²¹ always treated the taxa as a variety of *Caralluma adscendens*. However the taxon shows consistent morphological and floral variations and deserves species rank. But the epithet *gracilis* is occupied for a species from Africa. Since none of the earlier epithets given to this taxon is available in its new specific status, a new name *Caralluma ravikumariae* R. Kottaimuthu is herewith proposed.

Caralluma sarkariae Lavaranos & Frandsen in Cac. Succ. J. (US) 50(5): 211. 1978; Jagtap & Singh, Fasc. Fl. India 24: 205. 1999.

Succulent herbs; branchlets 4-angled, tapering towards apex. Leaves rudimentary, lanceolate. Flowers axillary, in pairs. Corolla rotate –campanulate, yellow or greenish yellow with purplish transeverse bands. Follicles linear, glabrous.

Flowering & Fruiting: November-January.

Distribution: India (Tamil Nadu)-Endemic.

Specimens examined: Dindigul district; Karnadamalai, foot hills and rocky slopes, 160-300 m, RKM 3112 & 3114.

Tylophora thiyagarajarai R. Kottaimuthu **sp. nov.**

Tylophora pauciflora Wight & Arn., affinis, *folis nervi utrinque 4-6, corona lobis apice acuminatus, follicula 12-16 cm long longa differet*. Typus: India, Tamil Nadu, Dindigul district; Karandamalai, along the streamlets, 21-11-2006, 340 m, R. Kottaimuthu 17321 (holotypus MH; isotypi ATREE). Dindigul district, Karandamalai, Elanikudai aruvi, 3-1-2007, 360 m, RKM 17540 (ATREE paratypi).

Climbers; branchlets terete, green, glabrous. Leaves opposite-decussate, fleshy, lanceolate or ovate-lanceolate, 4-7.5 x 2-4 cm, acute or shortly apiculate at apex, truncate or subcordate at base; lateral nerves 4-6 pairs, obscure above, prominent below, completely obscure when dry; petioles up to 5 cm long, glabrous. Flowers many in axillary, umbellate cymes; peduncles 2-4 cm long, glabrous; pedicels filiform, terete, 2-5 cm long; bracts lineae-lanceolate, 2-3 mm long, glabrous, deciduous. Calyx 5-partite, lobes 5-6 mm long, ovate, glabrous, persistent. Corolla rotate, 1-1.2 cm across, reddish-brown, lobes 5, ovate, 5-6 mm long, apex acute-apiculate, margin recurved. Corona

staminal, dark purple, fleshy, uniseriate, 5-lobed, ovate, 5-7 mm long, apex acuminate, completely adnate and longer than the staminal column. Stamens 5, 1-1.5 mm long; anthers erect, with small membranous appendages; pollinia 5, pollen masses solitary in each anther cell, yellow, waxy. Ovary 2-carpellate, ovoid, many ovuled. Follicles linear, 12-16 cm long, divaricate, tapering to a point, tip curved, smooth, glabrous. Seeds numerous, ovoid-ellipsoid, 5-6 mm across; coma silky-white, 2-3 cm long.

Etymology: The specific epithet is named after Late Kalaitanthai Karumuttu Thiyagarajan, the founder of Thiyagarajar College, Madurai for appreciating his service to the society.

Flowering & Fruiting: October-January.

Distribution: India (Tamil Nadu)-Endemic.

Note: This species is allied to *Tylophora pauciflora* Wight & Arn., but differs in having 4-6 pairs of nerves in leaves, corona lobes acuminate at apex and follicles 12-16 cm long.

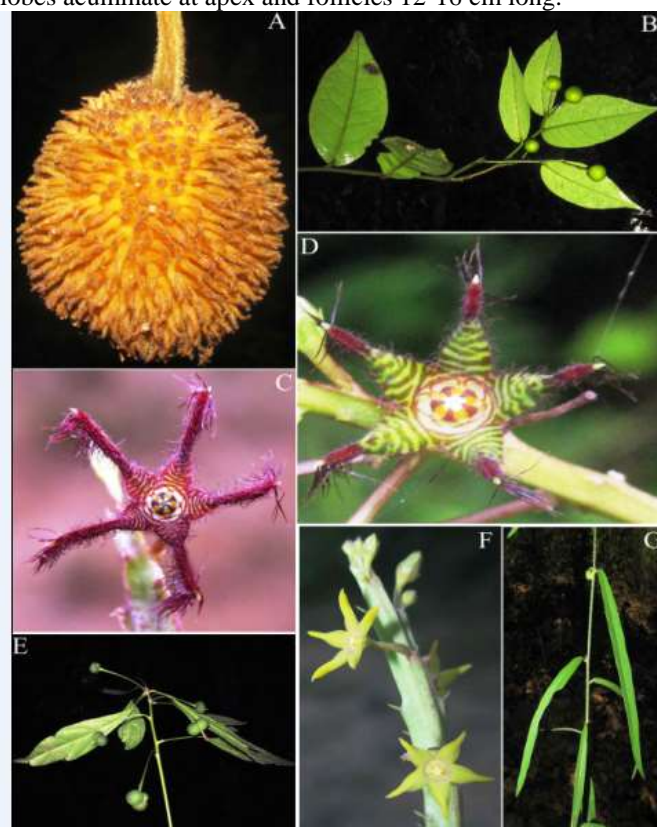


Plate 1. A-*Artocarpus hirsutus* Lam.; B-*Capparis shevaroyensis* Sund.-Ragh.; C-*Caralluma carinata* (Grav. & Mayur.) R. Kottaimuthu; D-*Caralluma ravikumariae* R. Kottaimuthu; E-*Cleidion spiciflorum* (Burm.f.) Merr.; F-*Caralluma sarkariae* Lavaranos & Frandsen; G-*Tragia sanjappae* Chakrab. & N. P. Balakr.

Capparaceae

Capparis shevaroyensis Sundararagh. in Kew. Bull. 37: 72. 1982; Manilal, Fl. Silent Valley 8. 1988; Sundararagh. in B.D. Sharma & N.P. Balakr., Fl. India 2: 290. 1993. *Capparis parviflora* sensu Hook. f. & Thoms. in Hook. f., Fl. Brit. India 1: 176. 1872, non Boiss. 1843; Gamble, Fl. Pres. Madras 1: 46. 1915.

Armed straggler; branchlets ribbed, pubescent when young, later glabrous. Leaves alternate, ovate-elliptic or oblong-lanceolate, 5 - 10.5 x 2 - 3.5 cm, base obtuse, margin entire sometimes slightly undulate, apex acuminate; lateral nerves 8-14 pairs, impressed beneath; petioles 0.1 - 0.2 cm long. Flowers white, in 5 - 10 flowered subterminal / axillary umbels. Fruits globose, 1 - 1.2 cm in diameter; seed solitary, ovoid-globose.

Flowering & Fruiting: July - August.

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

Specimens examined: Dindigul District; Along the stream banks of Kannimaruthu odai, 400 m, R. Kottaimuthu & M. Vimala 1077; R. Kottaimuthu & J. Brabhu 1242.

Maerua apetala (Roth) Jacobs in Blumea 12: 207. 1964; Sundararagh. in B.D. Sharma & N.P. Balakr., Fl. India 2: 329. 1993. *Capparis apetala* Roth, Nov. Pl. Sp. 238. 1821. *Niebuhreria linearis* DC. Prodr. 1: 244. 1824. *Niebuhreria apetala* (Roth) Dunn in Gamble, Fl. Pres Madras 1: 41. 1915.

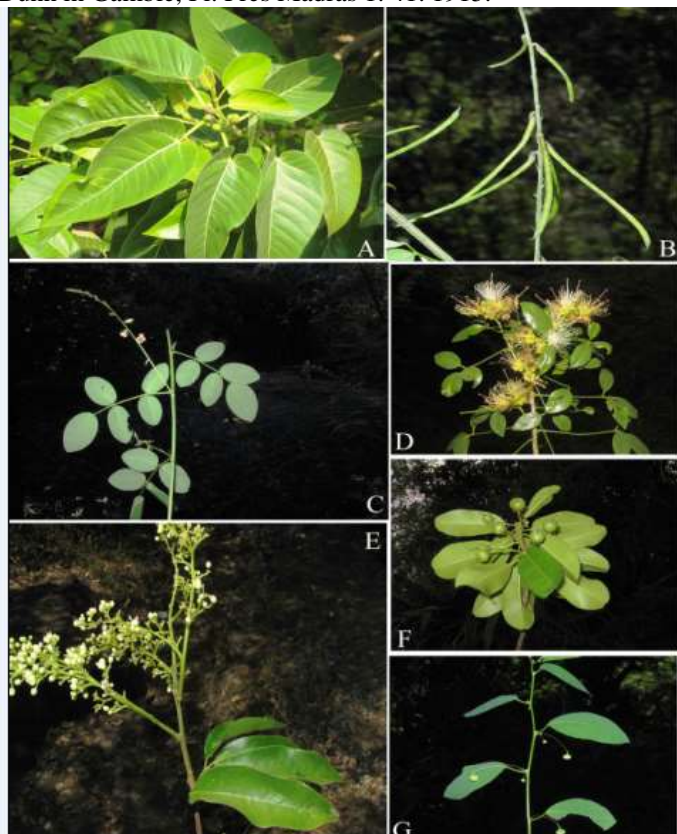


Plate 2. A-*Ficus dalhousiae* Miq.;
B & C-*Indigofera trita* L.f. ssp. *scabra* (Roth) de Kort & Thijssse;
D-*Maerua apetala* (Roth) Jacobs;
E-*Lepisanthes senegalensis* (Juss. ex Poir) Leenh.; F-*Manilkara roxburghiana* (Wight) Dubard;
G-*Meineckia parvifolia* (Wight) Webster.

Deciduous trees, 3 -5m tall. Leaves 3-foliolate; leaflets linear-oblong or lanceolate, 2-6 x 1.5-3.2cm, secondary veins 3-6 pairs, obscure. Racemes terminal, 7-12 flowered. Berries oblong-ovoid, 1.5-2 cm long, 1-seeded; Seeds globose, muricate.

Flowering & Fruiting: January-August.

Distribution: India (Andhra Pradesh & Tamil Nadu)-Endemic.

Specimens examined: Dindigul district, Karandamalai, on way to Elanikudai aruvi, 340 m, RKM 3000.

Euphorbiaceae

Cleidion spiciflorum (Burm. f.) Merr. Interpr. Rumph. Amboin. 322, in nota 1917. *Acalypha spiciflora* Burm. f. Fl. Ind. 203. t. 61. f. 2. 1768. *Cleidion javanicum* Blume, Bijdr. 613. 1826; Hook. f. Fl. Brit. Ind. 5: 444. 1887; Gamble, Fl. Pres. Madras 2: 1325. 1925.

Evergreen trees, 5-10 m high. Leaves elliptic, elliptic-oblong, 7.5-20 x 2.5-7.5 cm, or base acute, apex acuminate, margin serrate, glabrous, coriaceous; 2 glands at the base beneath; lateral nerves 4-6 pairs, pinnate, prominent. Capsule globose, 10-12 x 12-25 mm, 2-lobed; seeds 1 in each cell, 10-12 mm across, round, grey-black.

Flowering & Fruiting: August-November.

Distribution: Indo-Malesia.

Specimens examined: Dindigul District, Karandamalai, along the stream banks of Ayyanar falls and Peria aruvi valley, 370m, RKM1500.

Note: The present collection is a new record for Eastern Ghats.

Meineckia parvifolia (Wight) Webster, Acta Bot. Neerl. 14: 342. 1965. *Peltandra parvifolia* Wight, Ic. t. 1892. 1852. *Neopeltandra suberosa* (Muell.-Arg.) Gamble, Fl. Pres. Madras 2: 1286. 1925. *Phyllanthus suberosus* Muell.-Arg., Linnaea 32: 10. 1863; Hook. f. Fl. Brit. Ind. 5: 287. 1887.

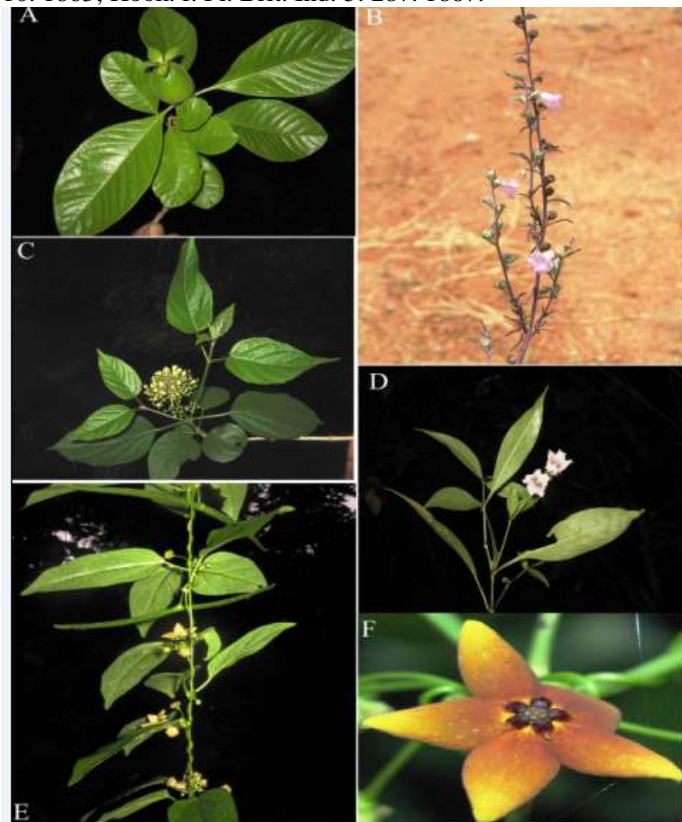


Plate 3. A-*Catunaregam brandisii* (Gamble) R. Kottaimuthu;
B-*Micragereia wightii* Benth.;
C-*Premna wightiana* Schauer;
D-*Stobilanthes ciliatus* Nees;
E & F-*Tylophora thiyagarajariae* R. Kottaimuthu

Leaves ovate, acute, base truncate or rounded, membranous, glabrous, to 3 x 2.5 cm; lateral nerves 3-4 pairs, slender; petiole to 2.5 cm long. Perianth lobes ovate or obovate, obtuse, margins hyaline. Capsule 3 mm across; seeds brown.

Flowering & Fruiting: October-December.

Distribution: India (Andhra Pradesh, Karnataka & Tamil Nadu) & Srilanka.

Specimens examined: Dindigul District, Karandamalai, rocky slopes, 280 m, RKM 2803.

Tragia sanjappae Chakrab. & N. P. Balakr. in Rheedea 16(1): 25. f. 4, a-f. 2006; N. P. Balakr. & Chakrab., The family Euphorbiaceae 184. 2007.

Climbers with ascending branches. Leaves linear, 8-20 x 0.4-2.5 cm, margin entire or irregularly, distantly serrate, acuminate at apex. Flowers leaf- opposed, one basal female and many male flowers.

Flowering & Fruiting: September-October.

Distribution: India (Andhra Pradesh, Karnataka & Tamil Nadu)-Endemic.

Specimens examined: Dindigul District, Karandamalai, grassy slopes, 400 m, RKM 2839.

Fabaceae

Indigofera trita L. f. subsp. **marginulata** (Graham ex Wight & Arn.) R. Kottaimuthu **stat nov.** *Indigofera marginulata* Graham ex Wight & Arn., Prodr. 204. 1834. Type: India; Tamil Nadu; Dindygul Hills, Wight s.n. (K).

Undershrubs, 1-1.2 m high; branchlets adpressed white-hairy. Leaves odd-pinnate, leaflets 5, elliptic-oblong, 0.5-2.5 x 0.2-1.5 cm, base narrowed, margin entire, acute at apex. Flowers reddish, in axillary racemes, 5-8 cm long. Pods 2-3 cm long, terete-quadrangular, adpressed white-hairy, tip with upcurved mucro; seeds 5-6.

Flowering & Fruiting: November-January

Distribution: India (Karnataka, Kerala and Tamil Nadu)-Endemic.

Specimens examined: Dindigul district; Karandamalai, on way to Jandamedu, 780m, RKM2760.

Note: Pullaiah & Ramamurthy (2001) did not include the species in flora of Eastern Ghats, hence the present collection is a first authentic report from Eastern Ghats.

Lamiaceae

Plastoma menthoides (L.) A. J. Paton var. **longiracemosum** (Ramam. & Sebastine) R. Kottaimuthu **comb. nov.** *Geniosporum prostratum* (L.) Benth. var. *longiracemosum* Ramam. & Sebastine in Bull. Bot. Surv. India 6: 325. 1964. Type: India; Tamil Nadu; Thoothukudi, Kudiraimoli Teri R. F., 29-11-1961, Sebastine & Ramamurthy 13701A (CAL).

Erect herbs, 30-50 cm high. Leaves oblong-spatulate, 3-5 x 1-1.5 cm, margin serrate, acute at both ends. Verticils 12-20-flowered; bracts deltoid, membranous, transparent along margins. Calyx-teeth 5, lateral teeth lanceolate, awned. Corolla blue-purple or violet. Nutlets 4, ovoid, oblong.

Flowering & Fruiting: November-January.

Distribution: India (Tamil Nadu)-Endemic.

Specimens examined: Dindigul district, Karandamalai, on way to Ayyanar falls, 300m, RKM 3725.

Note: Paton (1997) while revising the genus *Platostoma*, he transferred *Geniosporum menthoides* to *Platostoma* as *P. menthoides* but overlooked the variety endemic to Tamil Nadu viz., *Geniosporum menthoides* var. *longiracemosum* Ramam. & Sebastine. This has necessitated the present combination. The present collection constitutes a new record for Lamiaceae of Eastern Ghats.

Loranthaceae

Helicanthes elastica (Desr.) Danser, Verh. Akad. Wet. afd. Natuurk. Sect. 2. 29: 55. 1933. *Loranthus elasticus* Desr. in Lam., Encycl. 3: 599. 1792; Hook. f. Fl. Brit. Ind. 5: 216. 1886; Gamble, Fl. Pres. Madras 2: 1254. 1925.

Branches woody, thickened at nodes, glabrous. Leaves to 10 x 5 cm, opposite, ovate, obtuse, ribbed from base; base obtuse or truncate, glabrous. Flowers axillary, fascicled, 1-3 together, sessile; bracts minute; calyx tube cupular, truncate; corolla 2.5 cm long, lobes 5, spirally twisted, pale pink, tube lined with vertical pubescence inside; stamens 5; filaments and style slender, crimson; stigma globose. Berries globose, 5 mm across, red.

Flowering & Fruiting: March-April.

Distribution: India (Andhra Pradesh, Karnataka, Kerala & Tamil Nadu)-Endemic.

Specimens examined: Dindigul district, Karandamalai, on way to Ayyanar falls, 300m, RKM 20121 & 20210.

Moraceae

Antiaris toxicaria Lesch., Ann. Mus. Natl. Hist. Nat. Paris 16: 478, t.22. 1820; Hook. f. Fl. Brit. Ind. 5: 537. 1888; Gamble, Fl. Pres. Madras 3: 957. 1928.

Deciduous trees, 10-15 m high; bole buttressed; exudation watery. Leaves oblong, elliptic-oblong or ovate-oblong, 6.5-15 x 2.5-5 cm, base round, obtuse or cordate, apex acuminate or obtusely acuminate, margin entire or distantly crenulate, coriaceous, glabrous, scabrous beneath. Flowers unisexual, greenish-yellow, minute, in spikes. Drupes pyriform or obovoid, 1.5-2.5 x 1-2 cm, fleshy, velvety.

Flowering & Fruiting: February-April.

Distribution: Indo-Malesia

Specimens examined: Dindigul district, Karandamalai, along the stream banks of Peria aruvi valley, 380m, RKM 1828.

Note: Ravikumar & Sankar (2009) reported this species as an addition to the Moraceae of Eastern Ghats from Pachaimalais and Kolli hills of Tamil Nadu. The present collection extends the distribution further south in the Eastern Ghats.

Artocarpus hirsutus Lam. Encycl. 3: 210. 1789. Hook. f. Fl. Brit. Ind. 5: 541. 1888. Gamble, Fl. Pres. Madras 3: 1369. 1928.

Evergreen trees, 15-20 m high; branchlets hirsute. Leaves broadly ovate, obovate or elliptic, 10-22 x 6-12 cm, base acute, obtuse or round, apex subacute or very shortly acuminate, margin entire, undulate, coriaceous, glabrous above, hirsute-pubescent beneath. Flowers yellowish-green. Fruit a sorosis, 6-7.5 cm across, globose or ovoid, echinate, yellow when ripe; seeds ovoid.

Flowering & Fruiting: August-November.

Distribution: India (Western Ghats & Eastern Ghats of Tamil Nadu)-Endemic.

Specimens examined: Dindigul district, Karandamalai, along the streamlets of Peria aruvi valley, 450m, RKM 1096.

Ficus dalhousiae Miq. in London J. Bot. 4: 571. 1845; Hook. f. Fl. Brit. Ind. 5: 499. 1888; Gamble, Fl. Pres. Madras 3: 1364. 1928.

Trees, 5-10 m high; young shoots softly pubescent. Leaves ovate or ovate-oblong, 15-26 x 7-15 cm, base deeply cordate, apex acute or acuminate, margin entire, coriaceous, glabrous above & minutely pubescent beneath. Figs in axillary pairs, obovoid, with 3 broad triangular apicular scales, densely pubescent; bracts 3, spreading, broad, triangular, sometimes bifid; peduncle 8 mm long, pubescent.

Flowering & Fruiting: August-September.

Distribution: India (Andhra Pradesh, Goa, Karnataka, Kerala, Maharashtra, Orissa & Tamil Nadu)-Endemic.

Specimens examined: Dindigul district, Karandamalai, along the streamlets of Karandamalai, 400 m, RKM 1120.

Rubiaceae

Aidia gardneri (Lour.) Tirveng., Adansonia 35: 11. 1978. *Griffithia gardneri* Thw., Enum. Pl. Zeyl. 158. 1859; Bedd. Ic. t. 38. 1868-1874. *Randia gardneri* (Thw.) Hook. f. in Benth & Hook. f., Gen. Pl. 2: 88. 1873; Hook. f., Fl. Brit. India 3: 11. 1880; Gamble, Fl. Pres. Madras 2: 617. 1921.

Trees, 5-8 m high; branches horizontal. Leaves simple, opposite; stipules triangular; petioles 5-12 mm long, stout, glabrous; lamina 7-19 x 1.8-6 cm, elliptic, lanceolate, elliptic-oblong, base acute, apex acuminate, margin entire, coriaceous, glabrous; lateral nerves 7-10 pairs, pinnate, ascending, prominent; intercostae reticulate, obscure. Flowers white, in leaf opposed cymes; peduncles and pedicels hairy; bracts scaly. Berries globose, 6-8 mm across, dark blue; seeds embedded in the pulp.

Flowering & Fruiting: February-August

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

Specimens examined: Tamil Nadu, Dindigul district; Karnadamalai, along the streamlets, K. Ravikumar 1714 (MH).

Note: While studying the herbarium specimens of the family Rubiaceae from Karandamalai, Eastern Ghats represented in Madras Herbarium (MH), Coimbatore few specimens belonging to the species *Aidia gardneri* is located. In literature this species was hitherto not reported from Eastern Ghats. Hence it is being reported as new record for Eastern Ghats.

Catunaregam brandisii (Gamble) R. Kottaimuthu **comb. nov.**
Randia brandisii Gamble, Fl. Pres. Madras 2: 416. 1921. Type: India, Madras, Wight 1277 (K).

Deciduous trees, 5-6 m high. Leaves opposite-decussate, oblanceolate-obovate, 3-6.2 x 2-3.5 cm, pubescent beneath. Flowers solitary or in axillary fascicles. Corolla white turning yellow, 2-2.2 cm across. Berries globose or ellipsoid-globose, 4-5 cm across.

Flowering & Fruiting: March-June.

Distribution: Peninsular India-Endemic.

Specimens examined: Dindigul district; Karnadamalai, Northern slopes, 500 m, RKM 270.

Note: Tirvengadam (1978) incorrectly merged *Randia brandisii* and *R. longispina* under *Catunaregam*. Till now, many taxonomists in India agree with the views of Tirvengadam. However, as indicated by Matthew (1991), *Randia brandisii*, *R. dumetorum* (=C. spinosa) and *R. longispina* are quite distinct species.

Sapindaceae

Lepisanthes senegalensis (Juss. ex Poir.) Leenh. in Blumea 17: 85. 1969. *Sapindus senegalensis* Juss. ex Poir. in Lam. Encycl. 6: 666. 1805. *Aphania bifoliata* (Thw.) Radlk. in Sitzungsber. Math.-Phys. Cl. Koenigl. Bayer. Akad. Wiss. Muenchen 8: 238. 1878; Gamble, Fl. Pres. Madras 1: 215. 1918.

Trees, 4-6 m high. Leaves 2-foliolate, leaflets 2, lanceolate or elliptic-oblong, 8-11 x 1-2 cm, apex obtuse or emarginate, coriaceous, nerves faint. Flowers cream-white, in terminal or axillary panicles; peduncles 2-5 cm long, pubescent. Drupes globose, 1.5 cm across, 1-seeded.

Flowering & Fruiting: February-May.

Distribution: Indo-Malesia.

Specimens examined: Dindigul district; Karnadamalai, along the streamlets, 350 m, RKM 1739.

Note: Pullaiah & Rao (2001) did not include the species in Flora of Eastern Ghats.

Sapotaceae

Manilkara roxburghiana (Wight) Dubard in Ann. Inst. Bot. Geol. Colon. Marseille 23: 10. F. 3. 1915. *Mimusops roxburghiana* Wight Ic. t. 1588. 1850; Hook. f., Fl. Brit. India 3: 548. 1882; Gamble, Fl. Pres. Madras 2: 538. 1957.

Trees, 5-8 m high. Leaves oblong / elliptic, 5-7 x 3-4.5 cm, base rounded, apex obtuse or emarginate, margin entire, glabrous, coriaceous; lateral nerves many, midrib raised below. Flowers axillary or terminal, 2-5 together. Berries globose, depressed; seeds 3-6.

Flowering & Fruiting: October-December.

Distribution: India (Andhra Pradesh, Karnataka, Kerala & Tamil Nadu)-Endemic.

Specimens examined: Dindigul district, Karndamalai, slopes, 400 m, RKM 1076.

Scrophulariaceae

Micrargeria wightii Benth. In DC.. Prodr. 10: 509. 1846; Hook. f., Fl. Brit. India 4: 303. 1884; Gamble, Fl. Pres. Madras 2: 970. 1924.

Erect branched herbs, black when dry. Leaves opposite, upper sometimes alternate, pinnatisect, 3.5 cm long, puberulus. Flowers in spikes or racemes, terminal or on the upper axils: calyx tube 1.5 cm, campanulate, lobes spreading above, 5 mm; stamens didynamous; filaments 1-2 mm; anthers attached by their tips, 1.5 mm, obtuse. Capsules 0.3 cm across, loculicidal.

Flowering & Fruiting: December-February.

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

Specimens examined: Dindigul district; Karandamalai, foot hills and rocky slopes, 180 m, RKM 1070.

Verbenaceae

Premna wightiana Schauer in DC. Prodr. 11: 635. 1847; Hook. f., Fl. Brit. India 4: 578. 1885; Gamble, Fl. Pres. Madras 2: 767. 1924; Rajendran & Daniel, The Indian Verbenaceae, 291. 2000.

Straggling shrubs; branchlets lenticellate. Leaves ovate or ovate-elliptic, 6.5-10 x 3.5-5 cm, apex acuminate, base obtuse, margin entire or serrate in the upper half, glabrous or slightly pubescent. Flowers yellowish-white, in terminal thyrsoid panicles. Drupes obovoid, 5 x 5 mm, tubercled; seeds oblong.

Flowering & Fruiting: August-September.

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

Specimens examined: Dindigul district; Karandamalai, on way to Jandamedu, 500 m, RKM 1707.

Note: The present collection is a new report for Verbenaceae of Eastern Ghats.

Viscaceae

Viscum acaciae Danser var. **subracemosum** (Sanjai & N. P. Balakr.) R. Kottaimuthu, **stat. nov.** *Viscum subracemosum* Sanjai & N. P. Balakr. in Rheedeia 10: 113. 2000. Type: India: Karnataka, Krishnarajapuram, 900m, Sanjai 104912 (CAL).

Monoecious undershrub, up to 1m high, branchlets trichotomously branched, longitudinally grooved. Leaves opposite, elliptic-oblanceolate / lanceolate, 2.5-6.3 x 1.5-2.8cm, margin wavy, apex rounded, base attenuate, triplinerved, lateral pair converge towards apex. Inflorescence 3-6 flowered subraceme, 3-6cm long; peduncles 1-2.8cm long. Flowers enclosed in cupule; bracts ovate, up to 0.2cm long. Berry smooth, globose, 0.5cm in diameter.

Flowering & Fruiting: January-April.

Distribution: India (Karnataka & Tamil Nadu)-Endemic.

Specimens examined: Dindigul District, Karandamalai, on way to Ayyanar falls, 400m, RKM & MV 1878; on way to Kallanai valley, 420 m, RKM & JB 1958.

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