

A P H O T O G R A P H I C G U I D E



ENDEMIC
**WOODY
PLANTS**

OF THE WESTERN GHATS

NAVENDU PAGE

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A PHOTOGRAPHIC GUIDE

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Introduction

The Western Ghats of India is a UNESCO World Heritage Site, and is one of the eight most bio-diverse regions in the world. The 160,000 sq km of the Ghats harbor several species of woody plants that are endemic to its narrow strip of rainforest. Many of these species are poorly documented in the botanical literature and our understanding of their distribution and population status is far from complete. The conservation status of a majority of these endemic species of woody plants is yet to be assessed, or many have been assigned a conservation status based on incomplete information.

The lack of scientifically robust information on diversity, distribution and intensity of threats to these species is a major impediment in carrying out reliable and objective evaluations. The purpose of this booklet is to address some of these shortfalls. A 100 species of endemic woody plants are pictorially showcased here, along with their distribution maps and conservation status based on systematic surveys carried out in more than 40 locations across the Western Ghats. This booklet is primarily targeted at the State Forest Departments, students, researchers and plant enthusiasts, to make them familiar with and aware of some of the endemic and threatened tree species of the Western Ghats.



Species Pages

This booklet features 100 out of the 350 odd species of woody plants that are endemic to the Western Ghats (or in some cases also distributed in other parts of south India and Sri Lanka). There were no definite criteria used for short-listing these species, but the list is representative of common, widely distributed species as well as those that have very small geographic distributions. They are arranged in order of their conservation status, starting with those that are not of immediate conservation concern (Least Concern), to species that are at risk to becoming Threatened (Vulnerable), to those that are most threatened with extinction (Endangered and Critically Endangered). Each page has been given a color code (top margin) that represents the conservation status of the species and follows the same color scheme as suggested by the IUCN.

Information on every species includes the current accepted scientific name, family (following the Angiosperm Phylogeny Group) and common or vernacular names, if available. Also featured are photographs of the vegetative and reproductive stages, depicting peculiar or diagnostic characters. Species descriptions have been kept brief and their purpose is primarily to provide details of dimensions of leaf, flowers and fruits, which cannot be inferred from the images. Additional information on characters that can be used to distinguish morphologically similar species is also given for certain species.

Geographic Distribution

Information on species' geographic distribution includes elevational limits as well as latitudinal and longitudinal extent. The total area of geographic distribution was quantified using two measures - Extent of Occurrence (EOO) and Area of Occupancy (AOO). EOO was estimated by projecting all the known distributional records of a species on a map and then calculating the minimum convex polygon (MCP) i.e. the area bounded by connecting outermost occurrence locations of a species.

The AOO is a measure of suitable habitat within the limits of EOO. The AOO presented in this book was estimated by carrying out ecological niche modeling using the Maximum Entropy (MaxEnt) software. The predicted distribution of a species along with the occurrence locations recorded as a result of this study is presented on the AOO distribution maps. Green color represents areas that are less suitable to a species in terms of its climatic niche while red areas represent areas of relatively high suitability and high probability of occurrence. Distribution maps and AOO values could not be derived for data deficient species and hence have not been provided.

Conservation Status

The most important outcome of my four years of extensive fieldwork in the Western Ghats has been the assessment of species' conservation status based on comprehensive data on their geographic distribution. I have assigned a conservation status based on the estimates of the geographic range size (i.e. EOO and AOO), by primarily following the criterion B outlined in the IUCN Status Assessment Guidelines, referred to here as 'Current Assessment'. Many species were assessed for the first time. In other cases, there was a re-assessment of previously assigned conservation status by the IUCN (2000). In cases where both assessments differed, the Current Assessment is provided alongside IUCN's 'Previous Assessment'. The code that appears after the status in case of threatened species refers to the criteria used (e.g. Endangered B1ab). Certain rare or narrowly endemic species for which sufficient data on species distribution could not be collected were categorized as 'Data Deficient'.

References

Information on species vernacular names, morphological description and IUCN status has been acquired from the following sources. These are excellent resources for acquiring further information on identification, distribution, ecology and conservation status of evergreen woody plants of the Western Ghats. The meaning and explanation of the botanical terms used in this book can be found in reference number 6.

1. BIOTIK – Online application on identification and ecology of the evergreen woody plants of the Western Ghats. The French Institute, Pondicherry. <http://www.biotik.org/index.html>
2. Flowering Plants of Kerala ver 2.0 – N Shashidharan. DVD published by Kerala Forest Research Institute, Peechi.
3. Endemic Tree Species the Western Ghats – Online application on spatial distribution and ecology of endemic woody plants of the Western Ghats. The French Institute, Pondicherry. http://www.ifpindia.org/digitaldb/site/endemic_tree_species/endemics.htm
4. Digital Flora of Karnataka – Online database on the flora of Karnataka. Herbarium JCB, Center for Ecological Sciences, Indian Institute of Science, Bangalore. <http://florakarnataka.ces.iisc.ac.in/hjcb2/index.php>
5. The IUCN Red List of Threatened Species. <http://www.iucnredlist.org>
6. Plant Identification Terminology: An illustrated Glossary <http://lib.du.ac.ir/documents/10157/60743/Plant+Identification+Terminology+Glossary.pdf>

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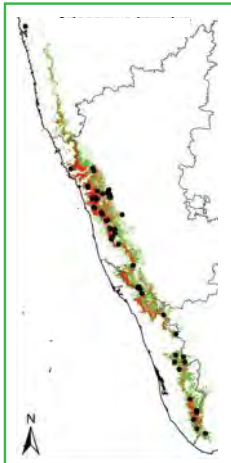
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Artocarpus hirsutus
MORACEAE





Description: Trees with milky latex, up to 38 m tall, girth up to 3.3 m.

Leaves simple, alternate, elliptic or ovate, 10-25 × 5-14 cm, densely hirsute beneath when young, apex sub-acute or shortly acuminate, base rounded or sub-acute, margins undulate, secondary nerves 10-12 pairs, hirsute, petiole 1.5-3 cm long. **Flowers** unisexual, male flowers in axillary spikes, up to 15 cm long, female flowers in axillary, ovoid spikes. **Fruit** sub-globose or ellipsoid, echinate.

Distribution: Fairly common in evergreen and semi-evergreen forests from south Maharashtra to Kanyakumari. Elevation 80-900 m. EOO/AOO – 55564/14465 sq km.

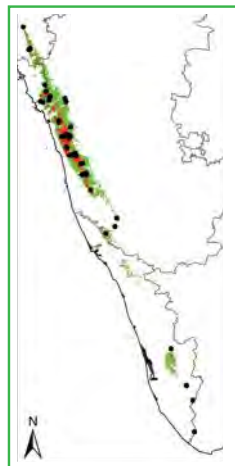
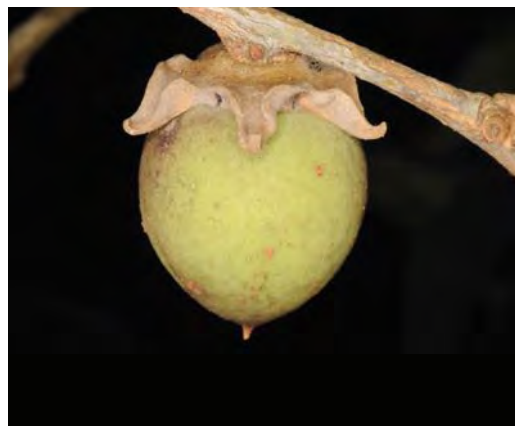
Look-alikes: *Dipterocarpus indicus* and *D. bourdilloni*. Can be distinguished by milky latex, presence of annular scars at the base of each leaf formed by caduceus stipules.

Current assessment: Least Concern

Diospyros candolleana
EBENACEAE

Kan: *Kare-mara*
Mal: *Kari*
Tam: *Karimaram*





Description: Trees up to 20 m tall, girth up to 1 m.

Leaves simple, alternate, oblong or elliptic-oblong, 6-18 × 3-5 cm, apex acuminate, secondary nerves not prominent, 15-18 pairs, petiole 0.5-1 cm.

Flowers dioecious, in axillary clusters, calyx in female flowers much larger than male. **Fruit** globose, 2.5 cm across with persistent enlarged calyx.

Distribution: Fairly common in evergreen and semi-evergreen forests from South Maharashtra (Kolhapur) to Trivandrum. Elevation 50-1200 m.

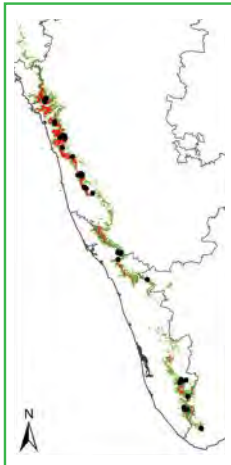
EOO/AOO – 32157/3672 sq km.

Current assessment: Least Concern

Diospyros paniculata
EBENACEAE

Mal: *Illekatta, Karivella*
Tam: *Karunthuvarei*





Description: Trees up to 25 m tall, girth up to 1.5 m.

Leaves simple, alternate, ovate or elliptic-oblong, lanceolate, 12-20 × 4-8 cm, margins yellow translucent, secondary nerves 6-9 pairs, petiole 0.5-1 cm.

Flowers dioecious, male in paniculate cymes, female solitary, axillary with large calyx lobes. **Fruit** ovoid covered with sooty hairs and enlarged calyx lobes.

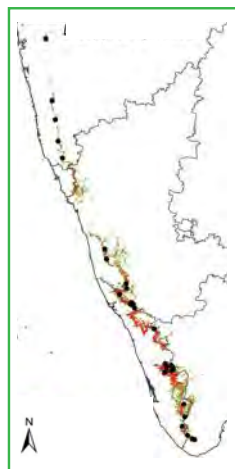
Distribution: Occasional in evergreen forests from South Maharashtra (Kolhapur) to Trivandrum. Elevation 150-900 m. EOO/AOO – 24111/3184 sq km

Look-alikes: *Diospyros pyrocarpoides*. Can be distinguished based on translucent secondary nerves and leaf margin.

Proposed Status: Least Concern

Diospyros sylvatica
EBENACEAE





Description: Canopy trees up to 35 m tall, girth 2.5 m.

Leaves simple, alternate, elliptic, 5-12 × 3-6 cm, apex acuminate, secondary nerves 7-10 pairs, petiole 0.3-1.2 cm. **Flowers** dioecious, male in cymes, female generally solitary. **Fruit** globose, 2 cm across with enlarged and reflexed calyx lobes.

Distribution: Fairly common in evergreen forests from Bhimashankar to Kanyakumari. Elevation 200-1300 m. EOO/AOO – 68766/7841 sq km.

Look-alikes: *Diospyros assimilis*. Can be distinguished based on the leaf lamina which is concave in between the secondary nerves.

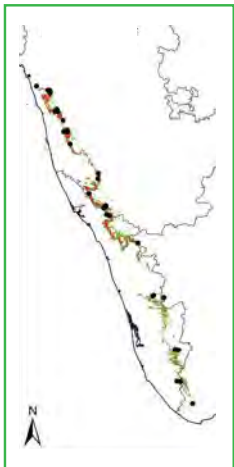
Current assessment: Least Concern

Dipterocarpus indicus

DIPTEROCARPACEAE

Mal: Arayangili, Kalpayin, Vella-ayani





Description: Emergent trees, up to 50 m tall, girth up to 2 m, young branches and stipules pubescent.

Leaves simple, alternate, clustered towards the end of branches, pubescent when young, glabrous when mature, 8-20 × 6-10 cm, broadly elliptic or ovate, apex shortly acuminate, secondary nerves strong, parallel, 10-13 pairs, petiole 3 cm long. **Flowers** white in axillary racemes. **Fruit** smooth with 3 short and 2 long, enlarged, wing like, persistent calyx lobes.

Distribution: Rare in low and mid-elevation evergreen forests from north Karnataka to Trivandrum. Elevation 400-900 m. EOO/AOO – 24988/2834 sq km.

Look-alikes: *Dipterocarpus bourdillonii*. Can be distinguished based on mature leaves which are smaller and glabrous and based on the fruit.

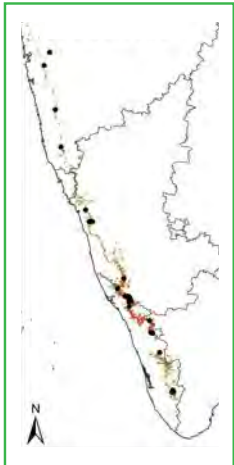
Current assessment: Least Concern

Drypetes elata
PUTRANJIVACEAE

Mal: Choota, Enikomban,
Konamaram, Palakani



♂



Description: Trees with smooth, straight, white trunk and horizontal branches, up to 35 m tall, girth up to 3 m.

Leaves simple, alternate, elliptic or elliptic oblong, 5-12 × 2-5 cm, base oblique, apex acute or shortly acuminate, secondary nerves 8-12 pairs, petiole 0.4-1 cm. **Flowers** dioecious, greenish yellow, male flowers in axillary clusters, pedicel 1-1.5 cm; female flowers, axillary, solitary or in pairs, pedicels up to 6 cm. **Fruit** ellipsoid or obovoid, green, drooping.

Distribution: Common in low and mid elevation evergreen forests from Lonavala to Trivandrum. Elevation 200-1200 m. EOO/AOO – 60455/4065 sq km.

Look-alikes: *Drypetes wightii*. Can be distinguished only based on the length of the fruiting pedicel which is less than 3 cm in *D. wightii* and more than 4 cm in *D. elata*

Current assessment: Least Concern

Dysoxylum malabaricum

MELIACEAE

Kan: *Bili agilu*

Mal: *Akil, Kanu mulla, Vellakil*

Tam: *Vellaiyagil, Purippa*





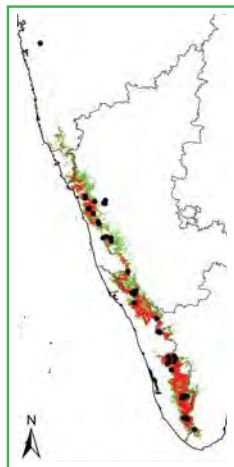
domatia in the axils of secondary nerves



Photo credit: Sascha Ismail



Photo credit: Sascha Ismail



Description: Canopy trees upto 37m tall, girth upto 4.5 m.

Leaves compound, alternate, paripinnate (rarely otherwise), 25-35 cm long, no. of leaflets 10-12; leaflets sub-opposite, 9-15 × 4-7 cm, elliptic lanceolate, apex acuminate, base oblique, secondary nerves 10-15 pairs. **Flowers** in axillary paniced racemes, greenish colored. **Fruit** woody, spherical, verrucose, 5-7 cm across, opening into 4 valves, seeds reddish-black.

Distribution: Uncommon in evergreen forest from Poona to Kanyakumari. Elevation 50- 1200 m. EOO/AOO – 48218/13428 sq km.

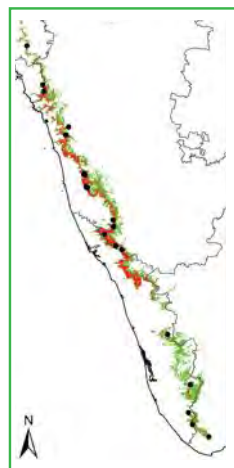
Look-alikes: *Aglaia* spp, *Dysoxylum* spp. Distinguished by the presence of strong inter-secondary nerves, three angled leaf rachis and glandular domatia in the axils of secondary nerves.

Current assessment: Least Concern

Euonymus indicus

CELASTRACEAE





Description: Small trees, up to 13 m tall, girth up to 1 m.

Leaves simple, opposite; petiole 0.5-0.8 cm; lamina 5-10 × 2-4.5 cm, elliptic, apex acuminate, secondary nerves 4-6 pairs. **Flowers** in three flowered axillary cymes. **Fruit** pear shaped, 2.5 cm long, three valved, scarlet when mature.

Distribution: Evergreen forests from Amboli to Trivandrum. Elevation 150-1100 m. EOO/AOO – 21982/3788 sq km.

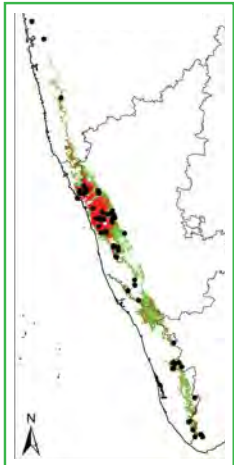
Look-alikes: Other species of *Euonymus*. Can be distinguished based on flowers which have fimbriate petals.

Current assessment: Least Concern

Flacourtia montana
SALICACEAE

Kan: Attak, Hannu Sampige
Mar: Vruksha-tambat
Mal: Chalirpazham, Muripacha





Description: Trees, up to 25 m tall, girth up to 1.7 m, trunk with sharp stout thorns at its base, young parts hirsute, young leaves reddish.

Leaves simple, alternate; petiole 0.3-0.8 cm, pubescent; lamina 7-15 × 4-8 cm, elliptic-oblong, apex acuminate, margin crenate, 3-nerved at the base, secondary nerves 4-7 pairs. **Flowers** dioecious in axillary cymes. **Fruits** spherical, smooth, scarlet red, 1-1.5 cm across.

Distribution: Common in evergreen and semi-evergreen forests from Matheran to Kanyakumari. EOO/AOO – 72926/13413 sq km.

Look-alikes: *Scolopia crenata*. Can be distinguished based on the presence of hairy petiole and leaf midrib.

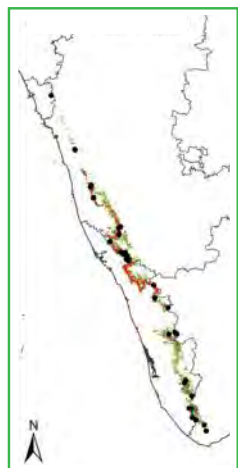
Current assessment: Least Concern

Garcinia gummi-gutta

CLUSIACEAE

Kan: Manda huli, Upage mara
Mal: Gorakapulli, Kodapuli, Meenpuli
Tam: Heela, Panampuli





Description: Trees with yellow latex, up to 25 m tall, girth up to 1.7 m, young leaves have a sour taste.

Leaves simple, opposite; petiole 1-2 cm; lamina 5-12 × 2-6 cm, elliptic or obovate, base cuneate, secondary nerves not prominent. **Flowers** yellow, polygamous in axillary and terminal clusters. **Fruit** globose, grooved, 5 cm in diameter.

Distribution: Western Ghats and Sri Lanka. Common in evergreen and semi-evergreen forests from Goa to Kanyakumari. EOO/ AOO – 27937/4823 sq km.

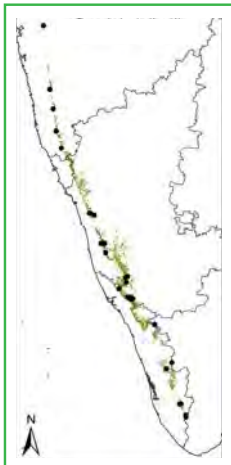
Look-alikes: *Garcinia indica* and *Garcinia morella*. Differs from former in having horizontal branches (drooping in *G. indica*) and from latter in having elliptic leaves (relatively more orbicular in *G. morella*), and young leaves which taste sour.

Current assessment: Least Concern

Garcinia talbotii
CLUSIACEAE

Mal: Phansada





Description: Trees with yellow latex, up to 25 m tall, girth up to 2.2 m.

Leaves simple, opposite; petiole 0.5-2 cm; lamina 7-15 × 3-7 cm, elliptic or ovate, secondary nerves nearly parallel, 12-15 pairs. **Flowers** yellow, dioecious, in axillary clusters. **Fruit** globose, smooth, 5 cm in diameter.

Distribution: Frequent, throughout the low and mid elevation evergreen forest. Elevation 250-1100 m. EOO/AOO – 62864/3169 sq km.

Look-alikes: *Garcinia pushpangadaniana*. Differs in having cream or yellow colored flowers and smooth fruit.

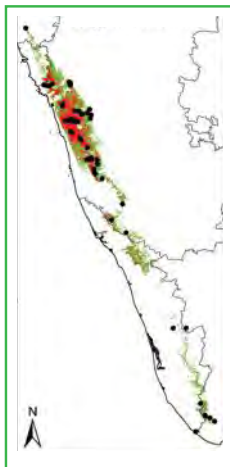
Current assessment: Least Concern

Holigarna arnottiana
ANACARDIACEAE

Eng: black varnish tree
Kan: Holigeru
Mal: Chari, Kattucher, Naicheru
Tam: Karuncheru



♂



Description: : Trees, upto 25m tall, girth up to 2.4 m.

Leaves simple, alternate, clustered towards the ends of branches; petiole 1-2.5 cm, with a pair of appendages; lamina 10-25 × 3-7 cm, oblanceolate, apex obtuse or acuminate, secondary nerves 10-20 pairs. **Flowers** polygamous, white in axillary or terminal, yellow pubescent panicles. **Fruit** ovoid, 3 cm long, purple when mature.

Distribution: Common in evergreen and semi-evergreen forests from south Maharashtra to Kanyakumari. Elevation 400- 1200 m. EOO/AOO – 52379/7874 sq km.

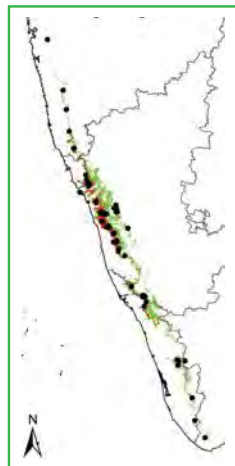
Look-alikes: *Holigarna nigra*. Can be distinguished based on the shape of the leaves. *Holigarna nigra* has spatulate leaves with an obtuse or rounded apex.

Current assessment: Least Concern

Holigarna grahamii
ANACARDIACEAE

Mal: Dongri





Description: Trees, upto 35m tall, girth up to 3.2 m.

Leaves simple, alternate, clustered towards the ends of branches, tomentose on lower surface, rhomboidal, 15-45 × 10-20 cm, secondary nerves 25-35 pairs, petiole 2 cm, stout, tomentose, with a 2 pairs of appendages. **Flowers** white, polygamous in terminal tomentose panicles. **Fruit** ellipsoid, 2.5 cm, seed partially exerted from fleshy torus.

Distribution: Frequent in evergreen forests from Lonavla to Kanyakumari. Elevation 200-850 m. EOO/AOO – 64781/5504 sq km.

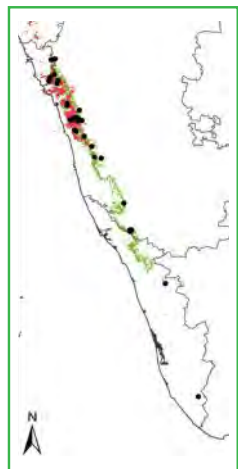
Look-alikes: *Holigarna arnottiana* which has only one pair of appendages on the petiole; *H. beddomei* which has hirsute appendages while appendages in *H. grahamii* are tomentose.

Current assessment: Least Concern

Hopea ponga
DIPTEROCARPACEAE

Kan: Haiga
Mal: Kambakam, Pongu
Tam: Kambakam, Ila-Pongu





Description: Trees, up to 24 m tall, girth up to 1.5 m.

Leaves simple, alternate; petiole very stout, tomentose, finely velvety, 1.3 cm; lamina 11-30 × 3-7 cm, narrowly oblong to oblong, apex acute, acuminate or rounded, base rounded or sub-cordate; secondary nerves 7-12 pairs. **Flowers** whitish to pink, in axillary panicles. **Fruit** with 2 long enlarged wing like calyx lobes.

Distribution: Common in the Goa and Karnataka parts of the Western Ghats, Abundant along streams. Elevation 400-700 m. EOO/AOO – 34713/3396 sq km.

Look-alikes: Other species of *Hopea*. Can be distinguished based on the petiole which is very stout and with velvety texture.

Current assessment: Least Concern

Hydnocarpus pentandrus

ACHARIACEAE

Kan: *Suranti, Toratti,*
Chalmogra yenne mara
Mar: *Kadu-kavath*
Mal/Tam: *Kodi, Maravatty, Nirvetti*





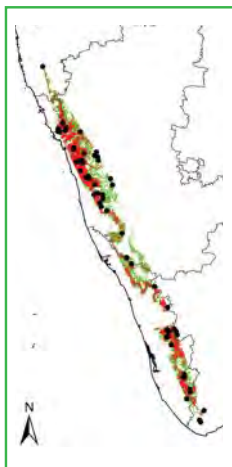
Description: Trees, up to 26m tall, girth up to 3m.

Leaves simple, alternate, serrate, elliptic-oblong, 8-20 × 4-8 cm, apex acuminate, base slightly oblique, petiole 0.7- 2.2 cm, swollen at both ends, secondary nerves 5-7 pairs. **Flowers** unisexual, monoecious, male in axillary cymes, female solitary. **Fruit** woody, spherical, up to 8 cm across, brown powdery tomentose.

Distribution: Common in evergreen, semi-evergreen and occasionally in moist-deciduous forest along streams, Goa to Kanyakumari. Elevation 40-900 m. EOO/AOO – 41286/15859 sq km.

Look-alikes: *Drypetes confertiflora* and *Drypetes malabarica*. Can be distinguished based on the presence of long acuminate leaf apex.

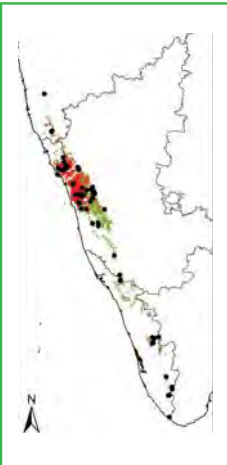
Current assessment: Least concern



Ixora brachiata
RUBIACEAE

Mal: Marachethi





Description: Under-storey trees, up to 15 m tall, girth up to 0.8 m.

Leaves simple, opposite; petiole 0.5-1.2 cm; lamina 8-18 × 4-7 cm, elliptic-oblong, apex obtuse, base acute, margins undulate; secondary nerves 10-13 pairs. **Flowers** white, fragrant in terminal panicles. **Fruit** globose, 0.6 cm long, reddish or black when ripe.

Distribution: In evergreen and semi-evergreen forests from Central Maharashtra to Kanyakumari. Elevation 150-800 m. EOO/AOO – 99798/8427 sq km.

Look-alikes: Other species of *Ixora*. Can be distinguished based on the leaf shape and obtuse leaf apex.

Current assessment: Least Concern

Knema attenuata

MYRISTICACEAE

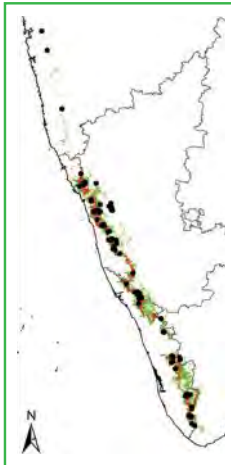
Mar: Jangli-jaiphal

Kan: Rakhtamara

Mal: Chorapam, Chorapali

Tam: Chora-pathiri





Description: Trees, up to 30 m tall, girth up to 2.5 m.

Young parts rusty tomentose. **Leaves** simple, alternate, 12-23 × 3-7 cm, elliptic, lanceolate, glaucous beneath, secondary nerves ca. 20 pairs, prominently raised beneath. **Flowers** maroon, unisexual, dioecious. **Fruits** elliptic, 4cm long, dehiscent into 2 valves, seed covered in scarlet red aril.

Distribution: Common, throughout the evergreen forests from Matheran to Kanyakumari. Elevation 40-1000m. EOO/AOO – 61334/8232 sq km.

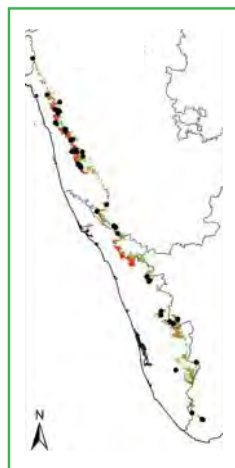
Look-alikes: *Litsea* spp, *Myristica* spp. Can be distinguished based on the number of secondary nerves, horizontal whorled branches emerging from the trunk and the red sap.

Current assessment: Least Concern

Litsea floribunda
LAURACEAE

Mal: Puttuthali





Description: Trees, up to 22 m tall, girth up to 2.1 m.

Leaves simple, alternate, spiral; petiole up to 2 cm long, rusty tomentose; lamina 6-25 × 3-9 cm, elliptic; secondary nerves 8-15 pairs. **Flowers** in axillary tomentose umbellules. Umbellules consisting of up to 7 flowers. **Fruit** oblong, up to 2 cm long.

Distribution: Elevation 500-1610 m. EOO/AOO – 30654/3024 sq km.

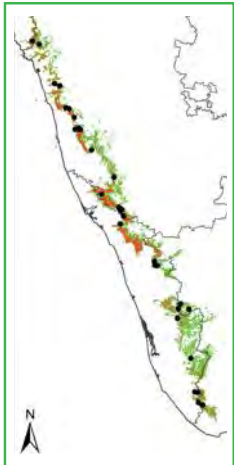
Look-alikes: *Litsea bourdillonii*, *Litsea wightiana*. Can be distinguished from prior based on shape of the lamina (elliptic in *L. floribunda* and obovate in *L. bourdillonii*) and from later based on the number of secondary nerves (> 8 in *L. floribunda* and < 7 in *L. wightiana*).

Current assessment: Least Concern

Mastixia arborea
CORNACEAE

Mal: Mattipal
Tam: Velichi





Description: Trees, up to 32 m tall, girth up to 3.2 m.

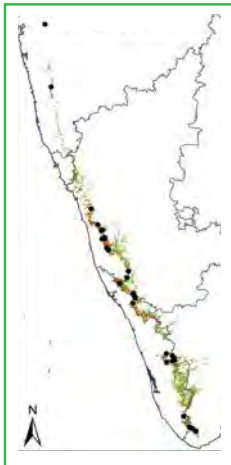
Leaves simple, alternate, spiral; petiole 1-4 cm long; lamina 7-16 × 2-10 cm, elliptic or obovate, apex caudate- acuminate, above green and below pale when dried; secondary nerves 4-8 pairs. **Flowers** yellowish green in terminal panicles. **Fruit** ellipsoid, 1.5-4 × 2 cm.

Distribution: Elevation 20-1610 m. EOO/AOO – 28261/3697 sq km.

Current assessment: Least Concern

Meiogyne pannosa
ANNONACEAE





Description: Trees, up to 10 m tall, girth up to 1 m.

Leaves simple, alternate, distichous; petiole up to 1 cm long, covered with short hairs when young and mature ones glabrous; lamina 4-12 × 1-4 cm, lanceolate to slightly ovate, apex caudate- acuminate; secondary nerves 5-9 pairs. **Flowers** yellowish green, tomentose. **Fruit** elliptic, covered with hairs.

Distribution: Elevation 420-1230 m. EOO/AOO – 64036/4117 sq km.

Look-alikes: *Meiogyne ramarowii*. Can be distinguished based on the nature of young branches which are glabrous in *M. pannosa* and soft pubescent in *M. ramarowii*.

Current assessment: Least Concern

Melicope lunu-ankenda

RUTACEAE

Mal: Kaneli, Kattu-shanbagam
Tam: Kattushanbagam,
Kattuchampakam





Description: Trees, up to 25 m tall, girth up to 2 m.

Leaves compound, trifoliate, opposite, decussate; rachis 4-11 cm long; petiolule 0.5-1 cm long; leaflets 7-20 × 3-9 cm, elliptic to obovate, apex acuminate, gland-dotted; secondary nerves 7-16 pairs. **Flowers** greenish white in paniced cyme. **Fruit** four valved, blackish.

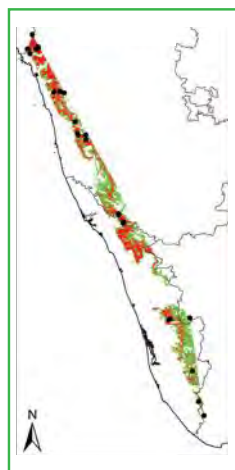
Distribution: Elevation 60-1610 m. EOO/AOO – 43740/15581 sq km.

Current assessment: Least Concern

Memecylon talbotianum
MELASTOMATACEAE

Kan: Chappalu
Tam: Kancan





Description: Trees, up to 20 m tall, girth up to 1.6 m.

Leaves simple, opposite, decussate; petiole up to 1 cm long; lamina 5-10 × 2-5 cm, elliptic-lanceolate, apex slightly acuminate; secondary nerves inconspicuous. **Flowers** blue in axillary bundles. **Fruit** globose, yellow, 0.8 cm in diameter.

Distribution: Elevation 240-1640 m. EOO/AOO – 63930/8027 sq km.

Look-alikes: *Memecylon umbellatum*. Can be distinguished based on leaf shape which is ovate, lanceolate in *M. talbotianum* while elliptic in *M. umbellatum*. These two species can also be distinguished base on fruit color which is yellow in *M. talbotianum* while blue-purple in *M. umbellatum*.

Current assessment: Least Concern

Myristica dactyloides

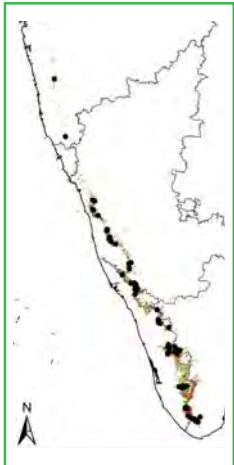
MYRISTICACEAE

Tam: Katujathika

Mal: Adakkapayin, Chithirapoovu,
Kattujathi, Panthapayin, Pasupathi,
Pattapannu, Pathiripoovu

Kan: Kadu jajikai





Description: Trees, up to 32 m tall, girth up to 2.1 m; stilt roots seldom present.

Leaves simple, alternate, distichous; petiole 1.5-4 cm; lamina 12-25 × 4-12 cm, oblong, elliptic or lanceolate, apex acute, shining green above, glaucous beneath; secondary nerves 13-18 pairs. **Flowers** yellowish white, male in umbels, female in fascicles. Fruit ovoid, brownish yellow, 6 × 3 cm; seed covered with orange-red aril.

Distribution: Elevation 200-1330 m. EOO/AOO – 76902/5215 sq km.

Look-alikes: *Myristica malabarica*. Can be distinguished based on secondary nerves. *M. dactyloides* has more than 13 pairs of secondary nerves while *M. malabarica* has less than 11.

Current assessment: Least Concern

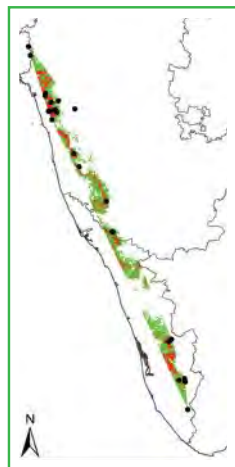
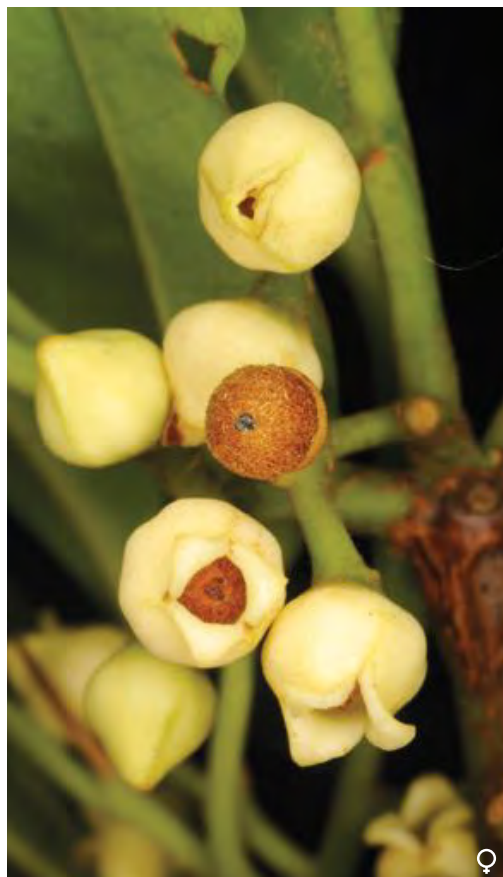
Myristica malabarica

MYRISTICACEAE

Kan: Kanage; Doddajajikai

Mal: Kattujathi, Kattujathikka, Kottappannu,
Panampalka, Pathiripoovu, Ponnampu,
Ponnampannu, Ponnampayin





Description: Trees, up to 34 m tall, girth up to 2.5 m.

Leaves simple, alternate, distichous; petiole 1-1.5 cm long; lamina 9-22 × 3-10 cm, elliptic or elliptic-oblong, apex acute, glabrous above, glossy glaucous below; secondary nerves 8-11 pairs. **Flowers** white (male) numerous in axillary cymes, (female) larger in umbels, 5 or 6. **Fruit** oblong, 5-8 × 2-4 cm, pubescent; seed covered with yellow aril.

Distribution: Elevation 40-240 m. EOO/AOO – 62077/4074 sq km.

Look-alikes: *Myristica dactyloides*. Can be distinguished based on secondary nerves. *M. dactyloides* has more than 13 pairs of secondary nerves while *M. malabarica* has less than 11.

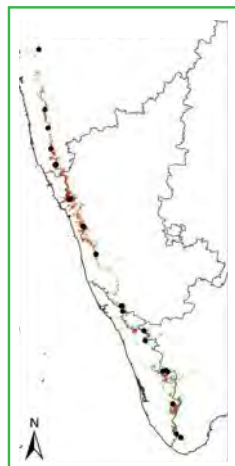
Current assessment: Least Concern

Previous assessment: Vulnerable B1+2c

Nothopegia racemosa
ANACARDIACEAE

Mar: Amberi





Description: Trees, up to 17 m tall, girth up to 1.5 m.

Leaves simple, alternate, spiral; petiole 1-2.5 cm long, often twisted; lamina 8-23 × 3-7 cm, oblanceolate, apex acuminate; secondary nerves 9-25 pairs, parallel. **Flowers** white in axillary racemes. **Fruit** elliptic, red, 1 cm diameter.

Distribution: Elevation 420-1630 m. EOO/AOO – 71283/4426 sq km.

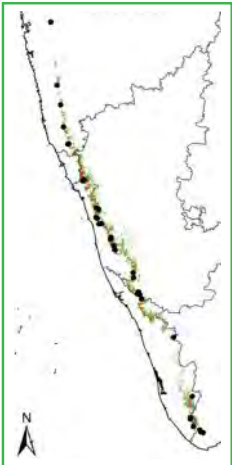
Look-alikes: *Nothopegia beddomei*. Can be distinguished based on the nature of outgrowths on the young branches. *N. racemosa* has young branches with brown tomentum while young branches of *N. beddomei* are glabrous.

Current assessment: Least Concern

Olea dioica
OLEACEAE

Mar: Par-jambhul
Kan: Tadale, Kalluthodli
Mal: Edana, Etala, Irippa, Karivetti,
Palarana, Valiya vetila, Vayala, Vidna





Description: Trees, up to 20 m tall, girth up to 3.5 m.

Leaves simple, opposite, decussate; petiole 0.5-1.5 cm; lamina 7-18 × 2-8 cm, elliptic to elliptic-oblong, apex acuminate to subacute, margin entire or often strongly serrated; secondary nerves 8-12 pairs. **Flowers** white in axillary panicles. **Fruit** ellipsoid, blue when ripe.

Distribution: Elevation 150-1350 m. EOO/AOO – 71252/4533 sq km.

Look-alikes: Species of genus *Chionanthus*. Can be distinguished based on the petiole and leaf margin. *Chionanthus* spp have petioles that are swollen at the base and leaf margins always entire, unlike *O. dioica* which show uniformly thick petiole and serrated margin.

Current assessment: Least Concern

Palaquium ellipticum

SAPOTACEAE

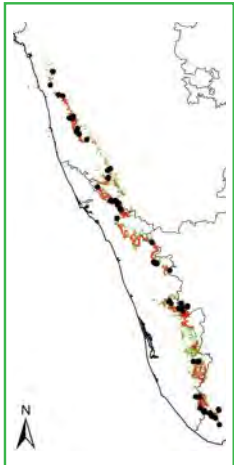
Eng: *Palai*

Kan: *Panchonta*

Mal: *Choppala, Pachendi, Pali, Panchendi*

Tam: *Palvadinthan, Pali, Palai*





Description: Large trees, up to 41 m tall, girth up to 3.5 m, often buttressed.

Leaves simple, alternate, spiral; stipule small, leaves a scar when fall off; petiole 1.5-3 cm long; lamina 7-15 × 3-5 cm, apex caudate-acuminate, elliptic-obovate, undulating margin; secondary nerves 8-12 pairs. **Flowers** white in axillary bundles. **Fruit** ellipsoid, smooth, green, 3-4 × 1.5 cm, filled with white sap.

Distribution: Elevation 490-1330 m. EOO/AOO – 27714/4907 sq km.

Current assessment: Least Concern

Pterospermum reticulatum
STERCULIACEAE

Mal: Malayuram,
Malavurum





Description: Trees up to 11 m tall, girth up to 0.3 m.

Leaves simple, alternate, distichous; petiole 0.6-0.8 cm long; lamina 5-15 × 2-8 cm oblong, obovate or fiddle-shaped, irregularly toothed towards the tip, lower surface white tomentose and hairy, apex acuminate; secondary nerves 5 or 6 pairs. **Flowers** white in terminal or axillary bundles. **Fruit** brown, pubescent, 5-angled; seed winged at one side.

Distribution: Elevation 180-800 m. EOO/AOO – 34492/5450 sq km.

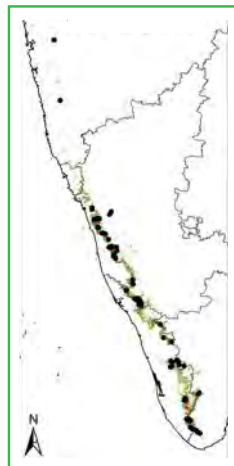
Current assessment: Least Concern

Syzygium gardneri

MYRTACEAE

Kan: Bilitirup
Mal: Aattunjaval, Kattunjaval, Karinjaval
Tam: Nir-naval





Description: Emergent trees, up to 45 m tall, girth up to 4 m.

Leaves simple, opposite, elliptic-oblong, 5-8 × 3-4 cm, apex acuminate, petiole 0.5-1.5 cm, margins undulate, secondary nerves numerous, closely parallel. **Flowers** white in terminal paniculate cymes. **Fruit** ellipsoid, purple, with a crown of persistent calyx.

Distribution: Common in evergreen forests from Bhimashankar to Kanyakumari. Elevation 150-1400m. EOC/AOO – 78766/5155 sq km.

Look-alikes: Other species of *Syzygium*. Can be distinguished based on large, buttressed, unbranched, white trunk, caudate acuminate leaves with undulate margins.

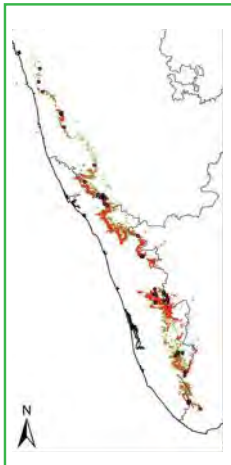
Current assessment: Least Concern

Reinwardtiodendron anamalaiense

MELIACEAE

Kan: *Santhana beeja* Mal: *Chinna akil*, *Thevathali*, *Vandakamin*
Tam: *Santhanaviri*





Description: Trees up to 27m tall, girth up to 1.4 m.

Leaves compound, alternate, mostly imparipinnate, 20-25 cm long, no. of leaflets 5-7; leaflets alternate, elliptic-lanceolate, apex acuminate, secondary nerves 5-8 pairs having hairy domatia in their axils. **Flowers** cream colored, in axillary racemes or panicles. **Fruit** elliptic, 1.5 cm long.

Distribution: Common in evergreen forests from Sirsi to Kanyakumari. Elevation 200-1100 m. EOO/AOO – 30069/4549 sq km.

Look-alikes: *Aglaia* spp. Distinguished by the presence of hairy domatia in the axils of the secondary nerves.

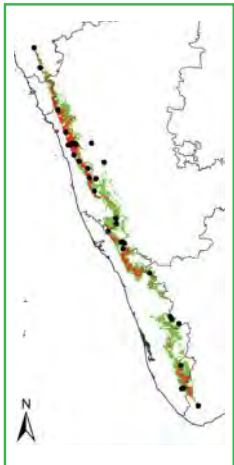
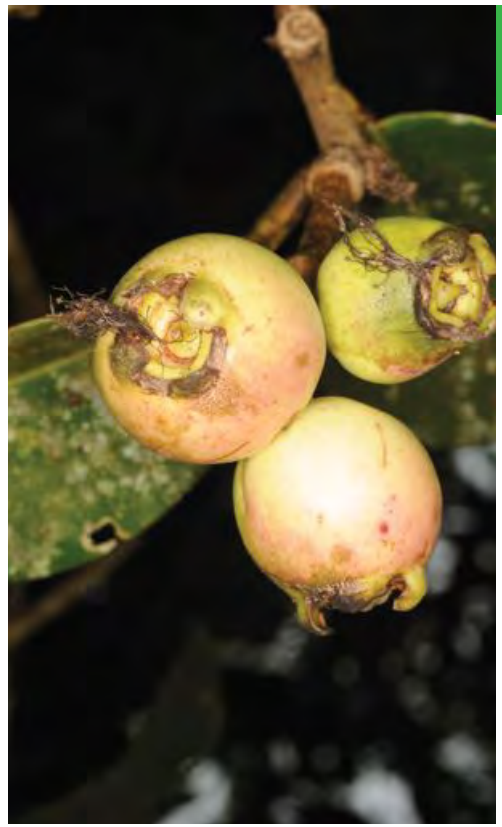
Current assessment: Least Concern

Syzygium hemisphericum

MYRTACEAE

Kan: Bennerale, Pannerale
Mal: Payanjaval, Tholnjal,
Vellanjara, Vennjara
Tam: Vellainyara!, Vellainaval





Description: Large trees, up to 35 m tall, girth up to 4 m.

Leaves simple, opposite, decussate; petiole up to 1.5 cm long; lamina 7-19 x 2-8 cm, elliptic, oblanceolate, pellucid gland dotted, apex acuminate and slightly twisted, intra-marginal nerve present; secondary nerves 8-12 pairs.

Flowers white in terminal cymes. **Fruit** globose, pinkish-green, up to 3 cm across.

Distribution: Elevation 170-1610 m. EOO/AOO – 43841/6967 sq km.

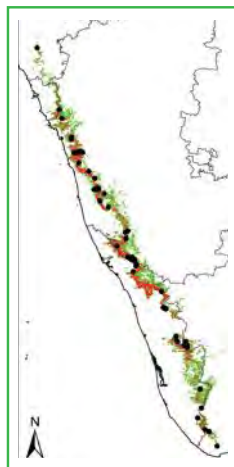
Look-alikes: *Syzygium laetum*. Can be distinguished based on number of secondary nerves (6-8 in *S. laetum* and 9-12 in *S. hemisphericum*).

Current assessment: Least Concern

Syzygium laetum
MYRTACEAE

Mal: Kollinjaval, Kuttuchamba,
Manjachamba





Description: Understorey trees, up to 18 m tall (but usually smaller), girth up to 0.9 m.

Leaves simple, opposite, elliptic, 6-12 × 3.5-5 cm, apex shortly acuminate, petiole 0.5-1 cm, secondary nerves 6-8 pairs. **Flowers** solitary or 2-5 together, 4-5 cm across, crimson, lemon yellow or white with intermediate shades. **Fruit** ellipsoid, purple, with a crown of persistent calyx.

Distribution: Common in evergreen forests. Elevation 200-1250 m. EOO/AOO – 31986/5951 sq km.

Look-alikes: *Syzygium hemisphericum*. Can be distinguished based on number of secondary nerves (6-8 in *S. laetum* and 8-10 in *S. hemisphericum*).

Current assessment: Least Concern

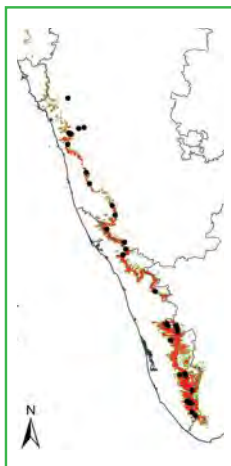
Vateria indica
DIPTEROCARPACEAE

Eng: Indian copal tree, Piney varnish tree, White dhamar
Tam: Dhupa maram, Painimaram, Vellaikundrikam
Mal: Baine, Kunturukkam, Paenoe, Paine, Payan
Kan: Bilagaggala, Bilidhoopa, Dhupa mara,





Photo credit: Sascha Ismail



Description: Large Trees, up to 33 m tall, girth up to 2.7 m.

Leaves simple, alternate, spiral; petiole 2.0-3.5 cm, swollen at the top; lamina 8-27 × 4-10 cm, elliptic-oblong, apex acuminate or obtuse; secondary nerves 13-20 pairs. **Flowers** white in axillary panicles, yellow anthers. **Fruit** oblong, pale brown, 6.4 × 3.8 cm, calyx persistent.

Distribution: Elevation 40-840 m. EOO/AOO – 34253/7202 sq km.

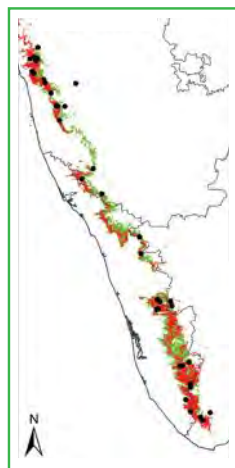
Current assessment: Least Concern

Previous assessment: Critically Endangered A1cd

Vepris bilocularis
RUTACEAE



♂



Description: Trees, up to 25 m tall, girth up to 2.5 m.

Leaves three foliolate, alternate, petiole 8-10 cm; leaflets elliptic, apex lanceolate, 7-25 × 4-10 cm, secondary nerves more than 30 pairs, not very prominent. **Flowers** white in terminal or axillary panicles. **Fruit** globose, fleshy, gland dotted, 1 cm across.

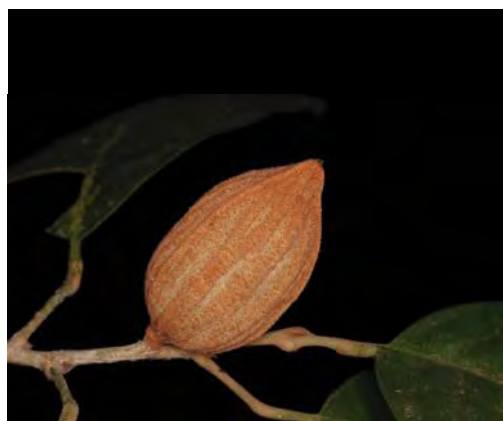
Distribution: Elevation 200-1300 m. EOO/AOO – 34062/7115 sq km.

Look-alikes: *Melicope lunu-ankenda*. Can be distinguished based on numerous closely parallel secondary nerves and alternate leaves.

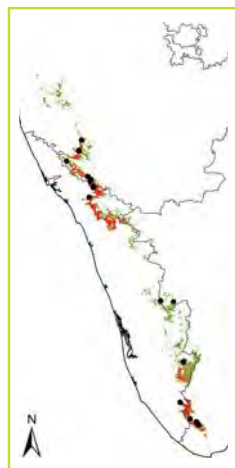
Current assessment: Least Concern

Aglaia simplicifolia
MELIACEAE





young parts with lepidote scales



Description: Understorey trees, up to 11 m tall, girth up to 0.4 m.

Leaves simple, alternate, 10-20 × 5-11 cm, elliptic or obovate, apex shortly acuminate with blunt tip, petiole 1.5-4 cm long, swollen at both ends, covered with brown lepidote scales, secondary nerves 10-14 pairs. **Flowers** brown in axillary racemes or panicles. **Fruit** woody, oblong, ovoid, beaked, ribbed, rusty-tomentose.

Distribution: In evergreen forests from Kodagu to Kanyakumari. Elevation 600-1600 m. EOO/AOO – 20656/2084 sq km.

Look-alikes: *Paracroton integrifolius*, *Epiprinus mallotiformes*. Distinguished by the presence of lepidote scales on the petiole, midrib of the lamina.

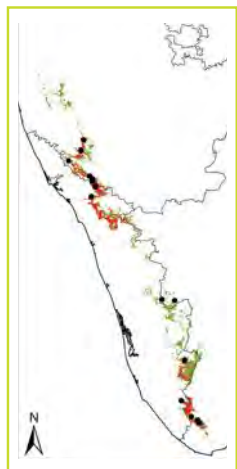
Current assessment: Near Threatened

Baccaurea courtallensis

PHYLLANTHACEAE

Kan: Koli kuki
Mal: Mutta thuri





Description: Trees, up to 18m tall, girth up to 1.3 m.

Leaves simple, alternate, clustered towards the ends of the branches, 7-15 × 6-8 cm, oblanceolate, apex acuminate, petiole 2-4 cm, swollen at both ends, secondary nerves 4-8 pairs. **Flowers** scarlet, cauliflorous, unisexual, dioecious, males inflorescences produced through-out the trunk and branches, female appearing only towards the base of the trunk. **Fruits** globose, crimson, ribbed.

Distribution: Frequent throughout the low and mid-elevation evergreen forest from Kodagu to Kanyakumari. Elevation 40-100m. EOO/AOO – 21564/4404 sq km.

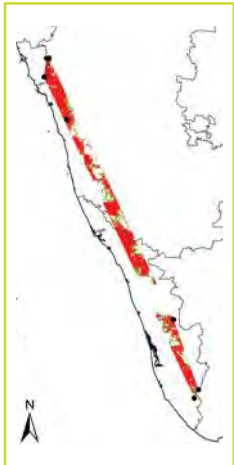
Look-alikes: *Elaeocarpus oblongus*, *Cleidion spiciflorum*. Can be distinguished based on the leaf arrangement and cauliflorous inflorescences.

Current assessment: Near threatened

Capparis rheedei
CAPPARACEAE

Kan: Kakkamullu





Description: Shrubs, up to 8 m tall, girth up to 0.4 m.

Leaves simple, alternate, elliptic-oblong or elliptic-lanceolate, 8-12 × 4-6 cm, apex acuminate, secondary nerves 3-4 pairs, petiole 1.5-2.5 cm. **Flowers** large, up to 8 cm across, pale blue or white, in axillary or terminal racemes. **Fruit** ovoid up to 5 cm long.

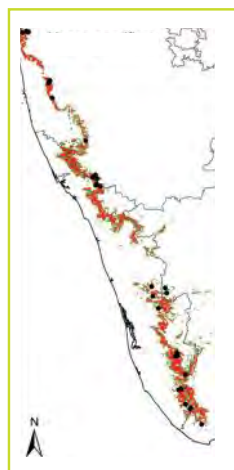
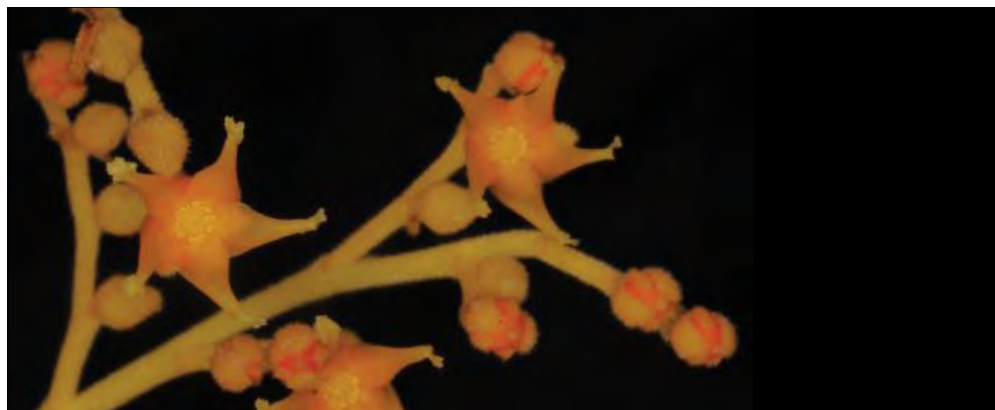
Distribution: Rare, along the margins of the evergreen and semi-evergreen forests, from Goa to Kanyakumari. Elevation 150-800 m. EOO/AOO – 20344/12884 sq km.

Current assessment: Least Concern/Near threatened

Hopea parviflora
DIPTEROCARPACEAE

Mal: Kambagam, Irupu, Iumbagam
Tam: Pongu





Description: Lofty trees, up to 35 m tall.

Leaves simple, alternate; petiole up to 1.3 cm long, tomentose; lamina 8-11 × 3-5 cm, ovate-lanceolate, domatia in the axils of secondary nerves; secondary nerves 6-8 pairs. **Flowers** cream yellow in tomentose panicles. **Fruit** ellipsoid, 5-6 mm long with two enlarged calyx lobes.

Distribution: Low and mid-elevation evergreen forests in central and southern Western Ghats, often gregarious along rivers. Elevation 50-1000 m. EOO/AOO – 20623/5230 sq km.

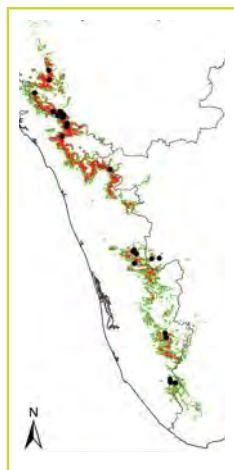
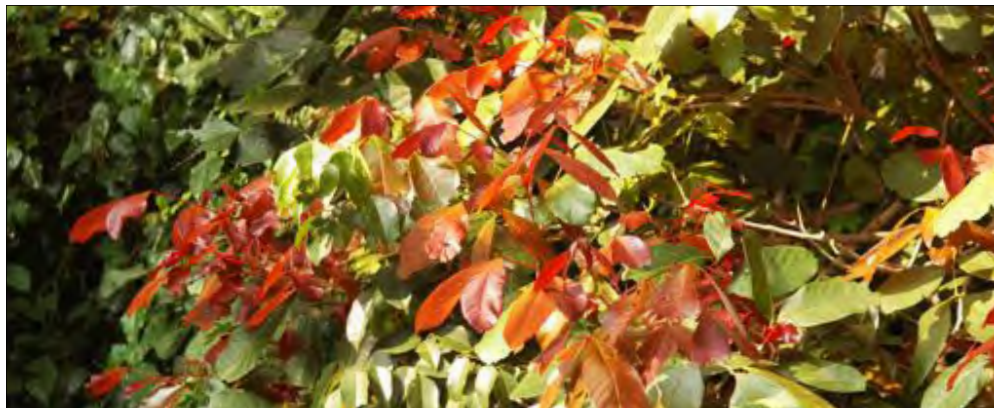
Current assessment: Near Threatened

Previous assessment: Endangered A1cd+2cd

Otonephelium stipulaceum
SAPINDACEAE

Mal: Pooripoovam,
Kalpoovathi





Description: Trees up to 28 m tall, girth up to 2.5 m.

Leaves compound, alternate, paripinnate 25-40 cm long, number of leaflets 4-6 + 2 tiny, reniform at the base of the petiole; leaflets sub-opposite, elliptic, milky-glaucous beneath, apex acuminate, secondary nerves 9-12 pairs. **Flowers** polygamous, in axillary and terminal panicles. **Fruit** brown, ellipsoid, covered with soft prickles.

Distribution: Elevation 150-1000 m. EOO/AOO – 21019/2763 sq km.

Look-alikes: *Dimocarpus longan*. Can be distinguished by its reduced stipule like first pair of leaflets.

Current assessment: Near threatened

Arenga wightii

ARECACEAE

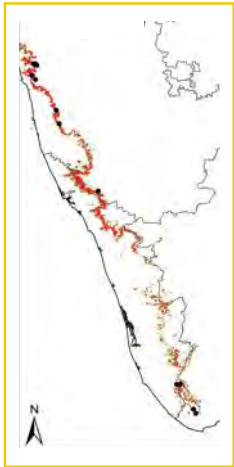
Eng: Wild coconut

Kan: *Dhadashi*

Mal: *Alathil thenga, Karampanai,*

Tam: *Alam panei*





Description: Palm, trunk up to 8 m tall.

Leaves compound, pinnate, 4-8 m long; leaflets more than 50 pairs, 30-100 × 2-2.5 cm, linear, glaucous beneath, apex unequally two lobed, base unequal with one of lobes often extending over the rachis. **Flowers** cream colored unisexual, male and female born on separate inflorescences on the same plant. **Fruit** green, globose, hard, 2.5 cm across.

Distribution: Frequent in evergreen forests mostly along the Ghats on steep slopes from Uttar Kanada to Kanyakumari. Elevation 400-800 m. EOO/AOO – 10660/2264 sq km.

Current assessment: Vulnerable B1ab(i)

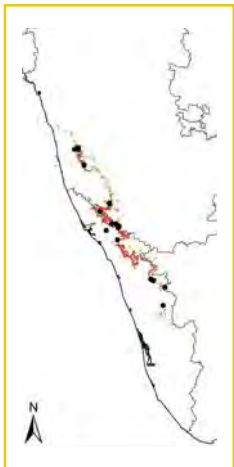
Casearia wynadensis
SALICACEAE

Mal: Kari-kunnan





young branches and petiole pubescent



Description: Understory trees, up to 15 m tall, girth up to 0.35 m, young branches and petiole fulvous pubescent.

Leaves simple, alternate, elliptic-oblong, 5-15 × 3-5 cm, apex acuminate, margin serrate, secondary nerves 8-12 pairs, petiole 0.5-1.2 cm. **Flowers** in axillary clusters. **Fruit** ellipsoid, yellow when mature, dehiscent open to expose the red arillate seeds.

Distribution: Occasional in wet evergreen forests from Agumbe to Pallakad. Elevation 600-1200 m. EOO/AOO – 7445/1892 sq km.

Look-alikes: Other species of *Casearia*. Can be distinguished by the presence of pubescence on young parts.

Current assessment: Vulnerable B2ab(i,ii)

Cullenia exarillata

MALVACEAE

Eng: Indian durian

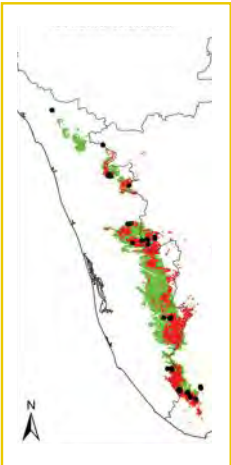
Mal: *Vediplavu*, *Mullenpali*

Tam: Ani pla, Karanai, Karavi, Malai
kongi, Polavu.





undersurface covered with bronze colored scales



Description: Giant canopy trees with buttresses, up to 40 m tall, girth up to 3.8 m.

Leaves simple, alternate, narrow oblong or oblong-lanceolate, 7-16 × 3-6 cm, under surface covered shining peltate scales, secondary nerves and reticulation obscure, petiole 1.5-2.5 cm long. **Flowers** bisexual, borne in clusters on the old branches, up to 3.5 cm long, cover with golden-brown scales. **Fruit** large, spherical, echinate, upto 13 cm in diameter, dehiscent into 5 valves.

Distribution: Frequent in mid to high elevation evergreen forests from Kodagu to Kanyakumari. Elevation 500-1400 m. EOO/AOO – 15865/3318 sq km.

Current assessment: Vulnerable B1ab(i,ii)

Dillenia bracteata

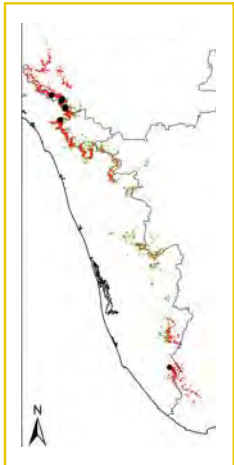
DILLENACEAE

Kan: Kattupunna





petiole sheathing at the base



Description: Trees up to 27 m tall, girth up to 2.6 m.

Leaves simple, alternate, obovate to elliptic-obovate, 20-45 × 10-20 cm, apex acuminate or obtuse, secondary nerves prominent, 30-35 pairs, uniformly parallel, petiole 2-4 cm. **Flowers** white, 3.5 cm across, in supra-axillary or leaf-opposed racemes or clusters of 2-4. **Fruit** globose, enclosed in orange sepals, 2.5 cm across.

Distribution: Uncommon in mid elevation evergreen forest from Kodagu to Kollam. Elevation 600-1000 m. EOO/AOO – 2737/1270 sq km.

Look-alikes: *Dillenia pentagyna*. This species however, is found widely distributed in semi-evergreen to dry deciduous forests of central and south India while *D. bracteata* is found only in mid-high elevation wet evergreen forests of the Western Ghats

Current assessment: Vulnerable B1ab(i,ii)

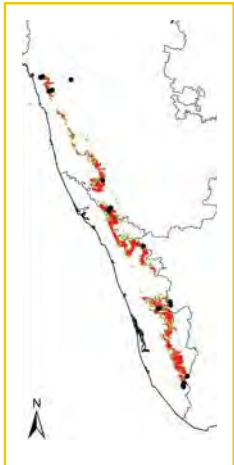
Drypetes confertiflora

PUTRANJIVACEAE

Mal: Kaduvapidukkan



♂



Description: Trees up to 25 m tall, girth 1.8 m.

Leaves simple, alternate, oblong or elliptic-oblong, 6-20 × 3-7 cm, base oblique, apex obtusely acuminate, margin distantly serrate, secondary nerves 7-10 pairs, petiole 0.5-1.2 cm. **Flowers** cream colored, unisexual, in clusters on old wood, male flowers with shortly pediceled, female flowers sessile. **Fruit** 4-5 cm across, yellow, sub-globose, 2 lobed, pubescent, fleshy.

Distribution: Elevation 150-850 m. EOO/AOO – 16924/6708 sq km.

Look-alikes: *Drypetes malabarica*. Can be distinguished based on lack on wagon-wheel like branching pattern, leaves which are more distantly and deeply serrate and based on leaf base which is more oblique.

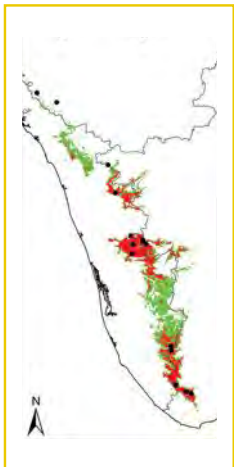
Current assessment: Vulnerable B1ab(i,ii)

Drypetes oblongifolia

PUTRANJIVACEAE

Mal: Malampayin





Description: Trees up to 20 m tall, girth up to 1.2 m.

Leaves simple, alternate; petiole 0.3-1cm; lamina 10-25 × 5-10 cm, oblong or elliptic oblong, base oblique, apex acuminate, margins distantly serrate, secondary nerves 7-10 pairs. **Flowers** dioecious, axillary or cauliflorous, sessile, cream colored. **Fruit** ellipsoid, densely pubescent, yellow.

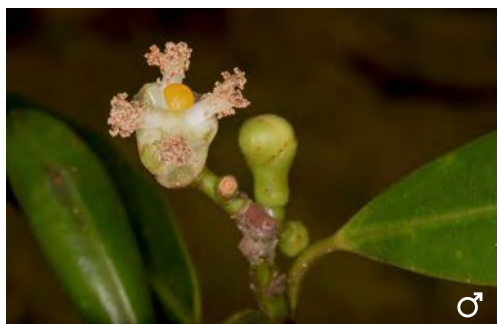
Distribution: Uncommon in mid elevation evergreen forests from Kodagu to Kanyakumari. Elevation 200-1300 m. EOO/AOO – 19729/2990 sq km.

Current assessment: Vulnerable B1ab(i,ii)

Garcinia travancorica
CLUSIACEAE

Mal: Malampongu





Description: Trees with yellow latex, up to 12 m tall.

Leaves simple, opposite; petiole 1-1.8 cm; lamina 5-11 × 1.5-2.5 cm, narrow oblong, apex rounded, base acute, margins recurved; secondary nerves 25-30 pairs, reticulation prominent. **Flowers** dioecious, male flowers in terminal cymes, female flowers axillary. **Fruit** oblong or sub-globose with persistent stigma.

Distribution: Restricted to the Agastyamalai and Megamalai hills in the southern Western Ghats. Elevation 1000-1400 m. EOO/AOO – 27937/4823 sq km.

Look-alikes: Restricted to the Agastyamalai and Megamalai hills in the southern Western Ghats.

Previous assessment: Vulnerable B2ab(i,ii); D2

Garcinia wightii

CLUSIACEAE

Mal: Attukaruka, Kolivala, Pulimaranga





Description: Trees with yellow latex, up to 10 m tall.

Leaves simple, opposite; petiole 0.5-0.8 cm; lamina 7.5-14 × 1-3 cm, narrow lanceolate; secondary nerves 9-12 pairs, not prominent. **Flowers** dioecious, male flowers in axillary clusters, female solitary axillary. **Fruit** globose, 2 cm in diameter.

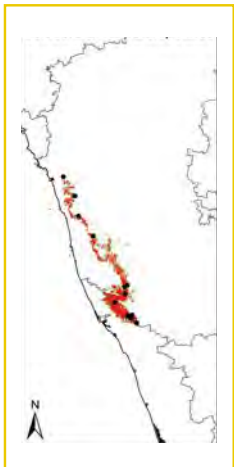
Distribution: Rare, along low elevation riverine habitats of Kerala. Elevation 50-700 m.

Previous assessment: Vulnerable B2ab(i,ii); D2

Goniothalamus cardiopetalus

ANNONACEAE





Description: Shrubs, up to 4 m tall, girth up to 0.17 m.

Leaves simple, alternate; petiole 1-1.8 cm; lamina 10-23 × 3-7 cm, oblong lanceolate, base cuneate, apex acuminate, margins undulating; secondary nerves 10-14 pairs, looping near the margins. **Flowers** greenish, cream or pink, axillary, solitary or rarely in clusters, having a strong fruity odor when mature. **Fruit** a cluster of fruitlets, each up to 1.5 cm long, ellipsoid.

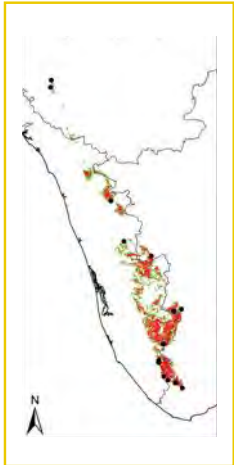
Distribution: Occasional in evergreen forests from North Karnataka to Wayanad district of Kerala. Elevation 400-1150 m. EOO/AOO – 15816/2303 sq km.

Current assessment: Vulnerable B1ab(i,ii)

Hydnocarpus alpina
ACHARIACEAE

Kan: Sanuasotti, Torathi
Mal: Malmurutti, Maravetii, Pinervett
Tam: Attuchankala, Koranguthalai





Description: Trees, up to 20 m tall, girth up to 1.7 m.

Leaves simple, alternate; petiole 0.7-1.5 cm, swollen at both ends, more so in the upper half; lamina 9-25 × 3-8 cm, ovate-lanceolate or narrow elliptic-lanceolate, apex acute, base slightly asymmetric; secondary nerves 7-10 pairs. **Flowers** unisexual, white, solitary or in axillary clusters. **Fruit** globose, up to 7 cm across, woody, brown tomentose.

Distribution: In evergreen forests from South Karnataka to Kanyakumari. Elevation 200-1600 m. EOO/AOO – 17263/3762 sq km.

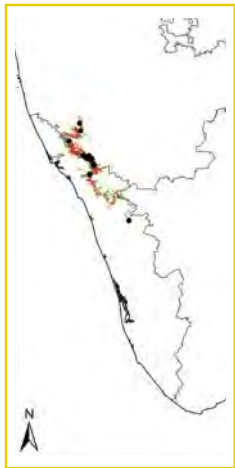
Look-alikes: *Hopea ponga*, *Hopea utilis*, *Hopea canarensis*. Can be distinguished based on the petiole which is swollen at both ends and slightly bent in the middle.

Current assessment: Vulnerable B1ab(i,ii)

Ixora elongata

RUBIACEAE





Description: Small trees, up to 5 m tall, girth up to 0.2 m.

Leaves simple, opposite, decussate; interpetiolar stipules present; petiole about 1 cm long; lamina 7-27 × 3-10 cm, elliptic to elliptic-oblongate; secondary nerves 12-15 pairs. **Flowers** white or pink, in terminal dense congested corymbs, pendule up to 15 cm long. **Fruit** globose.

Distribution: Elevation 750-1200 m. EOO/AOO – 17117/1577 sq km.

Look-alikes: None within its geographic range

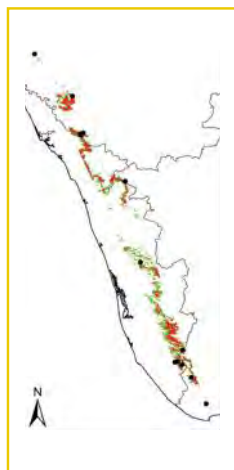
Current assessment: Vulnerable B1ab(i)+2ab(ii)

Kingiodendron pinnatum

FABACEAE

Kan: Chou paini, Enne mara.
Mal: Chukennappayin, Churali,
Ennappayin, Kiyavu, Kulavu.
Tam: Madayan samprani, Koda palai.





Description: Trees up to 30 m tall.

Leaves pinnately compound, alternate; leaflets 5-9 alternate, leaflet petiole 5-10 mm long, grooved; lamina 4.5-10.5 × 2-4.5 cm, ovate-lanceolate, falcate or oblique, apex acuminate, margins entire; secondary nerves 8-13 pairs.

Flowers white, 2-3 mm across, in axillary and terminal paniced racemes.

Fruit ovate-ellipsoid, compressed, up to 5 cm long, single seeded.

Distribution: Low and mid-elevation evergreen forests in central and southern Western Ghats. Elevation 200-900 m. EOO/AOO – 17261/2334 sq km.

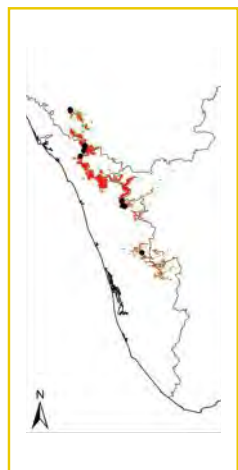
Current assessment: Vulnerable B1ab(i,ii)

Previous assessment: Endangered A1cd

Lasianthus jackianus

RUBIACEAE





Description: Shrubs, up to 3 m tall, girth up to 0.15 m, all parts densely hirsute.

Leaves simple, opposite; petiole 0.2-0.5 cm; lamina 6-16 × 2-4 cm, elliptic-oblong, apex sharply acuminate; secondary nerves 7-8 pairs. **Flowers** white, in axillary cymes. **Fruit** globose with persistent calyx.

Distribution: Occasional in evergreen forests from Kodagu to Kollam. Elevation 800-1200 m. EOO/AOO – 8933/1231 sq km.

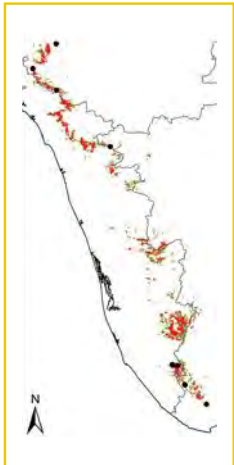
Look-alikes: Other species of *Lasianthus*. Can be distinguished based on densely hirsute nature of the entire plant.

Current assessment: Vulnerable B1ab(i)+2ab(ii)

Leptonychia caudata

MALVACEAE





Description: Under-storey trees, up to 7 m tall, girth up to 0.4 m.

Leaves simple, alternate; petiole 0.7-1.3 cm, swollen in the upper half; lamina 8-16 × 3-7 cm, narrow elliptic or elliptic-oblong, apex caudate acuminate, base 3-nerved; secondary nerves 5-6 pairs. **Flowers** greenish in short axillary cymes. **Fruit** obovoid, 1.8 cm long, seeds with scarlet aril.

Distribution: Indo-Malaysia. Rare in evergreen forests of Western Ghats Kodagu to Kanyakumari. EOO/AOO – 17418/1575 sq km.

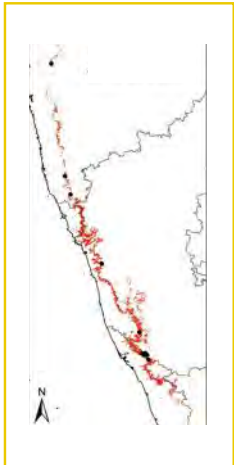
Look-alikes: *Strombosia ceylanica*, *Antidesma menasu*. Can be distinguished based on 3-nerved leaf base.

Current assessment: Vulnerable B1ab(i)+2ab(ii)

Mallotus aureopunctatus

EUPHORBIACEAE





Description: Dioecious trees, up to 8 m tall, girth up to 0.5 m.

Leaves simple, opposite, decussate; petiole up to 1.5 cm long; lamina 9-20 × 2-7 cm, elliptic-lanceolate, apex acuminate, margin dentate, yellow glands below; secondary nerves 7-10 pairs. **Flowers** in racemes. **Fruit** trilobed, echinous, about 1 cm diameter.

Distribution: Elevation 420-870 m. EOO/AOO –9251/2733 sq km.

Look-alikes: *Mallotus stenanthus*. Can be distinguished bases on the spines on the fruit which are soft, long and dense in *M. aureopunctatus* while few, stout and conical in *M. stenanthus*.

Current assessment: Vulnerable B1ab(i,ii)

Mallotus stenanthus
EUPHORBIACEAE

Tam: Karuvalichi





Description: Small trees, up to 4 m tall, girth up to 0.3 m.

Leaves simple, opposite, decussate; petiole about 2 cm long, both ends swollen; lamina 5-14 × 2-6 cm, elliptic-rhomboid, apex caudate, yellow glands below, margin dentate; secondary nerves 5-10 pairs. **Flowers** yellowish white in terminal or axillary racemes. **Fruit** trilobed with conical spines.

Distribution: Elevation 670-870 m. EOO/AOO – 56790/837 sq km.

Look-alikes: *Mallotus aureopunctatus*. Can be distinguished bases on the spines on the fruit stout and conical in *M. stenanthus* while soft, long and dense in *M. aureopunctatus*.

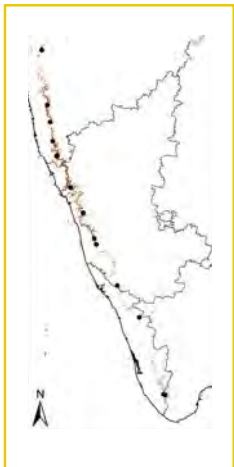
Current assessment: Vulnerable B2ab(i,ii)

Memecylon umbellatum

MELASTOMATACEAE

Kan: Alle, Archana, Arachare,
Mal: Anakkayavu, Kalyam, Kanila,
Tam: Alli, Anjani, Kasai
Marathi: Anjan





Description: Trees, up to 18 m tall, girth up to 2 m.

Leaves simple, opposite, decussate; petiole 1 cm long; lamina 2-9 × 1-4 cm, elliptic-ovate, apex acuminate; secondary nerves inconspicuous. **Flowers** bluish violet in axillary peduncled cymes. **Fruit** globose, purple, 0.5 cm diameter.

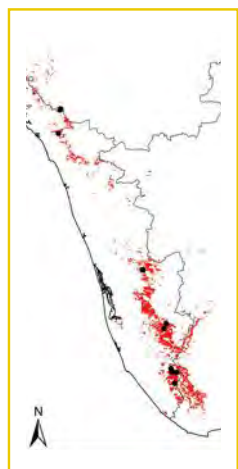
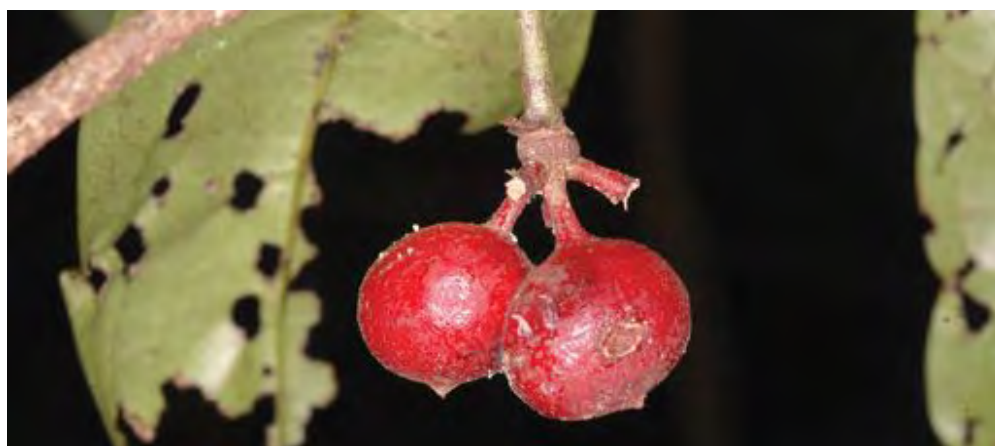
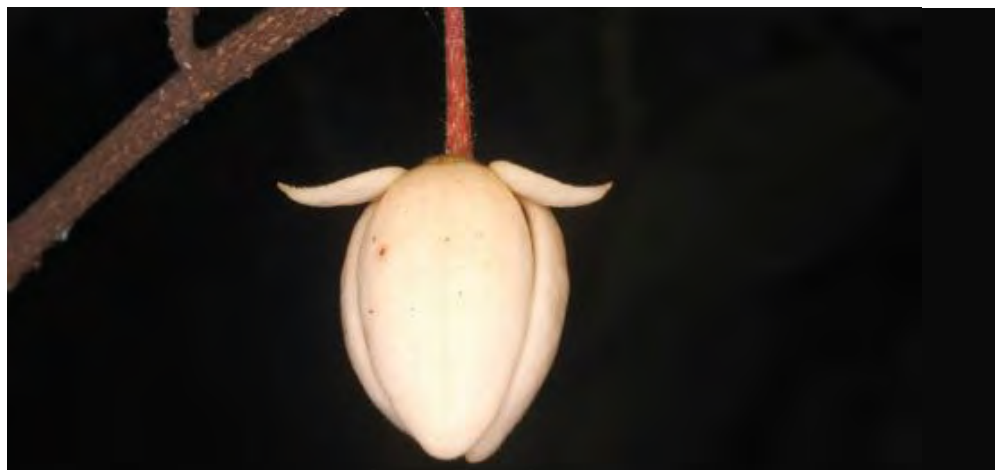
Distribution: Elevation 450-1210 m. EOO/AOO – 49122/1832 sq km.

Look-alikes: *Memecylon talbotianum*. Can be distinguished based on leaf shape which is ovate, lanceolate in *M. talbotianum* while elliptic in *M. umbellatum*. These two species can also be distinguished base on fruit color which is yellow in *M. talbotianum* while blue-purple in *M. umbellatum*.

Current assessment: Vulnerable B2ab(i,ii)

Phaeanthus malabaricus
ANNONACEAE





Description: Small trees, up to 2 m tall, branchlets sparsely tomentose.

Leaves simple, alternate, distichous; petiole 0.1-0.3 cm long; lamina 10-20 × 3-6 cm, margin undulate, pubescent below and glabrous above; secondary nerves 8-10 pairs. **Flowers** creamy-white, solitary or in fascicles. **Fruit** red, clustered.

Distribution: Elevation 40-720 m. EOO/AOO – 7908/1823 sq km.

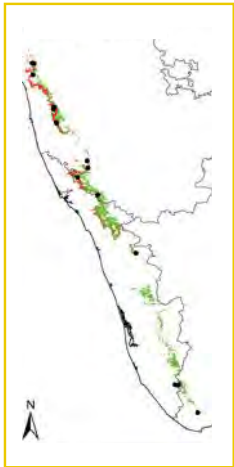
Current assessment: Vulnerable B1ab(i)

Pinanga dicksonii

ARECACEAE

Kan: Kangu, Katadike
Mal: Kanakamugu, Kattukavungu
Tam: Kaanakamugu





Description: Palms, up to 5 m tall, stems clustered.

Leaves pinnately compound, 1.5 m long; leaflets 50×3 cm, linear-lanceolate, opposite. **Flowers** in drooping deflexed inflorescences below the leaves, unisexual, in groups of three. **Fruit** ellipsoid, 0.8×0.3 cm.

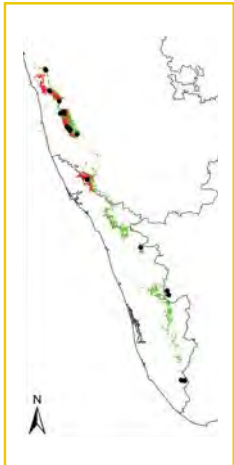
Distribution: Elevation 490-980 m. EOO/AOO – 18477/1153 sq km.

Current assessment: Vulnerable B1ab(i)

Poeciloneuron indicum
CALOPHYLLACEAE

Kan: *Balige, Kirballi*
Mal: *Poothamkolli*
Tam: *Puthangkolli, Vadinaangu,*
Vavilavazhala





Description: Trees, up to 30 m tall, girth up to 3 m.

Leaves simple, opposite, decussate; petiole 1-2 cm long; lamina 10-29 × 3-9 cm, elliptic-oblong to lanceolate, apex caudate-acuminate; secondary nerves numerous. **Flowers** fragrant in terminal panicle, petals white. **Fruit** globose, beaked, 4 cm across, grey-brown when ripe.

Distribution: Elevation 490-1200 m. EOO/AOO – 22026/1005 sq km.

Current assessment: Vulnerable B2ab(i,ii)

Psychotria anamallayana

RUBIACEAE





Description: Trees, up to 12 m tall, girth up to 0.3 m.

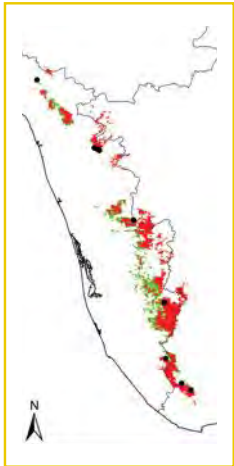
Leaves simple, opposite, decussate; narrow stipules; petiole 1.5-4 cm long; lamina 15-25 × 4-8 cm, oblanceolate, apex acuminate; secondary nerves 8-13 pairs. **Flowers** green in terminal corymbose cymes. **Fruit** oblong, purple, about 3 cm long.

Distribution: Elevation 630-1200 m. EOO/AOO – 5035/909 sq km.

Current assessment: Vulnerable B1ab(i)+2ab(ii)

Sarcandra chloranthoides
CHLORANTHACEAE





Description: Shrubs, up to 1.5 m tall.

Leaves simple, opposite; petiole up to 0.6 cm long; lamina 13-17 × 4-7 cm, elliptic, apex acute, margin serrate; secondary nerves 7 or 8 pairs. **Flowers** yellow in long spike. **Fruit** ovoid, 1 × 0.5 cm, purplish-black.

Distribution: Elevation 650-1250 m. EOO/AOO – 9509/1401 sq km.

Current assessment: Vulnerable B1ab(i)

Symplocos rosea
SYMPLOCACEAE

Mal: Malankuruv





Description: Trees, up to 13 m tall, girth up to 0.4 m.

Leaves simple, alternate, spiral; petiole up to 1.5 cm long; lamina 7-20 × 3-6 cm, elliptic to narrow elliptic-ob lanceolate, apex caudate-acuminate, margin serrate; secondary nerves 5-10 pairs. **Flowers** pink in racemes, up to 4 cm long. **Fruit** oval-shaped, dark pink, 1-2 × 0.5 cm.

Distribution: Elevation 170-810 m. EOO/AOO – 13535/3878 sq km.

Look-alikes: Other species of *Symplocos*.

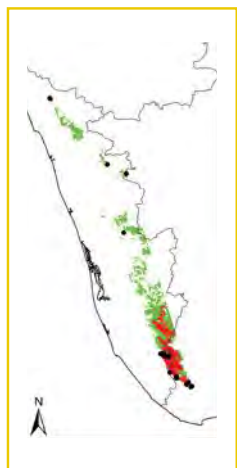
Current assessment: Vulnerable B1ab(i)

Syzygium mundagam

MYRTACEAE

Mal: Kattuchamba; Mundagam
Tam: Kotta samba





Description: Trees up to 26 m tall, girth up to 3 m.

Leaves simple, opposite, decussate; petiole 0.4-1 cm long; lamina 14-31 × 4-12 cm, oblong or elliptic-oblong, pellucid gland dotted, apex obtuse to acuminate; secondary nerves 15-22 pairs. **Flowers** large, white in terminal corymbs. **Fruit** ovoid, greenish-pink, 2.5 cm long, calyx persistent.

Distribution: Elevation 180-1330 m. EOO/AOO – 12915/1544 sq km.

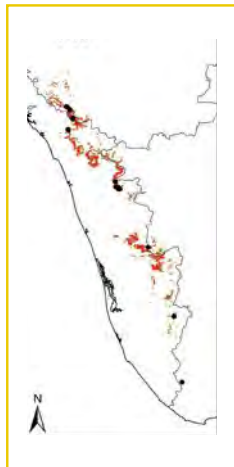
Current assessment: Vulnerable B1ab(i)+2ab(ii)

Syzygium munronii

MYRTACEAE

Mal: *Njara, Njaral*
Tam: *Ilambili*





Description: Trees, up to 21 m tall, girth up to 1.7 m.

Leaves simple, opposite, decussate; petiole 0.4-1 cm long; lamina 15-28 × 3-7 cm, lanceolate, pellucid gland dotted, apex acuminate, intra-marginal nerves present; secondary nerves 16-22 pairs. **Flowers** whitish pink in terminal cymes. **Fruit** ellipsoid, greenish pink, 4 cm across, calyx persistent.

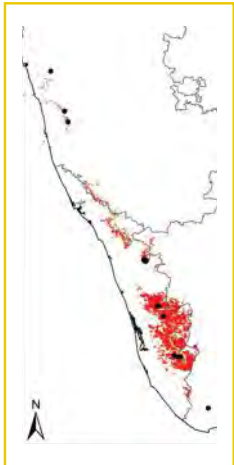
Distribution: Elevation 750-1250 m. EOO/AOO – 10451/996 sq km.

Current assessment: Vulnerable B1ab(i)+2ab(ii)

Turpinia malabarica
STAPHYLEACEAE

Mal: Alunkumaram, Kanakkappalam, Marali





Description: Trees up to 33 m tall, girth up to 2.2 m.

Leaves compound, opposite, imparipinnate, 17-40 cm long, number of leaflets 7-9; leaflets opposite, elliptic, margin serrate, apex acuminate, secondary nerves 5-7 pairs. **Flowers** in terminal and axillary panicles, cream colored. **Fruit** woody, globose, 2.5 cm across, mottled with white.

Distribution: Occasional in evergreen forests from Sirsi to Kanyakumari and Sri Lanka. Elevation 50-1100m. EOO/AOO – 14069/3702 sq km.

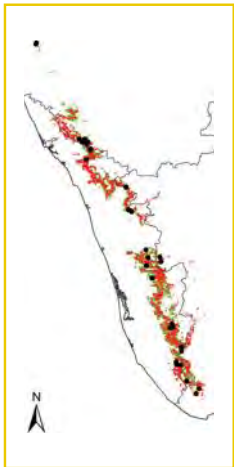
Look-alikes: *Turpinia cochin-chinensis* which is found at elevations above 1600 m.

Current assessment: Vulnerable B1ab(i) (status only for Western Ghats, excluding Sri Lanka)

Xanthophyllum arnottianum
POLYGALACEAE

Mal: Madukka,
Madakka, Mottal
Tam: Muttainarathai





Description: Trees, up to 12 m tall, girth up to 1.0 m.

Leaves simple, alternate, distichous; petiole up to 0.7 cm long, glabrous; lamina 5-15 × 2-6 cm, narrow elliptic to elliptic-oblong or oblong-lanceolate, apex acuminate; secondary nerves 5-9 pairs. **Flowers** white-yellowish in terminal or axillary panicles. **Fruit** globose, dark green, 1 cm diameter, rough.

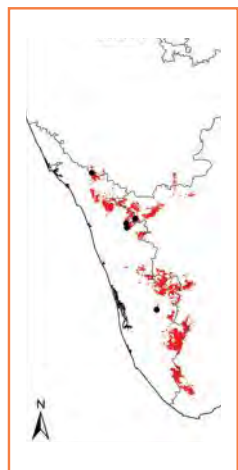
Distribution: Elevation 40-1100 m. EOO/AOO – 17402/4728 sq km.

Current assessment: Vulnerable B1ab(i)

Actinodaphne salicina

LAURACEAE





Description: Large shrubs or small trees, up to 6 m tall.

Leaves simple, clustered in (pseudo) whorls; petiole up to 1 cm long; lamina 8.5 × 2.5 cm, narrowly elliptic, lanceolate, glaucous beneath, apex acuminate; secondary nerves 8-12 pairs. **Flowers** unisexual, yellowish on short axillary inflorescences. **Fruit** globose, orange, 0.8 cm diameter.

Distribution: Central Western Ghats from Kodagu to Pallakad district. Elevation: 700-1100m. EOO – 4488 sq km.

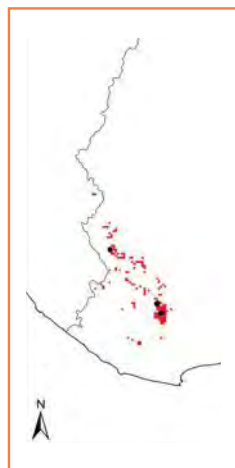
Current assessment: Endangered B1ab(i)

Agasthiyamalaia pauciflora

CLUSIACEAE

Ma: Poothakkali,
Pulivayila
Tam: Puthangkolli





Description: Trees, up to 20 m tall, girth up to 1 m.

Leaves simple, opposite, oblong-elliptic, lanceolate, 6-15 × 1.5-4 cm, apex caudate-acuminate, margins undulating, secondary nerves and reticulation obscure, petiole 0.7-1.2 cm. **Flowers** white, up to 4 together in axillary fascicles, 1.2 cm across. **Fruit** ovoid, 1.3 cm across, with a beak, dehiscent when mature.

Distribution: A monotypic genus, narrowly distributed only in Agasthyamalai and Ashambu hills of Trivandrum, Tirunelveli and Kanyakumari district. Elevation 700-1200 m. AOO – 147 sq km.

Look-alikes: *Poeciloneuron indicum*, *Mesua ferrea*, *Hunteria zeylanica*. Can be distinguished based on obscure secondary nerves on the undersurface of the leaves.

Current assessment: Endangered B1ab(i)+2ab(ii)

Ardisia blatterii

MYRSINACEAE





Description: Large shrubs or small trees, up to 5 m tall.

Leaves simple, alternate; petiole up to 1 cm long; lamina 8×2.5 cm, elliptic, acuminate at both ends, margin crenate; secondary nerves 12-16 pairs, depressed above. **Flowers** white in axillary umbels. **Fruit** globose, 0.5 cm diameter, purplish black.

Distribution: Restricted to Megamalai and Agastyamalai hills in the shola forests at elevations above 1500 m.

Look-alikes: Other species of *Ardisia*. It can be distinguished based on the depressed nature of the secondary nerves which gives the leaf lamina its peculiar undulating character.

Previous assessment: Endangered B2ab(i,ii)

Atuna indica
CHRYSOBALANACEAE





Description: Trees, up to 22m tall, girth up to 0.8 m.

Leaves simple, alternate; stipules present; petiole 0.5-1.5 cm; lamina 17-21 × 5-8 cm, oblong, elliptic-lanceolate, elliptic-oblong or elliptic-ovate, apex acuminate or obtusely acuminate; secondary nerves 12-18 pairs. **Flowers** white, in axillary or terminal corymbose racemes. **Fruit** oval-shaped, 4 × 3 cm.

Distribution: Elevation 400-700 m. EOO/AOO – 1464/775 sq km.

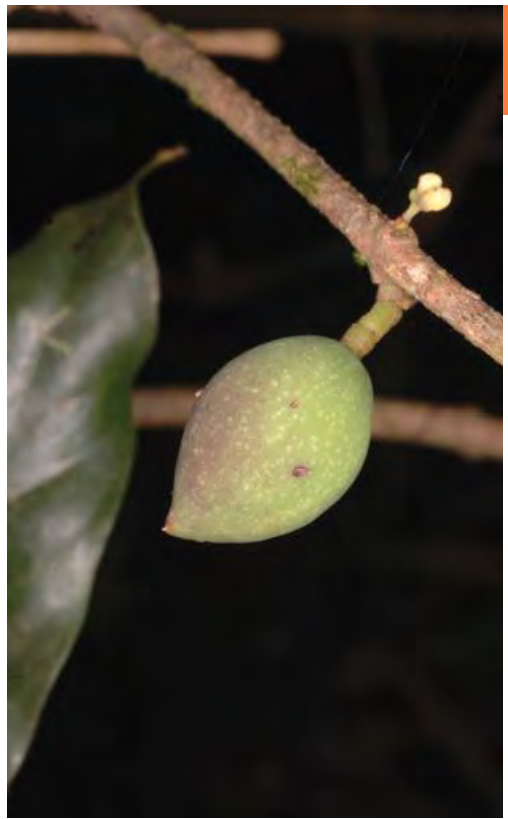
Current assessment: Endangered B1ab(i)

Chionanthus courtallensis

OLEACEAE

Tam: *Kal idalei*





Description: Understory trees, up to 20 m high, girth up to 0.5 m.

Leaves simple, opposite, elliptic-oblong, 8-12 × 3-5 cm, apex acuminate, secondary nerves 6-10 pairs, petiole 0.5-0.8 cm long. **Flowers** white in short axillary racemes. **Fruit** ovoid, 1 cm across.

Distribution: Rare in evergreen forests of Agasthyamalai hills. Elevation 600-800 m. EOO/AOO – 2737/632 sq km.

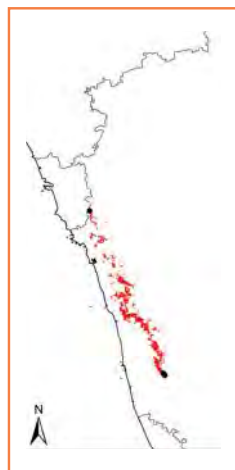
Look-alikes: *Chionanthus* spp. Can be distinguished by its oblong-elliptic leaves.

Current assessment: Endangered B2ab(i,ii)

Cleistanthus malabaricus

PHYLLANTHACEAE





Description: Large shrub or a small tree, young parts, petiole and nerves rufous-hirsute.

Leaves simple, alternate; petiole 0.2-0.5 cm; lamina oblong-obovate to oblanceolate, 4-13 × 2-4.5 cm, glaucous beneath, apex acuminate, secondary nerves 6-9 pairs. **Flowers** monoecious in axillary clusters or spikes. **Fruit** three lobed, fulvous hairy, 1 cm in diameter.

Distribution: Rare along streams in low-mid elevation evergreen forests of Karnataka from Uttar-kanada to Hasan district. Elevation 400-800 m. EOO/AOO – 3201/1524 sq km.

Look-alikes: *Litsea* spp. Can be distinguished by the presence of stipules.

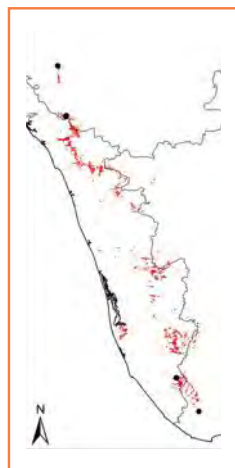
Current assessment: Endangered B1ab(i)+2ab(ii)

Cynometra travancorica

FABACEAE

Mal: *Koori*





Description: Trees up to 30 m tall.

Leaves compound, alternate, bi-foliolate, rachis/petiole 0.7 cm; leaflets oblique/asymmetric, lanceolate, 4-14 × 2-14 cm, secondary nerves 12-14 pairs. **Flowers** white or rosy in short axillary racemes. **Fruit** flat, semi-circular, smooth, up to 3.5 cm long.

Distribution: Rare in low elevation evergreen forest from Hassan to Trivandrum. Elevation 200-700m. EOO/AOO – 6181/518 sq km.

Look-alikes: *Humboldtia unijuga*, from which it can be distinguished based on lack of foliaceous stipules

Current assessment: Endangered B2ab(i,ii)

Dipterocarpus bourdilloni

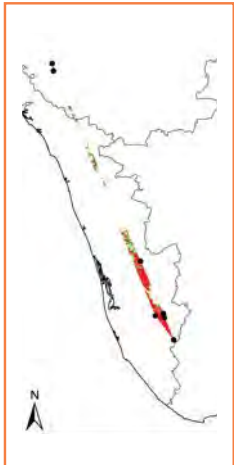
DIPTEROCARPACEAE

Mal: *Karannili*
Tam: *Karanjili*





branches hairy with ring like stipular scars above the petiole



Description: Emergent trees up to 50 m tall, girth up to 5 m, young parts and stipules densely hirsute.

Leaves simple, alternate, broadly elliptic or ovate, 20-25 × 15 cm, stellate pubescent beneath, apex shortly acuminate, secondary nerves strong, uniformly parallel, 13-16 pairs, petiole 4.5 cm. **Flowers** in axillary racemes, pink or cream colored. **Fruit** 2 cm across, 5 ribbed/winged, with two enlarged wing like calyx lobes.

Distribution: Rare in low elevation evergreen forests from Coorg to Kollam. Elevation 40-250 m. EOO/AOO – 2502/1103 sq km.

Look-alikes: *Dipterocarpus indicus* and *Artocarpus hirsutus*. Can be distinguished based on the presence of pubescence on the undersurface of mature leaves from prior and absence of latex from later.

Current assessment: Endangered B1ab(i,ii)

Eugenia macrosepala
MYRTACEAE





Description: Shrubs or small trees, up to 10 m tall, girth up to 0.4 m, young parts pubescent, young leaves reddish.

Leaves simple, opposite; petiole 0.5-0.8 cm; lamina 6-12 × 2.5-4 cm, elliptic or elliptic-ovate, apex shortly acuminate, secondary nerves 6-10 pairs. **Flowers** sessile, white, axillary, solitary or in pairs.

Distribution: Uncommon in evergreen and semi-evergreen forests from Goa to Chikmangalur district of Karnataka. Elevation 300-700 m. EOO/AOO – 4893/1699 sq km.

Look-alikes: *Eugenia* spp., *Syzygium laetum*, *Euonymus indicus*. Large green calyx lobes separated this species from other species of *Eugenia* and *Syzygium*.

Current assessment: Endangered B1ab(i,ii)

Gluta travancorica

ANACARDIACEAE

Eng: Tinnelvelli red wood
Mal: Thodappai
Tam: Senkurinji, Shencurani





Description: Large trees, up to 30 m tall.

Leaves simple, alternate, crowded towards the ends of branches; petiole 1-2 cm long, glabrous; lamina 8-18 × 4-7 cm, obovate-spathulate, apex obtuse; secondary nerves 13-18 pairs. **Flowers** cream colored in terminal or axillary panicles. **Fruit** globose, brown, 3-4 cm diameter.

Distribution: Elevation 600-1400 m. EOO/AOO – 289/267 sq km.

Current assessment: Endangered B1ab(i)+2ab(ii)

Goniothalamus wightii
ANNONACEAE

Mal: Malamthelli



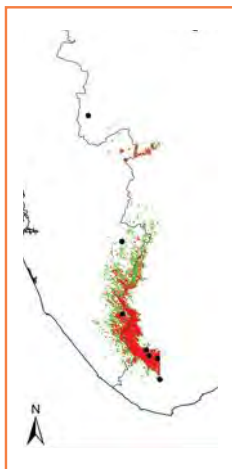


Description: Shrubs or small trees, up to 5 m tall, girth up to 0.3 m.

Leaves simple, alternate; petiole 0.7-1 cm; lamina 10-15 × 3-4 cm, narrowly ovate-lanceolate; secondary nerves 10-13 pairs, not very prominent. **Flowers** pinkish, axillary, solitary, having a strong fruity odor when mature. **Fruit** a cluster of fruitlets, each up to 2 cm long, ellipsoid.

Distribution: Rare in high elevation evergreen forests from Periyar to Kanyakumari. EOO/AOO – 2276/606 sq km.

Current assessment: Endangered B1ab(i,ii)



Humboldtia brunonis

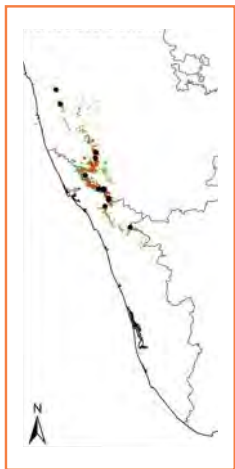
FABACEAE

Kan: *Hasige Maraa, Kaat-ashoka*





stipules large with leafy appendages



Description: Understory trees, up to 15 m tall, girth up to 1.4 m.

Leaves compound, alternate, pari-pinnate, reddish when young, with a pair of large leafy conspicuous stipules; petiole very stout; leaflets 2 pairs, sub-sessile, lamina 8-25 × 3-7 cm, narrowly elliptic to oblanceolate, apex acuminate, base oblique/asymmetric; secondary nerves 10-12 pairs. **Flowers** whitish-pink, in axillary racemes. **Fruit** 7 × 3 cm, flattened.

Distribution: Common in low and mid elevation evergreen forest from Agumbe to Wayanad. Elevation 400-1000 m. EOO/AOO – 4392/816 sq km.

Look-alikes: Other species of *Humboldtia*, *Saraca asoka*, *Cynometra* spp and *Kingiodendron pinnatum*. Can be distinguished based on 2 pairs of leaflets and peculiar shape of the stipules.

Current assessment: Endangered B1ab(i,ii)

Humboldtia vahliana

FABACEAE

Mal: Aattuvanchi, Karappongu, Korathi,
Kurappunna





stipules large with leafy appendages

Description: Trees, up to 18 m tall.

Leaves pinnately compound, alternate; leaflets 4-8 pairs, petiole of the leaflets up to 1 cm long, tomentose; lamina 10-25 × 3-6 cm, oblong-lanceolate, glabrous, apex acuminate; secondary nerves 8-14 pairs. **Flowers** white in axillary velvety racemes. **Fruit** elliptic, flat, up to 20 cm long, brown-villous.

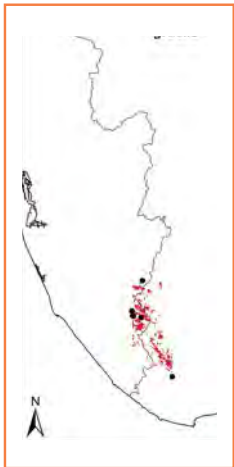
Distribution: South of Palghat in low elevation riverine forests from 100 to 700 m.

Previous assessment: Endangered B1ab(i,ii,iii,iv)

Memecylon gracile

MELASTOMATACEAE





Description: Small Trees, up to 4 m tall, girth up to 0.3 m.

Leaves simple, opposite; petiole up to 0.4 cm long; lamina 3-7 × 1-2 cm, ovate-lanceolate, apex caudate; secondary nerves inconspicuous. **Flowers** pale blue in axillary cymes. **Fruit** globose, black when ripe, 0.6 cm diameter.

Distribution: Elevation 150-1150 m. EOO/AOO – 652/406 sq km.

Current assessment: Endangered B1ab(i)+2ab(ii)

Memecylon subramanii

MELASTOMATACEAE





Description: Large shrubs, up to 4 m tall, young branches four angled.

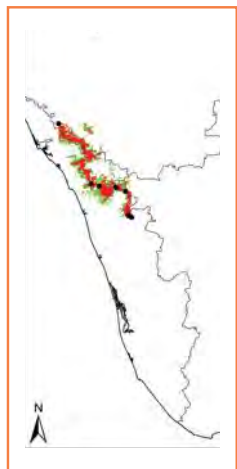
Leaves simple, opposite; petiole sessile or subsessile; lamina 20-40 x 6-14 cm, lanceolate, acuminate at apex, rounded at base, intramarginal nerve present; secondary nerves about 24 pairs. **Flowers** bluish violet in axillary, long peduncled cymes. **Fruit** globose, purple, 1 cm diameter with persistent calyx cup.

Distribution: Elevation 900-1100 m. EOO < 500 sq km. Restricted to the Agasthyamalai region of the southern Western Ghats.

Look-alikes: *Memecylon lawsonii*, *Syzygium munronii*. Can be distinguished from prior based on the size of the leaves (less than 20 cm in *M. lawsonii*) and from later based on the absence of translucent gland dots on the leaf lamina. Current assessment: Endangered B1ab(i,ii)

Miliusa gokhala
ANNONACEAE





Description: Small trees, up to 5 m tall, girth up to 0.4 m.

Leaves simple, alternate; lamina 6–12 × 2–4 cm, oblong or obovate, apex caudate acuminate, rounded at base; secondary nerves 10–14 pairs. **Flowers** greenish-yellow, solitary. **Fruit** obovoid, beaked, deep pink to white, glabrous.

Distribution: Elevation 520–1160 m. EOO/AOO – 1733/1449 sq km. Central western Ghats in Kodagu and Waynad districts.

Look-alikes: *Milusa indica*. The distributions of these two species do not overlap with *M. gokhalei* distribution restricted to north of the Palghat gap (Waynad district) while that of *M. indica* to the south (Anamalai hill ranges).

Current assessment: Endangered B1ab(i,ii)

Milium nilagirica

ANNONACEAE





Description: Small trees, up to 7m tall, girth up to 0.3 m;

Leaves simple, alternate, distichous; petioles up to 0.7 cm long; lamina 5-10 × 2-4 cm, ovate, lanceolate or elliptic-lanceolate, apex caudate-acuminate; secondary nerves 6 pairs. **Flowers**, exaxillary, solitary, purplish-brown. **Fruit** globose, clustered.

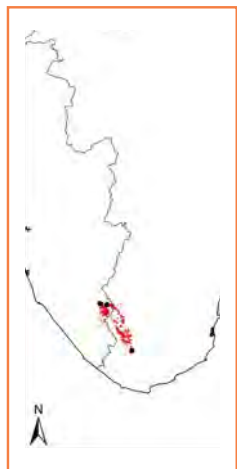
Distribution: Elevation 670-1220 m. EOO/AOO – 3982/1094 sq km.

Look-alikes: *Miliusa malnadensis* which is found at elevations above 1200 m while *M. nilagirica* is found below 1200 m elevation.

Current assessment: Endangered B1ab(i,ii)

Nothopegia Aureofulva
ANACARDIACEAE





Description: Shrubs or small trees, up to 5 m tall, young branches and petiole rusty pubescent.

Leaves simple, opposite or sub-opposite; lamina 12-20 × 2-5cm, linear oblong to lanceolate, apex acuminate; secondary nerves 20-30 pairs. **Flowers** brown in short axillary racemes. **Fruit** globose, 0.5 cm diameter.

Distribution: Elevation 650-720 m. EOO/AOO – 147/370 sq km.

Look-alikes: Other species of *Nothopegia*. This is the only species of the genus with opposite, sub-opposite leaves and fulvous pubescent branches.

Current assessment: Endangered B1ab(i)+2ab(ii)

Orophea sivarajanii
ANNONACEAE





Description: Large shrubs, up to 3 m tall.

Leaves simple, alternate; petiole 0.3 cm long; lamina 7-15 × 3-6 cm, oblong or elliptic-oblong, apex acuminate; secondary nerves 7-11 pairs. **Flowers** greenish white, solitary or in axillary racemes. **Fruit** globose in clusters of up to 6.

Distribution: Elevation 500-700 m. AOO – 354 sq km. Restricted to Central western Ghats in Kodagu and Waynad districts.

Look-alikes: Other species of *Orophea*. Can be distinguished based on its large leaf size.

Current assessment: Endangered B2ab(i,ii)

Orophea thomsonii

ANNONACEAE





Description: Small trees, up to 10 m tall, girth up to 0.4 m.

Leaves simple, alternate, distichous; petiole up to 0.5 cm long; lamina 5-7 × 2-4 cm, ovate-elliptic, apex acuminate; secondary nerves 6 pairs. **Flowers** creamy white, solitary or paired, covered with short hairs. **Fruit** in clusters of up to 6, globose, 1 cm across, purple when ripe.

Distribution: Elevation 240-1240 m. EOO/AOO – 2128/577 sq km.

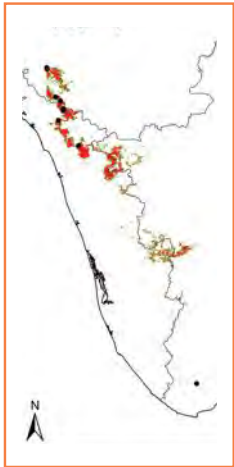
Current assessment: Endangered B1ab(i,ii)

Syzygium tamilnadensis

MYRTACEAE

Mal: Kallunjaval, Kalmoni, Poriyil





Description: Trees, up to 24 m tall, girth up to 1.5 m.

Leaves simple, opposite, decussate; petiole up to 1.5 cm long; lamina 6-13 × 3-8cm, elliptic-lanceolate or obovate, pellucid gland dotted, apex obtuse; secondary nerves about 12 pairs. **Flowers** white, small in terminal corymbose cyme. **Fruit** globose, brownish red, 1 cm diameter, calyx persistent.

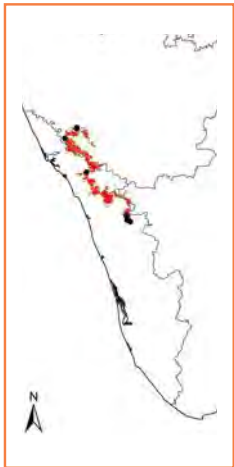
Distribution: Elevation 770-2000 m. EOO – 4210 sq km.

Current assessment: Endangered B1ab(i,ii)

Note: This species seems to exhibit two leaf forms. The low elevation form shows oblong elliptic lanceolate leaves and is seen at elevations of up to 1200 m in Kodagu and Wayand. The high elevation form is seen at 1500-2200 m elevation in shola forests of Nilgiris and Megamalai hills and shows more elliptic orbicular and glaucous leaves.

Thottea sivarajanii
ARISTOLOCHIACEAE





Description: Shrubs, tall up to 2 m, swollen nodes more than 20.

Leaves simple, alternate; petiole up to 0.5 cm; lamina 13-22 × 3-6 cm, narrow elliptic-lanceolate, apex acuminate, base tri-nerved; secondary nerves 2-3 pairs. **Flowers** dark purple in axillary cymes. **Fruit** green, 5-7 cm long.

Distribution: Elevation 840-1210 m. EOO/AOO – 2588/1161 sq km.

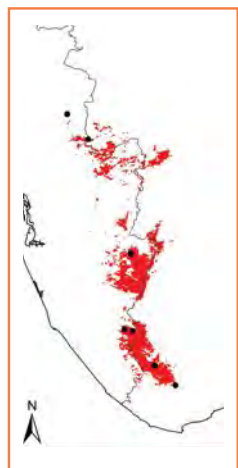
Look-alikes: Other species of *Thottea*. Can be distinguished based on flowers and four angled fruit.

Current assessment: Endangered B1ab(i,ii)

Tabernaemontana gamblei

APOCYNACEAE





Description: Large shrubs, up to 3 m tall, girth up to 0.1 m.

Leaves simple, opposite, decussate; petiole 1 cm with a short clasping sheath at base; lamina 6-12 × 2-5 cm, elliptic or elliptic-lanceolate, apex caudate-acuminate; secondary nerves 7-9 pairs. **Flowers** white in terminal corymbose cymes. **Fruit** oblong, greenish yellow, 4 × 1 cm.

Distribution: Elevation 650-1250 m. EOO/AOO – 4125/1382 sq km.

Current assessment: Endangered B1ab(i,ii)

Elaeocarpus gausсенii
ELAEOCARPACEAE





large domatia in the axils of secondary nerves



Description: Trees up to 20 m tall.

Leaves simple, alternate, 6-8 × 2.5-4 cm long, elliptic to elliptic-obovate, margin serrate, secondary nerves 4-6 pairs with domatia in the axils. **Flowers** in axillary racemes, calyx red, petals white. **Fruit** spherical, 2.5 cm across, one seeded.

Distribution: Restricted only to the montane evergreen forests of Megamalai hills. Elevation 1400-1600 m. EOO < 500 sq km.

Look-alikes: *Elaeocarpus serratus* and *Elaeocarpus variabilis*. Can be distinguished based on smaller, obovate leaves and flowers with less than 15 stamens.

Previous assessment: Critically Endangered B1ab(i)+2ab(ii)

Aporosa bourdillonii
PHYLLANTHACEAE

Mal: Malamvetti





Description: Understory trees, up to 8 m tall, girth up to 0.3 m.

Leaves simple, alternate, oblong or elliptic-oblong, 10-17 × 4-6 cm, apex caudate-acuminate, secondary nerves 7-10 pairs, petiole 1-2 cm long, swollen at both ends. **Flowers** unisexual, dioecious, male flowers in axillary spikes, female 3-4 flowered axillary racemes. **Fruit** ovoid or spherical with echinate processes, up to 2 cm long, stigma persistent.

Distribution: Rare, in low elevation evergreen and semi-evergreen forests. Elevation 40-200 m.

Look-alikes: *Aporosa lindleyana*. Can be distinguished based on the caudate-acuminate leaf apex.

Current assessment: Data deficient

Cinnamomum heyneanum

LAURACEAE





Description: Small trees.

Leaves opposite or sub-opposite, narrow-ovate, linear-lanceolate, 4-10 × 1-2 cm, three-nerved at the base, apex narrowly acute to acuminate, petiole 0.5-1 cm. **Flowers** cream colored, in axillary panicles. **Fruit** ellipsoid, 1 cm long, calyx lobes persistent.

Distribution: Rare, in low elevation evergreen forests along streams.

Look-alikes: *Cinnamomum riparium*.

Current assessment: Data deficient

Elaeocarpus munroii
ELAEocarpaceae

Kan: Nari bikki, Kal bikki
Mal: Pungeri, Punkara
Tam: Rudraksham





Description: Trees up to 20 m tall, girth up to 1.5 m.

Leaves simple, alternate, clustered at the end of branches; petiole 2-4.5 cm; lamina 4-9 × 2-4.5 cm, ovate or narrow ovate, lanceolate, base rounded, apex acuminate, margins crenate, secondary nerves 4-7 pairs with domatia in their axils. **Flowers** white in axillary racemes. **Fruit** elliptic, 2 cm long.

Distribution: Occasional; at high elevations, often along the margins of the Shola forests. Elevation 800-1800 m.

Look-alikes: Other species of *Elaeocarpus*. Can be distinguished based on ovate to narrow ovate leaves and the presence of domatia in the axils of the secondary nerves.

Current assessment: Data Deficient

Eugenia argentea

MYRTACEAE





Description: Shrubs or small trees, up to 4 m tall, girth up to 0.2 m, young parts silvery tomentose.

Leaves simple, opposite; petiole 0.3-0.5 cm; lamina 8-12 × 1.5-3 cm, oblong, lanceolate, base rounded, apex acuminate, silvery tomentose beneath, secondary nerves 17-20 pairs, their ends connected by an intra-marginal nerve running parallel to the leaf margin. **Flowers** white in axillary clusters. **Fruit** globose, 1.5 cm in diameter.

Distribution: Restricted to mid elevation forests, often along streams in Waynad region of Kerala. Elevation 600-1300 m.

Look-alikes: *Meteoromyrtus waynadensis*, *Eugenia thwaitesii*. Can be distinguished based on oblong leaflets and silvery tomentose young parts and under surface of leaves .

Current assessment: Data Deficient. Data suggests that this species is likely to be Critically Endangered.

Glyptopetalum grandiflorum
CELASTRACEAE





Description: Shrubs up to 1 m tall, young branches angled.

Leaves simple, opposite; petiole 0.4-0.9 cm; lamina 10-15 × 5-7 cm, elliptic oblong, apex shortly acuminate; secondary nerves 7-9 pairs. **Flowers** yellow, in long, filiform, three flowered peduncles. **Fruit** globose, 2 cm in diameter, dehiscent, seeds covered with scarlet red aril.

Distribution: Rare; in Kodagu and Wayanad districts. Elevation 600-900 m.

Look-alikes: *Euonymus* spp. Can be distinguished based on reproductive characters and size of the plant.

Current assessment: Data Deficient

Helicia nilagirica
PROTEACEAE





Description: Trees, up to 12 m tall, girth up to 0.5 m.

Leaves simple, alternate; petiole 0.5-1.5 cm, swollen at base; lamina 6-9 × 3-5 cm, elliptic or elliptic-ovate, base cuneate, apex acuminate, margins distantly serrate or dentate; secondary nerves 7-9 pairs. **Flowers** pink in drooping axillary racemes. **Fruit** globose, 1.5 cm across.

Distribution: Rare; often along streams from Agumbe to Kanyakumari.

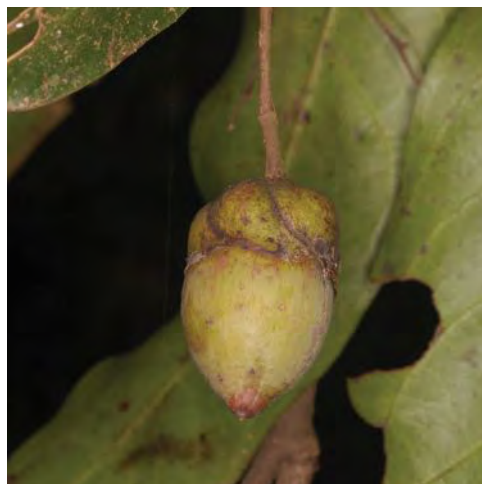
Look-alikes: *Symplocos* spp. Distinguished based on distantly serrate leaves and short petiole with a swollen base.

Current assessment: Data Deficient

Hopea erosa
DIPTEROCARPACEAE

Tam: Karunkongu





semi-cordate leaf base

Description: Trees, up to 18 m tall, girth up to 1 m, young twigs and petiole minutely hairy when young.

Leaves simple, alternate; petiole stout, 0.5 cm; lamina 10-25 × 3-6 cm, elliptic-oblong to oblong-lanceolate, base rounded or sub-cordate, apex acute, secondary nerves 12-14 pairs. **Flowers** in axillary panicles. **Fruit** ovoid, apiculate with persistent calyx, 2 cm long.

Distribution: Rare; in mid-elevation evergreen forests. Recorded from Anamalai and Agasthyamalai hill range. A small disjunct population also exists in the Kodagu district of Karnataka.

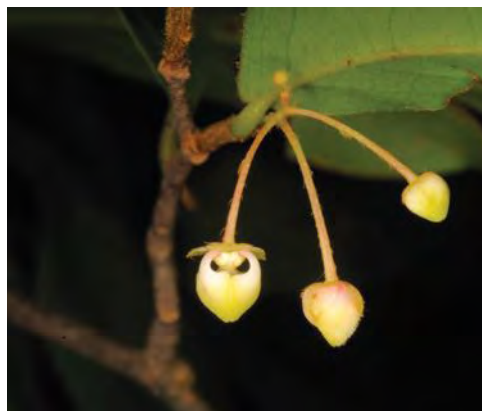
Look-alikes: *Hopea* spp. Can be distinguished based on the semi-cordate leaf base and fruiting calyx which is not modified into wing like structures

Current assessment: Data Deficient

Orophea malabarica

ANNONACEAE





Description: Shrubs, up to 2 m tall.

Leaves simple, alternate; petiole 0.2 cm long; lamina 6-9 × 2-4 cm, oblong or elliptic-oblong, apex acute, acuminate or obtuse, base obtuse or cuneate; secondary nerves 4 or 5 pairs. **Flowers** white with pinkish tinge in axillary or extra-axillary peduncles. **Fruit** globose, in clusters of three, about 1 cm across, light yellow with a pink shade.

Distribution: Low elevation forests of central Western Ghats from north Karnataka to Trissur district of Kerala. Elevation 100 - 700 m.

Look-alikes: *Orophea zeylanica*.

Current assessment: Data Deficient

Popowia beddomeana
ANNONACEAE





Description: Small trees, up to 2 m tall.

Leaves simple, alternate, distichous; petiole 0.2 cm long; lamina 4-8 × 1-3 cm, oblong lanceolate, apex acuminate; secondary nerves 4-6 pairs. **Flowers** leaf opposed either solitary or in pairs. **Fruit** ovoid, red, 1 cm across.

Current assessment: Data Deficient

Syzygium stocksii

MYRTACEAE





young branches four angled

Description: Lofty trees, up to 25 m tall, branches four angled.

Leaves simple, opposite; petiole 1-2 cm long; lamina 8-17 × 4-8 cm, elliptic, elliptic-oblong or elliptic-obovate, apex rounded or obtusely acuminate; secondary nerves 12-16 pairs. **Flowers** white, small, in axillary cymes. **Fruit** pink-purple, 0.8 × 0.6 cm.

Distribution: Rare; along forest streams and swamps. Elevation 40-80m.

Look-alikes: *Syzygium travancoricum*. The differences between the two species are not clear. These two names might very well belong to the same species.

Current assessment: Data Deficient

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