



ENDEMIC PLANTS OF PENINSULAR INDIA IN THE SACRED GROVES OF KOLLAM DISTRICT, KERALA, INDIA

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Article Received on 10/06/2020

Article Revised on 30/06/2020

Article Accepted on 21/07/2020

ABSTRACT

Peninsular Indian endemic plants found in the sacred groves of Kollam district of Kerala are enumerated here. A total of 72 taxa are enumerated with their correct name, popular synonyms, brief taxonomic diagnosis, area of occurrence, phenology, distribution and local name if any.

KEYWORDS: Sacred Groves, Endemics, Peninsular India, Conservation.

1. INTRODUCTION

Sacred groves are patches of native vegetations of the once existed evergreen forests conserved by local people preserved over ages owing to religious beliefs and taboos. This miniature forests are the symbols of our ancient way of preservation of our native biodiversity. This custom of protecting a fellow being, be it an animal or a plant, was the sole basis of our noble heritage of biodiversity conservation. They are thus known as the 'sanctum sanctorum' of vital reservoirs of conservational important and other economically cherished species. They protected many rare, endangered and endemic plants used in classical and folk systems of medicines. They served as an abode of many species of local fauna, perhaps the last refugia of their sustenance. They played a very crucial role in soil and water conservation and also influence the local climate of the region.

Sacred groves are reported from around the World. In India, sacred groves have been located in many part of the country including Western Ghats, Central India and North East India, but no such sites were recorded from Andaman islands (Malhothra, 1998). In Kerala, sacred groves were reported from all the districts, but the exact number of sacred groves is yet to be found out. They are mainly associated with temples and other ancestral homes of Hindu and Muslim families. They look similar to the evergreen forests of the state and are considered as the remnants of low level evergreen forests once existed, which were converted for several developmental activities including habitation. The vegetation in these groves are least explored by botanists evidently by the discovery of several interesting discoveries in recent

times from Kerala (Mohanani & Nair, 1981; Santhosh et al., 2001 a-b, 2002, 2003, 2004 a-e).

Floristic inventory in connection with the doctoral dissertation by the senior author, a total of 1126 sacred groves have been enumerated from Kollam district in Kerala. The present study reveals that the sacred groves in Kollam district has 411 species, 5 subspecies and 12 varieties of flowering plants, belonging to 304 genera in 89 families and 3 subfamilies. Of this, dicotyledons are represented by 366 species, 5 subspecies and 12 varieties belong to 257 genera in 73 families and 3 subfamilies. The monocotyledons are encompassed by 52 species, 2 varieties belongs to 45 genera in 14 families. Gymnosperms are represented by 2 species and 2 genera in 2 families. Out of these, the peninsular Indian endemic species listed from the sacred groves of Kollam district are enumerated below.

2. MATERIALS AND METHODS

2.1. Study Area

The study area, Kollam district is located between 8° 45'- 9° 10' North latitude and 76° 15'- 77° 25' East longitude. It comprises an area of about 2491 sq.km. It is bounded on the north by Mavelikkara and Karthikappally taluks of Alappuzha district, north-east by Tirunelveli district of Tamil Nadu, on the south by Nedumangadu and Chirayinkeezhu taluk of Thiruvananthapuram district and the west by the Arabian Sea. It has six taluk namely: Kollam, Karunagappally, Kunnathur, Kottarakkara, Punalur and Pathanapuram and the district headquarters located at Kollam. Sacred Groves in Kollam district is mainly found in the lowland and midland regions particularly associated with temples. A few sacred

groves are also in the private possessions managed by individual families. Floristic surveys were conducted from June 2013-December 2018 to each and every sacred grove and plants in generative stages were collected with adequate field notes and the herbarium specimens were prepared as per standard herbarium procedures. These specimens have been provisionally identified with relevant literature and matched with authenticated specimens. A set of herbarium specimens was deposited in the herbarium of the Jawaharlal Nehru Tropical Botanic Garden and Research Institute (TBGT) for future references.

3. RESULTS

Floristic studies on the sacred groves in Kollam district by the senior author resulted the discovery of 1126 sacred groves in the district. A total of 411 species, 5 subspecies and 12 varieties of flowering plants, belonging to 304 genera in 89 families and 3 subfamilies have been enumerated, of these 73 taxa are found endemic to the Peninsular India. Which are enumerated below with their correct name, popular synonyms, Brief taxonomic diagnosis, area of occurrence, phenology, their geographical distribution and other pertaining notes to facilitate its easy identification and conservation.

Acrotrema arnotianum Wight, Ill. 1: 9. t. 3. 1840; Hook.f. & Thoms. in Hook.f., Fl. Brit. India 1: 32. 1872; Dunn in Gamble, Fl. Madras 1: 5. 1915; Majumdar, Fl. India Fasc. 2: 2. 1979 & in B.D.Sharma *et al.*, (Eds.) Fl. India 1: 151. 1993; Mohanan & Henry, Fl. Thiruvananthapuram 41. 1994; Nayar *et al.*, Flg. Pl. Kerala-Handb. 216. 2006; Sasidharan, Biodiv. Doc. Kerala Flg Pl. 13. 2004; N.P. Balakrishnan in P. Daniel, Fl. Kerala 119. 2005; Santhosh & Yeragi, Fl. Sacred Grove Thiruvananthapuram 55. 2012; Nayar *et al.*, Flg Pl. Western Ghats 323. 2014. (**Dilleniaceae**)

Perennial herbs, stem very short or even absent. Leaves 20-35 x 8-16 cm, obovate-oblong, rounded or cordate at base, shortly acute or obtuse at apex, sharply dentate at margins, young leaves floccoses; petiole to 7 cm long, winged. Flowers bright yellow, in long peduncled axillary racemes. Carpels 5-8 mm long; ovules many.

Sree Sivaparvathikshethram Kavu SK 9985, *Fl. & Fr.*: Round the year. *Dist.*: Endemic to the Southern Western Ghats. Local Name: *Nilampunna*.

Note: *Acrotrema arnotianum* is a scapigerous species with beautiful foliages and flowers, can be used as a wild ornamental plant.

Actinodaphne malabarica Balakr., J. Bombay Nat. Hist. Soc. 6: 329. 1967; Mohanan, Fl. Quilon Dist. 343. 1984; Subram., Fl. Thenmala 315. 1995; Sasidharan, Biodiv. Doc. Kerala Flg Pl. 394. 2004; Nayar *et al.*, Flg Pl. Kerala 368. 2006; Santhosh & Yeragi, Fl. Sacred Grove Thiruvananthapuram 425. 2012; Nayar *et al.*, Flg Pl. Western Ghats 568. 2014. *A. hirsuta* Hook.f., Fl. Brit.

India 5: 152. 1886, *non* Blume 1851; Gamble, Fl. Madras 1231. 1925. (**Lauraceae**)

Medium sized evergreen trees. Leaves 18-25 x 3-6 cm, elliptic-lanceolate, attenuate at base, acuminate at apex, glabrous and glossy above, villous beneath; lateral nerves 13-15 pairs; petiole to 2 cm long. Flowers unisexual in axillary pedunculate fascicles; bracts 5, imbricate, densely silky brown tomentose, 3mm long. Berry globose, 1 cm across; fruiting calyx cupular, entire.

Kannampilli Sree Durga Devikshethram SK 9953. *Fl. & Fr.*: Throughout the year. *Dist.*: Endemic to the Western Ghats. Local Name: *Malavirinji*.

Alstonia venenata R. Br., Mem.Wern. Nat. Hist. Soc.1: 177.1811; Hook. f., Fl. Brit. India 3: 642. 1882; Gamble, Fl. Pres. Madras 810. 1923; Mohanan, Fl. Quilon Dist.251. 1984; M. Mohanan & Henry, Fl. Thiruvananthapuram 289. 1994; Subram., Fl. Thenmala 218. 1995; Sasidharan, Biodiv. Doc. Kerala Flg Pl. 280. 2004; Nayar *et al.*, Flg Pl. Kerala 69. 2006; Nayar *et al.*, Flg Pl. Western Ghats 96. 2014. (**Apocynaceae**).

Large shrubs or small trees. Leaves 12-20 x 1.2-3 cm, narrowly oblong-lanceolate, acuminate at both ends; lateral nerves many, very close. Cymes terminal to 20 cm across, corymbose. Flowers many; pedicels stout. Sepals 1 mm long, ovate, acute, ciliate; Corolla tube slender, hairy inside, lobes 13 mm long, oblong, acute, white. Follicle 2-angled, acute. Seeds smooth.

Vattomon Kavu Siva Temple SK 5853. *Fl. & Fr.*: Nov.-Aug. *Dist.*: Endemic to the Western Ghats. Local Name.: *Analivegam*.

Andrographis gracilis Nees in A. DC., Prodr. 11: 516. 1847; T. Anderson in J. Linn.Soc. Bot. 11:503. 1867; Gnanasekaran *et al.*, Japan Bot. 91 (6): 352. 2016. *A. wightiana* sensu Mohan & Henry, Fl. Thiruvananthapuram 373. 1994; Sasidharan, Biodiv. Doc. Kerala Flg Pl. 336. 2004; Nayar *et al.*, Flg Pl. Kerala 10. 2006; Santhosh & Yeragi, Fl. Sacred Grove Thiruvananthapuram 377. 2012; Nayar *et al.*, Flg Pl. Western Ghats 12. 2014. (**Acanthaceae**).

Herbs, diffuse or prostrate, glabrous all over. Leaves 2-4.5 x 0.8-1.8 cm, ovate or linear-lanceolate, rounded at the base, acute at the apex, entire at margin; lateral nerves 4-5 pairs, glabrous; petiole 0.4-1 cm long. Flowers in elongate sub-paniculate axillary racemes. Calyx lobes 5, sub equal, glandular, glandular hairy. Corolla pink with purple lower lip; tubular, 2-lipped. Stamens 2 exerted; anthers unequal. Ovary linear. Capsule linear-oblong 1-1.5 cm long.

Kochaluvilakkavu Pangodu SK 5507. *Fl. & Fr.*: Dec.-Mar. *Dist.*: Endemic to Southern Western Ghats. (Kerala & Tamil Nadu).

Aristolochia krisagatra Sivar. & Prdeep, *Pl. Syst. Evol.* 163: 31. 1989; Subram., *Fl. Thenmala* 294.1995; Sasidharan, *Biodiv. Doc. Kerala Flg Pl.* 389. 2004; Nayar *et al.*, *Flg Pl. Kerala* 80. 2006; Nayar *et al.*, *Flg Pl. Western Ghats* 112. 2014. (**Aristolochiaceae**).

Twining herbs. Leaves 6-20 x 2-6 cm, oblong-lanceate, truncate to subcordate at the base, long acuminate at apex, chartaceous. Racemes axillary and terminal, Flowers dark purple. Capsule subglobose or ovoid. Seeds cordiform or triangular, wingless, muricate.

Ambathekkar Kavu *SK 9947. Fl. & Fr.*: Oct.- Dec.. *Dist.*: Endemic to the Western Ghats.

Artocarpus hirsutus Lam., *Encycl.* 3: 210. 1789; Hook.f., *Fl. Brit. India* 5: 541. 1888; C. Fischer in Gamble, *Fl. Madras* 1369. 1928; Mohanan, *Fl. Quilon Dist.* 376. 1984; Mohanan & Henry, *Fl. Thiruvananthapuram* 431. 1994. Subram., *Fl. Thenmala* . 355. 1995; Sasidharan, *Biodiv. Doc. Kerala Flg Pl.* 437 . 2004; Nayar *et al.*, *Flg Pl. Kerala* 432. 2006; Santhosh & Yeragi, *Fl. Sacred Grove Thiruvananthapuram* 455. 2012; Nayar *et al.*, *Flg Pl. Western Ghats* 652. 2014. (**Moraceae**).

Large trees; bark brownish-black; latex milky. Leaves 10-25 x 8-14cm, broadly ovate or elliptic, truncate or rounded at base, acuminate at apex, entire at margin, oriaceous; lateral nerves 8-12 pairs, arching near the margin; petiole to 3 cm long; stipules to 4 cm long, densely tawny strigose. Male spikes linear-oblong, to 15 cm long. Female receptacle erect. Sorosis echinate, to 12 x 9 cm, tomentose, yellow when ripe, edible. Seeds ovoid, white.

Sree Bhagavathy Temple Kavu Azhirakuzhy *SK 5407*; Surpakavu, Piravanthur *SK893*; Kallali Apooppa Kavum *SK 157*; Chavaru kavu Kachani *SK 341*; Erappinkara Kavum Karavallur *SK 440. Fl. & Fr.*: Dec.- Jun.-. *Dist.*:Endemic to the Western Ghats. Local Name : *Anjili*.

Atalantia wightii Tanaka in *Bull. Soc. Bot. France* 75: 714. 1928; Mohanan & Henry, *Fl. Thiruvananthapuram* 102. 1994; Nair & Nayar in Haja *et al* (Eds.) *Fl. India* 4:274. 1997; Nayar *et al.*, *Flg Pl. Kerala.* 547. 2006; Santhosh & Yeragi, *Fl. Sacred Grove Thiruvananthapuram* 147. 2012; Nayar *et al.*, *Flg Pl. Western Ghats* 815. 2014. *A. ceylanica sensu* Hook. f., *Fl. Brit. India* 1:512. 1875, *pro parte non* (Arn.) Oliver 1861; Gamble, *Fl. Madras* 160. 1915. (**Rutaceae**).

Glabrous evergreen shrubs with axillary spines. Leaves 8-16 x 3-8 cm, elliptic-lanceolate or ovate-oblong, acute or rounded at base, acuminate at apex, entire at margins, glabrous; lateral nerves 16-21 pairs. Flowers white in short axillary cymes; pedicels to 0.7 cm long. Stamens 8-10, filaments flat, subequal. Ovary conical; style distinct;

stigma capitate. Berry ovoid or subglobose, to 2.5 cm across.

Kundayam Sree Mahadeva Temple *SK 1394. Fl. & Fr.*: Dec.-Mar. *Dist.*: Endemic to Southern Western Ghats.

Baccaurea courtallensis (Wight) Muell. - Arg. in DC., *Prodr.* 15(2): 1125; 1866; Gamble, *Fl. Pres. Madras* 110. 1925; Mohanan, *Fl. Quilon Dist.* 358.1984; Sasidharan, *Biodiv. Doc. Kerala Flg Pl.* 410. 2004; Nayar *et al.*, *Flg Pl. Kerala* 235. 2006; Nayar *et al.*, *Flg Pl. Western Ghats* 348. 2014. *Pierardia courtallensis* Wight, *l.c.* 5 (2): 30. t. 1912. 1852. (**Euphorbiaceae**).

Small deciduous trees. Leaves clustered towards branchlets, obovate to oblanceate, 6-13 x 3- 6 cm, base cuneate, apex acuminate, chartaceous. Flowers small in clusters on spike in tufts on tubercles on the main trunk and branches. Male flowers: tepals 4, stamens 4-6 free; pistilode present, disc 0. Female flowers : tepals 5. Capsule globose or ellipsoid, crimson coloured.

Ambathekkar kavu, *SK 9902. Fl. & Fr.*: Feb.-Mar. *Dist.*: Endemic to the Western Ghats.

Begonia dipetala Graham var. **hydrophila** (C.B. Clarke) Santhosh & Seema, *Begonian* 72: 140. 2005; Santhosh, *Begonian* 74: 223. 2007. *B. malabarica* Lam. var. *hydrophila* C.B. Clarke in Hook.f., *Fl. Brit. India* 2:655. 1879. *B. malabarica sensu* Mohanan & Henry, *Fl. Thiruvananthapuram* 211. 1994. (**Begoniaceae**).

Perennial herbs; stem succulent, nodes. Leaves 12-18 x 3-5 cm, lanceolate, unequally cordate at base, acute or acuminate at apex, serrate-dentate at margins, membranous. Flowers pink in axillary cymes. Male flowers: Tepals 2, orbicular, 1 cm across: stamens numerous, filaments unequal; anthers to 2 mm long. Female flowers: Tepals 2, ovary obovoid, 3-celled, 3-winged; ovules numerous on simple axile placenta. Capsule to 1.8 x 1.5 cm, narrowed at base, apically broad, 3-winged.

Kavumpurathu Sreebhadrha Bhagavathi Kshethram *SK 11076. Fl. & Fr.*: Aug.-Oct. *Dist.*: Endemic to South West India. Local name: *Kaiyalapuli*.

Begonia malabarica Lam., *Encycl.* 1:39. 1785; C.B. Clarke in Hook.f., *Fl. Brit. India* 2:655. 1879; Gamble, *Fl. Madras* 546. 1919, p.p; Ansari & Nair, *J. Econ. Tax. Bot.* 5:126. 1984; Sasidharan, *Biodiv. Doc. Kerala Flg Pl.* 200. 2004; Nayar *et al.*, *Flg Pl. Kerala* 142. 2006; Santhosh & Yeragi, *Fl. Sacred Grove Thiruvananthapuram* 274 . 2012; Nayar *et al.*, *Flg Pl. Western Ghats* 211. 2014; Smith *et al.*, *Smith. Contrib. Bot.* 60:196. 1986. (**Begoniaceae**).

Perennial herbs; stem succulent. Leaves 12-18 x 3-5 cm, lanceolate, unequally cordate at base, acute or acuminate at apex, serrate-dentate at margins, membranous.

Flowers pink in axillary cymes. Male flowers: Tepals 4, orbicular, 1 cm across; stamens numerous, filaments unequal; anthers to 2 mm long. Female flowers: tepals 3; ovary obovoid, 3-celled, 3-winged; ovules numerous on simple axile placenta. Capsule to 1.8 x 1.5 cm, narrowed at base, apically broad, 3-winged.

Panamoottil kudumbakavu SK 11072. *Fl. & Fr.*: Throughout. *Dist.*: Endemic to Kerala.

Biophytum longipedunculatum Govind., Journ. Econ. Tax. Bot. 20: 312.1996; Manna in Hajra *et al.* (Eds.) Fl. India 4: 234. 1997; Sasidharan, Biodiv. Doc. Kerala Flg Pl. 68. 2004; N. P. Balakr. & W. Arisdasan in P. Daniel, Fl. Kerala 1: 575. 2005; Nayar *et al.*, Flg Pl. Kerala 470. 2006; Nayar *et al.*, Flg Pl. Western Ghats 707. 2014. (**Oxalidaceae**).

Annual herbs, 30-45 cm high; stem unbranched, woody. Leaves 7-15 x 2-4 cm, leaflets obovate, terminal the largest, apex acuminate or cuspidate; stipules linear-lanceolate, 2.5-3 mm long; peduncle 16-35 cm long, hairy; bracts ovate-lanceolate, 1-1.5 mm long. Sepals ovate-lanceolate, 3-3.5 x 0.2-0.3 mm, 7-nerved, sparsely strigose on the nerves. Petals obovate, rounded at apex. Ovary ellipsoid-ovoid. Capsule obovoid, 3 x 2.5 mm. Seeds bipyramidal, 4-gonous, acute at both ends, sparsely and unevenly tubercled.

Kochaluvilakkavu, Pangodu SK 5512. *Fl & Fr.*: Jun.-Aug. *Dist.*: Endemic to the southern Western Ghats.

Biophytum veldkampii Shanavas, Santhosh, Binu *et* Pushpangadan, Rheedia 8(1): 79. 1998. N. P. Balakr. & W. Arisdasan in P. Daniel, Fl. Kerala 1: 575.. 2005; Nayar *et al.*, Flg Pl. Kerala 471. 2006; Santhosh & Yeragi, Fl. Sacred Grove Thiruvananthapuram 140. 2012; Nayar *et al.*, Flg Pl. Western Ghats 709. 2014. (**Oxalidaceae**).

Annuals, stem simple, rarely branched, upto 15 cm long. Leaves 7-16 jugate, rachis slightly winged, 2.5-12 cm long, sparsely patently strigose; leaflets overlapping; terminals obovate and falcate, oblique, 7.5-16 x 3.5-7 mm, midrib eccentric; other oblong, truncate at base, apiculate at apex, midrib median, sparsely hairy above in the acroscopic half and along the midrib, margin ciliate, nerves a few, oblique to midrib, inconspicuous. Peduncles 6-9 cm long, appressed to patently strigose, eglandular, mucronate at apex. pedicels 1.5-2 mm long, glabrous. Flowers heterotristylous. Sepals ovate-lanceolate, 4-4.5 x 0.7-1 mm, half as long as corolla, 6-8 nerved in fruits, longer than pedicels, longer than capsules, sparsely strigose near the apex without. Petals oblanceolate, 8-10 x 4-5 mm, retuse at apex, claw greenish, limb yellow. Fruits 3-3.5 x 2-2.5 mm, apically, ciliate on the ribs. Seeds 1-2 per cells, to 1.4 x 0.9 mm, transversely ridged, not tuberculate.

Sree Mahasubramanya Temple SK 777. *Fl. & Fr.*: Throughout the year. *Dist.*: Endemic to Kerala state.

Buchanania barberi Gamble in Bull. Misc. Inform. 135. 1916 & Fl. Madras 259. 1918; Henry, *et al.*, J. Bombay Nat. Hist. Soc. 75: 1978; Vajravelu in Jain & Sastry, Plant Cons. Bull 4: 23. 183; Vajravelu & Daniel in Jain & Sastry, Mat. Cat. Threat. Pl. India 15. 1983 Mohanan, Fl. Quilon Dist. 128. 1984; Mohanan & Henry, Fl. Thiruvananthapuram 127. 1994; Dali & Mukh. in N.P. Singh *et al.*, Fl. India 5: 442. 2000; Santhosh *et al.*, Rheedia 12: 197.2002; Sasidharan, Biodiv. Doc. Kerala Flg Pl. 111 . 2004; V. Chandra in P. Daniel, Fl. Kerala 1: 799. 2005; Nayar *et al.*, Flg Pl. Kerala 49. 2006; Santhosh & Yeragi, Fl. Sacred Grove Thiruvananthapuram 182. 2012; Nayar *et al.*, Flg Pl. Western Ghats 70 . 2014. (**Anacardiaceae**).

Trees, bark smooth or slightly fissured, blaze flesh coloured. Leaves crowded towards the apex, 11-14 x 3-4.5 cm, elliptic-oblong, obtuse at base, obtuse or shortly acuminate at apex, glabrous above and rusty villous beneath when young, villous along the nerves at maturity, coriaceous; lateral nerves 16-20 pairs, sub horizontal, straight and parallel; Inflorescence a terminal branched pubescent panicle, 3-12 cm long. Flowers creamy-white, to 5 mm across. Drupes subglobose, slightly compressed laterally, glabrous. Seeds ovoid.

Maranadu pulamonkavu Sree Mahadevar Temple SK 5837. *Fl. & Fr.*: Oct.- Jan.. *Dist.*: Endemic to Kerala.

Note: Only one treelet was found in this sacred grove. This species is a new distributional record for Kollam district.

Calamus hookerianus Becc., Ann. Roy. Bot. Gard. Calcutta 11: 83,226, t. 70. 1908; Fischer in Gamble, Fl. Pres. 1568. 1928; (1931 in net;) Renuka Rattans of Western Ghats 30. 1992; Subram., Fl. Thenmala Div. 4. 1995; Sasidharan, Biodiv. Doc. Kerala Flg Pl. 20. 2004; M. Mohanan in P. Daniel *et al.* (Eds) Fl. Kerala 165. 2005; Nayar *et al.*, Flg Pl. Kerala 60. 2006; Santhosh & Yeragi, Fl. Sacred Grove Thiruvananthapuram 69. 2012; Nayar *et al.*, Flg Pl. Western Ghats 84. 2014. (**Areaceae**).

Stem with sheath \pm 4cm diam., sheath brownish- green, densely triangular spinescent, interspersed with small spines and tomentum; mouth with long papery yellow spines; flagellum to 5 cm long. Leaves ecirate, c. 2 m long; petiole spines 1-10 cm long, brown or black, triangular, rachis with single row of spines; leaflets c. 50 x 2.5 cm, mid vein ciliate beneath from middle upwards. Inflorescence to 5 m long; male branching in 3 orders. Female branching in 2 orders; involucre cup- shaped. Capsule sub globose, c. 1 cm diam, scales in 18 rows. Pachayil Moorthikavu, Velmanoor SK 15; Ammoomma Kav, Aroor SK 2037; Thottathil Sree Bhadra Bhagavathy Temple, Kizhakkanela, Parippally SK 7263;

Alayamon Sree Alappan Temple SK 9109. *Fl. & Fr.*: Round the year. *Dist.*: Endemic to the Western Ghats
Local Name: *Chooral*.

Cinnamomum malabratrum (Burm.f.) Bl., Rumphia 1: 38, t. 13.f. 3-4. 1836; Kosterm., Bull. Bot. Surv. India 25: 102. 1983 (1985); Sasidharan, Biodiv. Doc. Kerala Flg Pl. 396. 2004; Nayar *et al.*, Flg Pl. Kerala 371. 2006; Santhosh & Yeragi, Fl. Sacred Grove Thiruvananthapuram 426. 2012; Nayar *et al.*, Flg Pl. Western Ghats 571. 2014. *Laurus malabratrum* Burm.f., Fl. ind. 92. 1768. *Cinnamomum iners* auct. non Bl., 1826; Hook.f., Fl. Brit. India 5: 130. 1886; Gamble, Fl. Madras 1224. 1925. (**Lauraceae**).

Medium sized trees. Leaves 15-22 x 3-6.5 cm, elliptic-lanceolate or oblong-lanceolate, rounded at base, caudate-acuminate at apex, glabrous and glossy above, tomentose beneath, tender ones often pink. Flowers bisexual in terminal and axillary panicles. Berry to 2.5 cm long, seated in the enlarged cupular perianth.

Sree Indilayappan Swami Temple Vellayappan Kavu, Kollam, SK 1528. *Fl. & Fr.*: Dec.- Jul. *Dist.*: Endemic: India. Local Name : *Elavangam, Kattukaruka*.

Cinnamomum mohananii A. Gangaprasad, S.P. Mathew & R. Jagadeesan, Int. J. Adv. Res. 2(9): 611. 2014. (**Lauraceae**).

Erect shrub or small tree, 4m height, young shoots minutely pubescent. Leaves 2-9 x 1-4 cm, ovate-lanceolate or elliptic, acuminate at apex, obtuse or cuneate at base, glaucous beneath, glabrous; basal nerves 3-5, arising 2-4 mm above from the base. Cymes axillary or lateral shorter than the leaves, 4- 10 flowered; pedicels up to 4 cm long, pubescent. Stamens in 3 rows of 3 each, outer 2 series with introrse and inner row with extrorse. Berries 8 -10 x 6 -7 mm, oblong ovoid, seated on the enlarged perianth lobes, deep purple turning black on drying.

Sree Dharma Sastha Kshethram SK 9986. *Fl. & Fr.*: Round the year. *Dist.*: Endemic to Kerala.

Cinnamomum nicolsonianum Manilal & Shylaja, Bull. Bot. Surv. India 28: 111. 1986; Sasidharan, Biodiv. Doc. Kerala Flg Pl. 396. 2004; Nayar *et al.*, Flg Pl. Kerala 371. 2006; Nayar *et al.*, Flg Pl. Western Ghats 572. 2014. (**Lauraceae**).

Trees, 15 m high. Leaves 9-20 x 4-6 m, elliptic, obtuse at apex, cuneate at base, entire at margin, sparsely hairy above, moderately hairy beneath, chartaceous; 3 ribbed from the base, reaching the tip. Flowers bisexual, 15-30 in axillary panicles, 10 cm long; pedicels short. Perianth tube short, tepals 6, 2-3 mm long, tomentose. Fruit a berry, up to 8 x 10 mm subtended by shallow fleshy deep cup, the base conical; the rim with the persistent, thickened tepals, basal part rounded, pilose.

Ambathekkar Kavu, SK 9931. *Fl. & Fr.*: Feb.-Apr. *Dist.*: Endemic to the Western Ghats.

Cinnamomum riparium Gamble, Bull. Misc. Inform. Kew Bull. Kew 1925:128. 1925 & Gamble, Fl. Pres. Madras 1224. 1925; Sasidharan, Biodiv. Doc. Kerala Flg Pl. 396. 2004; Nayar *et al.*, Flg Pl. Kerala 371. 2006; Nayar *et al.*, Flg Pl. Western Ghats 572. 2014. (**Lauraceae**).

Small Trees. Leaves 7-12 x 1.5- 4 cm, broadly attenuate at base, acuminate at apex, 3-ribbed. Panicles few flowered, lax; peduncles 3-4 cm long; pedicels slender, 0.8-1cm long. Flowers 0.3- 0.35cm across. Perianth lobes 6, c. 0.1cm long. Stamens in 3 rows; first and second rows introrse, 3rd row extrorse, glands attached to middle of filaments. Ovary ellipsoid; stigma peltate.

Changayilkavu SK 9932. *Fl. & Fr.*: Dec.- Mar. *Dist.*: Endemic to the Western Ghats. Local Name: *Attuvayana*.

Dalbergia horrida (Dennst.) Mabb., Taxon 26: 538. 1977; Sasidharan, Biodiv. Doc. Kerala Flg Pl. 126. 2004; Nayar *et al.*, Flg Pl. Kerala 279. 2006; Nayar *et al.*, Flg Pl. Western Ghats 418. 2014. *Amerimnon horridum* Dennst., Schluss. Hort. Malab. 9, 18, 34. 1818. *Dalbergia spinosa* Roxb., Fl. Ind. 3: 234. 1832; Hook. f., Fl. Brit. India 2: 234 1876; Gamble, Fl. Pres. Madras 381. 1918. *Dalbergia sympatica* Nimmo ex Graham, Cat. Pl. Bombay 55. 1839. *Dalbergia multiflora* Heyne ex Prain, Ann. Roy. Bott. Gard. (Calcutta) 10: 43, t.18. 1905. (**Fabaceae**).

Stagging shrubs, climbing by means of hooked branchlets. Leaves 4-9 cm long; Leaflets 11-15, 0.8-1.8 x 0.5-1.2 cm, ovate-oblong or elliptic-oblong, cuneate at base, emarginate at apex, sub-coriaceous. Flowers in axillary cymose panicles. Stamens 9. Ovary linear. Pods 3-5 x 1.3-2 cm, broadly oblong or stap shaped, 1-4 seeded.

Kundayam Sree Kovil Durga Devi Temple SK 1428. *Fl. & Fr.*: Sept.- Mar. *Dist.*: Endemic to the Western Ghats. Local Name: *Anamullu, Jadavallii*.

Dalbergia travancorica Thoth., Reinwardtia 8: 329. 1972 & Tax. Rev. Dalberg. Ind. Subcont. 79. 1987; Sanjappa, Legum. India 141. 1991; Sud. Kumar & P.V. Sane, Legum. South Asia: 176. 2003; Sasidharan, Biodiv. Doc. Kerala Flg Pl. 127. 2004; Nayar *et al.*, Flg Pl. Kerala 281. 2006; Nayar *et al.*, Flg Pl. Western Ghats 419. 2014. Jagadeesan *et al.*, Rheedea 25(2): 125. 2015. (**Fabaceae**).

Climbing shrubs; young branchlets rusty pubescent, mature one puberulous. Leaves imparipinnate, 6-11 cm long, alternate, stipulate, rachis puberulous; leaflets mostly 5, elliptic, 2.5-6.5 x 1.5-3 cm, lateral veins inconspicuous. Inflorescence in short axillary panicle, 1-

3 cm long, rachis and branchlets pubescent. Flowers 6-8 mm long. Calyx campanulate, 4-5 mm long. Standard petal ovate-orbicular to ovate-oblong, 6-7 mm long, deflexed, retuse at apex, blade auricled below, distinctly clawed; wings ovate-oblong, c. 4 mm long, clawed; keels boat-shaped, c. 3.5 mm long, clawed, connate above at their apex, all petals glabrous. Stamens 9, monadelphous. Pods oblong, 2.7-3.5 × 0.6-0.8 cm, flat, glabrous, smooth, long stalked; one seeded.

Sree Indilayappan Swami Temple Vellayappan Kavu, Kollam SK 1582. *Fl. & Fr.*: Apr.-Jul. *Dist.*: Endemic to Kerala.

Desmos chinensis var. **lawii** (Hook.f. & Thoms.) Ban, Bot. Zhurn. (Moscow & Leningrad) 59:1774. 1974; Mitra in B.D.Sharma & *al.*, Fl. India 1: 257. 1993; Santhosh & Yeragi, Fl. Sacred Grove Thiruvananthapuram 63. 2012; Nayar *et al.*, Flg Pl. Western Ghats 78. 2014. *Unona lawii* Hook.f. & Thoms., Fl. Ind.132. 1855 & in Hook.f., Fl. Brit. India 1: 59. 1872; Bedd., Icon. pl. Ind. orient. t. 73. 1868-1874; Dunn in Gamble, Fl. Madras 15. 1915; Das in Bull. Bot. Surv. India 5: 41. 1963. *Desmos lawii* (Hook.f. & Thoms.) Safford, Bull. Torrey Bot. Club 39: 506. 1912; Nair & Henry, Fl. Tamil Nadu I, 1: 4. 1983; Mohanan & Henry, Fl. Thiruvananthapuram 46. 1994; Subram. Fl. Thenmala 5. 1995; M.Mohanan in P. Daniel, Fl. Kerala 143. 2005. *Desmos chinensis* Lour., Fl. Cochinch. 352.1790 Sasidharan, Biodiv. Doc. Kerala Flg Pl. 16. 2004. (**Annonaceae**).

Large evergreen woody climbers; young shoots grey-pubescent. Leaves 8.5-15 x 3-6 cm, ovate-oblong or oblong-lanceolate, obtuse or subcordate at base, acute or shortly acuminate at apex, shining and glabrous above and glaucous beneath; lateral nerves 8-10 pairs, faint above; petiole glabrous. Flowers axillary or extra axillary, solitary, greenish or greenish-yellow with slender long pedicels, 3-5 cm long; bracts narrowly ovate, attached near below the middle of the pedicel. Fruitlets globose, stipitate, glabrous.

Uliyakkovil Sree Durga Bhagavathy Temple SK 7243. *Fl. & Fr.*: Mar.-Oct. *Dist.*: Endemic to the Western Ghats.

Flacourtia montana Grah., Cat. Pl. Bombay 10. 1839; Hook.f. & Thoms. in Hook.f. Fl. Brit. India 1: 192. 1872; Rao, Fl. Pl. Travancore 23. 1914; Dunn in Gamble, Fl. Madras 54. 1915; R. L. Mitra in B. D. Sharma & N. P. Balakr.(Eds.) Fl. India 2: 406.1993; Sasidharan, Biodiv. Doc. Kerala Flg Pl. 32. 2004; N. P. Balakr. in P. Daniel (Ed.) Fl. Kerala 1: 271. 2005; Nayar *et al.*, Flg Pl. Kerala 334. 2006; Santhosh & Yeragi, Fl. Sacred Grove Thiruvananthapuram 86. 2012; Nayar *et al.*, Flg Pl. Western Ghats 514. 2014. (**Flacourtiaceae**).

Small to medium sized trees; trunk often thorny; branchlets pubescent or glabrous. Leaves 18-22 x 6-8 cm, ovate or broadly ovate, acute or rounded at base,

acute or acuminate at apex, crenate at margins, glabrous except the midrib below; 3-5 nerved from the base; petiole to 0.8 cm long. Flowers unisexual in small branched pubescent cymes. Stamens many. Berry globose, 1-1.5 cm across, bright red. Seeds many, creamy white.

Palukonam Durga Temple, Azhanthakuzhy SK 2495. *Fl. & Fr.*: Nov.- Jun. *Dist.*: Endemic to the Western Ghats. Local Name: *Kattulauloli*.

Garcinia gummi-gutta (L.) Robson, Brittonia 20:103. 1968; Kosterm., Ceylon J. Sci. Biol. 12:55. 1976; Mohanan, Fl. Quilon Dist. 80. 1984; N.P. Singh in B.D.Sharma & Sanjappa (Eds.) Fl. India 3: 110. 1993; Mohanan & Henry, Fl. Thiruvananthapuram 71. 1994; Subram, Fl. Thenmala 24. 1995; Sasidharan, Biodiv. Doc. Kerala Flg Pl. 40. 2004; W. Arisdason & P. Daniel in P. Daniel Fl. Kerala 1: 335. 2005; Nayar *et al.*, Flg Pl. Kerala 180. 2006; Santhosh & Yeragi, Fl. Sacred Grove Thiruvananthapuram 98. 2012; Nayar *et al.*, Flg Pl. Western Ghats 275. 2014. *Cambogia gummi-gutta* L., Gen. Pl. (ed.5). 552.1754. *Garcinia cambogia* (Gaertn.) Desv. in Lam., Encycl. 3: 701. 1701; Anders. in Hook.f., Fl. Brit. India 1:261. 1874; Rao, Fl. Pl. Travancore 29.1914; Dunn in Gamble, Fl. Madras 73. 1915. (**Clusiaceae**).

Medium sized evergreen tree, bark brownish black, yellow inside. Leaves 10-14 x 3-6 cm, elliptic-oblong or obovate, cuneate at base, acute or obtuse apex, chartaceous, glabrous; lateral nerves many; petiole to 3 cm long. Male flowers fascicled, terminal or axillary to leaf scars. Sepals ovate-suborbicular. Petals yellowish with a median pink steak. Female flowers usually solitary, ovary to 0.8 mm, grooved, 6-12 locular, smooth, staminodes in a ring the ovary. Berry depressed globose, to 6 cm wide.

Karavallloor Vallattu Udayan Kavu Devi Temple SK 458. *Fl. & Fr.*: Dec.-Sept. *Dist.*: Endemic to the Western Ghats. Local Name: *Kodampuli, Kodumpuli*.

Grewia palodensis Santhosh, Shanavas, Binu & Almeida in Rheedeia 11(1): 41. 2001; Sasidharan, Biodiv. Doc. Kerala Flg Pl. 63. 2004; Nayar *et al.*, Flg Pl. Kerala 603. 2006; Santhosh & Yeragi, Fl. Sacred Grove Thiruvananthapuram 133. 2012; Nayar *et al.*, Flg Pl. Western Ghats 892. 2014. (**Tiliaceae**).

Lianae; branchlets brown, stellate-tomentose. Leaves 8-12 x 4-6 cm, broadly elliptic or oblong, rounded at base, abruptly acuminate at apex, crenate-serrate at margins, thin-coriaceous, stellately pubescent, sparsely so above and along the nerves beneath; basally 3-nerved. Inflorescence axillary and terminal, many flowered umbellate cyme; peduncle 1-3 together, 3-4.5 cm long, stellate pubescent. Flowers bisexual, 0.8-1 cm across. Sepals narrowly oblong-lanceolate, 1.5-1.8 x 0.3cm, gray-white. Petals linear-oblong, narrow, 0.5-0.6 cm long,

obtuse-apiculate at apex, base densely appressed pilose, gland to 0.2 cm. Andro-gynophore distinctly 4-grooved, to 2.5 mm; anthers 2-celled. Drupes deeply 2-partite, lobes emarginate, 1.5-2 cm wide, black at maturity, sparsely stellate pubescent. Pyrenes 2-per lobe, glabrous.

Edamon Ayiravilly Temple SK 682. *Fl. & Fr.*: May- Oct. *Dist.*: Endemic to Kerala.

Note: This species was earlier known only from its type locality, Manthuruthu Kavu near Palode in Thiruvananthapuram district. The present collection, hence form a new distribution to the study area.

Gymnacantha canarica (King) Warb., Monogr. Myris. 368. 1897; Nayar *et al.*, Flg Pl. Kerala 440. 2006; Nayar *et al.*, Flg Pl. Western Ghats 663. 2014. *Myristica canarica* King, Ann. Roy. Bot. Gard.(Calcutta) 3:306.t.138.1891. *M. farquhariana* Wall ex Hook. f., & Thoms). Warb., Nov. Act. Nat. Cur. 68: 365. 1897; Mohanan, Fl. Quilon Dist. 340. 1984; Sasidharan, Biodiv. Doc. Kerala Flg Pl. 393. 2004. *G. canarica* Warb., Monogr. Myrist. 368. 1897; M. Mohanan & Henry, Fl. Thiruvananthapuram 378. 1994.(**Myristicaceae**).

Large trees. Leaves 12-22 x 4-6.5 cm, oblong-lanceate, obtuse at base, acuminate at apex, lower surface glaucous, coriaceous. Flowers unisexual, deep yellow, male clusters in axillary panicle; Stamens 6-12, connate by their back, free above; ovary ovoid, superior, 1-locuar; ovule 1, basal. Capsule ovoid. Seeds arillate, ruminant endospermous.

Ambathekkar Kavu, SK 9969. *Fl. & Fr.*: Mar.-Aug. *Dist.*: Endemic to the Western Ghats. Local Name: *Undappayin*.

Gynochthodes ridsdalei Razafim. & B.Bremer, Adansonia 33(2): 297. 2011. *Morinda reticulata* Gamble in Bull. Misc. Infor. 248. 1920 & Fl. Pres. Madras 652. 1921.; Mohanan & Henry, Fl. Thiruvananthapuram 237 1994; Subram., Fl. Thenmala 172. 1995; Sasidharan, Biodiv. Doc. Kerala Flg Pl. 223. 2004; Nayar *et al.*, Flg Pl. Kerala 526. 2006; Santhosh & Yeragi, Fl. Sacred Grove Thiruvananthapuram 293. 2012; Nayar *et al.*, Flg Pl. Western Ghats 788. 2014. (**Rubiaceae**).

Climbing shrubs. Leaves 18-25 x 2-3.5 cm, oblanceolate or linear-oblong, cuneate at base, caudate-acuminate at apex, coriaceous, glabrous; lateral nerves 8-12 pairs, reticulation prominent. Flowers white in axillary and terminal umbellate heads. Calyx limb a fleshy cushion like ring. Corolla tube more or less funnel shaped; tube 1.5 mm long, villous within. Stamens 4, included. Ovary 1.7 mm; style 4-5 mm long. Fruits 1.5 cm wide.

Thennalakkavu, Karunagappally SK 6290. *Fl. & Fr.*: Jun.-Oct. *Dist.*: Endemic to southern Western Ghats.

Note: Addition to the flora of Kollam district.

Helicanthes elasticus (Desr.) Danser Verh. Kon. Ned. Akad. Wetensch., Afd. Tweede. Sect. 29(6): 55. 1933; Mohanan, Fl. Quilon Dist. 350. 1984; Subram., Fl. Thenmala. 318. 1995; Sasidharan, Biodiv. Doc. Kerala Flg Pl. 403. 2004; Santhosh & Yeragi, Fl. Sacred Grove Thiruvananthapuram 431. 2012; Nayar *et al.*, Flg Pl. Western Ghats 593. 2014. *Loranthus elasticus* Desr. in Lam., Encycl. 3: 599. 1792; Wight, Icon. pl. Ind. orient. t. 343. 1840; Hook.f. Fl. Brit. India 5: 216. 1886; Gamble, Fl. Madras 1254. 1925. (**Loranthaceae**).

Large parasitic shrubs with well developed, dichotomously branched haustoria bearing surface runners, usually covering a large portion of host; branchlets woody, terete, dichotomous, green; nodes swollen. Leaves 5-12 x 2.5-6.5 cm, obovate-lanceolate to elliptic, acute-cuneate at base, acute-acuminate at apex, coriaceous, 3-5 nerved from base, shortly petioled. Flowers in axillary fascicles. Fruits ovoid-elliptic, surrounded by a small beak, red.

Pallikkattukavu SK 9901. *Fl. & Fr.*: Sept. – Mar.. *Dist.* Endemic to the Western Ghats. Local Name : *Ithilkkanni*. **Hemidesmus indicus** var. **pubescens** (Wight & Arn.) Hook.f., Fl. Brit. India 4:4. 1863; Sasidharan, Biodiv. Doc. Kerala Flg Pl. 294 . 2004; Nayar *et al.*, Flg Pl. Kerala 89. 2006; Santhosh & Yeragi, Fl. Sacred Grove Thiruvananthapuram 352. 2012; Nayar *et al.*, Flg Pl. Western Ghats 128. 2014. *H. pubescens* Wight & Arn. in Wight Contrib. 63. 1834. (**Asclepiadaceae**).

Pubescent twining herbs. Leaves 8-10 x 2-2.5 cm-elliptic, acute at base, apiculate at the very apex, sub-coriaceous. Flowers in axillary subsessile fascicles. Corolla deeply lobed, rugose within. Corona single, coralline.

Maruthamangalathu Kavu Keezharoor SK 2522. *Fl. & Fr.*: Jan.- Mar. *Dist.*: Endemic to the Western Ghats.

Holigarna arnottiana Hook. f., Fl. Brit. India 2: 36. 1876; Gamble, Fl. Madras 1: 268. 1918; Mohanan, Fl. Quilon Dist. 128. 1984; Subram., Fl. Thenmala . 80. 1995; Dali & Mukh. in N.P. Singh & al., Fl. India 5: 457. 2000; Sasidharan, Biodiv. Doc. Kerala Flg Pl. 111 . 2004; M.Mohanan in P. Daniel, Fl. Kerala 803. 2005; Nayar *et al.*, Flg Pl. Kerala 50. 2006; Santhosh & Yeragi, Fl. Sacred Grove Thiruvananthapuram 185. 2012; Nayar *et al.*, Flg Pl. Western Ghats 71. 2014. (**Anacardiaceae**).

Large evergreen trees. Leaves 16-20 x 5-7 cm, oblanceolate, acute or attenuate at base, acute or shortly acuminate at apex, glabrous; lateral nerves 10-21 pairs, intercostae reticulate; spur 2, slender. Flowers yellowish-white, polygamous in terminal panicles. Petals 5, tomentose without. Drupe obliquely ovoid, dark purple, to 1.5 cm long, partly enclosed by the enlarged calyx.

Kallali Apooppa Kavu SK 161; Thuruthiyil Muhurthy Kavu, Poovathur SK 5011; Madan kavu, Pattazhy Vadakkekkara SK 3236; Sree Indilayappan Swami Temple Vellayappan Kavu, Kollam SK 1497; Vayyampallikkavu, Thenguvila SK 5625; Edamon Ayiravally Temple SK 641. *Fl. & Fr.*: Dec.- Aug. *Dist.*: Endemic to the Western Ghats. Local Name : *Charu*.

Holigarna nigra Bourd., Indian J. For. 30: 95. 1904; Gamble, Fl. Pres. Madras 268 (191). 1918; Dali & S.K. Mukh. in N. P. Singh *et al.*, Fl. India 5: 462. 2000; Sasidharan, Biodiv. Doc. Kerala Flg Pl. 112. 2004; D. Chandra in P. Daniel Fl. Kerala 1:805. 2005; M.Mohanana in P. Daniel *et al.* (Eds) Fl. Kerala 165. 2005; Nayar *et al.*, Flg Pl. Kerala 60. 2006; Nayar *et al.*, Flg Pl. Western Ghats 84. 2014. (**Anacardiaceae**).

Trees, to 30 m high, bark 5-6 mm thick, grey, smooth, exudation black. Leaves 7.5-15 x 3.7-5 cm, spatulate, not suddenly broadened above the base, cuneate at base, obtuse or emarginated at apex, entire at margin; petiole 20-25 mm long, stout, glabrous; spur 2 or 4, caducous; lateral nerves 6-9 pairs, parallel, prominent. Flowers polygamous, purple, white, in terminal and axillary dark purple brown tomentose racemes, often upto 30 cm long in male and to 9 cm long in female flowers. Fruit a drupe, 4 x 1.5 cm, obovoid, glabrous.

Kottankara punukkannur Manbazha Indilayappan Temple SK 6602; Ayiravilli Temple Kavu, Velloor SK 7014 ; Horakkattillam Kavu Oyur SK 7076; Chozhathil Sree Devi Temple Kavu. Chozham, Kollam SK 8534; *Fl. & Fr.*: Jan.-July. *Dist.*: Endemic to the Western Ghats. Local Name: *Cheru*.

Hopea parviflora Bedd., Fl. sylv. S. India t. 7. 1869; Hook.f., Fl. Brit. India 1: 308. 1874; Rao, Fl. Pl. Travancore 35. 1914; Dunn in Gamble, Fl. Madras 82. 1915; Mohanan, Fl. Quilon Dist. 83. . 1984; K. P. Janardh. in B.D.Sharma & Sanjappa (Eds.) Fl. India 3: 228. 1993; Mohanan & Henry, Fl. Thiruvananthapuram 75. 1994; Subram, Fl. Thenmala 27. 1995; Sasidharan, Biodiv. Doc. Kerala Flg Pl. 44 . 2004; K. P. Janardh. & W. Aridason in P. Daniel, Fl. Kerala 1: 365. 2005; Nayar *et al.*, Flg Pl. Kerala 218. 2006; Santhosh & Yeragi, Fl. Sacred Grove Thiruvananthapuram 101. 2012; Nayar *et al.*, Flg Pl. Western Ghats 326. 2014 . (**Dipterocarpaceae**).

Evergreen trees; bark black coloured, cracking irregularly. Leaves 5-7 x 2.5-3.5 cm, ovate-lanceolate, rounded or acute at base, acuminate at apex, entire, chartaceous, glabrous, domatia prominent in the nerve axils. Flowers white in terminal panicles of unilateral racemes. Sepals subequal, enlarged in fruits. Stamens 15, connective awned. Fruit nut like with 2 oblong wings.

Thernakala Muhurthykavu Temple, Perumkulam SK 5124. Common to majority of the sacred groves. *Fl. &*

Fr : Nov.- May. *Dist.*: Endemic to the Western Ghats. Local Name : *Pongu, Thambakam*.

Hopea ponga (Dennst.) Mabb., Taxon 28: 587. 1979; Mohanan & Henry, Fl. Thiruvananthapuram 75. 1994; Subram, Fl. Thenmala 28. 1995; Sasidharan, Biodiv. Doc. Kerala Flg Pl. 45. 2004; K.P. Janardh. & W. Aridason in P. Daniel, Fl. Kerala 1: 366. 2005; Nayar *et al.*, Flg Pl. Kerala 218. 2006; Santhosh & Yeragi, Fl. Sacred Grove Thiruvananthapuram 102. 2012; Nayar *et al.*, Flg Pl. Western Ghats 326. 2014. *Artocarpus ponga* Dennst., Schlusel Hort. Malab. 15, 18, 30. 1818. *Hopea wightiana* Wall. ex Wight. & Arn., Prodr. 1: 85. 1834; Wight, Ill. Ind. Bot. 1:t. 37. 1840; Hook. f., Fl. Brit. India 1:309. 1874; Dunn in Gamble, Fl. Madras 82. 1915; Mohanan, Fl. Quilon Dist. 84. 1984. (**Dipterocarpaceae**).

Large evergreen trees; young branches pubescent. Leaves 18-23 x 5-7 cm, oblong or ovate-oblong, rounded at base, obtuse or subacute at apex, glabrous; lateral nerves 7-10, oblique, coriaceous. Flowers white in unilateral paniced racemes. Sepals 5, sub equal, ovate, obtuse. Petals 5, oblong, pubescent without. Stamens 15, awned. Nuts winged; wings oblong, to 5 cm long. Seeds ovoid.

Sree Indilayappan Swami Temple Vellayappan Kavu, Kollam SK 1527. *Fl.* Nov.- Aug. *Dist.*: Endemic to the Western Ghats: Local Name: *Ilapongu, Pongu, Kambakam*.

Humboldtia vahliana Wight, Ic. t. 1607, 1608, 1850; Hook. f., Fl. Brit. India 2: 274. 1878; Gamble, Fl. Pres. Madras 411. 1919; Mohanan & Henry, Fl. Thiruvananthapuram 170. 1994. Subram., Fl. Thenmala Div. 114. 1995; Sasidharan, Biodiv. Doc. Kerala Flg Pl. 156. 2004; Nayar *et al.*, Flg Pl. Kerala 319. 2006; Nayar *et al.*, Flg Pl. Western Ghats 485. 2014. (**Caesalpiaceae**).

Large evergreen trees. Leaves paripinnate, leaflets 8-15 x 3-7 cm, oblong-lanceolate, narrowed at abse, acuminate at apex; coriaceous, glabrous; lateral 8-14 pairs; stipules persisant, ovate-cordate, parallel veined, glandular, glabrous, appendages reniform; petiolule 7-10 mm long, stout pubescent or not. Flowers bisexual, white, 27-30 mm long, in many flowered, axillary brown velvety racemes. Fruit a pod, 15-20 x 3.7-6 cm elliptic compressed sutims thick valves prominently veind, brown villous; Seeds 3-4, almost orbicular, glabrous.

Kallali Appoppan Kavu SK 158. *Fl. & Fr.*: December-July. *Dist.*: Endemic to the Western Ghats. Local Name. : *Karampongu*.

Hydnocarpus pentandra (Buch.-Ham.) Oken, Allg. Naturgesch. 3(2): 1381. 1841; Mukherj., Bull. Bot. Surv. India 14: 183. 1872; Mohanan, Fl. Quilon Dist. 64. 1984; Mitra in B.D.Sharma *et al.* (Eds.), Fl. India 1: 422. 1993;

Mohanani & Henry, Fl. Thiruvananthapuram 1994; Subram., Fl. Thenmala. 15. 1995; Sasidharan, Biodiv. Doc. Kerala Flg Pl. 33. 2004; M.Mohanani in P. Daniel, Fl. Kerala 276. 2005; Santhosh & Yeragi, Fl. Sacred Grove Thiruvananthapuram 88. 2012; Nayar *et al.*, Flg Pl. Western Ghats 516 . 2014. *Chilmoria pentandra* Buch.-Ham., Trans. Linn. Soc. London 13: 501. 1822. *Hydnocarpus laurifolia* (Dennst.) Sleumer, Bot. Jahrb. 69: 33. 1938. *Munnicksia laurifolia* Dennst., Schluss. Hort. Ind. Mal. 27. 1818, *nom.nud.* *Hydnocarpus wightiana* Bl., Rumph. 4: 22. 1848; Hook.f. Fl. Brit. India 1: 196. 1872; Rao, Fl. Pl. Travancore 24. 1914; Dunn in Gamble, Fl. Madras 37. 1915. (*Flacourtiaceae*).

Medium sized evergreen trees; bark smooth, grey. Leaves 16-20 x 6-8 cm, elliptic or elliptic-lanceolate, acute at base, acuminate at apex, serrate at margins, glabrous above, pubescent beneath; lateral nerves 5-6 pairs. Flowers unisexual in axillary cymes. Male flowers: Stamens 5, opposite the petals; filaments subulate, hairy at the base, about equalling the petals. Berry globose, vertically 5-grooved, 4-6 cm across. Seeds 15-20, embedded in pulp, ovoid-oblong, obtusely angular, to 2.2 x 1.5 cm.

Thottathil Sree Bhadra Bhagavathy Temple Kizhakkaneli Parippally SK 7241. Common to all sacred groves. *Fl. & Fr.*: Throughout the year. *Dist.*: Endemic to the Western Ghats. Local Name: *Marotti, Maravatty*.

Impatiens diversifolia Wall. ex Wight & Arn. Prodr. fl. Ind. orient. 139. 1834; Hook.f., Fl. Brit. India 1:446. 1874; Gamble, Fl. Madras 140. 1915; Mohanani & Henry, Fl. Thiruvananthapuram 97. 1994; Vivek. *et al.* in Hajra *et al.* (Eds.) Fl. India 4:141. 1997. (**Balsaminaceae**).

Flaccid, diffuse herbs; stem rooting at lower nodes. Leaves 1-7 x 0.8-1.5 cm, elliptic or oblong or linear-oblong, sub-cordate at base, acute at apex, serrate at margins; stipules obscure, glandular; sessile or shortly petioled. Flowers axillary, solitary or binate, c. 2 cm across; pedicels 1-2 cm long, pubescent, deflexed in fruits. Capsules ellipsoid, c.8 mm long. Seeds globose, dark brownish, smooth, shining.

Alayamon Sree Alappan Temple SK 9108. *Fl. & Fr.*: Jul.-Nov. *Dist.*: Endemic to the Western Ghats.

Ischaemum fischeri Ravi *et* Kiran Raj in Bull. Bot. Acad. Sinica 42: 227. 2001; Sasidharan, Biodiv. Doc. Kerala Flg Pl. 576 . 2004; Nayar *et al.*, Flg Pl. Kerala 806. 2006; Santhosh & Yeragi, Fl. Sacred Grove Thiruvananthapuram 522. 2012; Nayar *et al.*, Flg Pl. Western Ghats 1171. 2014. (**Poaceae**).

Annuals. Culms 20-80 cm long, creeping and rooting at lower nodes, geniculate or rarely erect. Leaves 1-10 cm long, lanceolate or linear-lanceolate, rounded or shallowly cordate at base, acuminate at apex. Racemes 2,

adpressed together and appears as solitary, to 10 cm long. Sessile spikelets oblong to oblong-elliptic, 5-7 mm long, including the 1 mm long ciliate callus. Lower glumes oblong-elliptic, 4-6 mm long, laterally keeled and incurved on the margins with the keels thickened and 2 or 3 nodulose in the lower parts, 11-13 nerved. Upper glumes coriaceous, lanceolate, boat shaped, 3.5-5 mm long. Lower lemma hyaline, elliptic to elliptic-lanceolate, 3.5-5 mm long, 3-nerved. Lower palea hyaline, elliptic to elliptic-lanceolate, 3.5-5 mm long. Upper lemma hyaline, oblong to oblong-elliptic, 3-4.5 mm long. Upper palea hyaline, oblong-elliptic, 3.5-5 mm long, 2-nerved. Pedicelled spikelets: Pedicels to 2 mm long, ciliate on the outer angles. Lower glumes obliquely oblong-elliptic, 4-6.5 mm long, laterally keeled and broadly winged along one side, 1-2 nodulose or not towards the base on the other side with the wings scabrid on the margins, subacute, often unequally notched at the apex. Upper glumes, lower lemma, lower palea and upper palea similar to those of the sessile spikelets. Upper lemma hyaline, oblong to oblong-elliptic, 3-4 mm long. Grains ellipsoid to oblong-ellipsoid, pale white.

Vetturuthilkavu, Pangodu SK 5552. *Fl. & Fr.*: Oct.- Apr. *Dist.*: Endemic to Kerala and Tamil Nadu states.

Ixora brachiata Roxb. ex DC., Prodr. 4:488. 1830; Wight, Icon. pl. Ind. orient. t. 710. 1843; Hook.f., Fl. Brit. India 3:142. 1880; Gamble, Fl. Madras 631. 1921; Husain & Paul, J. Econ. Tax. Bot. (Addl. ser.) 6:161. 1989; Mohanani, Fl. Quilon Dist. 211. 1984; Mohanani & Henry, Fl. Thiruvananthapuram 234. 1994; Subram., Fl. Thenmala 176. 1995; Sasidharan, Biodiv. Doc. Kerala Flg Pl. 218 . 2004; Nayar *et al.*, Flg Pl. Kerala 520. 2006; Santhosh & Yeragi, Fl. Sacred Grove Thiruvananthapuram 288 . 2012; Nayar *et al.*, Flg Pl. Western Ghats 781. 2014; Mohanani & Henry, Fl. Thiruvananthapuram 234. 1994. (**Rubiaceae**).

Small evergreen trees; bark smooth, grey, young shoots glabrous. Leaves 8-12 x 3-5 cm, elliptic-obovate or oblanceolate, acute to alternate at base, obtuse at apex, glabrous; lateral nerves many, slender; petiole to 2 cm long. Flowers in sessile or shortly peduncled terminal cymes. Corolla white, lobes oblong, deflexed, 2 x 1.5 mm, rounded at apex, deflexed. Stamens 5. Style hairy, not much exerted. Drupes didymous, 0.6 x 0.8 cm, black when ripe.

Alayamon Sree Alappan Temple SK 9118. *Fl. & Fr.*: Nov.-May. *Dist.*: Endemic to the Western Ghats. Local Name : *Marachethi*.

Ixora lanceolaria Colebr. in Roxb., Fl. Ind.1:397.1820; DC., Prodr.4:488.1830; Wight & Arn., Prodr. 1:428.1834; Wight, Icon.t.827.1844; Hooker, W.J., Curt. Bot. Mag. 74 (3): t.4399. 1848; Hook.f., Fl. Brit. India 3:138.1880; Rama Rao, Fl. Pl. Travancore 212.1914; Gamble, Fl. Pres. Madras 630.1921. *I.colebrookii* Voigt, Hort. Suburb. Calcutt. 391.1845. *I. wallichii* Wight ex

Hook.f. (illegitimate), Fl. Brit. India 3: 138. 1880. (**Rubiaceae**).

Erect shrubs, 1–3 m high; young branches spreading, very slender, grey, pubescent, later glabrescent; internodes 2–8 cm long. Leaves 6–18 × 1.5–4 cm, linear-lanceolate, rounded or very shortly acute at base, gradually acuminate at apex, entire along margin, glabrous on both sides, dark green above, pale beneath, opaque, sub-coriaceous; lateral nerves many, more or less perpendicular to the mid rib, forming sub-marginal arches; petiole 5–10 mm long, channeled above; stipules triangular with a subulate tip, 0.5–0.7 cm long, glabrous or slightly hairy when young. Inflorescence cymose, terminal, pendulous, peduncle 2–5 cm long, pubescent, with a pair of reduced leaves at the base, 3–7 × 1–2.5 cm, cordate at base, gradually acuminate at apex; bracts linear, 5–7 mm long, pubescent; bracteoles 3–4 mm long, sparsely pubescent. Flowers sessile or shortly pedicellate; pedicels to 1–3 mm long, hairy; calyx tube ca. 1–1.5 mm long, glabrous, lobes 4, 3–4 mm long, glabrous or slightly hairy along the margins, green; corolla greenish white, tube 1.5–2.5 cm long, glabrous; lobes oblong, 8–10 × 2–2.5 mm, obtuse at apex. Fruit globose, red, smooth, crowned with 4 subulate erect calyx teeth. Seed hemispherical.

Alayamon Sree Alappan Temple SK 9119. *Fl. & Fr.*: December–July. *Dist.*: Endemic to the Western Ghats.

Ixora polyantha Wight, Ic. t. 1066.1846; Hook.f. Fl. Brit. India 3: 140. 1880; Gamble Fl. Pres. Madras 629 (444) 1921; Mohanan & Henry Fl. Thiruvananthapuram 235.1994; Sasidharan, Biodiv. Doc. Kerala Flg Pl. 220. 2004; Nayar *et al.*, Flg Pl. Kerala 521. 2006; Nayar *et al.*, Flg Pl. Western Ghats 783. 2014. (**Rubiaceae**).

Stout under shrubs. Leaves simple, opposite, 10–20 by 5–8 cm obovate to broadly oblanceolate (oblanceolate) apex shortly acuminate, base cuneate, thin coriaceous. Lateral nerves 10–15 pairs; petiole 4–8 mm long pairs. Cymes dense, shortly peduncled, 6–8 cm in diameter. Flower numerous in trichasia, sessile bracts 5–8 mm long, ovate acute. Calyx densely hairy, lobes elliptic-lanceolate, ca 6 mm long, much longer than the ovary. Corolla white, tube 2.5–3 cm long, lobes narrowly obovate, obtuse or rounded, glabrous. Berry globose, c. 0.15 mm diam.

Devi Temple Vendar SK 11027. *Fl. & Fr.*: Nov.– Jul. *Dist.*: Endemic to the Western Ghats. Local Name: *Kalingi*.

Note: Addition to the flora of Kollam district.

Knema attenuata (Wall. ex Hook.f. & Thoms.) Warb., Monogr. Myrist. 590. 1897; Gamble, Fl. Madras 1215. 1925; Mohanan, Fl. Quilon Dist. 340. 1984; Mohanan & Henry, Fl. Thiruvananthapuram 386. 1994. Subram., Fl. Thenmala 308. 1995; Sasidharan, Biodiv. Doc. Kerala Flg Pl. 393. 2004; Nayar *et al.*, Flg Pl. Kerala 440. 2006;

Santhosh & Yeragi, Fl. Sacred Grove Thiruvananthapuram 423. 2012; Nayar *et al.*, Flg Pl. Western Ghats 663. 2014. *Myristica attenuata* Wall. ex Hook.f. & Thoms., Fl. Ind. 1:157. 1855; Hook.f., Fl. Brit. India 5: 110. 1886. (**Lauraceae**).

Trees; young branches tomentose; bark greyish-black or brown, exudation red. Leaves 15–23 × 4–7 cm, oblong-lanceolate, rounded or obtuse at base, acuminate at apex, glabrous beneath; lateral nerves 20–25 pairs. Flowers fascicled at the apex of thickened axillary peduncles; bracts deciduous. Perianth urceolate, 3-lobed, brown tomentose without. Capsule 3.5 cm long, ellipsoid, densely brown tomentose, arillus red.

Mannur Durga Devi Kshethrakkavu SK 9951. *Fl. & Fr.*: Throughout the year. *Dist.*: Endemic to the Western Ghats. Local Name : *Chorapine*.

Kunstleria keralensis Mohanan & Nair, Proc. Ind. Acad. Sci. (Plant Sci.) 90 (3): 208. 1981; Mohanan, Fl. Quilon Dist. 153. 1984; Sanjappa, Leg. India 199. 1992; Sasidharan, Biodiv. Doc. Kerala Flg Pl. 139. 2004; Nayar *et al.*, Flg Pl. Kerala 294. 2006; Santhosh & Yeragi, Fl. Sacred Grove Thiruvananthapuram 218. 2012; Nayar *et al.*, Flg Pl. Western Ghats 441.2014. (**Fabaceae**).

Straggling shrubs. Leaflets 5–7, 8–18 × 2–6 cm, ovate, elliptic-lanceolate, rounded at base, acuminate at apex, rugose, nerves prominent below, pubescent on midrib and nerves above, sparsely hairy below; petiole pubescent. Flowers pale yellow in terminal and axillary panicles. Calyx brown hairy. Fruit 12–13.5 × 2.5–3 × 0.4 cm, linear-oblong. Seeds solitary, rarely 2–3, 3.8–4 × 2–2.3 × 0.2 cm, oblong reniform, compressed, deeply irregularly or plicate grooved; testa black.

Anchal Panachavila Sree Bhutha Nadha Temple SK 174. *Fl. & Fr.*: Feb. – Dec. *Dist.*: Endemic to the southern Western Ghats.

Litsea bourdillonii Gamble, Kew Bull. 1925: 131. 1925 & Fl. Pres. Madras 1237. 1925. Mohanan, Fl. Quilon Dist. 347. 1984; M. Mohanan & Henry, Fl. Thiruvananthapuram 394. 1994; Sasidharan, Biodiv. Doc. Kerala Flg Pl. 398. 2004; Nayar *et al.*, Flg Pl. Kerala 373. 2006; Nayar *et al.*, Flg Pl. Western Ghats 574. 2014. (**Lauraceae**).

Trees. Leaves 12–20 × 5–9 cm, obovate, cuneate at base, shortly acuminate at apex, lower surface minutely fulvous pubescent. Male and female flowers in dense lateral or extra axillary clusters. Berry cylindrical, c. 1–1.5 cm long, seated on a copular disc, 3–4 lobed.

Ambathekkar Kavuu, SK 9975. *Fl.*: & *Fr.*: Dec.– May. *Dist.*: Endemic to the Western Ghats.

Litsea stocksii (Meissn.) Hook.f., Fl. Brit. India 5: 176. 1886; Gamble, Fl. Madras 1236. 1925; Mohanan &

Henry, Fl. Thiruvananthapuram 395. 1994. Sasidharan, Biodiv. Doc. Kerala Flg Pl. 400. 2004; Nayar *et al.*, Flg Pl. Kerala 375. 2006; Santhosh & Yeragi, Fl. Sacred Grove Thiruvananthapuram 427. 2012; Nayar *et al.*, Flg Pl. Western Ghats 577. 2014. *Tetranthera oblonga* Nees var. *stocksii* Meissn., DC., Prodr. 15 (1): 201. 1864. (**Lauraceae**).

Trees; bark pale brown. Leaves 2.5-8 x 1.5-3.5 cm, elliptic-lanceolate, tapering at base, acuminate at apex; lateral nerves 8-12, strong. Flowers yellowish-white in axillary racemiform umbels; peduncle and pedicels pubescent; bracts 4-6, concave, pubescent. Perianth 6-8, hairy. Stamens 12; filaments glabrous; glands stipitate. Fruit 1.3 cm long, ellipsoid, in young, green speckled with white, dark purple when ripe, supported on the cup-shaped perianth tube.

Mathra Ayiravalli Temple *SK 489*; Ayiravally Sree Bhadra Bhagavathy Temple, Ezhamkulam *SK 135*; *Fl. & Fr.*: Oct.-Aug. *Dist.*: Endemic to the Western Ghats. Local Name :*Varikkeeruthali*.

Luvunga eleutherandra Dalz. in Hook's, J. Bot. Kew. Gard. Misc. 2:258. 1850; Hook.f., Fl. Brit. India 1:509. 1875; Gamble, Fl. Madras 157. 1915; Mohanan, Fl. Quilon Dist. 63. 1984; Das in B.D.Sharma *et al* (Eds.), Fl. India 1: 266. 1993; K.N Nair & M.P. Nayar in Hajra &*al.*, Fl. India 4: 296.1997; Sasidharan, Biodiv. Doc. Kerala Flg Pl. 81. 2004; R. K Premnath in P. Daniel, Fl. Kerala 601. 2005; Nayar *et al.*, Flg Pl. Kerala 549. 2006; Santhosh & Yeragi, Fl. Sacred Grove Thiruvananthapuram 149. 2012; Nayar *et al.*, Flg Pl. Western Ghats 817. 2014. (**Rutaceae**).

Climbing shrubs with sharp stout thorns; bark greyish-brown, rough. Leaves alternate, 3-foliolate; leaflets 6-9 x 2.5-4 cm, elliptic-oblong, acute at base, acuminate and plicate at apex, recurved at margins; lateral nerves and reticulation faint. Flowers in axillary fascicled racemes. Berry to 2 cm long, ellipsoid and pitted.

Anchal Panachavila Sree Bhutha Nadha Temple. *SK187*. *Fl. & Fr.*:Sept.- Jul. *Dist.*: Endemic to the Western Ghats.

Meiogyne pannosa (Dalz.) Sinclair, Sarawak Mus. J. 5: 604. 1951; Mohanan, Fl. Quilon Dist. 63. 1984; Mitra in B.D.Sharma *et al.* (Eds.), Fl. India 1: 266. 1993; Mohanan & Henry, Fl. Thiruvananthapuram 46. 1994; Subram., Fl. Thenmala 5. 1995; Sasidharan, Biodiv. Doc. Kerala Flg Pl. 17. 2004; M.Mohanan in P. Daniel, Fl. Kerala 149. 2005; Nayar *et al.*, Flg Pl. Kerala 57. 2006; Santhosh & Yeragi, Fl. Sacred Grove Thiruvananthapuram 64. 2012; Nayar *et al.*, Flg Pl. Western Ghats 79. 2014. *Unona pannosa* Dalz.in Hooker's. J. Bot. Kew Gard. Misc. 3: 207. 1851; Hook.f. & Thoms. in Hook.f., Fl. Brit. India 1: 58. 1872; Dunn in Gamble, Fl. Madras 14. 1915. (**Annonaceae**).

Small trees or large shrubs; bark grey, smooth, often lenticellate; young shoots minutely pubescent. Leaves 5-8 x 2.5-5 cm, elliptic or elliptic-oblong or lanceolate, obtuse or rounded at base, caudate-acuminate at apex, glabrous above, pubescent on the nerves beneath; lateral nerves 6-9 pairs, faintly reticulate; petiole to 0.6 cm long; slender, pubescent. Pedicels short, to 0.3 cm long. Flowers solitary, axillary or terminal, creamy-white, fragrant. Sepals 3, to 5 x 4 mm, ovate, connate at base, glabrous within. Petals to 5 x 1.5 cm, ovate or oblong, acute at apex; outer spreading, inner erect, slightly narrower than outer. Stamens numerous, connective concealing the anthers. Carpels 10-12, sessile or subsessile, strigosely hairy. Fruitlets 1-1.2 x 0.6-0.8 cm, shortly elongate, constricted between Seeds, fulvous tomentose. Seeds globose, 2-3 per fruitlet.

Ayiravally Sree Bhadra Bhagavathy Temple *SK 134* ; Kundayam Sree Kovil Durga Devi Temple *SK 1411*; Nagarukavu, Anchal *SK 2383*; Kulakkada Kavuvu *SK 3455*; Sarpakavu Kulakkada *SK 3509*; Sree Mahadevar Temple, Ivar East *SK 4233*; . *Fl. & Fr.*: Round the year. *Dist.*: Endemic to the Western Ghats. Local Name: *Panthalmaram*.

Meiogyne ramarowii (Dunn) Gandhi in Saldanha & Nicolson, Fl. Hassan Dist. 38. 1976; Mohanan, Fl. Quilon Dist. 63. 1984; Mitra in B. D. Sharma *et al.*, Fl. India 1: 266. 1993; Sasidharan, Biodiv. Doc. Kerala Flg Pl. 17. 2004. *Unona ramarowii* Dunn, Bull. Misc. Inform. Kew 1914: 183. 1914; Gamble, Fl. Pres. Madras 15(10). 1915. *Desmos ramarowii* (Dunn) Das, Bull. Bot. Surv. India 5: 42. 1963. (**Annonaceae**).

Shrubs, bark grey; branchlets hirsute. Leaves 8-12 x 2-4 cm, oblong, acuminate at apex, rounded at base, hirsute below, nervules parallel; petiole 8-10 mm long. Flowers dull white, sessile. Sepals 10-12 x 5-7 mm, ovate, acute, hispid. Petals narrowly ovate-lanceolate, saccate at base, densely hispid. Carpels densely villous. Fruitlets 2-2.5 x 0.8-1 cm, red, oblong, shortly stalked, tomentose, depressed between seeds. Seeds 1-3, globose.

Thiru Thazhakkadu Surpakavu Bhagavathy Temple, Kollam, *SK 9810*; Mullikkala Sree Siva Bhadrakali Temple Kottathala vendar, Puthur, *SK 9960*. *Fl.&Fr.*: Round the year. *Dist.*: Endemic to the southern Western Ghats.

Memecylon deccanense C.B. Clarke in Hook.f., Fl. Brit. India 2:560. 1879; Gamble, Fl. Madras 505. 1919; Mohanan *et al.* in Bull. Bot. Surv. India 22: 106. 1980; Sasidharan, Biodiv. Doc. Kerala Flg Pl. 181. 2004; Nayar *et al.*, Flg Pl. Kerala 413. 2006; Santhosh & Yeragi, Fl. Sacred Grove Thiruvananthapuram 260. 2012; Nayar *et al.*, Flg Pl. Western Ghats 630. 2014. *Memecylon wightianum* Triana in Trans. Linn. Soc. London 28: 158. 1871. (**Melastomataceae**).

Shrubs; branchlets sub-quadrangular. Leaves 5-12 x 1.5-2.7 cm, narrowly elliptic-lanceolate, rounded at base, acuminate to shortly caudate at apex, slightly revolute at margins; lateral nerves faint, to 15 pairs. Inflorescence condensed, umbel shaped, to 14 mm in diam.; pedicels to 2 mm long, slightly longer than calyx; flower buds obtuse to rounded, with exposed petals. Calyx to 2.5 mm wide, often papillose without, shallowly furrowed with faint radiating wings inside, shallowly 4-toothed; lobes triangular. Fruits globose, to 8 mm in diameter, red turning black when ripe.

Mandapathu Nagaraja Temple Kavu Pakalkuri SK 068. *Fl. & Fr.*: Jan.- May. *Dist.*: Endemic to the Western Ghats.

Memecylon depressum Benth. ex Triana, Trans. L. Soc. London 25: 158. 865-1866; Gamble, Fl. Madras 505. 1919. Mohanan, Fl. Quilon Dist. 185. 1984; Subram., Fl. Thenmala . 140. 1995; Sasidharan, Biodiv. Doc. Kerala Flg Pl.181 . 2004; Nayar *et al.*, Flg Pl. Kerala 411. 2006; Santhosh & Yeragi, Fl. Sacred Grove Thiruvananthapuram 261. 2012; Nayar *et al.*, Flg Pl. Western Ghats 626. . 2014; E. Vajravelu & K. Althaf Ahamed Kabeer, Fl. India 386. 2016. *M. amplexicaule* Roxb. var. *malabarica* C.B. Clarke in Hook.f., Fl. Brit. India 2:559. 1879, p.p. (**Melastomataceae**).

Shrubs; branchlets subterete. Leaves 8-12 x 3-4.5 cm, oblong-lanceolate or elliptic-lanceolate, rounded or subcordate at base, acute or acuminate at apex, glabrous; lateral nerves 12-15 pairs, faint, slender; petiole to 2-3 mm long. Flowers fascicled on tubercles; pedicels slender, 2.5 mm long. Calyx campanulate; lobes obscure, pink. Berry globose, crowned by calyx limb.

Murthy Kavu Chennilamon SK 1135. *Fl. & Fr.*: Jan.-Aug.. *Dist.*: Endemic to the Western Ghats. Local Name: *Kashavu, Kaikkathetti*.

Memecylon randerianum S.M. & M.R.Almeida, J. Bombay Nat. Hist. Soc. 85: 521. 1989; Mohanan, Fl. Quilon Dist. 186. 1984; Subram., Fl. Thenmala 137. 1995; Sasidharan, Biodiv. Doc. Kerala Flg Pl. 182. 2004; Nayar *et al.*, Flg Pl. Kerala 412. 2006; Nayar *et al.*, Flg Pl. Western Ghats 628. 2014. *M. malabaricum* (Clarke) Cogn. in A. & C.DC., Monog. Phan. 7:1148. 1891; Gamble, Fl. Pres. Madras 505(357). 1919; *Memecylon amplexicaule* var. *malabarica* Clarke in Hook.f. Fl. Brit. India 2: 559. 1879. (**Melastomataceae**).

Shrubs; Branchlets slender. Leaves 4.5 x 2.5 cm, ovate, obtusely acuminate, sessile or shortly petiolate, greenish when dry; nerves 9 pairs. Cymes 1 cm across, many flowered; peduncle short or absent; pedicel 2.5 mm long, slender; bracts fulvous- tomentose. Flowers 2.5 mm across. Calyx shortly 4 toothed, puberulous outside; Petals 1.5 x 1.5 mm, ovate acute, blue; filaments 2.5 mm long, anthers curved; style 3.5mm long.

Pattathikkavu Devi Temple, Kollam SK 1686. *Fl. & Fr.*: Round the year. *Dist.*: Endemic to the Western Ghats.

Myristica malabarica Lam., Hist. Acad. Roy. Sci. Mem. Math. Phys. (Paris) 162. 1791; Bedd., Fl. sylv. S. India t. 269. 1872; Hook.f., Fl. Brit. India 5: 103. 1886; Gamble, Fl. Madras 1213. 1925; Mohanan, Fl. Quilon Dist. 342. 1984; Mohanan & Henry, Fl. Thiruvananthapuram 387. 1994. Subram., Fl. Thenmala 311. 1995; Sasidharan, Biodiv. Doc. Kerala Flg Pl. 394. 2004; Nayar *et al.*, Flg Pl. Kerala 440. 2006; Santhosh & Yeragi, Fl. Sacred Grove Thiruvananthapuram 423. 2012; Nayar *et al.*, Flg Pl. Western Ghats 664. 2014. (**Myristicaceae**).

Medium sized evergreen trees; exudation red. Leaves 8-13 x 2-4 cm, elliptic-oblong, obtuse or rounded at base, acute at apex, coriaceous; lateral nerves slender, faint; petiole 1-1.5 cm long. Flowers unisexual, white or creamy white in axillary slender long peduncled cymes. Perianth 3-lobed, ovoid, 4 mm long, glabrous. Anthers 10-20; staminal column produced above the anthers. Capsule oblong, 6-7.5 x 3-3.5 cm, tomentose; arillus red. Seed 1, shining black.

Ambathekkar Kavu, SK 9956. *Fl. & Fr.* : Feb.-Dec. *Dist.*: Endemic to the Western Ghats. Local Name : *Kattujathi*.

Naravelia zeylanica var. **roxburghii** DC., Prodr. 1:10.1824; Almeida, Fl. Maharashtra 1:5.1996; Santhosh & Yeragi, Fl. Sacred Grove Thiruvananthapuram 54. 2012. *N. zeylanica sensu* Graham, Bombay Pl. 1.1839; Hook.f. & Thoms. in Hook.f., Fl. Brit. India 1: 7. 1872; Dunn in Gamble, Fl. Madras 3. 1915; Rau in B.D.Sharma *et al.*, Fl. India 1: 106. 1993; Mohanan, Fl. Quilon Dist. 59. 1984; Mohanan & Henry, Fl. Thiruvananthapuram 41. 1994; Subram., Fl. Thenmala 1. 1995; Sasidharan, Biodiv. Doc. Kerala Flg Pl. 13. 2004; N.P. Balakrishnan in P. Daniel, Fl. Kerala 115. 2005; Nayar *et al.*, Flg Pl. Kerala 495. 2006; Nayar *et al.*, Flg Pl. Western Ghats 745. 2014. *Atrangenella zeylanica sensu* Roxb., Pl. Coromandel. t. 188. 1805, *non* L.1753. (**Ranunculaceae**).

Climbing shrubs; young shoots velutinous pubescent. Leaves 2-3 foliolate; terminal one often modified into a 3-fid hooked tendril; leaflets 10-15 x 3.5-8 cm, broadly ovate, rounded or cordate at base, acuminate at apex, glabrous above, pubescent beneath. Flowers greenish-yellow in terminal and axillary divaricately branched panicles. Achenes many, 6-7 x 0.7-1 mm, reddish brown, with a long spirally twisted feathery tail.

Ochira Temple Kavu, Ochira Kollam SK 10012, *Fl. & Fr.*: Oct.-Aug. *Dist.*: Endemic to Peninsular India. Local Name: *Vathakkodi, Nara-valli*.

Neolitsea scrobiculata (Meisner) Gamble, Fl. Pres. Madras 1240 (857) 1925; *Litsea scrobiculata* Meisner in

DC., Prodr. 15 (1): 223. 1864. *L. zeylanica* sensu Hook. f., Fl. Brit. India 5: 178. 1886; p.p., non Nees, 1823. Mohanan, Fl. Quilon Dist. 348. 1984; Mitra in B.D.Sharma *et al.* (Eds.), Fl. India 1: 273. 1993; Mohanan & Henry, Fl. Thiruvananthapuram 397. 1994; Sasidharan, Biodiv. Doc. Kerala Flg Pl. 400. 2004; Nayar *et al.*, Flg Pl. Kerala 376. 2006; Nayar *et al.*, Flg Pl. Western Ghats 579. 2014. (**Lauraceae**).

Small trees, Leaves 7-11 by 3.5- 5.5 cm, basally 3-ribbed, acute at base, acuminate at apex, coriaceous. Flowers in umbellules of short racemes, mostly towards the upper leaf- axils; involucre bracts 4: Male flowers: tepals 4; stamens 6 in 2-series, outer eglandular, anthers 2-celled. Female flowers: staminodes 6, linear; ovary ovoid. Berry ellipsoid, seated on perianth tube.

Cheppalikkavu SK 9987. Fl.: & Fr.: Feb.- Jul. Dist.: Endemic to the Western Ghats. Local Name: *Mulakunari*.

Nothopogia travancorica Bedd. ex Hook.f., Fl. Brit. India.; Gamble, Fl. Madras 265. 1918.(**Anacardiaceae**).

Large shrubs, branchlets rusty villous. Leaves 6-11 x 2-2.5 cm, elliptic-oblong, acute at base, acuminate at apex, rusty vilous, coriaceous; lateral nerves 10-15 pairs, parallel; petiole to 5 mm long, rusty villous. Flowers white in short axillary racemes, polygamous, to 5 cm long. Calyx tomentose, persistent. Bisexual flowers: Stamens 4; anthers cordate at base. Ovary ovoid. Drupe globose, 1-1.5 cm across, pinkish-red.

Thrikkannapuram Kappil Bhagvathy Temple SK 5691. Fl. & Fr: Mar.-May. Dist: Endemic to the Western Ghats.

Ormosia travancorica Bedd., Fl. sylv. S. India t. 45. 1870; Baker in Hook.f., Fl. Brit. India 2: 253. 1878; Gamble, Fl. Madras 390. 1918; Sanjappa, Leg. India 223. 1991; Sasidharan, Biodiv. Doc. Kerala Flg Pl. 140. 2004; Nayar *et al.*, Flg Pl. Kerala 297. 2006; Santhosh & Yeragi, Fl. Sacred Grove Thiruvananthapuram 218. 2012; Nayar *et al.*, Flg Pl. Western Ghats 446.2014. (**Fabaceae**).

Large evergreen trees; bark grey, smooth, yellowish-brown inside. Leaves imparipinnate, to 37 cm long; leaflets 7-11 pairs, 8-12 x 2.5-3.5cm, oblong or elliptic-oblong, obtuse-rounded at base, caudate-acuminate at apex; lateral nerves 6-8 pairs, very slender. Flowers in axillary tomentose racemes. Calyx deeply lobed; lobes ovate-oblong, tawny-tomentose. Petals white, clawed; standard suborbicular. Stamens 10, free, filaments unequal. Pods woody, 5-6 x 3-4 cm, oblong, oblique, subacute, glabrous, reddish-brown. Seeds 1 or 2, arils scarlet, oblong.

Kundayam Sree Kovil Durga Devi Temple SK 1430.Fl. & Fr: Jan.-May. Dist: Western Ghats, Konkan southwards, endemic.

Polyalthia longipedicellata (M.Alistar *et al.*.) Shailajakumari, Pathipan, Sreekala *et al.* E.S.S.Kumar, Global J.Bios.Biotech. 8(1):117.2019. *P. malabarica* var. *longipedicellata* M.Alistar, G.Rajkumar, A.Nazarudeen & Pandur., Taiwania 62(3): 306. 2017. *P. malabarica* sensu E.S.S.Kumar *et al.*, Int. J. Bot. Stud. 1(4): 27. 2016. *Phaeanthus malabaricus* Bedd., Icon. pl. Ind. orient. t. 76. 1868-1874; Hook.f. & Thoms. in Hook.f., Fl. Brit. India 1: 72. 1872; Rao, Fl. Pl. Travancore 7. 1914; Dunn in Gamble, Fl. Madras 17. 1915; Das, Bull. Bot. Surv. India 5:43. 1963; Nayar & Sastry, Red Data Book Indian Pl. 3: 16. 1990; Mitra in B.D.Sharma *et al.*(Eds.), Fl. India 1: 230. 1993; M.Mohanan in P. Daniel, Fl. Kerala 161. 2005; Nayar *et al.*, Flg Pl. Kerala 59. 2006; Santhosh & Yeragi, Fl. Sacred Grove Thiruvananthapuram 65. 2012; Nayar *et al.*, Flg Pl. Western Ghats 83. 2014. (**Annonaceae**).

Large shrubs or small trees, to 2.5 m tall; bark lenticellate; branchlets rusty tomentose. Leaves 10-16 x 3.5-5.5 cm, broadly elliptic to oblong, glabrous on both sides, base rounded to subcordate, abruptly acuminate at apex; secondary veins 8-12, on either side of midvein, spreading, conspicuous on both surfaces, lax, arching and looping near the margins; petiole 2-3 mm long, glabrous. Flowers usually solitary or rarely two together, axillary or extra-axillary, leaf-opposed; pedicel 1.5 cm long, sparsely strigose; bracteoles 2, ovate, at the base of pedicel, minute. Sepals 2.5-3 mm long, deltoid, acute, rusty tomentose, spreading. Petals flesh coloured, rarely slightly reddish; outer petals to 9 x 5 mm, rhomboidal, spreading, acute at apex, shorter than inner petals, fleshy, flat and spreading, outside slightly pubescent, inside glabrous; inner petals 12 x 8 mm, ovate, concave, acute at apex. Stamens many, ca. 1 mm long; connectives slightly raised at apex. Carpels many, pubescent; ovules 1 or 2 per carpel, sigma obovate, sparsely pilose at apex. Infructescence stalk to 1.5 cm long, thick; monocarps globose, ca. 8 mm in diam., sparsely strigosely, shortly pointed. Seed 1 per monocarp.

Pattathikkavu Devi Temple, Kollam SK 1709. Fl. & Fr.:Dec.-Apr. Dist.: Endemic to Southern Western Ghats.

Premna glaberrima Wight, Icon. pl. Ind. orient. t. 1848. 1849; C.B. Clarke in Hook.f., Fl. Brit. India 4:577. 1885; Gamble, Fl. Madras 1096. 1924; Mohanan, Fl. Quilon Dist. 315. 1984; Mohanan & Henry, Fl. Thiruvananthapuram 359.1994; Sasidharan, Biodiv. Doc. Kerala Flg Pl. 361. 2004; Nayar *et al.*, Flg Pl. Kerala 620. 2006; Santhosh & Yeragi, Fl. Sacred Grove Thiruvananthapuram 399. 2012; Nayar *et al.*, Flg Pl. Western Ghats 913. 2014. (**Verbenaceae**).

Scandent shrubs; young shoots glabrous. Leaves 9-13 x 4-7 cm, elliptic-oblong or oblanceolate, truncate at base, obtusely acuminate at apex, entire at margins; lateral nerves 5-6 pairs; petiole to 1.5 cm long. Flowers in terminal corymbs, to 7 cm long; bracts small, linear. Corolla tubular, 2-lobed, villous within; lobes subequal. Stamens 4, didynamous. Drupe globose, black at maturity.

Madannadakavu SK 9906. *Fl. & Fr.*: Mar.-Sept. *Dist.*: Endemic to the Western Ghats.

Psychotria flavida Talbot, Trees & Shrubs Bombay, 113. 1894; Gamble, Fl. Madras 641. 1921; Deb. & Gang., J. Econ. Tax Bot. (Addl. Ser.) 7: 89. 1989; Mohanan, Fl. Quilon Dist. 219. 1984; Mohanan & Henry, Fl. Thiruvananthapuram 243 1994; Subram., Fl. Thenmala . 178. 1995; Sasidharan, Biodiv. Doc. Kerala Flg Pl. 231 . 20 Nayar *et al.*, Flg Pl. Kerala 537. 2006; Santhosh & Yeragi, Fl. Sacred Grove Thiruvananthapuram 298. 2012; Nayar *et al.*, Flg Pl. Western Ghats 801. 2014. (**Rubiaceae**).

Subshrubs; branchlets terete, glabrous. Leaves 10-18 x 3-5 cm. elliptic-oblong, attenuate at base, acute or shortly acuminate at apex, coriaceous, glabrous; lateral nerves 10-12 pairs; petiole to 2.5 cm long. Flowers white in terminal peduncled corymbose cymes. Calyx shortly toothed. Corolla densely hairy in the throat. Drupe subglobose, 5 mm wide, bluish-purple; peduncle and pedicels yellow. Seeds smooth.

Thiruvor Kavu SK 7617. *Fl. & Fr.*: Nov.-Jul. *Dis.*: Endemic to the Western Ghats.

Psychotria nudiflora Wight & Arn., Prodr., fl. Ind. orient. 434. 1834; Hook.f., Fl. Brit. India 3:175. 1880; Gamble, Fl. Madras 641. 1921; Mohanan, Fl. Quilon Dist. 219. 1984; Mohanan & Henry, Fl. Thiruvananthapuram 244 1994; Subram., Fl. Thenmala . 178. 1995; Sasidharan, Biodiv. Doc. Kerala Flg Pl. 232. 2004; Nayar *et al.*, Flg Pl. Kerala 538. 2006; Santhosh & Yeragi, Fl. Sacred Grove Thiruvananthapuram 299. 2012; Nayar *et al.*, Flg Pl. Western Ghats 803. 2014. (**Rubiaceae**).

Subshrubs; branchlets glabrous. Leaves 10-17 x 2-4.5 cm, lanceolate to oblanceolate, acute to attenuate at base, acute at apex, coriaceous, glaucous below; lateral nerves 11-13 pairs; stipule ovate, bifid at apex. Flowers in dichotomously branched corymbose cymes. Corolla white, 4 mm long, with a ring of hairs at mouth. Drupe black at maturity.

Thernakala Muhoorthy kavu Temple, Perumkulm SK 5122. *Fl. & Fr.*: Nov.-Mar. *Dist.*: Endemic to the Western Ghats.

Pterospermum rubiginosum Heyne ex Wight & Arn., Prodr. fl. Ind. orient. 68. 1934; Bedd., Fl. sylv. S. India t.

106. 1871; Mast. in Hook.f., Fl. Brit. India 1:365. 1874; Rao, Fl. Pl. Travancore 49. 1914; Dunn in Gamble, Fl. Madras 109. 1915; Nayar *et al.*, Flg Pl. Kerala 592. 2006; Santhosh & Yeragi, Fl. Sacred Grove Thiruvananthapuram 126. 2012; Nayar *et al.*, Flg Pl. Western Ghats 877. 2014. (**Sterculiaceae**).

Medium sized trees. Leaves 4-7 x 1.5-2 cm, oblong, unequal at base, acuminate at apex, glabrous above and white tomentose beneath; lateral nerves 4-5 pairs. Flowers greenish-white, solitary, axillary. Sepals linear, to 4.5 cm long. Petals 5, linear, slightly shorter than sepals. Stamens 15; staminodes 5; staminal column adnate to gynophore. Capsule narrowly oblong.

Sree Krishnan Kovil Manjallur, Pathanapuram, SK 9936. *Fl. & Fr.*: Nov.-Apr. *Dist.*: Endemic to the Western Ghats.

Rauvolfia micrantha Hook.f., Fl. Brit. India 3: 633. 1882; Gamble, Fl. Madras 808. 1919; Henry *et al.*, Fl. Tamil Nadu, Ser. 2: 79. 1987; Santhosh *et al.* in Ann. Forestry 6(2): 223. 1998; Sasidharan, Biodiv. Doc. Kerala Flg Pl. 282. 2004; Nayar *et al.*, Flg Pl. Kerala 73 2006; Santhosh & Yeragi, Fl. Sacred Grove Thiruvananthapuram 336. 2012; Nayar *et al.*, Flg Pl. Western Ghats 101. 2014. (**Apocynaceae**).

Shrubs. Leaves oblanceolate, 8-12 x 2.5-4 cm, acute at base, acuminate-caudate at apex, glabrous; lateral nerves 10-13 pairs. Flowers white in terminal dense cymes; peduncle to 6 cm long, erect. Calyx lobes 5, short. Corolla to 5 mm long. Anthers sagitate; filaments short. Fruits to 8 mm long, acute at apex. Seeds slightly rugose.

Changayilkavu SK 4786. *Fl. & Fr.*: Round the year. *Dist.*: Endemic to Southern Western Ghats.

Note: Addition to the flora of Kollam district.

Salacia fruticosa Heyne ex Lawson in Hook. f. Fl. Brit. India 1: 628. 1875; Gamble, Fl. Pres. Madras 215. 1918; Mohanan, Fl. Quilon Dist. 116. 1984; Mohanan & Henry Fl. Thiruvananthapuram 118. 1994; K. Raman & B. D. Naithani in N. P. Siingh *et al.*, Fl. India 5: 153. 2000; Sasidharan, Biodiv. Doc. Kerala Flg Pl. 99. 2004; K. Ramam. & P. Venu in P. Daniel, Fl. Kerala 1: 720. 2005; Nayar *et al.*, Flg Pl. Kerala 175. 2006; Nayar *et al.*, Flg Pl. Western Ghats 268. 2014. (**Hippocrateaceae**).

Woody Climbing shrubs. Leaves 3.8-7 x 2-5 cm, elliptic-oblong, apex obtusely acuminate, rounded or cuneate at base, coriaceous, petiole c. 5mm long. Cymes axillary; pedicels 3-5mm long. Calyx 5-lobed minute; lobes minutely ciliate on margins. Petals 5 brownish yellow, c.2mm across, orbicular; disk fleshy. Stamens 3, inserted on the inner margin of the disc, filaments broad, curved. Ovary globose, minute, partially sunk in the disc 3-celled, ovules 2-8 in each cell. Berry. 2-2.5 cm across, globose, red. Seeds 1-3.

Sree Madankavu, Patoor SK 1610. *Fl. & Fr.*: Throughout the year. *Dist.*: Endemic to the Western Ghats. Local Name: *Korandi*.

Salacia malabarica Gamble, Kew Bull. 1916: 133. 1916 & in Fl. Pres, Madras 215. 1918. K. Ramam. & B. D. Naithani in N.P. Singh *et al.*, Fl. India 5: 151. 2000; Sasidharan, Biodiv. Doc. Kerala Flg Pl. 99. 2004; M. Mohanan in P. Daniel, Fl. Kerala 719. 2005; Nayar *et al.*, Flg Pl. Kerala 60. 2006; Santhosh & Yeragi, Fl. Sacred Grove Thiruvananthapuram 167. 2012; Nayar *et al.*, Flg Pl. Western Ghats 268. 2014. (**Hippocrateaceae**).

Glabrous climbing shrubs. Leaves simple, opposite, 5-9 x 2.5-5 cm, elliptic-oblong, rounded at base, acute to acuminate at apex, entire at margins, coriaceous. Flowers greenish-brown, fascicled in axillary tubercles. Calyx fringed, persistent. Petals oblong, rounded at apex. Berry globose, orange-yellow, 3.5-5 cm across. Seeds 1-2, covered with mucilaginous pulp.

Kundayam Sree Kovil Durga Devi Temple SK 1430. *Fl. & Fr.*: Dec.- Aug. *Dist.*: Endemic to the Western Ghats.

Semecarpus auriculata Bedd., Fl. sylv. S. India 2: t. 232. 1872 & Icon. pl. Ind. orient. t. 187. 1868-1872; Hook. f., Fl. Brit. India 2: 32. 1876; Gamble, Fl. Madras 267. 1918; Mohanan, Fl. Quilon Dist. 130. 1984; Mohanan & Henry, Fl. Thiruvananthapuram 46. 1994; Chandra & Mukh. in N.P. Singh & *al.*, Fl. India 5: 502. 2000; Sasidharan, Biodiv. Doc. Kerala Flg Pl. 113. 2004; V. Chandra in P. Daniel, Fl. Kerala 816. 2005; Nayar *et al.*, Flg Pl. Kerala 52. 2006; Santhosh & Yeragi, Fl. Sacred Grove Thiruvananthapuram 189. 2012; Nayar *et al.*, Flg Pl. Western Ghats 75. 2014. (**Anacardiaceae**).

Large trees; bark grey, smooth; branchlets thick. Leaves 10-20 x 1.8-4 cm, oblanceolate, auriculate at base, acuminate at apex, glabrous; lateral nerves 12-17 pairs; Flowers polygamo-dioecious in axillary panicles. Male flowers: 4 mm across, 3-5 merous. Calyx slightly pubescent. Female flowers much larger than male flowers, greenish-yellow, 4-5 merous. Fruits a drupe, 1.8 x 1.2 cm, oblique, black when ripening.

Edamanakkavu Sree Ardhha Nareeswara Temple Pattazhy SK 2932; Thernakala Muhurthy Kavay, Perumkulam SK 5114. *Fl. & Fr.*: Nov.- Mar. *Dist.*: Endemic to the Western Ghats.

Sida ravii Sivad. & Anil Kumar, Willdenowia 25: 651. 1996. (**Malvaceae**).

Erect subshrubs grows upto 1 m high. Leaves 3-9 x 1-4.5 cm, ovate-lanceolate or elliptic to lanceolate, more or less cordate or rounded at the base, crenate to serrate at margins; stipules linear. Flowers yellow, solitary, axillary, pedicels erect. Calyx widely campanulate. Mericarp 8-10, compressed radially, outer surface

reticulately ribbed, glabrous, apex divergent, mucronate on a distinct shoulder, glabrous or sparsely stellately hairy.

Sree Indilayappan Swami Temple Vellayappan Kavay, Kollam SK 9943. *Fl. & Fr.*: Round the year. *Dist.*: Endemic to the southern Western Ghats.

Sonerila sahyadrica Giri & Nayar, Bull. Bot. Surv. India 26: 174. 1984; Sasidharan, Biodiv. Doc. Kerala Flg Pl. 186. 2004; Nayar *et al.*, Flg Pl. Kerala 418. 2006; Santhosh & Yeragi, Fl. Sacred Grove Thiruvananthapuram 265. 2012; Nayar *et al.*, Flg Pl. Western Ghats 636. 2014. (**Melastomataceae**).

Annual herbs, stem 4-angled; roots tuberous. Leaves 3.5-10 x 1.8-5 cm, ovate or elliptic, obtuse at base, acute or shortly acuminate at apex, serrulate along the margins, crispate hairy on both sides; petiole to 3 cm long. Flowers in scorpioid cymes; peduncles to 8.5 cm long; pedicels and calyx tube sparsely hairy. Petals pink, orbicular, 0.4-0.5 cm across. Stamens 3, equal; anthers yellow, dehisces by apical pores. Capsule more or less 6-ribbed. Seeds many, smooth.

Vishnu Temple Vencheppu SK 567. *Fl. & Fr.*: Jul.- Sept. *Dist.*: Endemic to the Western Ghats.

Strobilanthes barbatus var **bonaccordensis** E.S.S. Kumar & Rajvikraman, J. Econ. Tax. Bot. 25(3): 742. 2001; Sasidharan, Biodiv. Doc. Kerala Flg Pl. 352. 2004; Nayar *et al.*, Flg Pl. Kerala 32. 2006; Nayar *et al.*, Flg Pl. Western Ghats 45. 2014. (**Acanthaceae**).

Shrubs to 3 m high; stem subterete. Leaves 7-18 x 3-9 cm, elliptic or elliptic-ovate, attenuate at base, acuminate at apex, crenate-serrulate at margin, chartaceous; lateral nerves 5-7 pairs, oblique; petiole to 5 cm long. Flowers in capitate heads; peduncle to 3 cm long; bracts ovate, cuspidate at apex. Calyx united to middle. Corolla white, to 1.5 cm long. Stamens 4, didynamous. Ovary glabrous. Fruit not seen.

Ambathekkar Kavay, SK 9915. *Fl.*: Jun.-Aug. *Dist.*: Endemic to Kerala.

Note: The present collection hence form a new distributional record for the study area.

Strophanthus wightianus Wall ex Wight, Ic. t. 1301. 1848; Hook. f., Fl. Brit. India 3: 666. 1882; Gamble, Fl. Pres. Madras 817. 1923; Sasidharan, Biodiv. Doc. Kerala Flg Pl. 284. 2004; Nayar *et al.*, Flg Pl. Kerala 73. 2006; Nayar *et al.*, Flg Pl. Western Ghats 102. 2014. (**Apocynaceae**).

Climbing shrubs; stem, petioles and peduncles violet in colour. Leaves 8-10 x 2.5-3 cm, elliptic to elliptic ovate, acute at apex, attenuate at base; veins 8-12 pairs, looped to form intramaginal vein. Flowers in terminal branched

cymes. Corolla brown, tube 0.7- 0.8 cm long, widened at throat. Follicles stout. 8-10 cm long, 0.2 cm wide, tapering to tip. Seeds many, ovoid, compressed, 0.6-0.8 cm long tipped with silky coma.

Mandapathu Nagaru Kavau *SK 10024. Fl. & Fr.*: Mar.-Jan. *Dist.*: Endemic to India. Local Name. : *Kambetti, Neyvalli*.

Syzygium travancoricum Gamble, Bull. Misc. Inform. Kew. 1918: 240. 1918 & Gamble, Fl. Pres. Madras 480.1919, Mohanan Fl. Quilon Dist. 182. 1984; M. Mohanan & Henry, Fl. Thiruvananthapuram 192. 1994; Sasidharan, Biodiv. Doc. Kerala Flg Pl. 179. 2004; Nayar *et al.*, Flg Pl. Kerala 453. 2006; Nayar *et al.*, Flg Pl. Western Ghats 679. 2014.(**Myrtaceae**).

Large evergreen trees, 20-25 m high, bark surface greyish-brown, longitudinally fissured, peeling off in thin irregular flakes, inner bark grey; branchlets tetragonous. Leaves 8-16 x 5-8.5 cm, ovate or ovate-oblong, base narrowed and decurrent on petiole, acuminate at apex, acumen folded, entire at margins, chartaceous, glabrous; lateral nerves 10-15 pairs, parallel; petiole 10-20 mm long, stout, grooved above, glabrous. Flowers bisexual, white, mostly in axillary lax; cymose corymbose; peduncle upto 6 cm long, ascending. Petals white, calyptrate. Fruit a berry, oblongoid, 0.8-1 x 0.3-0.5 cm, deep violet, pericarp juicy. Seed one.

Murthy Kavau Chennilamon *SK 1135. Fl. & Fr.*: March-June. *Dist.*: Endemic to the Western Ghats. Local Name. : *Poriyal*.

Tabernaemontana alternifolia L., Sp. Pl. 1: 211. 1753; Nayar *et al.*, Flg Pl. Western Ghats 102. 2014. *T. heyneana* Wall.in Edward's Bot. Reg. 15: t. 1273. 1829; Hook.f., Fl. Brit. India 3:646. 1882; Mohanan, Fl. Quilon Dist. 255. 1984; Subram., Fl. Thenmala Div. 217. 1995; Sasidharan, Biodiv. Doc. Kerala Flg Pl. 285 . 2004; Nayar *et al.*, Flg Pl. Kerala 74. 2006; Santhosh & Yeragi, Fl. Sacred Grove Thiruvananthapuram 343. 2012. *Ervatamia heyneana* (Wall.) Cooke, Fl. Pres. Bombay 2: 134. 1904; Gamble, Fl. Madras 813. 1923. (**Apocynaceae**).

Small deciduous trees; bark greyish, rough. Leaves 10-18 x 3.5-7 cm, elliptic-oblong or oblong-lanceolate, acute at base, shortly acuminate at apex, coriaceous. Flowers white in terminal corymbose cymes. Corolla tube to 2.5 cm long; lobes 1.5 cm long, margin crisped. Follicle orange-yellow, to 3 x 1 cm, divaricate. Seeds many, covered with pale arils.

Thuruthiyil Muhurthykavu Poovathur *SK 5026*; Madan kavu, Pattazhy Vadakkekara *SK 3238*; Vellaramon Sree Bhadra Devi Temple *SK 1444*; Thernakala Muhurthy Kavau Perumkulam *SK 5108.Fl. & Fr.*: Nov.- Jun. *Dist.*: Endemic to the Western Ghats.

Terminalia paniculata Roth, Nov. Sp. Pl. 383. 1821; Bedd., Fl. sylv. S. India t. 20. 1869; C.B. Clarke in Hook.f., Fl. Brit. India 2:448. 1878; Gamble, Fl. Madras 465. 1919; Mohanan, Fl. Quilon Dist. 175. 1984; Mohanan & Henry, Fl. Thiruvananthapuram 184. 1994; Subram., Fl. Thenmala 130. 1995; Sasidharan, Biodiv. Doc. Kerala Flg Pl.172 . 2004; Nayar *et al.*, Flg Pl. Kerala 187. 2006; Santhosh & Yeragi, Fl. Sacred Grove Thiruvananthapuram 250 . 2012; Nayar *et al.*, Flg Pl. Western Ghats 283. 2014.(**Combretaceae**).

Large deciduous trees; bark brown with shallow vertical grooves, reddish inside. Leaves 12-16 x 5-8 cm, ovate-oblong or oblong, obtuse or cordate at base, acute at apex, coriaceous, glabrous; lateral nerves 10-15 pairs; petiole with 2 glands, sessile at the base of leaf lamina. Flowers in axillary and terminal paniced spikes. Drupes 1 x 1.5 cm, rusty tomentose; wings 3, unequal, median one long.

Surpakavu Piravanthur *SK 899*; Kaithodu Sree Krishna Swami Temple *SK 233. Fl. & Fr.*: Throughout. *Dist.*: Endemic to the Western Ghats. Local Name: *Poomaruth, Vellamaruth*.

Vateria indica L., Sp. Pl. 515. 1753; Dyer in Hook. f., Fl. Brit. India 1: 313. 1874; Rao, Fl. Pl. Travancore 36. 1914; Dunn in Gamble, Fl. Madras 85. 1915; Mohanan, Fl. Quilon Dist. 84. 1984; K. P. Janardh. in B.D.Sharma & Sanjappa (Eds.) Fl. India 3: 245. 1993; Mohanan & Henry, Fl. Thiruvananthapuram 75. 1994; Subram, Fl. Thenmala 28. 1995; Sasidharan, Biodiv. Doc. Kerala Flg Pl. 45. 2004; K. P. Janardh. & P. Aridason in P. Daniel, Fl. Kerala 1: 370. 2005; Nayar *et al.*, Flg Pl. Kerala 219. 2006; Santhosh & Yeragi, Fl. Sacred Grove Thiruvananthapuram 103. 2012; Nayar *et al.*, Flg Pl. Western Ghats 327. 2014. *V. malabarica* Bl., Mus. Bot. 2: 29. 1852; Bedd., Fl. sylv. S. India t. 84. 1871. (**Dipterocarpaceae**).

Large handsome resinous trees. Leaves 12-23 x 5-10 cm, elliptic-oblong, cordate or rounded at base, obtuse or shortly pointed at apex, glabrous; lateral nerves 12-15 pairs. Flowers white in profusely branched terminal panicles. Sepals free upto the base, oblong-lanceolate. Petals a little longer than the sepals. Capsule to 8 cm long, oblong, obtuse at apex, 3-valved.

Sree Indilayappan Swami Temple Vellayappan Kavau, Kollam *SK 1574. Fl.&Fr.*: Feb.-Nov. *Dist.*: Endemic to the Western Ghats: Local Name: *Payin, Kunthirikkapayin, Velutha kunthirikkam*.

Xanthophyllum arnottianum Wight, Ill. Ind. Bot. 1:50.t. 23. 1838; Sasidharan, Biodiv. Doc. Kerala Flg Pl. 36. 2004; M. Mohanan in P. Daniel, Fl. Kerala 307. 2005; Nayar *et al.*, Flg Pl. Western Ghats 931. 2014. *X. flavescens* Roxb., Pl. Coromandel. 3: 81, t. 284. 820; Bennett in Hook.f., Fl. Brit. India 1: 209.1874; Rao, Fl. Pl. Travancore 26.1914; Dunn in Gamble, Fl. Madras 1:

59. 1915; Mohanan, Fl. Quilon Dist. 64. 1984; Banerjee & Balakrishnan in B.D. Sharma *et al.* (Eds.), Fl. India 2:497. 1993; Mohanan & Henry, Fl. Thiruvananthapuram 66. 1994; Subram., Fl. Thenmala 19. 1995; Santhosh & Yeragi, Fl. Sacred Grove Thiruvananthapuram 91. 2012. (**Xanthophyllaceae**).

Small trees, bark smooth, greenish-black, mottled with grey. Leaves 6-16 x 3.5-8 cm, elliptic-oblong or ovate-lanceolate, acute at base, acuminate at apex, entire at margin, shining and dark green above, dull beneath, yellow when dry. Flowers yellowish-white in axillary and extra axillary racemes, also in terminal panicles. Fruit subglobose to 2 cm wide, green, rugose, 1-seeded.

Vilarithala Sree Mahadevar Temple SK 5067; Pangodu Devi Temple SK 5489; Kannarakalariyil Bhagavathy Temple, Puthur SK 5774. *Fl. & Fr.*: Throughout the year. *Dist.*: Endemic to the Western Ghats. Local Name: *Mottal, Madakka*.

CONCLUSION

Sacred groves play a significant role in the conservation of local flora particularly the endemics of the region. Most of these taxa are locally very rare and are effectively preserved over many years from all vagaries of external interventions due to religious restrictions and taboos. The local communities are sustainably utilized them wisely and their over exploitation are checked due to religious regulations. It is evident that biodiversity conservation can effectively be implemented through people participation and sacred groves are one of such paramount examples prevailed in Indian culture. This noble way of plant conservation of Indians can be adopted in other religious communities of the world for preserving their native species from peril.

ACKNOWLEDGEMENTS

The authors are grateful to the Director, JNTBGRI for the facilities provided. The senior author is thankful to the authorities of Manonmaniam Sundaranar University for the logistic supports.

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