FOREST PLANTS OF THE NILGIRIS

NORTHERN NILGIRI BIOSPHERE RESERVE

A Pictorial Field Guide











KEYSTONE FOUNDATION

FOREST PLANTS OF THE NILGIRIS

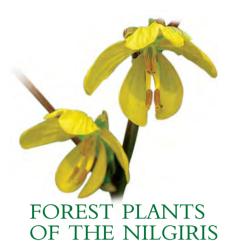
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Northern Nilgiri Biosphere Reserve A Pictorial Field Guide

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	1. Butea monosperma
1	2. Pergularia daemia
	3. Capparis zeylanica
	4. Ficus virens
2 3 4 5	5. Cochlospermum religiosum

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FOREWORD

The northern part of the Nilgiri Biosphere Reserve has a wide variation of flora ranging from the scrub to evergreen species. The second in a five part series, this field guide covers the dominant plants of this zone. Keystone initiated this work in 2002, with collecting seeds of forest species - both for raising nurseries and gathering information on flora of the region. This was done with adivasis from each region, which enabled us to learn several ecological aspects of a plant, besides identifying it. The presence of botanists in the team has served to complement this field information. Unlike the first volume of the eastern NBR, which had paintings of plants by adivasi artists - this volume relies on photographs only. We hope that this volume will give an insight into the forests of the northern region, made interesting by colourful plates and information with a difference.

The team in Keystone which has worked on this volume comprise of Shiny M. Rehel and Anita Varghese for content and photographs. Others who have contributed for secondary literature survey and internal reviews are T.A. Priya, Murugesh, Mathew John and L. Rasingam. Contributions to indigenous information were made by R. Rajendran, Veeraiah, Mani, Laxmi, Masiniamma, Madhan, Karian, Kalan, Siddan, Gowriamma, Deviamma, Rengaswamy from the villages of Annaikatty, Vazhaitottam, Siriyur, Chockanalli & Kurumbarpallam

We would like to thank our reviewer, Madhu Ramnath – who has painstakingly gone through the drafts giving comments and editing both the content and the text. His constant engagement with our team on issues of plants is encouraging and appreciated. We would also extend our thanks to Nina Paul for editing.

We gratefully acknowledge the financial support from Ford Foundation for the publication.

> Keystone Foundation Kotagiri March, 2008

List of Abbreviations

L.Ap : Leaf Apex

L.Ar : Leaf Arrangement

L.Ba: Leaf base

L.Ma: Leaf Margin

L.Sh: Leaf Shape

L.Ty : Leaf Type

E : English

Ir : Irula Ta : Tamil

Ka : Kannada

Ma : Malayalam

Hi : Hindi

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INTRODUCTION

The first book in this series 'Forest Plants of the Nilgiris- Eastern Nilgiri Biosphere Reserve-An Illustrated Field Guide' was received well with students, foresters, professional and amateur naturalists. This book which is the second volume in the series, covers the dominant plant species in the landscape of the Sigur plateau, Mudumalai, Bandipur and Nagarhole regions. These forests range from the dry deciduous to moist deciduous and are found as large extensive





tracts. The evergreen and semi evergreen types are found in smaller fragmented areas within these tracts. They have not been described in this book. These areas together form a part of the Northern Slopes of the Nilgiri Biosphere Reserve. (Fig. 1)

The plants in this volume have been documented through the various surveys that were done in the region to locate indigenous bees. At Keystone, research on indigenous bees is an ongoing process and nest densities, foraging behavior, pollination etc are studied in detail. In every plate mention is made of the bee activity that was observed on the plant if it was observed and represented by the following icon **

The adivasi people of Sigur plateau viz. the Irula and Jenukrurumba were our resource persons. They use the vegetative features of a plant, especially the bark and leaf, for identification. This book attempts to focus on such 'all-season' features and to build on crucial linkages between plants and habitat, by the adivasi people. The basic botanical information given complements this aspect of the book, collated from several authoritative floras of the region.

Leaves have been given prime importance, with details of their arrangement, shapes, bases, apices and margin collectively used in identification. The leaf icons at the end of the page were drawn from many sources, primarily, the leaf-based 'Field Key to the Trees and Lianas of the Evergreen Forests of the Western Ghats (India)' by J.P. Pascal and B.R. Ramesh of the French Institute of Pondicherry.

The four parts of this book are Trees •, Climbers •, Shrubs • & Herbs •, with a color code for easy reference. A glossary of botanical terms used has been provided which have definitions for these terms. A list of vernacular names used by the Irula and Jenukurumba peoples of the Sigur slopes, are also indexed and can be used as a possible 'first lead' to a plant.

The section on flower and fruit describes the most obvious characteristics about them, especially the colour, fragrance, shape and number of seeds. The seasons for each are indicated despite possibilities of slight variations between different locations.

Field tips contain all additional information that were considered as important distinguishing characters of the plant. Miscellaneous information is a collation of interesting facts that were gleaned from both (field and literary) sources.

The photographs accompanying the text show a picture of the seed; picture of the bark, the stance of the plant, a prominent flower, fruit or leaf – have been given.

Much of the information with regard to habit and habitat, field tips and local uses are put together in Indigenous Information. This was collated after small group discussions in which people from various villages participated and were generous enough to share their knowledge with each other and Keystone. The women of Sigur especially were very keen to share their information and ensure that it is documented. It must be mentioned here that the book describes plant use as narrated by the local adivasi people; the herbal prescriptions are taken in faith, without the contemporary scientific analysis.

When the information with regard to field tips, miscellaneous or indigenous information were not available they have been omitted from the plate. It is hoped that at some future date this omission can be corrected.

There are special pages on certain characteristic of plants that we see in this region. Special page A is a collection of the dominant trees of the landscape that stand out because of their gregarious flowering and catches ones eye even as one hurtles past in one's car. Special page B is also about one of the dominant genus in the area the *Terminalias*. They have characteristic barks which make identification interesting and simple. Special page C is about the shrubs and herbs that have been brought into this landscape and have invaded, colonized and grown as weeds. Finally Special page D is about the different modifications seen in the plants of the region because they are in a rain shadow area.

Through this book it is hoped that the user better understands the role of a plant in the ecosystem. This book takes the plant trail to the Northern parts of the Nilgiri Biosphere Reserve, one of the last pristine habitats for the Royal Bengal Tiger!

Plate A. Leaf Arrangments



I. Alternate distichous



2. Alternate Spiral



3. Clustered



4. Opposite



5. Opposite decussate



6. Sub-opposite



7. Whorled

Plate B. Leaf Types



1. Simple



2.Bifoliate



3. Palmately trifoliate



4. Pinnately trifoliate



5. Digitate



6. Paripinate



7. Imparipinnate



8. Bipinnate



9. Tripinnate



10. Trifoliate

Plate C. Leaf Shapes

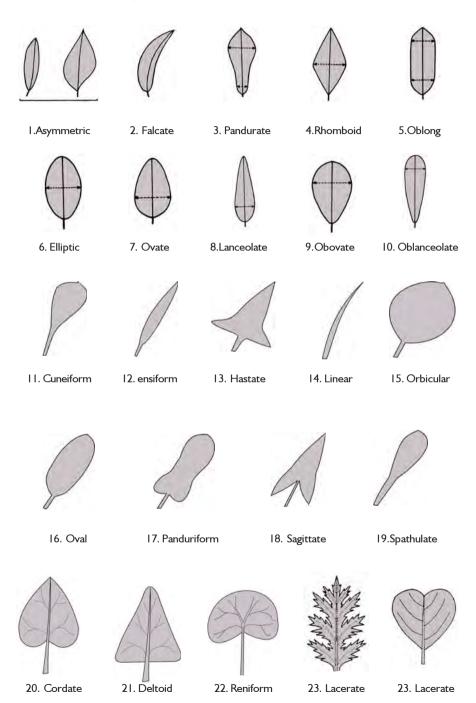


Plate D. Leaf Apices



1. Acuminate



2. Acute



3. Caudate



4. Emarginate



5. Obtuse



6. Retuse



7. Rounded



8. Truncate



9. Sub acute



10. Cuspidate



11. Mucronate



12. Aristate



13. Long Acuminate



14.Apiculate

Plate E. Leaf Bases

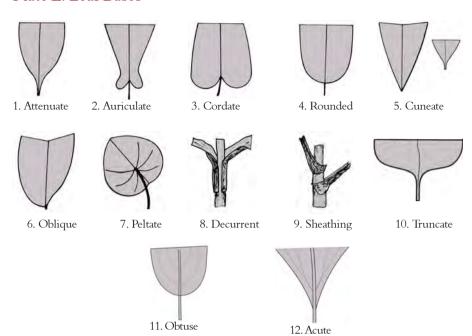
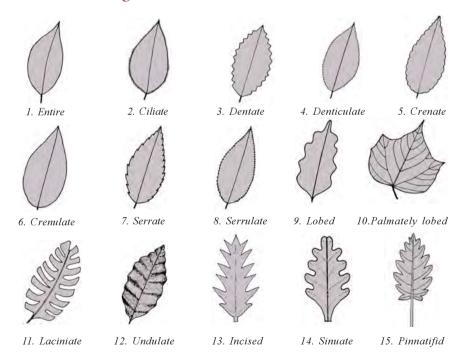


Plate F. Leaf Margins



Dominant trees of the landscape:

Trees form a major part of the forest landscape of the Sigur, Mudumalai and Bandipur regions. Most of these trees are deciduous, shedding their leaves during the dry season. This is nature's strategy for tropical trees to ensure that water loss through transpiration from the leaves is cut down, allowing the trees to survive the dry period. Many of them also flower in these months. They flower together and in large numbers. This is a strategy to attract pollinators. The flowers give way so that fruit setting starts just before the monsoons. And as the fruits fall to the ground they are nourished by the rain and the seeds germinate to ensure survival of the species.

Mass flowering in shades of red:



Bombax ceiba-Silk Cotton/ Red kapok tree



Butea monosperma-Flame of the Forest



Delonix regia-Gulmohur



Erythrina suberosa

Mass flowering in shades of yellow:



Salix tetrasperma



Cassia fistula – Indian Laburnum



Pterocarpus marsupium

Mass flowering in shades of white/cream:



Mangifera indica



Chloroxylon swietiena- Satinwood tree



Tectona grandis-Teak

Acacia chundra (Rottler) Willd.

MIMOSACEAE

Kagalie - Ir

Karangali -Ta

Red Cutch, Red Ebony - E

HABIT: An armed medium sized tree.

FLOWER: In axillary spikes, white. Flowering from April - August.

FRUIT: A pod, flat, thin, strongly nerved, depressed between seeds. Seeds many, ovoid. Fruiting from September onwards.

FIELD TIPS: Bark rusty brown. Wood reddish brown. Rachis with glands at the base and the two uppermost pinnae.

MISCELLANEOUS: Wood is used to make agricultural implements. Heart wood yields Kathna and cutch.

HABITAT & DISTRIBUTION: Foothills to 900m. Peninsular India, Sri Lanka, Burma

INDIGENOUS INFORMATION: The bark is medicinal and used to cure diarrhoea. A combination of the bark and root boiled in water helps to bring down high blood pressure. Strong timber can be used for construction and agricultural implements.





distichous



L.Sh.



Elliptic

L.Ap.



Sub acute L.Ba.



L.Ma.



Acacia leucophloea (Roxb.) Willd.

MIMOSACEAE

White Barked Acacia, Distiller's Acacia -E

Vela -lr

Velvelam -Ta: Nimabar, Safed Babul-Hi

HABIT: A medium sized tree.

FLOWER: In clusters or terminal panicles, cream to yellow. Flowering from August - September.

FRUIT: A pod, sessile, flat, elongate, thick, straight, rusty tomentose. Seeds 10, angular ovoid. Fruiting from October - February.

FIELD TIPS: Bark grey and smooth when young, dark brown and rough when old. Wood reddish brown. Branchlets with globose galls.

MISCELLANEOUS: A fuel wood species, the bark is used in distillation and yields a good rough fibre.

HABITAT & DISTRIBUTION: Very common in plains from the coast to 1000m. India, Sri Lanka, Burma and parts of Malaysia.

INDIGENOUS INFORMATION: Different species of bees like *Apis florea*, *A.* cerana and Trigona sp. forage on the flowers. Monkeys, deer, elephant eat the fruit. Bark is an important ingredient for brewing liquor. The powdered bark is applied as a cure for open wounds. A bandage with the bark and ground nut oil is used to heal fractures. The wood is used in making agricultural implements, like the plough. Preferred for firewood.











Alternate / Clustered





Bipinnate

L.Sh.



L.Ap.



Sub Acute L.Ba.



Oblique L.Ma.



Ciliate

Acacia nilotica (L.) Del. ssp. indica (Benth.) Brenan

MIMOSACEAE

Babul/Egyptian Thorn -E

Karu vela -Ta: Babul, Kikar -Hi

HABIT: A medium sized armed tree.

FLOWER: In globose heads, bright yellow. Flowering from August - October.

FRUIT: A pod. Seeds many. Fruiting from October onwards.

FIELD TIPS: Pod like a beaded necklace. Bark dark brown and rough.

MISCELLANEOUS: Gum/resin extracted from the pod is used for inks and dyes. Wood used for agricultural implements.

HABITAT & DISTRIBUTION: Common in plains mostly in arable lands from the coast to 900m. India.

INDIGENOUS INFORMATION: The bark is used to cure fevers. A paste made from the seeds is applied to children's foreheads to ward off evil spirits.







L.Ar.



distichous



Bipinnate I Sh



Elliptic

L.Ap.



Rotund

L.Ba.



L.Ma.



Aegle marmelos (L.) Corr. Serr.

RUTACEAE

Stone Apple -E

Bael patra, Bila-Ir

Vilvam -Ta; Bilva patre -Ka; Koovalam, Vilvam -Ma; Bael, Sriphal -Hi

HABIT: An armed deciduous tree.

FLOWER: In axillary panicles, fragrant, white. Flowering in March.

FRUIT: A berry, ovoid, yellow when mature, woody. Seeds many, oblong, flat. Fruit ripens by February.

FIELD TIPS: New foliage - February. Leaf fall - January.

MISCELLANEOUS: Fruit is valued for its aromatic pulp and medicinal properties.

HABITAT & DISTRIBUTION: Occasional, found upto 1000m. Sub Himalayan tract to the Peninsula, Burma, Indo-China.

INDIGENOUS INFORMATION: Leaves are used for religious rituals. The edible fruits are also crushed and applied to the body to relieve body pain.









L.Ar.



Alternate distichous





trifoliate



Elliptic, Lanceolate or Oblong-Obovate



Obtuse /
Acuminate/Retuse



Cuneate/ Rounded





Ailanthus excelsa Roxb

SIMAROUBACEAE

Tree of Heaven -E

Peevari -Ir

Perumaram -Ta: Maharukh -Hi

HABIT: A densely foliaceous tall tree.

FLOWER: In axillary or terminal panicles. Flowering with a peak from January-March and August-September in the higher altitudes.

FRUIT: Samara, oblong, prominently nerved. Seed 1, in the middle. Fruiting March onwards.

FIELD TIPS: Bark whitish, branchlets with persistent leaf scars.

MISCELLANEOUS: Wood is used to make catamarans. Planted for the soft wood and fodder.

HABITAT & DISTRIBUTION: Plains to 1000m. India and Sri Lanka.











Imparipinnate L.Sh.



L.Ap.



Acuminate



Oblique L.Ma.

Irregularly toothed- Sub lobate

Albizia amara (Roxb.) Boivin ssp. amara **MIMOSACEAE**

Bitter Albizia, Wheel Tree-E

Sujil -Ir

Unja, Usilai -Ta; Varacchi -Ma

HABIT: A moderate sized deciduous tree with a spreading crown.

FLOWER: Flower-heads in axillary clusters or in racemes, cream. Flowering from March-May.

FRUIT: A pod, flat, compressed, straight or wavy along margins. Seeds many, ovoid. Fruiting June onwards.

FIELD TIPS: Young shoots yellow-pubescent. The wood is purplish-brown with lighter bands.

MISCELLANEOUS: Fodder for milking cows, leaves as local substitute. Wood is used for agricultural implements and construction. New foliage March-May.

HABITAT & DISTRIBUTION: Dominant in foothills and lower hills, 900 m to 1200m. India, Sri Lanka, Parts of East Africa.

INDIGENOUS INFORMATION: Elephants eat the leaves. The young leaves are dried and powdered for hair wash. Bark is used to treat illness in children.









Alternate distichous



Paripinnate



Narrow-Elliptic L.Ap.



L.Ba.



L.Ma.



Sparsely ciliate

Albizia lebbeck (L.) Benth.

MIMOSACEAE



Alternate distichous Black Siris, East Indian Walnut -E Vagai -Ir

Vagai -Ta; Vaga -Ma; Siris -Hi

HABIT: A large deciduous tree.

FLOWER: In axillary umbellate clusters or solitary, greenish, fragrant. Flowering from February-April.

FRUIT: A pod, flat, compressed, yellow. Fruiting from April onwards, persistent till after the next flowering.

FIELD TIPS: Rachis with glands in the middle of the leaf stalk. Bark brownish grey. Wood dark brown. Lenticels prominent in young bark.

MISCELLANEOUS: Used for building and agricultural purposes.

HABITAT & DISTRIBUTION: Plains from the coast to 1200m, often planted. A native of Tropical Himalaya, India, Sri Lanka, Southeast Asia, SouthChina.

INDIGENOUS INFORMATION: Nesting site for the rock bee *Apis dorsata*. Elephants eat the leaves. The wood is used for religious and sacrificial fires. The bark in combination with four other barks is used to make a medicine for fever. Mostly found as a solitary tree not in groves.





Apiculate



Oblique, Obtuse L.Ma.







Anogeissus latifolia (DC.) Wallich ex Guill. & Perr.

COMBRETACEAE

Vejjai and Jindalu -Ir

Vekk aali, Vellainagai -Ta; Maru kanchiram -Ma; Bakli -Hi

HABIT: A tall deciduous tree.

FLOWER: In axillary, aggregated cymose heads, yellow. Flowering from April-June.

FRUIT: A drupe, clustered, compressed, two winged, tubular calyx persistent in fruit. Seed1. Fruiting from June-August.

FIELD TIPS: Grey, pubescent branchlets. Bark light grey with round patches. Flowers without petals.

HABITAT & DISTRIBUTION: Dominant in dry deciduous forests, 700-1100m. Peninsular India in the South Deccan and North Nilgiris.

INDIGENOUS INFORMATION: The new flush secretes resin which is taken by the bees. The trees found in Sigur are shorter in size because of the soil condition. The trees around Chokkanali village were destroyed by insects which attack the bark. The wood is used for fire wood. A piece of the bark is kept in the mouth to treat high fever. The barks of Bankini + Silla + Vejjai are crushed with lime juice and applied over the body to cure swelling of nodes.











Alternate distichous





Simple L.Sh.



Oblong-Obovate-Orbicular(sub)



Obtuse-Rotund L. Ba.



Rotund-Cuneate

L.Ma.



Atalantia monophylla (L.) Corr. Serr.

RUTACEAE



Wild Lime -E

Kaduimbi, Kattu elumeachi -Ir

Kattunaarangam, Kattu elumeachi -Ta

HABIT: An armed densely foliaceous tree

FLOWER: In axillary racemes, fragrant, cream. Flowering in two peaks, September-December and February-March.

FRUIT: A berry, globose, ripening orange. Seeds 4, ovoid. Fruiting through out the year.

FIELD TIPS: Wood yellowish and very hard.

MISCELLANEOUS: The lower altitude replacement of Atalantia racemosa.

HABITAT & DISTRIBUTION: Common in plains from the coast in scrub jungles upto 1000m. Peninsular India and Khasia hills.

INDIGENOUS INFORMATION: Used as fuel wood.



distichous



Simple





Acute-Notched



Obtuse-Sub acute L.Ma.





Azadirachta indica Adr. Juss.

MELIACEAE

Margosa, Indian Lilac -E

Remba mara - Ir

Veppa, Vembu -Ta; Vembu -Ma; Neem -Hi

HABIT: A medium sized semi-evergreen tree.

FLOWER: In axillary panicles, white. Flowering from March-April and August-September.

FRUIT: A drupe, oblong-ovoid, ripening green to yellow. Seed 1, ellipsoid. Fruit ripening by June.

FIELD TIPS: Bark fissured and brown. New foliage February-March.

MISCELLANEOUS: Bark, leaves, flowers and seeds yield oil and used extensively for medicinal purposes. Wood resistant to termite attacks.

HABITAT & DISTRIBUTION: Common in plains from the coast to 900 m. Native of India and China, also cultivated widely.

INDIGENOUS INFORMATION: The twigs are used as toothbrush. The leaves are used in religious rites. The wood is used to light the funeral pyre. The leaves are used to treat chickenpox.









distichous





Oblong/ Lanceolate

L.Ap.



Acuminate





Rauhinia racemosa Lam.

CAESALPINIACEAE



Burmese Silk Orchid -E

Aasa mara -lr: Archi, Atti -Ta

HABIT: A small deciduous tree.

FLOWER: In axillary or terminal racemes, white. Flowering from March-June.

FRUIT: A pod, oblong, compressed, often twisted, dark green. Fruiting through the season.

FIELD TIPS: A densely foliaceous rather crooked tree. Bark rough and black. The pods are often twisted.

HABITAT & DISTRIBUTION: Very common in foothills, upto 1000m. India and Sri Lanka.

INDIGENOUS INFORMATION: Elephants feed on this tree. The juice which is extracted from the tender shoots is mixed with mother`s milk, and is used to clean and cool the eye. The juice from the stem is mixed with cumin and milk to cure dysentery. The bark fibre is used to make ropes to tie the cows and make ladders.



Alternate

Distichous L.Tv.

Bifoliate

L.Sh.



Ovate-Orbicular L.Ap.



Obtuse-Mucronate



Cordate







Bischofia javanica Blume

BISCHOFIACEAE

Tiger Tree, Bishopwood - E

Thondi, Milachityan, Malaipoovarasu, Chozhavaengai -Ta; Thirippu, Nira -Ma; Kein-Hi

HABIT: A large deciduous tree.

FLOWER: In axillary panicles. Flowering from February-March.

FRUIT: A drupe, succulent, globose, on an elongated stalk; endocarp two valved, green turning brown. Seeds 2, oblong, trigonous. Fruiting from March-May.

MISCELLANEOUS: Wood durable under water and used in construction.

FIELD TIPS: Bark rough, fibrous and brown. Wood black. Prominent dark green foliage.

HABITAT & DISTRIBUTION: In both deciduous and evergreen forests 900-1800m, along shola borders. Peninsular India, Western and Eastern Ghats.









trifoliate L.Sh.



Elliptic-Ovate L.Ap.



Acuminate L. Ba.



Rounded-Acute





Serrate

Bixa orellana I

BIXACEAE

Annatto, Lipstick Tree -E

Kunguma poo, Senthuram -Ir

Sinduri, Latkan -Hi

HABIT: A small evergreen tree.

FLOWER: In terminal panicles, pink turning white. Flowering throughout the year.

FRUIT: A capsule, reddish brown, two-valved, spiny. Seeds many, red. Fruiting throughout the year.

MISCELLANEOUS: Commercially grown for its red dye. Used as a food coloring. Used by Native Americans to make red colored body paint.

HABITAT & DISTRIBUTION: Grown as an ornamental tree. Native to South America.

INDIGENOUS INFORMATION: Seeds yield a red color dye.













Ovate-Cordate



Acute-Acuminate L. Ba.



L.Ma.



Entire

Rombax ceiba L.

BOMBACACEAE

Silk Cotton Tree -E

Poola maram -Ir

Mullilavu -Ta: Burla, Sauri -Ka: Ilavu -Ma: Simal -Hi

HABIT: A deciduous tree with conical prickles on the trunk when young.

FLOWER: Paired or clustered at the end branch-lets, blood red. Flowering from March-April.

FRUIT: A capsule, oblong, dehiscing by five leathery or woody valves. Seeds many, smooth, globose, embedded in long white wool. Fruiting April onwards.

FIELD TIPS: Tree with buttressed base when mature.

MISCELLANEOUS: The bark gives a gum and exudates is used in medicine. The cotton is used to stuff pillows. Timber used for matches and coffins.

HABITAT & DISTRIBUTION: Occasional in plains from the coast, on the deciduous belt of the hills to 1400m. Tropical Asia to New Guinea.

INDIGENOUS INFORMATION: The rock bee, Apis dorsata can be found nesting on this tree.







distichous



Digitate



Elliptic-Lanceolate or oblong



Acuminate. Caudate or Acute L.Ba.



SubAcute L.Ma.



Rosquellia serrata Roxb, ex Colebr.

BURSERACEAE



Incense Tree, Indian Olibanum -E

HABIT: A medium sized deciduous tree.

FLOWER: In axillary panicles, white. Flowering from February-March.

FRUIT: A drupe, three-four angled. Seed 1. Fruiting April onwards.

FIELD TIPS: Bark whitish smooth and strong smelling resin.

HABITAT & DISTRIBUTION: Occasional in the hills on the lower dry deciduous slopes to 900m, in gravelly poor soils in full sun. Central and Peninsula India.

INDIGENOUS INFORMATION: Different species of bees like *Apis dorsata* and Trigona sp. collect resin from the bark. The resin is collected and used for religious rituals, as incense.







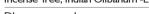
Cuneate / Sub











Dhoopa mara -Ir

Kungiliyam -Ta; Salai -Hi

Apically clustered





L.Ap.





Rridelia crenulata Roxb

EUPHORBIACEAE

Siru ponnai -Ir

Semmaram -Ta

HABIT: A medium sized deciduous tree.

FLOWER: In axillary clusters or spikes, greenish to purple. Flowering from May-June.

FRUIT: In crowded drupes tinged red, finally white, pulpy, globose. Seed 1. Fruiting from July-September.

FIELD TIPS: Bark dark brown. Leaf with 15-20 pairs of strong paired veins.

HABITAT & DISTRIBUTION: Common on the slopes, inside forests of savanna type 500 -1400m. Indian subcontinent.

INDIGENOUS INFORMATION: Strong timber. Bark is used for medicinal preparations. Elephants eat the bark and leaves.









Alternate distichous





Simple





Oblong-Elliptic-Ovate



Obtuse-Retuse



Truncate-Rounded

L.Ma.



Entire

Butea monosperma (Lam.) Taubert

FABACEAE



Flame of the Forest -E

Muthagai -Ir

Porasu -Ta: Palash, Dhak -Hi

HABIT: A medium sized deciduous tree.

FLOWER: In racemes, saffron. Flowering from February-April.

FRUIT: A pod, oblong, compressed, wing like. Seed 1. Fruiting from March onwards.

FIELD TIPS: Tree leafless when flowering. Leaf fall, January.

MISCELLANEOUS: Leaves made into platters; and the tree yields a red kino gum. The lac insect is raised on this tree. Bark yeilds fibre.

HABITAT & DISTRIBUTION: Occasional in plains from the coast to 1000m. Tropical Himalaya, India, Sri Lanka, South east Asia, Malaysia.

INDIGENOUS INFORMATION: The leaves are used as plates. The flowers are offered to the local deity, Bommappan. The bark yields a dye. Roots are made into paint brushes by the local people.



Alternate distichous



trifoliate

Rhomboidbroadly ovate oblique

L.Ap.



Obtuse, Retuse

L. Ba.



Cuneate L.Ma.



Entire









Canthium dicoccum (Gaertner) Teijsm. & Binnend.

RUBIACEAE

Oppai -Ir

Nekkini, Irambaranthan, Naluvai, Navugu -Ta

HABIT: A medium sized tree.

FLOWER: In cymes, green. Flowering from January-March.

FRUIT: A drupe, ellipsoid. Seeds 1-2, oblong. Fruiting from April-June.

FIELD TIPS: Tender parts pubescent.

HABITAT & DISTRIBUTION: Common to locally abundant. Less in the plains in scrub jungle. Hills 800 -1200m on the slopes. Indian subcontinent.

INDIGENOUS INFORMATION: Preferred firewood tree. Fruits edible.





L.Ar.



Opposite

L.Tv.



Simple I Sh



Elliptic/Ovate/ Oblanceolate

Oblanceolate

L.Ap.



Acute/Acuminate L.Ba.



Cuneate L.Ma.



Cassia fistula L.

CAESALPINIACEAE

Indian Laburnum -E Kakkai, Konnai -Ir

Sarakonnai -Ta: Kakke -Ka: Konna -Ma: Amaltash -Hi

HABIT: A medium sized deciduous tree.

FLOWER: In terminal racemes, yellow, drooping. Flowering from March-May.

FRUIT: An indehiscent pod, 30cm long, turning from green to black when dry. Seeds many, obovoid to ellipsoidal, biconvex, arranged transversely. Fruiting throughout the year.

FIELD TIPS: Bark pale, smooth when young, darker and rough when old. Leaf fall, February. New foliage, March.

MISCELLANEOUS: Flowers are in demand for festivals. One of the few indigenous trees that were planted as avenue trees. The green pods are eaten by bears.

HABITAT & DISTRIBUTION: Found growing wild on the hills to 1400m in dry deciduous forests. Peninsular India.

INDIGENOUS INFORMATION: Wood used as fuel wood. The bark is made into a paste with turmeric powder and cumin and the juice is extracted and used to cure nausea and vomiting. The bark also yields an orange dye. Extensive overharvest of bark for trade took place in the past, now collection of bark is banned.









distichous



L.Sh.



Oblong-Broadly ovate

L.Ap.

Gradually tapering L.Ba.



Cunasta-Subcuneate L.Ma.



Cassine glauca (Rottb.) Kuntze

CELASTRACEAE

Mukarasi -Ir

Kaneera, Karuvali, Khiri -Ta; Jamrasi -Hi

HABIT: An evergreen tree

FLOWER: In axillary or terminal corymbose cymes, green. Flowering from March-September.

FRUIT: A drupe, oblong. Seed 1. Fruiting throughout the year.

FIELD TIPS: Bark relatively thin, blaze grey flesh colored.

MISCELLANEOUS: Planted as avenue trees.

HABITAT & DISTRIBUTION: Very common in foothills to 1200m. India and Sri Lanka.

INDIGENOUS INFORMATION: *Apis cerana* nest in the cavities of the tree and the honey yield is usually high as the bees are able to build large combs here. Parakeets and koels eat the fruit. The leaves and fruit are eaten by cows, goats, deers and peacocks. Wood is used for fire wood, furniture making and house construction. Lichens are found growing on this tree.





L.Ar.



Decussate



Simple



Ovate-Oblong L.Ap.



Acute-Acuminate L.Ba.



Obtuse I...Ma.



Serrate-Cre

Celtis tetrandra Roxb.

ULMACEAE



Nilgiri Elm -E

Kallai, Kadalai -lr Murungan, Kuriyaa -Ta

HABIT: A medium sized tree.

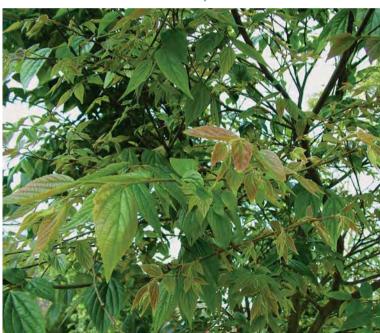
FLOWER: In axillary racemes, white. Flowering from January - March.

FRUIT: A drupe, globose, ripening yellow, brownish black. Seed 1, globose. Fruiting from February-April.

FIELD TIPS: Fruit is hard when dry, edible, bitter to taste.

HABITAT & DISTRIBUTION: Often in sholas. Hills above 900m. Indian subcontinent.

INDIGENOUS INFORMATION: Bark yields fibre.



L.Ar.



Alternate distichous



Simple I. Sh



(Obliquely) Obovate-Rhomboid

L.Ap.



Acuminate I Ro



Obliquely acute attenuate

L.Ma.



Celtis philippensis Blanco var. wightii (Planchon) Soep.

ULMACEAE

Korlumuruka maram -Ir

Ellumbiruthi, Kodaalimuriki -Ta: Butha -Ma

HABIT: A densely foliaceous tree.

FLOWER: In short panicles, white. Flowering from December-April.

FRUIT: A drupe, ellipsoid, beaked when young, green, red when ripe. Fruiting February onwards.

FIELD TIPS: Bark white outside. Wood very hard. Leaves 3-nerved from base.

HABITAT & DISTRIBUTION: Very common in forest foothills to 1200m. Tropical Africa to Madagascar, India, Indo China and South east Asia.

INDIGENOUS INFORMATION: *Apis cerana* nests can be found in the cavities. Wood used for fuel and construction. The bark is used to cure typhoid.











Alternate distichous



Simple



Elliptic-Oblong Lanceolate

L.Ap.



Acute L.Ba.



Rounded L.Ma.



Entire

Chloroxylon swietenia DC.

RUTACEAE



Urugul maram, Purusa maram -Ir

Purush, Porasu, Vaaimaram, Mammarai -Ta; Bhera -Hi

HABIT: A medium sized densely foliaceous deciduous tree.

FLOWER: In terminal or axillary panicles, cream. Flowering from March-April.

FRUIT: A capsule, three valved, oblong. Seeds 12-15, oblong, compressed, margins angular, apically winged. Fruiting throughout the year.

FIELD TIPS: Bark deeply fissured, very hard and deep yellow. Leaf fall February-March.

MISCELLANEOUS: Wood used for agricultural implements and resistant to termite.

HABITAT & DISTRIBUTION: Very common in lower dry deciduous slopes. Hills upto 1200m. Peninsula and Sri Lanka.

INDIGENOUS INFORMATION: *Trigona* sp. and *Apis cerana* bee nests can be found in the cavities of this tree. The pollen is bitter and eating it can cure indigestion especially after overeating. Shrews and giant squirrels eat the seeds. The wood is termite resistant, hence used for construction. The leaves are crushed with Toddalia sp. and applied for scabies. The wood is used to make ploughs and handles for agricultural implements. The sap wood along with other ingredients is given in small doses to bring out the placenta. A paste made of the leaves and salt is applied with a brush made of the root of the Pongamia pinnata tree to cure skin diseases.











distichous



Paripinnate



Lanceolate

L.Ap.



Obtuse



Oblique L.Ma.



Entire

Cipadessa baccifera (Roth) Miq.

MELIACEAE

Pulipanchedi, Savattu chedi -Ta; Nal bila -Hi

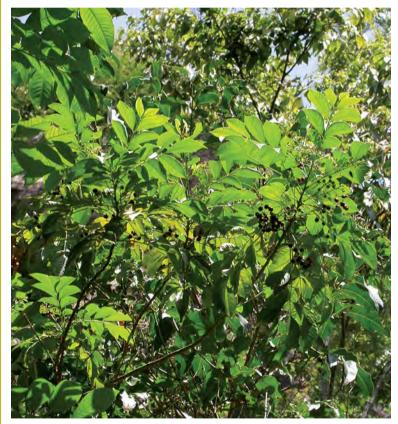
HABIT: An unarmed tall shrub or small tree.

FLOWER: In axillary peduncled panicles, white. Flowering from March-April and also in July-August.

FRUIT: A five-ribbed drupe, red turning black when ripe.

FIELD TIPS: Crushed leaves have a pungent odour.

HABITAT & DISTRIBUTION: Common in lateritic hills, secondary disturbed forests. Above 750m in dry forests. Peninsular India, Deccan region and Western Ghats.











Acuminate L.Ba.





/ Distally serrate

Cochlospermum religiosum (L.) Alston

COCHLOSPERMACEAE

Buttercup Tree, Yellow Silk Cotton Tree -E

Bettatha avarai -lr

Tanaku, Kongillane -Ta; Baruga -Ka; Appa kudukka -Ma; Galgal -Hi

HABIT: A medium sized deciduous tree.

FLOWER: In terminal panicles, bright yellow. Flowering from February-April.

FRUIT: A capsule, obovoid, three to five valved, brown. Seeds many, surrounded by pale white cottony hair. Fruiting from March-June.

FIELD TIPS: Leaves glabrous above, densely brownish tomentose below. Flowers with prominent sepals. Flowers when all the leaves have fallen.

HABITAT & DISTRIBUTION: Occasionally found in deciduous forest of the lower slopes, grassy and close to cliffs. Less common on the West coast from 300-900m. Western sub Himalayan tract from the Sutlej eastwards, drier parts of the Peninsula.

INDIGENOUS INFORMATION: Leaves are eaten by the sambar deer. Bark is used for preparation of medicines. The immature fruit is cut at the top and inner material is removed. A flour of ragi and gram with jaggery is put inside the shell. The opening is sealed with the cut piece. This is put into the fire and cooked. The cooked mixture is given to cure tumour in the stomach.











distichous



Simple



Palmately lobed L.Ap.



Acute-Acuminate





Cordia gharaf (Forsskal) Ehrenb. ex Asch.

CORDIACEAE

Grey Leaved Saucerberry, Narrow Leaved Sepistan -E

Sellai -Ir

Sirunaruvuli, Narivirian -Ta; Veri, Verasham -Ma; Lasora, Gondi -Hi

HABIT: A tree.

FLOWER: In terminal clusters, cream. Flowering from October-November.

FRUIT: A drupe, globose, green at first maturing pinkish-cream or turning black on ripening. It is held on a saucer shaped calyx and contains mucilage. Seed 1, stony. Fruiting January onwards.

 $\label{thm:cooked} \textbf{FIELD TIPS:} \ Trunk\ crooked. \ Bark\ grey\ or\ brown is h\ grey\ with\ longitudinal\ fissures.$ Wood hard, brown, streaked.

MISCELLANEOUS: Wood used in making agricultural implements and furniture.

HABITAT & DISTRIBUTION: Occasional in plains from the coast to 900m. India, Sri Lanka, Pakistan, Arabia, North Africa.

INDIGENOUS INFORMATION: Fruits edible.













Alternate/ (sub)opposite

L.Ty.



Simple

L.Sh.



L.Ap.



Subacute L. Ba.



Rounded-Acute



Entire

Cordia wallichii Don

CORDIACEAE



Pazhan thekku. Kokkaimani-Ta

HABIT: A tree.

FLOWER: In branched corymbose cymes, fragrant, white. Flowering from March-May.

FRUIT: A drupe, ellipsoid, fruiting calyx not ribbed. Seed 1. Fruiting May onwards.

MISCELLANEOUS: Fruits edible.

HABITAT & DISTRIBUTION: Occasional in foothills to 900m. West India through Peninsula.

INDIGENOUS INFORMATION: The mucilaginous fruits are eaten by bears also. Cattle feed on the leaves. Wood is used as fuel and for construction of houses. Bark is used as a paint brush for white washing houses. Birds like to nest in this tree.







Alternate/

Subopposite



Simple



Broadly ovate-Orbicular



Obtuse L.Ba.



L.Ma.



Dalbergia lanceolaria L.f.

FABACEAE

Beluga maram -Ir

Velangu, Erigai -Ta

HABIT: A densely foliaceous tree.

FLOWER: In axillary panicles, pale pink. Flowering peaks during April.

FRUIT: A pod, lanceolate, faintly nerved, dark green. Seeds 1 - 3. Fruiting May onwards.

FIELD TIPS: The pods match perfectly with the leaves.

HABITAT & DISTRIBUTION: Common on hills upto 600-1400m on the deciduous slopes. India, Sri Lanka, Nepal, Burma.

INDIGENOUS INFORMATION: *Apis dorsata* nesting site. Fruits eaten by spotted deer, mouse deer. Timber is highly valued. Leaves are eaten by elephants. Bark is used for medicinal purposes.









Alternate distichous



Imparipinnate



Obovate L.Ap.



Obtuse



Cuneate-Obtuse



Entire

Dalbergia latifolia Roxb.

FABACEAE

Fast Indian Rose Wood -F



Eetti, thodagathi, Tawadi, Eravad -Ta; Sitsal -Hi

HABIT: A semi evergreen tree.

FLOWER: In axillary panicles, fragrant, white. Flowering from August - September.

FRUIT: A pod, oblong, lanceolate prominently nerved. Seeds 1-2, reniform, compressed. Fruiting throughout the year.

FIELD TIPS: Bark grey, peeling off in thin long flakes. Young pods match in color with the leaves. Leaves dark olive green and downy beneath. Wood reddish brown.

MISCELLANEOUS: One of the finest woods for a range of purposes.

HABITAT & DISTRIBUTION: Common on hills 750-1300m. Indian subcontinent.

INDIGENOUS INFORMATION: Bark is used for medicinal purposes.











Paripinnate



Orbicular

L.Ap.



Rotund-Retuse L.Ba.



Sub acute-Obtuse L.Ma.



Dichrostachys cinerea (L.)Wight & Arn. ssp. cinerea var cinerea

MIMOSACEAE

Painted Thorn Bush -E

Odavara -Ir

Vadathalla -Ta: Wadu -Ka: Vurtuli -Hi

HABIT: A small armed tree.

FLOWER: In axillary or solitary spikes, bicolored, pink sterile and yellow bisexual flowers. Flowering peaks from April-July.

FRUIT: A pod, linear, flat, coiled. Seeds 4-6, ovoid, compressed. Fruiting throughout the year.

FIELD TIPS: Conspicuous because of the bicolored flowers. Bark grey or light brown. Gland present on the rachis.

MISCELLANEOUS: Grows in poor soils. Wood used for agricultural implements. The sterile pink flowers attract pollinators.

HABITAT & DISTRIBUTION: Common in plains from the coast, in scrub jungles to 900m. India and Sri Lanka

INDIGENOUS INFORMATION: Bark is medicinal. The fibre of this tree is immersed or soaked in elephant dung and tied on the wrist of infants, this pratice is believed to improve their appetite. The bark is crushed and tied around the forehead as a cure for headaches. Preferred firewood species.









distichous





Elliptic



Acute L.Ba.



Obtuse L.Ma.



Diospyros montana Roxb.

EBENACEAE



Bankini, Jagalkanti -Ir

Vakkanatthi, Karunthuvalisu -Ta

HABIT: A small tree.

FLOWER: Male flowers in axillary umbels, female flowers solitary, greenish. Flowering from March-April.

FRUIT: A berry, ovoid to ob-conical, green turning orange when mature, crowned with a calyx. Seed 1, oblong. Fruits mature by October.

FIELD TIPS: Bark black outside, yellow within. Bright green foliage with a truncate base. Fruits with persistent calyx.

HABITAT & DISTRIBUTION: Very common, in a wide range of habitats and resistant to sun and drought. Found in hill to 1200m. Sri Lanka, India, Nepal, Malesia, tropical Australia.

INDIGENOUS INFORMATION: Tender shoots are cooked and eaten. The wood is used for agricultural implements and handles. The bark is used to drive away unwanted persons from the village, by leaving a piece in their house. The wood is not used for fuel wood as it is believed that burning this wood causes feuds in the family. Tender shoots are boiled with salt and tied over aching joints. The bark is an







Simple L.Sh.



Oblong



(Sub)acute-Obtuse



Truncate-(Sub)cordate

L.Ma.



Eriolaena hookeriana Wight & Arn.

STERCULIACEAE

Udupai -Ir

Uduppai -Ta

HABIT: A small tree.

FLOWER: In axillary cymes, yellow. Flowering throughout the year.

FRUIT: A capsule, pyriform, woody. Seeds winged. Fruiting throughout the year.

FIELD TIPS: New foliage reddish in December. Capsules persistent.

MISCELLANEOUS: A strong wood used for agricultural implements and axe handles.

HABITAT & DISTRIBUTION: Commonly found in cleared slopes in full sun at 750-1000m. Central and South India.

INDIGENOUS INFORMATION: Fruits are eaten by birds, bears and monkeys. Leaves are rolled into cheroots. The mucilage from the bark is mixed with water and given as a cure for stomachaches.













Broadly ovate-Cordate



Acuminate L.Ba.



Cordate L.Ma.



Erythrina suberosa Roxb.

FABACEAE

Parivalla -Ir

Mullumurungu -Ta; Pangra -Hi

HABIT: A medium sized deciduous tree.

FLOWER: In racemes, red. Flowering throughout the year.

FRUIT: A pod, sub terete. Seeds 2-5. Fruiting throughout the year.

FIELD TIPS: Bark corky, armed with prickles.

MISCELLANEOUS: The softwood is used to make lacquer. Grown easily from cuttings, planted as live fence.

HABITAT & DISTRIBUTION: Occasional on hills, on moist slopes, India, Nepal, Bhutan, Burma, Thailand and Vietnam.

INDIGENOUS INFORMATION: Beetles forage on the flower. The tender shoots are cooked with horse gram to make a curry.











distichous



Palmately trifoliate



Ovate L.Ap.



Acute





Truncate



Erythroxylum monogynum Roxb.

ERYTHROXYLACEAE

Bastard Sandal -E

leevathalai -lr

Devadara, Sembulichan -Ta; Devadaram -Ka

HABIT: A small tree.

FLOWER: Axillary, solitary or fascicled, whitish. Flowering from March-July and October-December.

FRUIT: A drupe, oblong, ripening red. Seed 1. Fruiting with two peaks from July-January and March-May.

FIELD TIPS: Bark dark brown, rough. Wood is very hard and reddish brown.

HABITAT &DISTRIBUTION: Very common, locally abundant in foothill scrub jungles upto 1000 m. Peninsular India and Sri Lanka.

INDIGENOUS INFORMATION: Oil from the seed is used to cure psoriasis.











Simple





Obtuse -Emarginate "Ba.



Cuneate



Ficus benghalensis L.

MORACEAE



Banyan Tree, East Indian Fig Tree -E

Alamaram -Ir

Ala -Ta; Alada -Ka; Ala -Ma; Bor, Bar -Hi

HABIT: A large tree with horizontal branches and aerial roots.

FLOWER: A fig, axillary, depressed-globose, sessile, ripening red.

FRUIT: An achene, globose-ellipsoid, dark-brown. Fruiting throughout the year.

FIELD TIPS: Stem deeply fluted and buttressed. Bark gervish-white. Wood grevish white, moderately hard, without heartwood. Latex white.

MISCELLANEOUS: Fruits eaten by birds. Wood durable under water and used for well-curbs, tent and yoke. Considered to be a sacred tree.

HABITAT & DISTRIBUTION: Plains from the coast to 1000m. Sri Lanka, India. Pakistan, now widely cultivated.

INDIGENOUS INFORMATION: Fruits eaten by birds. Applying a mixture of coconut oil and pulp of the fruit promotes hair growth.



Alternate distichous



Simple L.Sh.



Elliptic-Ovate



Obtuse-Subacute L.Ba.



Rounded-Sub Cordate







Ficus microcarpa L.f.

MORACEAE

Indian Laurel Fig-E

lchi -lr

Kal ichi, Kal atthi -Ta; Pilala, Kirugoti -Ka; Ittiyal -Ma

HABIT: A densely foliaceous and copiously branched tree.

FLOWER: A fig, axillary, on leafless branch-lets.

FRUIT: An achene, smooth.

FIELD TIPS: Bark brown, fairly smooth. Wood is light reddish grey. Presence of aerial roots from branches; glands in the petiole.

HABITAT & DISTRIBUTION: Common, often associated with rocks. Hills above 300m. India, Sri Lanka, South China, Ryuku isles to Great Britain.

INDIGENOUS INFORMATION: Goats eat the leaves. The bark when used in combination with other herbs is a good medicine to cure boils or swelling on the















Elliptic-Ovate-Obovate L.Ap.



Rounded-Acute L.Ba.



Entire-Undulate

Ficus mollis Vahl

MORACEAE

Sunkathi -Ir

HABIT: A small or medium sized tree

FLOWER: In axillary paired or clustered, sessile, globose with fleshy brownish tomentum.

FRUIT: A fig, smooth. Fruiting November omwards.

FIELD TIPS: The tree throws out small aerial roots from branches. Rusty foliage. leaves tomentose on either side, upper surface becoming glabrous, dark green above, yellow-fluffy below.

HABITAT & DISTRIBUTION: Very common on rocks. Foothills up to 900m. India and Sri Lanka.

INDIGENOUS INFORMATION: Used as fire wood. The bark is used to cure sores caused by black magic.









Simple



Elliptic-Ovate



Broadly acute L.Ba.



L.Ma.



Ficus racemosa L.

MORACEAE

Country Fig, Cluster Fig -E

Athi -Ir

Atti, Vellai atthi, Nalla atthi -Ta: Atti -Ka: Atthi, Atthi al -Ma: Goolar -Hi

HABIT: A large deciduous tree with few and short aerial roots.

FLOWER: A fig, thick, soft, purplish red when ripe.

FRUIT: An achene, lenticular. Fruiting from March-June.

FIELD TIPS: Bark grey-reddish-brown. Wood greyish-brown and soft. Glandular at nerve-axils. Leaf gall present.

HABITAT & DISTRIBUTION: Common on plains to 1500m. India, Sri Lanka, Pakistan, South China to New Guinea and Queensland.

INDIGENOUS INFORMATION: Fruits edible but not tasty.









Simple L.Sh.



L.Ap.



Acute



Rounded-Acute L.Ma.



Ficus religiosa L.

MORACEAE

Sacred Fig -E

Arasa -Ir

Arasa -Ta; Arali -Ka; Arasu, Aal -Ma; Pipal -Hi

HABIT: A large tree, often starting as an epiphyte.

FLOWER: A fig, axillary, paired, sessile, ripening pink, purple or black.

FRUIT: Seed achene, smooth, many. Friuting from April-September.

FIELD TIPS: With few or no aerial roots, often epiphytic. Bark grey smooth. Leaf fall March-April. New foliage April-May.

HABITAT & DISTRIBUTION: Plains from the coast upto 1200m. Often planted around temples. Indian subcontinent.

INDIGENOUS INFORMATION: Leaves are used for medicinal purpose.



L.Ar.



L.Tv.



Simple L.Sh



Ovate(broadly)
L.Ap.



Caudate L.Ba.



Truncate L.Ma



Undulate

Ficus virens Aiton

MORACEAE

Spotted White Fig -E

Sellai -Ir

Ichchi, Malai ichchi -Ta; Basari -Ka; Cherla -Ma; Pakri -Hi

HABIT: A large deciduous tree without aerial roots, frequently epiphytic.

FLOWER: A fig, axillary, paired, globose, cream coloured, thick walled.

FRUIT: An achene, smooth. Figs ripening by December.

FIELD TIPS: Bark greenish-grey, smooth. Wood grey and moderately hard.

HABITAT & DISTRIBUTION: Occasional in hills above 800m, in forest. Sri Lanka, India to the Solomon Islands.

INDIGENOUS INFORMATION: Fruits edible . Bears and tortoises have been observed feeding on the fruit.







Simple



Oblong-Ovate



Abruptly acuminate



Truncate -(sub)cordate



Gardenia gummifera L.f.

RUBIACEAE

Kambi -Ir

Kambil, Vellapaavattaa -Ta; Chitta bike -Ka; Kikemali -Hi

HABIT: A small deciduous tree or shrub.

FLOWER: Solitary or in cymes, white. Flowering from January-April.

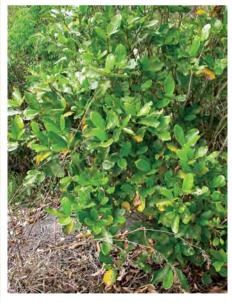
FRUIT: A berry, ellipsoid or oblong. Seeds many, rugose. Fruiting from March-April.

FIELD TIPS: Rough twisted branches. Yellow resin at the tip of branchlets.

MISCELLANEOUS: The yellow resin is used in ayurvedic medicinal preparations.

HABITAT & DISTRIBUTION: Common on degraded slopes, rocky strata in deciduous forests, usually found in dry laterite forests. Hills above 1000 m. Peninsular India, Northern Circars, Deccan and Carnatic. Westwards on the foot of the Ghats on the Malabar coast.

INDIGENOUS INFORMATION: The gum is taken from the tip and chewed to make it pliable after which it is stuck to the forehead as a cure for headache. The gum falls off when the headache is cured.











Simple



Oblong



L.Ba.



Rounded-(sub) Cordate L.Ma.



Entire

Givotia rottleriformis Griffith

EUPHORBIACEAE

Bhuguthalai, Thali maram -Ir

Thaala maram, Kottai thanuku, Vellai Poothalai, Vendalai -Ta

HABIT: A moderate sized tree.

FLOWER: In sub terminal pendulous panicles. Flowering from April-July.

FRUIT: A drupe, subglobose or ellipsoid fulvous-tomentose. Seed 1, globose or ellipsoid with a bony testa. Fruiting from May-June.

FIELD TIPS: Bark smooth and brown, peeling off in circular scales. Bruised bark vields a blood red sap. Leaf fall in March.

MISCELLANEOUS: The white wood is used to carve toys and lacquered articles. The seeds yield oil.

HABITAT & DISTRIBUTION: Commonly found along dry deciduous hills 400-900m. Peninsular India and Sri Lanka.

INDIGENOUS INFORMATION: Wood is used for fuel. The kernel is edible. The juice is extracted from the bark and administered to cure jaundice.









distichous





Simple



Cordate





(shortly) L.Ba.



L.Ma.



(coarsely)

Gliricidia sepium (Jacq.) Kunth ex Walp.

FABACEAE



Spotted Gliricidia -E

Vivasaaya thagarai -Ta

HABIT: A deciduous tree.

FLOWER: In racemes, pink. Flowering from February-April.

FRUIT: A pod, oblong, continuous between seeds. Fruiting April onwards.

HABITAT & DISTRIBUTION: Introduced, plains to 1400m. Planted in coffee plantations. Native of South America.

INDIGENOUS INFORMATION: The twigs are used as support for bean crops.









Imparipinnate



L.Ap.



Acuminate



Obtuse L.Ma.





Gmelina arborea Roxb

VERBENACEAE

White Kashmir Teak -E

Goola -Ir

Kumalaa -Ta: Shivani -Ka: Kumbil -Ma: Gumbar -Hi

HABIT: A large deciduous tree.

FLOWER: In axillary or terminal panicles, orangish yellow. Flowering from February-May.

FRUIT: A fleshy drupe, yellow when ripe. Seeds 2-4, oblong. Fruiting from May-June.

FIELD TIPS: Bark smooth white or whitish grey. Leaves thinly tomentose above, fulvose tomentose below.

MISCELLANEOUS: Fast growing and good quality timber..

HABITAT & DISTRIBUTION: Common in the deciduous areas close to grasslands and rivers. Hills above 350-900m. Indian subcontinent.

INDIGENOUS INFORMATION: Wood is used for firewood and the ash is used as a toothpowder.









Opposite





Ovate(broadly)cordate



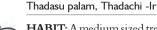
Obtuse-Acute





Grewia tiliifolia Vahl

TILIACEAE



HABIT: A medium sized tree.

FLOWER: In axillary cymes, yellow. Flowers in April.

FRUIT: A drupe, globose two-lobed, slightly hairy, red when ripe. Seeds 1-2. Fruiting

throughout the year.

FIELD TIPS: Bark thick grey when young, dark brown on mature trees.

MISCELLANEOUS: Wood is used for tool handles.

HABITAT & DISTRIBUTION: Common on hills 800-1000m. India, Sri Lanka, Burma, Tropical Africa.

INDIGENOUS INFORMATION: Fruits edible, also eaten by sambar and spotted deer. Elephants feed on the whole plant. Bark fibre is used to wash hair and helps to cool the body.









Ovate-Rotund



Sub acute L.Ba.



Oblique - Sub cordate









Gyrocarpus americanus Jacq.

HERNANDIACEAE

Thanuku -Ir

Vellai Thanuku, Kaathadi -Ta

HABIT: A large deciduous tree.

FLOWER: In sub terminal panicles, greenish yellow. Flowering from January-February.

FRUIT: A drupe, obovoid globose, longitudinally ribbed, crowned by two spathulate wings. Seed 1, obovoid. Fruiting from March-May.

FIELD TIPS: Bark grayish white, thin with a silvery luster.

HABITAT & DISTRIBUTION: Abundant along river banks in deciduous forests. Plains upto 900m. Tropics.

INDIGENOUS INFORMATION: A preferred nesting site of *Apis dorsata* and Trigona sp. The honey from these flowers will be watery. The bark along with cumin is used to treat fevers and drive away evil spirits. Tamarind should not be used while taking this medicine.











Alternate distichous



Simple



Ovate(broadly)



Acute-Acuminate





Haldina cordifolia (Roxb.) Ridsd.

RUBIACEAE

Kaduba -Ir

Manjakadambai, Poonthekku -Ta; Manja kadambe -Ma; Haldu -Hi

HABIT: A large deciduous tree.

FLOWER: In axillary globose heads, cream, fragrant. Flowering from December-March.

FRUIT: A capsule, clustered. Seeds elongate, tailed above. Fruiting May onwards.

FIELD TIPS: Bark thick grey, rough, wood yellow.

MISCELLANEOUS: Wood is used for furniture, agricultural implements.

HABITAT & DISTRIBUTION: Planted in the plains, foothills to 1400m, Sri Lanka, India to China, Vietnam, Peninsular Thailand.

INDIGENOUS INFORMATION: Wood is used to make the local flute – *kwaal*.









Cordate-(sub) orbicular



Abruptly acuminate



Cordate





Hardwickia binata Roxb.

CAESALPINIACEAE

Indian Blackwood -F

Karachi -Ir

Aacha -Ta; Kamra -Ka; Anjan -Hi

HABIT: A large deciduous tree.

FLOWER: In axillary or terminal panicles, greenish cream. Flowering from August-October

FRUIT: A pod, strap shaped, pendulous, compressed. Seed 1. Fruiting from September onwards

FIELD TIPS: The pod has a clear longitudinal vein. Rachis has an apical deciduous bristle. Bark is longitudinally fissured, exuding reddish resin. Leaf fall - January. New foliage - April, coppery turning green.

MISCELLANEOUS: Good timber species. Wood hard, heavy, multi-purpose. Leaves are used as fodder

HABITAT & DISTRIBUTION: Occasional on foothills to 900m. Peninsular India.

INDIGENOUS INFORMATION: Bees collect both pollen and nectar. Bees were also observed taking the resin which comes out from the fissures on the bark. The bark of the young branches are peeled and beaten to make the ropes used for honey harvesting. A well maintained rope can be used for three to five years. Bison and elephants forage on the bark and leaves.











distichous

L.Tv.

Bifoliate

L.Sh.



Obliquely

L.Ap.

Emarginate-



(Sub) Truncate L.Ma.



Entire

Holoptelea integrifolia (Roxb.) Planchon

ULMACEAE



Indian Elm -E

Thavasa, Aiya maram -Ir

Aavimaram, Tambachi -Ta; Thavasai -Ka; Aval -Ma; Papri -Hi;

HABIT: A large deciduous, densely foliaceous tree.

FLOWER: In clusters, appearing before the leaves. Flowering from February-March.

FRUIT: A samara, dry, winged, compressed. Fruiting from March onwards.

FIELD TIPS: Bark whitish grey with an offensive smell when freshly cut. Wood is light yellowish-grey. Leaf fall - February. New foliage - April.

HABITAT & DISTRIBUTION: Common, less in the plains, planted. Foothills to 1100m. India, Himalaya, Sri Lanka, Burma, Indo-China.

INDIGENOUS INFORMATION: The dried/fallen twigs are used as fuel wood.







Simple



Elliptic-Ovate



Acute L.Ba.



Rounded-(Sub)Cordate



Entire

Ixora pavetta Andrews

RUBIACEAE

Small Flowered Ixora, Torch Wood Tree -E

Gura-Ir:

Shulundu, Korivi -Ta; Korgi -Ka; Suji mulla -Ma; Kota gandhal -Hi

HABIT: A small evergreen tree.

FLOWER: In axillary cymes, white, fragrant. Flowering from March-April.

FRUIT: A drupe, didymous, dark purple when ripe. Fruiting throughout the year.

FIELD TIPS: Bark dark brown. Wood light reddish brown, smooth.

MISCELLANEOUS: The branches are used for torches.

HABITAT & DISTRIBUTION: Very common on hills, deciduous slopes from 300-900m. India, Sri Lanka, Bangladesh.

INDIGENOUS INFORMATION: A small piece of the wood is placed on the stone during the prayers when the foundation stone for a house is being laid.







L.Ty.



Simple



Elliptic-Oblong-Oblanceolate

L.Ap



Obtuse-(sub) acute

L.Ba.



L.Ma.



Kydia calycina Roxb.

MALVACEAE

Roxburgh's Kydia -E

Bendai -Ir

Vattakannu -Ta: Bendi -Ka: Pula -Hi

HABIT: A small or moderate sized deciduous tree.

FLOWER: In axillary or terminal panicles, white. Flowering from September-November.

FRUIT: A capsule, depressed-globose, winged, woolly. Seeds reniform, brown, persistent for months.

MISCELLANEOUS: Bark yields fibre.

HABITAT & DISTRIBUTION: Occasional on deforested slopes, in mixed and deciduous forest upto 1100m. India and Burma.

INDIGENOUS INFORMATION: The honey will be thick and sweet. Leaves are eaten by elephant, sambar, deer and bison. Used for fire wood.



Alternate distichous



Ovate -Orbicular L.Ap.



Rotund-Obtuse L.Ba.



Palmately rilobed, Crenate Dentate







Lagerstroemia reginae Roxb.

LYTHRACEAE

Queen of Flowers, Pride of India -E

Pu maruthu, Kadalai -Ta; Mani maruthu -Ma; Jarul -Hi

HABIT: A large sized deciduous tree.

FLOWER: In terminal panicles, mauve. Flowering from April-June.

FRUIT: A capsule, ellipsoid or sub globose, minutely apiculate. Seeds winged, pale brown. Fruiting from June onwards.

FIELD TIPS: Bark smooth, usually grey, wood light red and hard.

MISCELLANEOUS: Timber used for ship building and furniture.

HABITAT & DISTRIBUTION: Mainly along the river banks upto 1000 m. Native of China. Found along the Western Ghats and Assam, Sri Lanka and Malaysia.









Simple



Oblong-lanceolate/Elliptic



Sub acute L.Ba.



L.Ma.

Entire

Lagerstroemia lanceolata Wall.

LYTHRACEAE

Nandi Tree -E

Ventheak -Ir

Vevala -Ta; Bili nandi -Ka; Venthekku -Ma

HABIT: A large deciduous tree.

FLOWER: In terminal panicles, white. Flowering from March-April.

FRUIT: A capsule, ellipsoid, brownish. Fruiting from May onwards.

FIELD TIPS: Bark smooth, white and peeling off in papery flakes. Wood reddish brown.

MISCELLANEOUS: Timber highly valued.

HABITAT & DISTRIBUTION: In the deciduous and dry evergreen forests upto 1000 m. Peninsular India.







Simple



Elliptic-Lanceolate



L.Ba.



Cuneate L.Ma.



Entire

Lagerstroemia parviflora Roxb.

LYTHRACEAE

Crepe Myrtle, Crepe Flower -E

Nari naval, Matharaa, Kadaa -Ta; Chenagi -Ka; Chenangi -Ma; Sida, Bakli -Hi

HABIT: A large deciduous tree.

FLOWER: In panicles, white. Flowering in May.

FRUIT: A capsule, three to four valves, woody. Seeds winged. Fruiting from June onwards, persistent.

FIELD TIPS: Flowers shortlived in dense showy masses. Bark light brown, thin, peeling in long scales.

MISCELLANEOUS: Timber is valued.

HABITAT & DISTRIBUTION: Occassional on hills above 500 m in the deciduous belt in full sun. Tropical Himalaya, India, Burma.











Simple L.Sh.



Broadly obovateelliptic



Obtuse-Retuse L.Ba.



L.Ma.



Limonia acidissima

RUTACEAE



Indian Wood apple -E Nal vela -lr

Vila -Ta

HABIT: An armed deciduous tree.

FLOWER: In axillary or terminal racemes, fragrant, cream. Flowering from January-March.

FRUIT: A berry, globose, woody. Seeds many, oblong, compressed, embedded in pulp. Fruiting throughout the year.

FIELD TIPS: Bark blackish, deeply fissured. Leaf fall December. New foliage January-March.

MISCELLANEOUS: Fruit is woody and corky outside when mature, pulp edible and has medicinal value.

HABITAT & DISTRIBUTION: Common in foothills, scrub jungle upto 1000m. India, Pakistan, Sri Lanka, Java.

INDIGENOUS INFORMATION: Fruits edible. Goats eat the leaves. The tree is found only in certain patches in the forest. Elephants eat the leaves.









Alternate-Clustered



Imparipinnate L.Sh.



L.Ap.



Obtuse L.Ba.



Cuneate L.Ma.



Entire

Madhuca indica L.Gmelin

SAPOTACEAE

Illupai -lr

Kattu illupai -Ta; Mahua -Hi

HABIT: A medium sized semi-evergreen tree.

FLOWER: In solitary or clustered, axillary, cream, fragrant. Flowering from March-April.

FRUIT: A berry, ovoid. Seeds 2, ellipsoid. Fruiting from May onwards.

FIELD TIPS: Tree produces latex when cut.

MISCELLANEOUS: Spirit is distilled from flowers, in Central and East India

HABITAT & DISTRIBUTION: Less in plains and scrub jungles, hill slopes upto 900m. India and Burma

INDIGENOUS INFORMATION: Spotted deer, Sambar, boars eat the fruits. Seeds yield oil which is used in curing paralysis, fever and joint aches especially of the hip.









Clustered (apically)







Elliptic-lanceolate L.Ap.



Apiculate L.Ba.



Rounded L.Ma.



Mallotus philippensis (Lam.)Muell. Arg.

EUPHORBIACEAE

Kamala Tree, Red Berry -E

Chenoori -Ir

Kapli, Kunnancholai, Thirisalakkaai -Ta; Manjana -Ma; Raini -Hi

HABIT: A tree.

FLOWER: In sub terminal panicles, rust colored. Flowering in two seasons from January-March and June-September.

FRUIT: A capsule, smooth, pubescent, three valved, red in colour, rubs off like a powder dye. Seeds 3 in each capsule, globose, black, smooth. Fruiting throughout the year.

HABITAT & DISTRIBUTION: Common on slopes, by shola borders in forest clearings. Found mostly in scrub and deciduous forest types. Hills above 800m, . Western Himalayas and Peninsular India, Western and Eastern Ghats.









L.Tv.







Acute-Acuminate L.Ba.



Acute -Rounded



Mangifera indica L.

ANACARDIACEAE

Mango -E

Karae manga -Ir

Maa -Ta: Maavu -Ka: Maavu -Ma: Aam -Hi

HABIT: A tall spreading evergreen tree.

FLOWER: In terminal panicles, cream. Flowering from January-March.

FRUIT: A drupe, ovoid-oblong, yellow when ripe. Seed 1. Fruiting from July-August.

FIELD TIPS: Bark rough, dark grey.

MISCELLANEOUS: Many variations in the fruit types. Fruits edible. Wood is used for planks, crates and boats. Many mammals eat the fruit. Leaves used in cermonies.

HABITAT & DISTRIBUTION: Plains from the coast upto 1400m. Naturalised or indigenous. India, Burma, Thailand, Indo china, West Malaysia.

INDIGENOUS INFORMATION: Tender fruits traded. Good firewood species. Bark is used to treat stomach disorders.









L.Ar.



Alternate distichous



Simple

L.Sh.



Oblong/Elliptic-Lanceolate

L.Ap.



Acuminate

L.Ba.



Cuneate-Sub acute



Manilkara hexandra (Roxb.) Dubard

SAPOTACEAE



Ceylon Ironwood -E

Kalpalai -Ir

Kannupala, Ulakkaipaalai -Ta; Khirni -Hi

HABIT: A semi-evergreen tree.

FLOWER: In leaf-axils, clustered, fragrant, white. Flowering from December-February.

FRUIT: A berry, ellipsoid, slightly curved, oblong, beaked with persistent style when young. Seed 1. Fruiting February onwards.

FIELD TIPS: Milky sap present. Bark grey, smooth, often with conical hard branch lets. Wood red and very hard.

HABITAT & DISTRIBUTION: Occasional in plains from the coast, in scrub jungles to 900m. Peninsula, NE India, Sri Lanka, Indo-China.

INDIGENOUS INFORMATION: Apis cerana and Trigona sp. colonies found in the tree cavity. Wood used as fuelwood.











Simple L.Sh.



Broadly ovate





Obtuse-Emarginate

"Ba.



Rounded L.Ma.



Entire

Melia dubia Cay

MELIACEAE

Malaivembu-Ir

Malaivembu -Ta: Heb bevu -Ka

HABIT: A large densely foliaceous deciduous tree.

FLOWER: In axillary panicles, fragrant white. Flowering in March.

FRUIT: A drupe, globose, dorsally compressed with longitudinal ridges, dark green. Seeds 3-4. Fruiting from April-July.

FIELD TIPS: Bark whitish. Leaf fall - January. New foliage - February.

MISCELLANEOUS: Planted in coffee estates.

HABITAT & DISTRIBUTION: Common on the slopes. Hills above 750m. Sri Lanka, Peninsular India, Malay Peninsula, Australia, Tropical Asia, Angola.

INDIGENOUS INFORMATION: Preferred for firewood. The bark is made into a paste with cumin seeds and given to cure fever.













Bipinnate



Lanceolate



Caudate L.Ba.





Mitragyna parvifolia (Roxb.) Korth. var. parvifolia





Kadamba -Ir

Neer kadambai, Chinna kadamb -Ta; Kongu -Ka; Vimba -Ma; Kadam -Hi

HABIT: A large deciduous tree.

FLOWER: In axillary or terminal globose heads, cream. Flowering from April-June.

FRUIT: A capsule, aggregated into a globular head. Seeds many, flat, winged. Fruiting from June onwards.

FIELD TIPS: Bark light grey and smooth. Wood light pinkish brown. Inner bark vellowish when cut, turning flesh colored when exposed.

MISCELLANEOUS: Wood is used for making furniture and implements.

HABITAT & DISTRIBUTION: Often along rivers, less in the plains. Foothills to 900m. Sri Lanka, India, Bangladesh, Burma.

INDIGENOUS INFORMATION: Goats browse on the leaves. Bark is used for medicinal purposes. The wood is good for construction.





Simple L.Sh.



Oblong-(Sub)orbicular



Obtuse



Truncate-Acute L.Ma.









Morinda coreia Buch.-Ham.

RUBIACEAE

Mudhi -Ir

Nuna -Ta; Manjanathi -Ma

HABIT: A small deciduous tree.

FLOWER: In terminal or axillary heads, white. Flowering from March-June.

FRUIT: A syncarpium. Seeds oblong or obovoid. Fruits persistent.

MISCELLANEOUS: Wood yellow and good for agricultural implements.

HABITAT & DISTRIBUTION: Common in plains to the coast upto 900m. India, Sri Lanka, Malay archipelago.

INDIGENOUS INFORMATION: The wood is light and strong, therefore preferred to make parts of the plough.







L.Sh.



Elliptic-ovate

L.Ap.



Acuminate L.Ba.



Cuneate L.Ma.



Moringa concanensis Nimmo ex Dalz. & Gibson

MORINGACEAE

Kattu murungai -Ir

Kattu murungai -Ta

HABIT: A medium sized deciduous tree

FLOWER: In axillary panicles, white with purple streaks. Flowering from February-April.

FRUIT: A capsule, beaked, cylindrical. Seeds many, 3-angled. Fruiting from April onwards.

FIELD TIPS: Bark fissured to 10 cm deep, corky, grey. Leaf fall January. New foliage April.

HABITAT & DISTRIBUTION: Occassional on hills in the deciduous belt. Upto 1000m in full sun. Peninsular India to West Pakistan.



L.Ar.





Bipinnate



Broad ovate/ elliptic



Obtuse /Retuse / Apiculate L.Ba.



L.Ma.



Murraya paniculata (L.) Jack

RUTACEAE

Mock Orange -E

Mar chula, Kamini -Hi

HABIT: A small densely foliaceous evergreen tree.

FLOWER: In panicles, fragrant, white. Flowering in two seasons from March-May and August-September.

FRUIT: A berry, ovoid, green to orange to red. Seeds 1-2, compressed. Fruiting throughout the year.

FIELD TIPS: Bark pale or whitish, corky. Crushed leaves smell like green chillies.

MISCELLANEOUS: Timber valuable.

HABITAT & DISTRIBUTION: Common on hills, especially in shaded ravines above 750-1400m. Indian subcontinent and Malesia.







Imparipinnate



Ovate-Elliptic



Acute-Acuminate(shortly) L.Ba.



Oblique L.Ma.



Naringi crenulata (Roxb.) Nicolson

RUTACEAE

Okarikavela -Ir

Maga vilvam -Ta; Kattunarakam -Ma

HABIT: An armed deciduous tree.

FLOWER: In axillary racemes, white. Flowering from April-May

FRUIT: A berry, globose. Seeds 3-4, ovoid. Fruiting from July-September.

FIELD TIPS: Leaflets gland dotted with common winged petiole. Leaf fall - February. New foliage - March.

HABITAT & DISTRIBUTION: Common on hills upto 1300m. India.

INDIGENOUS INFORMATION: The honey has a bitter taste. Preferred firewood species. Goats eat the leaves. The bark is tied with a mixture of herbs and worn round the neck as an amulet.











Alternate



Imparipinnate



Oblong-Ovate-Elliptic



Sub acute-Obtuse L.Ba.



Sub acute-Obtuse L.Ma.





Olea dioica Roxb.

OLEACEAE

Koli, Payar, Yedalei -Ta; Edana -Ma

HABIT: A moderate sized tree.

FLOWER: In axillary panicles, axillary, creamy white. Flowering from January-March.

FRUIT: A drupe, ovoid, blue when ripe. Fruiting in March.

FIELD TIPS: Bark brown and rough.

HABITAT & DISTRIBUTION: In both deciduous and evergreen forests upto 900m. Peninsular India, mainly in the Western Ghats

















L.Ba.



L.Ma.



Persea macrantha (Nees) Kosterm.

LAURACEAE

Kula Mavu -Ir Kolamavu -Ta

HABIT: A large evergreen tree.

FLOWER: In greenish, terminal panicles. Flowering from February-April.

FRUIT: A berry, globose, with a basal persistent perianth rim, dark green, red when ripe. Fruiting from May-June.

FIELD TIPS: A watery sap exudes from tree. Galls present on leaf.

HABITAT & DISTRIBUTION: Common in evergreen forests above 1100-1900m. Peninsular India.











Simple L.Sh.



Elliptic-Oblong L.Ap.



Obtuse-Acute L.Ba.



Entire

Phyllanthus emblica L.

EUPHORBIACEAE

Nelli -lr

Nelli -Ta: Nelli -Ma: Aonla -Hi

HABIT: A small deciduous tree

FLOWER: Very small in axillary fascicles. Flowering from March-April.

FRUIT: A drupe, depressed globose, indehiscent, transluscent green when ripe. Seed trigonous and hard. Fruiting from November-March.

FIELD TIPS: Bark light grey and exfoliating. Leaves droop slightly and have reddish tips. Fruit edible, sour to taste.

MISCELLANEOUS: Fruit edible, also used for pickles. Highly valued for vitamin C, used extensively in ayurvedic medicine. Traded extensively in India.

HABITAT & DISTRIBUTION: Found along hill slopes, on exposed slopes in dry deciduous forests above 800 - 1500m. Indian subcontinent, South and South east Asia

INDIGENOUS INFORMATION: The twigs are used to purify water, especially saline water. Fruit eaten by Sambar and Spotted deer.













Simple





Apiculate L.Ba.



Cordate(sub)



Phyllanthus indofischeri Bennet

EUPHORBIACEAE

Nelli -lr

Nelli -Ta: Nelli -Ma: Aonla -Hi

HABIT: A small deciduous tree.

FLOWER: Very small in axillary fascicles. Flowering from March-April.

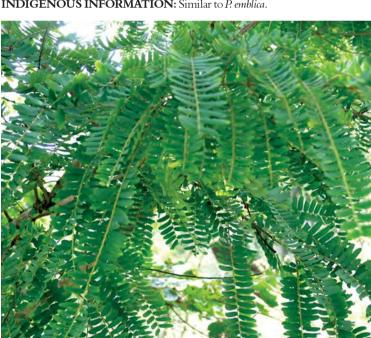
FRUIT: An indehiscent fleshy drupe with a single hard stone. Seeds 6, trigonous and hard. Fruiting from January-March.

FIELD TIPS: Bark pale brown, rough. Fruits edible, sour taste. Transluscent green when ripe. Fruits of Pemblica measure about 1.7-3cm in diameter and those of P.indofischeri, 2-3.6cm. Leaves larger than Pemblica and widely spaced.

MISCELLANEOUS: Fruits extensively traded in India.

HABITAT & DISTRIBUTION: Commonly found along hills of exposed slopes in dry deciduous forests below 900m. Deccan plateau of S India.

INDIGENOUS INFORMATION: Similar to P. emblica.



L.Ar.







Elliptic-Oblong





Rounded-Retuse



Rounded L.Ma.



Pleiospermium alatum (Wight & Arn.) Swingle

RUTACEAE

Morali godda -Ir

Kurnthumullthalai -Ta

HABIT: An armed densely foliaceous small tree.

FLOWER: In terminal or axillary panicles, fragrant, cream. Flowering from January-April.

FRUIT: A berry, globose. Seeds 4. Fruiting through the year.

FIELD TIPS: Petiole winged.

HABITAT & DISTRIBUTION: Common in the foothills to 900m, Peninsular India, Sri Lanka,

INDIGENOUS INFORMATION: Bark is crushed with the bark of another plant and allowed to infuse into the hot water bath, for mothers who have just delivered.







Trifoliate



Elliptic



Obtuse/Retuse L.Ba.



L.Ma.



Sub entire

Pongamia pinnata (L.) Pierre

FABACEAE



Indian Beech -F

Pongum -Ir

Ponga maram -Ta; Pungam -Ma; Karanj -Hi

HABIT: A medium sized deciduous tree.

FLOWER: In axillary racemes or fasicles, pinkish white. Flowering from February-

FRUIT: A pod, obliquely oblong, woody, compressed, curved at apex. Seed 1, reniform. Fruiting from April-October

FIELD TIPS: Bark thick, greyish brown, tubercled. Two kinds of galls are present, one each on the leaf and on the inflorescence. Leaves glossy above. New foliage February-March.

MISCELLANEOUS: Traders buy seeds. Oil important in auyurvedic medicine, recent importance as bio-fuel.

HABITAT & DISTRIBUTION: Mostly by river banks and ravines upto 1000m. Indian subcontinent, South east Asia.

INDIGENOUS INFORMATION: The leaves are bitter and not preferred by animals. Leaves are used to make the roof for the festival pandhals. Not preferred as a fire wood species. Bark is used to wash the idol of gods. The fruit is used to cure whooping cough in children. Seeds traded in earlier days.











Imparipinnate



Obovate L.Ap.



Acuminate



Entire

Premna tomentosa Willd

VERBENACEAE

Peethai -Ir

Kolakattai thekku, Malai thekku -Ta

HABIT: A moderate sized semi-evergreen tree.

FLOWER: In terminal and axillary corymbs, cream, fragrant. Flowering from January-April.

FRUIT: A drupe, sub globose. Fruiting from February onwards.

FIELD TIPS: Bark light greyish brown. Wood light brown smooth and close grained. Foliage and tender parts yellowish. Crushed leaf fragrant. Leaf fall December -January. New foliage - March.

HABITAT & DISTRIBUTION: Common in foothills to 1400m. Peninsular India and Sri Lanka.

INDIGENOUS INFORMATION: *Apis cerana* bees nest in the cavities of this tree. Fruits edible, eaten by human and birds.









Broadly ovate-Cordate



Acuminate



L.Ma.



Prosopis juliflora (Sw.) DC.

MIMOSACEAE



Dilli-Ir

Vaelikaruvai -Ta: Vanni -Ma: Vilaiti Keekar -Hi

HABIT: A small armed deciduous tree.

FLOWER: In axillary or solitary spikes, cream. Flowering from December-March.

FRUIT: A pod, straight or slightly curved, compressed. Seeds many, ovoid. Fruiting February onwards.

FIELD TIPS: Bark thick grey, rough. Wood purplish brown, hard.

MISCELLANEOUS: Pods are eaten by cattle. Wood used for fuel.

HABITAT & DISTRIBUTION: Plains from the coast to the foothills. Gregarious in wastelands. North and South America, Central America to Mexico. Widely naturalized in tropical Asia.

INDIGENOUS INFORMATION: Strong wood, used in making the wheels of the bullock cart. Also used in making fences.











Clustered

Bipinnate L.Sh.





L.Ba.



Obtuse L.Ma.



Entire

Pterocarpus marsupium Roxb.

FABACEAE

Indian Kino Tree -F

Ponnai -Ir

Vengai -Ta; Honne -Ka; Venga -Ma; Bigasal -Hi

HABIT: A large deciduous tree.

FLOWER: In terminal panicles, golden yellow. Flowering from June-July.

FRUIT: A pod, orbicular with broad wings, green turning brown. Seed 1, oblong or subreniform. Fruiting from March-July.

FIELD TIPS: Tree exudes a red resin which dries into solid blocks. Bark thick grey with vertical cracks. Leaf pubescent below.

MISCELLANEOUS: Timber highly valued. The resin is used in medicine and in European vines.

HABITAT & DISTRIBUTION: Common on the hill slopes even in dry and fully exposed areas above 750-1400m. Peninsular India.

INDIGENOUS INFORMATION: The resin is applied to the forehead, it is believed to drive away evil spirits. Menstruating women should not apply it. The bark is used while bathing infants to cure them of their 'twisted limbs'. If the limbs are twisted it means that the mother was deceived by her lover. The wood is used to construct houses and make furniture. There is a belief that if a person who constructs their house using this wood and takes non vegetarian food it will bring misfortune to

















Elliptic-Oblong





Emarginated L.Ba.



Obtuse-Truncate



Radermachera xylocarpa (Roxb.) Schumann

BIGNONIACEAE

Goddha-Ir

Maankombu, Vedankurunai -Ta; Vedangkonnri -Ma

HABIT: A large deciduous tree.

FLOWER: In axillary corymbose panicles, white. Flowering from March-April.

FRUIT: A capsule, elongate, terete, pustulate. Seeds many, winged on either side, compressed. Fruiting from April onwards.

FIELD TIPS: Leaf fall February. New foliage March-April.

HABITAT & DISTRIBUTION: Common on the deciduous hill slopes above 750m. Peninsular India.

INDIGENOUS INFORMATION: The wood is strong and light and used to make agricultural implements.









distichous





Bipinnate L.Sh.



Elliptic-Oblong





Shortly Acuminate



Rounded-Obliquely

L.Ma.



Randia candolleana Wight. & Arn.

RUBIACEAE

Peria Karai -Ir

HABIT: A small armed tree.

FLOWER: In axillary cymes.

FRUIT: A berry, globose. Seeds smooth.

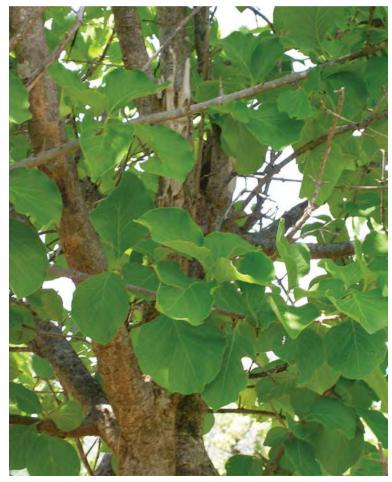
FIELD TIPS: Spines on the leaf axis.

HABITAT & DISTRIBUTION: Occasional in foothills upto 900m. Peninsular

Inida.

INDIGENOUS INFORMATION: Fruits eaten by deer and cattle. Preferred

firewood species.







Simple



Orbicular/ Obovate



Acute-Acuminate L.Ba.



L.Ma.



Randia dumetorum (Retz.) Poiret

RUBIACEAE



Kaarai -Ir

Mathukaarai, Maarivalam, Attadikaarai, Maalankaarai, Marakalam -Ta

HABITAT: An armed large shrub or small tree.

FLOWER: In axillary fasicles, white turning yellow. Flowering from January-July.

FRUIT: A berry, globose ovoid to ellipsoid, 2- celled, with a crown of enlarged calyx lobes, light green colour and resembling small guava. Seeds many, smooth. Fruiting persistent.

FIELD TIPS: Spines opposite, two - four cm long, straight.

HABITAT & DISTRIBUTION: Common in the foothills, scrub jungles, dry deciduous forests from 500-750m. Peninsular India.

INDIGENOUS INFORMATION: Porcupine, deer and cattle eat the fruits. The dried and powdered fruit can be used to stun fish. To cure vomiting and diarrhea, the extract of the barks of Cassia fistula and this tree is mixed with small chillies and the juice is taken. Preferred firewood species.







decussate



Simple L.Sh.



Spathulate L.Ap.



apiculate



L.Ma.



Rhus mysorensis Don

ANACARDIACEAE

Sipilai -Ir

Neyyikiluvai, Chippa maram -Ta

HABIT: A small armed tree.

FLOWER: In terminal or axillary panicles, yellow. Flowering from November-January.

FRUIT: A globose drupe, tinged red even when unripe. Seed 1. Fruiting from December onwards.

FIELD TIPS: Wood is hard, reddish yellow.

MISCELLANEOUS: Branches are used for fencing.

HABITAT & DISTRIBUTION: Common in foothills, scrub jungle to 900m. Northwest India to the Peninsular India.

INDIGENOUS INFORMATION: Firewood species.







Trifoliate



Obovate (terminal)





Obtuse-Apiculate L.Ba.



Cuneate T M o



Sinuou

Salix tetrasperma Roxb. var. tetrasperma

SALICACEAE

Indian Willow -E

Baiyangi -Ir

Neernochi, Neer vanji -Ta; Baiche -Ka; Vanji -Ma; Bains -Hi

HABIT: A large deciduous tree.

FLOWER: In axillary or terminal catkins, cream. Flowering from January-February.

FRUIT: A capsule, two-valved. Seed ovate-lanceolate, flattened, cottony. Fruit dehiscing by March.

FIELD TIPS: Bark rough with deep, vertical fissures, grayish brown. Leaf fall December-January. New foliage January-February.

MISCELLANEOUS: The twigs are woven into mats and baskets.

HABITAT & DISTRIBUTION: Occasional on hill slopes, in moist places and watercourses. India, mainland Asia, Malaysia.













Simple L.Sh.



Lanceolate



Acuminate L.Ba.





Crenate-Serrate

Santalum album

SANTALACEAE

Sandalwood -E

Ghandha -Ir

Sandhanam, Srigandam -Ta; Chandan -Hi

HABIT: A small evergreen tree.

FLOWER: In terminal or axillary panicles or in cymes, brownish-purple. Flowering peaks from December-April (nearly through the year in the hills).

FRUIT: A drupe, globose, black when ripe. Fruiting throughout the year.

FIELD TIPS: Bark dark grey, rough. Wood hard and close grained. Sapwood scentless white, heartwood yellowish-brown, strongly scented.

MISCELLANEOUS: Wood used for carvings, distillation of oil. Usually semi parasitic on the roots of other trees.

HABITAT & DISTRIBUTION: Abundant on the lower slopes, plains and foothills to 1400m. Peninsular India.

INDIGENOUS INFORMATION: Tender shoots kept as an offering to the gods. Cattle graze on the leaves. Fruits are eaten by birds.













Opposite (below), Alternate(above)



Simple



Lanceolate



Gradullay acute L.Ba.



Rounded-Acute





Sapindus emarginata Vahl

SAPINDACEAE



Soapnut Tree -E Poosam -Ir

Puchaa, Poovan kottai -Ta: Aratala -Ka: Ritha -Hi

HABIT: A deciduous tree.

FLOWER: In terminal and axillary panicles, rusty. Flowering from February - April and August to December.

FRUIT: A drupe, 3-lobed smooth partly united, green to brown. Seed 1, round and shiny black. Fruiting from January - March and October - December.

FIELD TIPS: Bark grey with rough scales. Dense foliage. Leaflets (sub) opposite three-five pairs. Leaflets softly pubescent beneath and on nerves above. Fruit slightly pubescent when young, glabrous rusty brown and wrinkled when mature. New foliage - March.

MISCELLANEOUS: Commonly called the Indian soapnut tree, the soap produced from the fruit is used to wash jewellery and silks. Traded extensively in India.

HABITAT & DISTRIBUTION: Dominant in the deciduous belt upto 1000m. Peninsular India.

INDIGENOUS INFORMATION: The leaves are eaten by deer and Sambar. Wood used as fire wood. It is used to cure toothache by keeping a piece of the crushed bark on the teeth.



distichous





Oblanceolate L.Ap.



Retuse-Emarginate



Cuneate



Entire







Schefflera stellata (Gaertner) Harms

ARALIACEAE

Pei maratti -Ta

HABIT: A large straggling or climbing shrub.

FLOWER: In panicles, terminal and axillary, greenish. Flowering from April-May.

FRUIT: A drupe, globose, 5-6 angular, orange when ripe. Seeds laterally compressed. Fruiting from May - June.

FIELD TIPS: Bark peels off easily. Petioles sheathing.

HABITAT & DISTRIBUTION: Occasional in rock crevices by ravines, forest border, on hills 600 – 1400m. Peninsular India.





Entire

Schleichera oleosa (Lour.) Oken

SAPINDACEAE



Pulipoosa -Ir

Puvan -Ta; Chakota -Ka; Puvam -Ma; Kusam -Hi

HABIT: A large deciduous tree.

FLOWER: In slender panicles, cream to yellowish. Flowering from March-April.

FRUIT: A drupe, ovoid, smooth or slightly prickly. Seed 1-2, ovoid, with a fleshy aril.Fruiting from April-May.

FIELD TIPS: Leaves bright red when young. Bark grey. Wood very hard, light reddish-brown.

MISCELLANEOUS: The aril of the fruit is edible and the seeds yield oil. Wood is used to make rice-pounders. The best lac is produced on its twigs.

HABITAT & DISTRIBUTION: Common on hills above 500m. Tropical Himalaya, India, Burma, Thailand, Indo-China, Malaysia, Sri Lanka.

INDIGENOUS INFORMATION: Fruits edible also by monkeys and Spotted deer. Elephants feed on the leaves. Wood is used for fire wood. Bark is used for medicinal preparation to cure fever.









Paripinnate L.Sh.



Oblong-Elliptic



Obtuse-Rounded





Entire

Schrebera swietenioides Roxb.

OLEACEAE

Weaver's Beam Tree -E

Mogalinga, Pasarai -Ta; Mogalinga, Gante -Ka; Mala plasu -Ma;

Moka, Banpalas -Hi

HABIT: A moderate sized deciduous tree.

FLOWER: In terminal and axillary cymes, white with brown centre, covered with brown glands.

FRUIT: A capsule, pear-shaped, pendulous, woody, dotted with rough specks, dehiscing by two valves. Seeds many, flat, winged. Fruiting March onwards, almost persistent.

FIELD TIPS: Bark grey, thick, wood brownish-grey and close grained. Woody fruits resembling pear. Flowers covered with brown glands. Leaf fall February-March, New foliage March-April.

MISCELLANEOUS: Roots, bark, leaves and fruits are used in medicine.

HABITAT & DISTRIBUTION: Not very common in deciduous belts, on hills 700-100m. Peninsular India, Tropical Himalaya and Burma.







L.Ty.



Imparipinnate L.Sh.



Elliptic-Ovate L.Ap.



Acute I Ra



Obliquely attenuate



Semecarpus anacardium L.f.

ANACARDIACEAE

Marking Nut Tree -E

Ghair -Ir

Cheran kottai, Shenkottai, Thembarai -Ta; Gheru -Ka; Thenkotta -Ma; Bhilawa -Hi

HABIT: A moderate sized tree

FLOWER: In terminal panicles, greenish. Flowering from May-July.

FRUIT: A drupe, globose, ovoid, reniform, seated on a fleshy receptacle. Seed 1, nut. Fruiting in May.

FIELD TIPS: Bark brown. Acrid latex drying black. Leaves thick rusty villous below

MISCELLANEOUS: Marking ink made from latex of pericarp of drupe. Fruits sun dried and eaten in Cemtral India.

HABITAT & DISTRIBUTION: Occasional to common on slopes upto (500) 750-1000m. India, Malaysia to Australia.

INDIGENOUS INFORMATION: The fruit is placed in hot embers and infants are exposed for a brief spell to the smoke produced. This helps to build their immunity.



L.Ar.



Alternate distichous



Simple



Oblong-Obovate





Obtuse-Sub acute-Cordate



Entire

Shorea roxburghii Don

DIPTEROCARPACEAE

|haala -lr

Talura, Talari, Kungiliyam -Ta

HABIT: A tall deciduous tree.

FLOWER: In axillary or terminal panicles, fragrant, white. Flowering from February-March.

FRUIT: A capsule enclosed within wing like accrescent sepals. Wings prominently nerved. Seed 1, obovoid. Fruiting from April-May.

FIELD TIPS: Tree produces resin. Pedicels red and petals twisted and waxy. New foliage in February.

MISCELLANEOUS: A good timber species.

HABITAT & DISTRIBUTION: Occasional on deciduous slopes upto 1000m. Peninsular India.

INDIGENOUS INFORMATION: Used as fire wood. Resin and flowers offered













Simple



L.Ap.



Emarginate



L.Ma.



Stereospermum personatum (Hassk.) Chatterjee

BIGNONIACEAE



Trumpet Flower -E

Pathiri/Patharai -Ir

Poopadiri, Paadhalaamaram -Ta; Karingkruna -Ma; Patiri -Hi

HABIT: A densely foliaceous tree.

FLOWER: In axillary corymbs, yellow veined red. Flowering peaks during April-June (lower slopes) and July-September (higher slope).

FRUIT: A capsule, terete or 4-gonous elongate, twisted and with speckles. Seed compressed, trigonous, winged. Fruiting throughout the year.

FIELD TIPS: Fruits are spirally twisted. Flowers bell shaped. Bark brown, wood hard, greyish brown with darker patches

HABITAT & DISTRIBUTION: Common in deciduous slopes, semi evergreen forests. Hills above 800m. India, Tropical Himalaya, Sri Lanka, Burma, Thailand, Indo-China, Malaysia.

INDIGENOUS INFORMATION: Honey thick; bark used in medicinal preparations. Wood is used to make furniture.











Imparipinnate



Lanceolate



Acuminate L.Ba.



Acute .Ma



toothed

Strychnos potatorum L.f.

LOGANIACEAE

Clearing Nut Tree -E

Silla maram -Ir

Tattan Kottei, Kal kottei, Sirungaru maram -Ta; Nirmali -Hi

HABIT: A medium sized tree.

FLOWER: In axillary or terminal cymes, whitish. Flowering from April-June.

FRUIT: A berry deep blue when ripe, thin shelled, falls easily. Seed 1, (sub) orbicular. Fruiting from June onwards.

FIELD TIPS: Bark brownish black, corky, deeply cracked. Leaf three - five nerved at base. Leaves glabrous, 3-5 nerved at base.

HABITAT & DISTRIBUTION: Common. Foothills to 800m. Peninsular India and Sri Lanka.

INDIGENOUS INFORMATION: Firewood species. The leaves are eaten by the deer. The bark mixed with other herbs is made into a paste with lime juice and applied over the body to cure allergies.









Opposite Tv



I Sh



Ovate I A n



Acuminate-Mucronate



Truncate/ Rounded



Strychnos nux-vomica L.

LOGANIACEAE

Strychnine Tree -E

Etti -lr

Yetti, Kanjaram -Ta; Kanjeram -Ma; Kuchila -Hi

HABIT: A moderate sized deciduous tree.

FLOWER: In terminal or axillary cymes. Flowering from March-April.

FRUIT: A globose berry, thick shelled, orange when ripe. Seeds 4, compressed, embedded in fleshy pulp. Fruiting from September-November.

FIELD TIPS: Bark thin and dark grey. Flowers and fruit smell like fenugreek. New foliage -February. Leaf fall -December.

MISCELLANEOUS: Seeds contain strychnine and collected for export and trade.

HABITAT & DISTRIBUTION: Common. Foothills to 1400m. Indian subcontinent.



L.Ar.



Opposite



Simple L.Sh.



Orbicular-Ovate L.Ap.



Obtuse-Acute-Apiculate



Attenuate L.Ma.



Syzygium cumini (L.) Skeels

MYRTACEAE

Indian Blackberry, Black Plum, Jambolan -E

Naval -Ta

lamun -Hi

HABIT: A large evergreen tree.

FLOWER: In panicled cymes, axillary or terminal, creamish. Flowering from March-April and July-August.

FRUIT: A berry, globose, green to red to dark blue when ripe. Seed 1. Fruiting from June-July or September-October.

FIELD TIPS: Bark light grey, smooth; blaze reddish. Dead bark flaking off. Galls oblong on branchlets, globose on leaf. New foliage - February - March.

HABITAT & DISTRIBUTION: In a variety of habitats, sholas, riverbanks, scrub jungles or planted as avenue trees. Upto 1400m. Indian subcontinent, South east Asia, Australia.

INDIGENOUS INFORMATION: Honey bitter; fruits edible. Bark eaten by elephants and also used to brew liqour; wood used for fuel.











Simple



Elliptic-Ovate-Lanceolate



Acuminate



L.Ma.



Tamarindus indica 1.

CAESALPINIACEAE



Sulla, Puliya-Ir Puli -Ta: Imli -Hi

HABIT: A large evergreen tree.

Alternate distichous

Paripinnate



L.Ap.

Obtuse L.Ba.



Obtuse L.Ma.



Entire

FLOWER: In racemes at the end of branches, yellow with pink streaks. Flowering from April-June.

FRUIT: An oblong pod, sub compressed with brown pulpy mesocarp. Seeds 3-8 or more, obovoid, orbicular, compressed, brown glossy hard. Fruiting from December-March.

FIELD TIPS: Bark dark brown to black. Leaves sour. Leaflets 15-17 pairs notched at the tip.

MISCELLANEOUS: Fruit an important condiment in Indian cuisine.

HABITAT & DISTRIBUTION: Planted or self propagating. Plains from coast 600 (1200) m. Native in tropical Africa, introduced in India in the 15th century.

INDIGENOUS INFORMATION: The tender leaves and fruit are made into a chutney. The bark is used for medicinal preparation.



Tectona grandis L.f.

VERBENACEAE

Teak -E

Thaekku -Ir

Thaekku, Thanagaa -Ta; Thaekku -Ma; Sagwan, Sagun -Hi

HABIT: A tall deciduous tree.

FLOWER: In terminal and axillary cymose panicles, yellowish. Flowering from June-September.

FRUIT: A drupe, globose, with a stony endocarp and persistent calyx. Seeds 4, oblong. Fruiting from July-October.

FIELD TIPS: Bark light brown or grey. Leaf glabrescent above, stellate pubescent below.

MISCELLANEOUS: Valued for timber and planted in large numbers all over India.

HABITAT & DISTRIBUTION: Less successfully raised in the plains generally by river banks. Hills above 600 m. In most parts of Western Ghats and parts of Eastern Ghats.

INDIGENOUS INFORMATION: Good source of nectar. Leaves made into plates.













Opposite-Whorled





Simple

L.Sh.



Elliptic



Obtuse-Acute L.Ba.



Rounded-Acute





Terminalia arjuna (DC.) Wight & Arn.

COMBRETACEAE



Mathi -Ir

Vella marudu, Kula maruthu -Ta; Neer marudhu, Aatumaruthu, Vellamathi -Ma; Arjuna-Hi

HABIT: A large deciduous tree.

FLOWER: In axillary panicles, fragrant, cream. Flowering from April-July.

FRUIT: A drupe, 5 winged, woody, oblique lines on wing. Seed 1. Fruiting from June onwards, persistent.

FIELD TIPS: Outer bark stiff, flaking off in pieces. Inner bark white and smooth, thick flesh colored when cut, exuding red resin. Galls on the leaf.Presence of glands on the petiole.

MISCELLANEOUS: Valuable timber and green manure. Bark used in herbal preparations. Good forage for tasar silkworm.

HABITAT & DISTRIBUTION: Very common. Riparian species of the plains from the coast to 1400m. India and Sri Lanka.

INDIGENOUS INFORMATION: Nesting site of *Apis dorsata*, *A. cerana* and *Trigona* sp. bees. The honey is red in colour and fragrant. Fruits are eaten by monkeys, spotted deer, porcupine. Timber highly valued. The ash from the wood is mixed with tamarind juice and eaten for medicinal purposes. Wood is used to make furniture.











Alternate-Sub opposite



Simple L.Sh



Obovate-Oblanceolate L.Ap.



Obtuse



Obtuse-Subcordate



Crenate-Serrate

Terminalia bellerica (Gaertner) Roxb.

COMBRETACEAE

Thandri -Ir

Tani, Thandi, Semmaram -Ta: Bahera -Hi: Thani -Ma

HABIT: A tall deciduous tree.

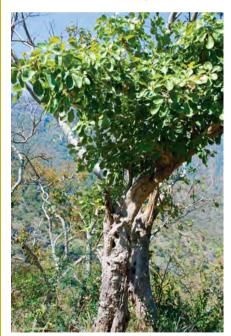
FLOWER: In axillary spikes, fragrant, cream. Flowering from April-May.

FRUIT: A drupe, sub globose, soft tomentose, slightly five ridged, beaked. Seed 1. Fruiting from May-June.

FIELD TIPS: Bark bluish grey with vertical cracks. Branchlets warty with permanent leaf scars and an extensive crown. New foliage March to April, red, soon turning green.

HABITAT & DISTRIBUTION: Common. Hills 900–1400 m. Indian subcontinent.

INDIGENOUS INFORMATION: Deer, squirrel, civets eat the fruit. Very strong black magic is done using these seeds. It is believed that evil spirits live under this tree. The bark is made into a paste and used in treating paralysis. Firewood species.















Ovate-Obovate-Elliptic(broadly)





Rotund





crenulate

Terminalia chebula Retz.

COMBRETACEAE



Alternate-

Opposite

Simple L.Sh.

Chebulic Myrobalam -E

Aralae -Ir

Kadukaai -Ta; Harra -Hi

HABIT: A medium sized deciduous tree.

FLOWER: In axillary spikes, cream. Flowering from March-May.

FRUIT: A drupe, obovoid or oblong or ellipsoid, glossy green-brown, ridged. Seed 1. Fruiting from September-October.

FIELD TIPS: Bark dark brown. Leaves densely woolly below, with two glands at the base of the leaf blade. Flowers have no petals. New foliage - February-March.

MISCELLANEOUS: Fruit used in industry for dyeing, tanning and in ayurvedic industries. Excellent for firewood and timber.

HABITAT & DISTRIBUTION: Occasional in deciduous forests. Grows to be a large tree in good soil, but a small one in dry rocky places. Hills 800 - 1400 m Peninsular India.

INDIGENOUS INFORMATION: Deer, porcupines, elephants, bison eat the fruits. The fruit is used to brew alcohol. The fruits were harvested for sale around five years ago. A piece of the fruit is kept in the mouth to cure cough. A tonic prepared from the fruit is used to cure ulcer.







Rounded L.Ma.









Terminalia crenulata Roth

COMBRETACEAE

Laurel -E

Karumathi -Ir

Karu maruthu -Ta: Thembava -Ma: Aina -Hi

HABIT: A large deciduous tree.

FLOWER: In axillary or terminal spikes, cream. Flowering from July.

FRUIT: A drupe, ovoid, 5 winged, horizontal lines on the wing. Fruiting from July onwards.

FIELD TIPS: Bark greyish black with longitudinal fissures. Wood dark brown streaked with black. Fruit reddish when tender, turning green.

MISCELLANEOUS: Good timber species.

HABITAT & DISTRIBUTION: Sometimes by river banks. Hills 800 -1400m. India and SriLanka











L.Sh.



Elliptic-Obovate-Oblong





Acute-Obtuse L.Ba.



cordate,Oblique

L.Ma.



Terminalia paniculata Roth

COMBRETACEAE

Flowering Murdah -E

Vella mathi -Ir

Puluvai, Pekarakai, Vem maruthu -Ta; Pillai maruthu -Ma; Kindal -Hi

HABIT: A large deciduous tree.

FLOWER: In terminal or axillary panicles, fragrant, cream. Flowering from July-October.

FRUIT: A drupe, rusty tomentose, 3-winged, unequal. Fruiting in dense coppery masses, persistent.

FIELD TIPS: Bark dark brown, cracked, longitudinal. Wood pale brown, smooth.

MISCELLANEOUS: Good timber species, resistent to fire.

HABITAT & DISTRIBUTION: Hills 800-1200m. Peninsular India.









Opposite L.Ty.



Simple L.Sh



Oblong/Elliptic-Lanceolate





Acute-Acuminate L.Ba.



Sub cordate-Obtuse,Oblique

L.Ma



Entire

Toona ciliata Roemer

MELIACEAE

Indian Mahogany -E

Kilinji -Ir

Santhana vembu, Thera tharam -Ta; Tundu -Ka; Tun -Hi

HABIT: A densely foliaceous deciduous tree.

FLOWER: In axillary or terminal panicles, white. Flowering from February-March.

FRUIT: A 5-valved capsule. Seeds 25-30, oblong, thin, winged at both ends. Fruiting in August.

FIELD TIPS: Inner wood red, soft and mildly scented. Leaflets in 6-9 pairs, sub opposite.

HABITAT & DISTRIBUTION: Common in the moist deciduous forests. Hills above 1100m. Eastern and Western Ghats of India.











distichous



I Sh



Oblong-Lanceolate



Acuminate L.Ba.



Oblique-Cuneate L.Ma.



Entire-sub Undulate

Trema orientalis (L.) Blume

ULMACEAE

Charcoal Tree -E

Ambarathi, Tachaamaram -Ta: Gurklu -Ka: Ratthi -Ma

HABIT: A small tree.

FLOWER: In axillary cymes, in clusters. Flowering peaks from January-March and August-October.

FRUIT: A drupe, globose. Seeds obovoid to globose. Fruiting throughout the year.

FIELD TIPS: Bark grayish-brown with numerous lenticels.

MISCELLANEOUS: A rapid growing plant, quickly appearing in forest clearing. Planted as shade plant. Bark yields fibre.

HABITAT & DISTRIBUTION: Common in ravines and in clearings, less in the plains. Hills above 400m. Tropical Africa, Sri Lanka, India, Himalaya, Indo-China, West and South China, Australia.







Alternate distichous



Simple L.Sh.



Obovate-Broadly Lanceolate

L.Ap.



Acuminate L.Ba.



Oblique



Serrulate

Viburnum punctatum Buch.—Ham.ex D.Don CAPRIFOLIACEAE

Konakaran -Ta;

HABIT: A small evergreen tree.

FLOWER: In terminal congested corymbs, white. Flowering from August-October.

FRUIT: A drupe, oblong, red. Seed 1, compressed, ventrally concave. Fruits persistent.

FIELD TIPS: Bark thin brown, chequered. Leaves shiny, nerves flattened above, raised below; covered below with small round rust coloured scales or glands as also the young parts. Margin recurved.

HABITAT & DISTRIBUTION: Common in sholas and moist forests, Above 1200m. South east Asia, Peninsular India.













L.Sh.



lliptic-Obovat







L.Ma.



Vitex altissima 1.f

VERBENACEAE

Neviladi kai, Mailai, Mailam -Ir

Mayilaadi, Mayilai nochi -Ta; Myrole -Ka; Maylai -Ma

HABIT: A densely foliaceous tree with extensive crown.

FLOWER: In terminal racemose panicles, blue to purple. Flowering from June-September.

FRUIT: A drupe, globose, ripening purple. Fruiting in January.

FIELD TIPS: Bark yellowish grey, wood grey to yellowish brown.

MISCELLANEOUS: Timber valuable.

HABITAT & DISTRIBUTION: Common in the forest, less on the slopes, down to foothills. Hills above 600m. Peninsular India.

INDIGENOUS INFORMATION: Cattle feed on the leaves. Firewood species.





Opposite decussate



3-foliate



Oblanceolate (lateral)



Shortly acuminate L.Ba.



Acute L.Ma.



Entire



Wendlandia thyrsoidea (Roemer & Schultes) Steudel

RUBIACEAE

Kadambam, Aenaa, Thekkili -Ta; Puvu -Ma

HABIT: A small tree.

FLOWER: In dense terminal panicles, cream or white. Flowering from February-April.

FRUIT: A capsule. Seed oblong, cylindrical. Fruiting from March-April.

FIELD TIPS: Bark orange-red, fibrous. Flowers fragrant.

HABITAT & DISTRIBUTION: Occasional on bare or exposed slopes or along forest borders on hills above 800m. Peninsular India.













Simple





Acute-Acuminate (shortly) L.Ba.



Acute-Cuneate



Wrightia tinctoria (Roxb.) R.Br.

APOCYNACEAE

Dyer's Oleander, Pala Indigo -E

___ Paalai -Ir

Veppalai, Irumpaalai, Nila palai -Ta; Aiya palai -Ma; Dudhi -Hi

HABIT: A small deciduous tree.

FLOWER: In terminal or pseudo axillary cymes, cream. Flowering from April-August.

FRUIT: A follicle, smooth, connate at the apex, dark green in colour. Seeds many linear, oblong, basally beaked with a tuft of hairs. Fruits persistent.

FIELD TIPS: Bark pale and smooth. Sap is present.

MISCELLANEOUS: Leaves yield a blue dye. Wood is used for carving.

HABITAT & DISTRIBUTION: Very common in plains, scrub jungles and deciduous forests of the hills, upto 1500m. Central and Peninsular India, Burma and Timor.

INDIGENOUS INFORMATION: The wood is used to make ladles to stir ragi. A small piece of the bark is added to milk for fermentation.









Opposite decussate

L.Ty



Simple L.Sh



Elliptic-Oblong-Lanceolate

L.Ap.



Acuminate L.Ba.





Soymida febrifuga (Roxb.) Adr. Juss.

MELIACEAE

Shem, Somi, Sittathi -Ta; Sombi -Ka; Rohan -Hi

HABIT: A moderate-sized tree.

FLOWER: In axillary and terminal panicles, white. Flowering from February-April.

FRUIT: A capsule, obovoid, woody. Fruiting from April onwards.

FIELD TIPS: Bark brittle, plantlet with persistent leaf scars.

HABITAT & DISTRIBUTION: Occasionally found in dry deciduous forest belt from 400-700m. Central India, Peninsular India and Sri Lanka.















L.Ba.





Ziziphus glabrata Heyne ex Roth

RHAMNACEAE

Karattai -Ir

Kottei, Karukaba -Ta: Karkala -Ma

HABIT: An unarmed densly foliaceous tree.

FLOWER: In axillary cymes, greenish. Flowering from March-May.

FRUIT: A drupe, globose-obovoid, orange when ripe. Seed 1. Fruiting from July -September.

HABITAT & DISTRIBUTION: Common by stream banks. Foothills to 1400 m. Peninsular India, North east India to Bhutan.

INDIGENOUS INFORMATION: Fruits edible.



Alternate distichous



Simple



Ovate/Oblong-Elliptic

L.Ap.



L.Ba.





Crenate



Ziziphus rugosa Lam.

RHAMNACEAE

Kotta -lr

Kattuillindhai, Suduthoratti -Ta: Thodali -Ma: Suran -Hi

HABIT: An armed straggler.

FLOWER: In panicled cymes, axillary or terminal, green. Flowering from January-April.

FRUIT: A drupe, globose or pyriform. Seed 1, obovoid. Fruiting from April-June.

FIELD TIPS: Leaves 5-nerved at base, convergent, woolly below.

HABITAT & DISTRIBUTION: Common on exposed dry slopes and forest edges from 900 - 1500m. Peninsular India.

INDIGENOUS INFORMATION: Fruits edible, eaten by Sambar, Spotted deer. Elephants feed on the plant.











Orbicular-Rotund



Rotund-Mucronate



Cordate L.Ma.



Ziziphus mauritiana Lam.

RHAMNACEAE

Elanthai maram, Elasi -Ir

Yellande, Ilantha -Ta; Yeluchi -Ka; Cherumali -Ma; Ber -Hi

HABIT: An armed tree with a compact hemispherical crown.

FLOWER: In axillary cymes, greenish. Flowering from July-November.

FRUIT: A drupe, oblong-globose, rugose, orange-red when ripe. Seed 1. Fruiting from October-December.

FIELD TIPS: Bark dark grey, nearly black with irregular cracks. Wood hard, reddish, tough and strong. Base of leaf 3-nerved.

HABITAT & DISTRIBUTION: Common in plains from coast to 900m. India and Sri Lanka, truly wild, now in cultivation in most part of the world.

INDIGENOUS INFORMATION: Fruits edible and work as an appetizer. Fruit eaten by deer, sambar, boar and birds. Elephants eat all parts of the tree. Used as fuel wood and in construction to make doors and windows.











L.Tv.



Simple L.Sh.



L.Ap.



Rotund, Retuse



Oblique-Sub Cordate



Glandulardenticulate

Ziziphus xylopyrus (Retz.) Willd.

RHAMNACEAE

Gottai -Ir

Kottei -Ta: Kotta -Ma: Katber -Hi

HABIT: A small tree

FLOWER: A cyme, axillary, greenish. Flowering from May-July.

FRUIT: A drupe, globose, tomentose. Seed 1, oblong, sulcate in the middle. Fruiting from June-December.

FIELD TIPS: Tree sparsely armed. Fruit edible.

HABITAT & DISTRIBUTION: Common in foothills, scrub jungle to 1200m. India and Sri Lanka.

INDIGENOUS INFORMATION: Deer and boar eat the fruits. The paste made from the mixture of tender shoots, pepper, tobacco, lime is applied to heal wounds caused by tiger and leopard attacks. Bark is used to prepare medicine for gastric problems and to brew alcohol.





L.Ar.



Alternate

L.Ty.



Simple

L.Sh.



Ovate-Oblong

L.Ap.



Rounded

L.Ba.



Sub-cordate-Obtuse

L.Ma.



Serrulate

Telling a **Terminalia** by its bark!

The Terminalia belong to a family (Combretaceae) of tropical trees. The genus Terminalia L. includes about 250 species of trees and shrubs (Lamb and Ntima 1971; Whitmore 1972) with a distribution throughout the tropical and sub-tropical regions of the world. There are 12 species of Terminalia recorded in India. Besides yielding high value timber, many Terminalia species are the source of various non-wood forest products (NWFP). The characteristic barks of the Terminalia trees of the northern landscape of the Nilgiri Biosphere Reserve are presented below:



Terminalia arjuna -Arjun



Terminalia chebula-Chebulic myrobalan



Terminalia paniculata–Flowering Murdah



Terminalia bellerica



Terminalia crenulata-Indian Laurel

Abrus precatorius L.

FABACEAE

Kurukangi -Ir

Gundu mani -Ta; Guluganji -Ka; Kunni -Ma; Ratti -Hi

HABIT: An unarmed climber.

FLOWER: In terminal or axillary racemes, pink to white. Flowering from September-November.

FRUIT: A pod, oblong, thinly septate, wrinkled, black when dry. Seeds about 5, blood red with a black eye. Fruiting throughout the year.

FIELD TIPS: Seeds red with black hilum.

MISCELLANEOUS: Caterpillars of common Cerulean and Indian Sunbeam butterflies feed on the plant. The dried leaves eaten with betel leaf. The seeds are toxic.

HABITAT & DISTRIBUTION: Less common in thickets in scrub jungle upto 600m. Indian subcontinent and Tropical Africa.

INDIGENOUS INFORMATION: The seeds are used to decorate the traditional flute.









Alternate L.Ty.



Pari Pinnate L.Sh.



Oblong



Obtuse-Apiculate
L.Ba.



Obtuse L.Ma.



Entire

Acacia pennata (L.) Willd.

MIMOSACEAE

Seengai -Ir

Vellai indu -Ta: Shembi -Hi

HABIT: An extensive armed straggler.

FLOWER: In terminal or axillary racemes, cream. Flowering from August -September.

FRUIT: A pod, flat, thin. Seeds many. Fruiting from October.

HABITAT & DISTRIBUTION: Common. Ready colonizer. Foothills to 1200m. Himalaya, India, Sri Lanka, South east Asia, China, Malaysia.

INDIGENOUS INFORMATION: The leaves are cooked and eaten.











Alternate distichous



Bipinnate





Elliptic L.Ap.



Acute L.Ba.



Truncate L.Ma.



Acacia sinuata (Lour.) Merr.

MIMOSACEAE

Soap Pod Tree -E

Mande seengai -Ir

Seeyakkaai -Ta; Ban ritha -Hi

HABIT: An extensive scrambler.

FLOWER: In terminal or axillary racemes or panicles, pale yellow. Flowering from February - April.

FRUIT: A reddish pod. Seeds 4-6, black, ovoid or compressed. Fruiting from March - April.

FIELD TIPS: Bark creamish. Small hooked prickles present on twigs and branchlets.

HABITAT & DISTRIBUTION: Common in moist semi evergreen forests and tree fall gaps, close to rivers. Foothills to 1400 m. Numbers decreasing in Nilgiris. Indian subcontinent.

INDIGENOUS INFORMATION: The dried and powdered pods are used as a shampoo. Elephants eat the plants. Pods are used in various ceremonies.













Imparipinnate



Linear L.Ap.



Obtuse-Apiculate L.Ba.



Oblique



Entire

Alangium salviifolium (L.f.) Wangerin ssp. salviifolium

ALANGIACEAE

Sage Leaved Alangium -E

Munne daagu -Ir

Alangi -Ta; Ankola -Ka; Akola -Hi

HABIT: A small deciduous straggler, sometimes armed.

FLOWER: In irregular axillary cymes or clusters, white, fragrant. Flowering from February - April.

FRUIT: A berry, globose, red when ripe with a crown of calyx. Seed1, ovoid. Fruiting from April - July.

FIELD TIPS: Bark grey, orange yellow when young, deeply fissured and trunk with numerous cavities. Leaves glabrescent or puberulous below, glabrous and glossy above. Leaf fall - Febuary. New foliage May.

HABITAT & DISTRIBUTION: Common in moist deciduous forests upto 900m. Africa, Sri Lanka, India to East and South east Asia.

INDIGENOUS INFORMATION: The leaves are cooked and eaten, believed to cure epilepsy.







L.Sh.



Oblong-Lanceolate-Ovate - Elliptic

L.Ap.



Sub acuteretuse(slightly)attenuate

L.Ba.



Oblique-Obtuse-Sub acute

L.Ma.

Entire

Asparagus racemosus Willd.

LILIACEAE

Spiny Asparagus -E

Neermuthi kangu -Ir

Thaneervitaan kizhangu, Kadamoolam, Ammaikodi, Nili chedi -Ta; Ankola -Ka; Satavar -Hi

HABIT: An armed vine.

FLOWER: In clustered racemes, white, fragrant. Flowering from June-October.

FRUIT: A berry, globose, red when ripe. Seeds 3-6, globose or angled. Fruiting from October onwards.

FIELD TIPS: Prickles pointing downwards and present on the nodes from where the branches arise.

MISCELLANEOUS: Root sought after for use in the Ayurvedic/traditional medicines.

HABITAT & DISTRIBUTION: Common in the plains from the coast, in scrub jungles, hill slopes, forest border, fallow lands, upto 1400m. Throughout the tropics.

INDIGENOUS INFORMATION: The tubers are eaten, it is used to cure stomach troubles, to remove stones in the urinary tract and to quench thirst.



L.Ar.



Alternate distichous



Simple



L.Ap.



L.Ba.

Falcate L.Ma.

Entire

Basella alba 1.

BASELLACEAE

Indian Spinach -E

Basalae -Ir; Pasalaikeerai, Paasaangalli -Ta; Poi -Hi

HABIT: A succulent herbaceous twiner.

FLOWER: In spikes, pinkish green. Flowering peak from January-March.

FRUIT: A pseudo berry, globose or lobed. Seed 1, globose. Fruiting throughout the year.

FIELD TIPS: Stem dark red coloured.

MISCELLANEOUS: Tender leaves used as spinach.

HABITAT & DISTRIBUTION: Common in thickets, by forest border, in plains, in scrub jungles. Hills above 500m. Probably native of Tropical Asia and Africa, often cultivated.

INDIGENOUS INFORMATION: The tender leaves are cooked and eaten. It is used to cure mouth ulcer.











Ovate-Elliptic-Oblanceolate L.Ap.



Gradually Acute



Rounded-shortly Decurrent



Caesalpinia bonduc (L.) Roxb.

CAESALPINIACEAE

Fever Nut -E

Kurudu gejika -lr

Kalichikai -Ta; Kat Karanj -Hi

HABIT: An extensive armed straggler.

FLOWER: In axillary racemes, yellow. Flowering from August-December.

FRUIT: A pod, oblong, obovoid, inflated, apex beaked, densely prickled. Seed 1-2, subglobose, grey. Fruiting from Ocotober-December.

FIELD TIPS: Branch-lets downy pubescent with recurved prickles. Outer bark papery, brown and cracked, inner one green.

MISCELLANEOUS: Seeds, leaves and barks used in ayurvedic medicines

HABITAT & DISTRIBUTION: Common, more abundant in forest clearing. Up to 1000m. Tropics.

INDIGENOUS INFORMATION: Seeds are used to cure brain fever and are important in rituals.







distichous I Ty



Bipinnate L.Sh.



Ovate-Elliptic



Obtuse-Mucronate



Truncate Rotund L.Ma.



Canavalia mollis Wight & Arn.

FABACEAE

Sword Bean -E

Kathi avarai -Ir

Segapu -Ta; Kad sambal -Hi

HABIT: An extensive straggler.

FLOWER: In axillary racemes, purple to lilac. Flowering peaks from October-December.

FRUIT: A pod, oblong, compressed. Seeds 8-10, ovoid oblong, red. Fruiting from January.

MISCELLANEOUS: Tender pods are edible. Caterpillars of the common Sailor feed on the plant. Flowers visited by the carpenter bees. Pods are also used in traditional medicine.

HABITAT & DISTRIBUTION: Occasional on thickets, forest borders. Hills above 1000m. Peninsular India.

INDIGENOUS INFORMATION: The tender fruit is used as a vegetable. The water is drained before cooking the fruit. Cattle feed on the leaves.











Alternate spiral

L.Ty.



Palmately trifoliate

L.Sh.



Broadly ovate/ oblong

L.Ap.



Sub acute-Obtuse/Apiculate



Obtuse-Rotund L.Ma.



Entire

Capparis sepiaria L.

CAPPARACEAE



Hedge Caper -E

Katharigai -Ir

Kaatukathiri, Thoratti -Ta; Heens, Kanthari -Hi

HABIT: A large straggling shrub.

FLOWER: In corymbose sub-umbels, white. Flowering from March-May.

FRUIT: A berry, globose, dark blue when ripe. Seeds 2. Fruits mature by July.

FIELD TIPS: Leaf glaucous. Branches wiry with recurved spines.

MISCELLANEOUS: Caterpillars of the Pierid butterflies feed on its leaves. Birds disperse seeds. Plant used in traditional medicine.

HABITAT & DISTRIBUTION: Common on the foothills, scrub jungles to 900m. India, Sri Lanka, Africa, Central Burma, Indo China, Malaysia, Australia.

INDIGENOUS INFORMATION: Makes a good fencing material. Porcupines observed eating the root and bark.



ΙΛ



Alternate L.Ty.



Simple I Sh



Oblong/ Lanceolate/ Elliptic/rarely obovate

L.Ap.



Obtuse / Mucronate



Cuneate L.Ma.



Entire

Capparis zeylanica L.

CAPPARACEAE

Ceylon Caper -E

Kaatu thotti -lr

Suduthoratti, Morandan, Ekkathari -Ta; Ardanda -Hi

HABIT: A large climbing shrub with hooked spines.

FLOWER: In clusters, cream. Flowering from February - April.

FRUIT: A berry, ovoid, smooth, blood red when ripe. Seeds 2-3. Fruiting from May onwards

FIELD TIPS: Filaments change from pink to red to dark purple by evening.

MISCELLANEOUS: Fruit pulp is edible and can be pickled. Monkeys, civets and squirrels disperse seeds. Caterpillars of the Pierid butterflies feed on the leaves.

HABITAT & DISTRIBUTION: Common in plains from the coast to 1000m. India, Burma, Sri Lanka, Indo Chinese peninsula, Andamans, Malaysia.

INDIGENOUS INFORMATION: Elephants graze on the plant.













Ovate/Elliptic/ Lanceolate/rarely obovate



Strongly mucronate



L.Ma.



Cardiospermum halicacabum L. var. luridum (Blume) Adelb.



Balloon Vine -E

Sipotalie -lr

Modakanthan keerai -Ta

L.Ar.

Alternate

L.Tv.

HABIT: A herbaceous vine.

FLOWER: In axillary racemes, white. Flowering from July-February.

FRUIT: A capsule, green. Seeds 3, globose, with a large white, heart-shaped hilum. Fruiting from August-March.

FIELD TIPS: Fruits bloated, obscurely 3-lobed, not winged. New growth after summer.

HABITAT & DISTRIBUTION: Locally abundant in waste-land and disturbed ground, ready coloniser. Plains upto 900m.

Bi-ternate L.Sh.



L.Ap.



Obtuse-Mucronate



Obtuse - Truncate



INDIGENOUS INFORMATION: Cattle fodder. The shoots are roasted and eaten to cure cold and pain in the knee joints. The leaves are cooked as vegetables. The leaf and root are used to cure digestive problems.





SAPINDACEAE

Cardiospermum halicacabum L. var microcarpum (Kunth) Blume

SAPINDACEAE

Balloon Vine -E

Sipotalie -lr

Modakanthan keerai -Ta

HABIT: A herbaceous vine.

FLOWER: In axillary racemes or corymbs, white. Flowering from November-March.

FRUIT: A capsule, depressed, pyriform. Seeds 3, globose, with a prominent white, heart-shaped hilum. Fruiting from November-March.

FIELD TIPS: The lower part of the pedicels transformed into spiral tendrils. Capsule sharply 3-lobed, not bloated, winged at angles.

HABITAT & DISTRIBUTION: Locally abundant in waste-land and disturbed ground, ready coloniser. Plains upto 900m.

INDIGENOUS INFORMATION: Cattle fodder. The shoots are roasted to cure cold and pain in the knee joints. The leaves are cooked as vegetables. The leaf and root are used to cure digestive problems. The leaf cooked with small onion and castor oil is used to cure vomiting.













L.Tv.

Bi-ternate



Lanceolate

L.Ap.



Acuminate-Apiculate L.Ba.





Incised

Cissus quadrangularis L.

VITACEAE

Naralaikodi, Perandai -Ir

Perandai -Ta; Changalamparanda -Ma

HABIT: A rambling shrub.

FLOWER: In umbellate cymes, greenish yellow, red tipped. Flowering throughout

FRUIT: A berry, globose, green turning red. Seed smooth. Fruiting throughout the

FIELD TIPS: Stem four-angular, winged or margined, jointed at the nodes.

HABITAT & DISTRIBUTION: Common in plains from the coast, in scrub jungles and wastelands, to 900m, on thickets. India and widespread in the drier parts of Africa and Arabia.

INDIGENOUS INFORMATION: The tender stem is made into chutney which is an appetizer.



L.Ar.



Alternate distichous





Simple



Suborbicular/ Subreniform



Round L.Ba.



Round L.Ma.



Clitoria ternatea L.

FABACEAE

Butterfly Bean -E

Seetha ambu -Ir

Kakkanam -Ta; Aparajitha -Hi

HABIT: A slender vine.

FLOWER: In axillary, solitary or in clusters, deep blue occasionally white. Flowering peak from March-May.

FRUIT: A pod, linear, oblong, compressed, apically beaked, brown when mature. Seeds 10-15, reniform. Fruiting throughout the year.

MISCELLANEOUS: Roots and seeds are used in traditional medicine.

HABITAT & DISTRIBUTION: Common on wayside, thickets, scrub jungles. Widely cultivated in the tropics. Plains from the coast to 900m. Probably a native of South America.

INDIGENOUS INFORMATION: Elephant, deer, sambar feed on the plant. The plant is medicinal; the juice of the leaves and the root is applied on the chest as a cure for colds.









Imparipinnate L.Sh.



Ovate



Obtuse L.Ba.



L.Ma.



Combretum albidum Don

COMBRETACEAE

Menthai kodi -Ir

Odai kodi, Veragai -Ta

HABIT: A large deciduous climber.

FLOWER: In terminal or axillary panicles, greenish yellow. Flowering from February-March.

FRUIT: Globose, 4-winged, red when young. Seed solitary. Fruiting from March-May.

FIELD TIPS: The fruits are prominent over the canopy.

HABITAT & DISTRIBUTION: Hills and lower slopes 400-1000m. Peninsular India.

INDIGENOUS INFORMATION: *Apis florea* nests observed on this plant. The stem is cut and crushed to use as a scrubber to clean vessels which are used to store curd. The fibre is used as a rope. Elephants graze on the plant.









Oblong-Ovate-Lanceolate



Acuminate-Apiculate



Cuneate-Sub acute





Cryptolepis buchanani Roemer & Schultes

ASCLEPIADACEAE

Wax Leaved Climber -E

HABIT: A much branched twiner.

FLOWER: A raceme, yellowish green. Flowering from March-April and July-September.

FRUIT: In paired follicles, basally inflated, pointed above. Seeds many, ovoid, flat, with silky white hairs. Fruiting throughout the year.

FIELD TIPS: Milky latex present. The bark is reddish at the base and peels off. Geometrically aligned pods stand out over the canopy.

MISCELLANEOUS: Caterpillars of the common Crow butterflies feed on this plant.

HABITAT & DISTRIBUTION: Very common, ready colonizer. On cleared slopes at forest border. Foothills to 1300m. Found in the Indian subcontinent.

INDIGENOUS INFORMATION: A piece of the stem is kept in the threshing floor when ragi is threshed believed to be auspicious and will make the yield increase.







Opposite L.Tv.



Simple L.Sh.



Oblong-Elliptic



Obtusely acuminate



L.Ma.



Cuscuta chinensis Lam

CONVOLVULACEAE

Common Dodder -E

Amar bel -Hi

HABIT: A slender parasitic twiner.

FLOWER: In racemes, sub sessile, fragrant, cream. Flowering from December.

FRUIT: A capsule, globose-conical, succulent. Seed black.

FIELD TIPS: A leafless yellowish, filiform climber.

MISCELLANEOUS: Seeds used in traditional medicine.

HABITAT & DISTRIBUTION: Common. Foothills to 1200m. Afghanistan through India, Sri Lanka, China, Siam and Malaysia.



L.Ba.

L.Ma.



Decalepis hamiltonii Wight & Arn.

ASCLEPIADACEAE

Makaali gaasu -lr

Mahaali kizhanku, Mavillinga kizhanku, Peru nannari -Ta; Magadi beru -Ka; Nannari -Ma

HABIT: A liana.

FLOWER: In trichotomous cymes, yellow. Flowering from April-June.

FRUIT: A follicle, cylindrical oblong, in pairs, woody when dry. Seeds many, egg shaped with long white silky hairs. Fruiting from January-February.

FIELD TIPS: Plant produces a sticky, milky latex. Central vein of the leaf red. Leaf fall in summer.

HABITAT & DISTRIBUTION: In open rocky slopes and rocky crevices of dry to moist deciduous forests. Endemic to Central Peninsular India. Common in dry hill tracts of Eastern and Western Ghats. Endangered.

INDIGENOUS INFORMATION: The tuber has a bitter taste and is pickled. An appetizer, cures stomach problems in children.





Entire-Wavy

Dioscorea oppositifolia L.

DIOSCOREACEAE

Rhea-Ir

Verrolaivalli, Malayan kizhangukkodi, Kavvala kodi, Thavai kachchu -Ta; Bellarai -Ka

HABIT: A twining vine.

FLOWER: In panicled spikes, white. Flowering from January-March and July-September.

FRUIT: A capsule, obovoid, with 3 wide golden yellow wings. Fruiting from March-May.

FIELD TIPS: Leaves yellowing by December, when tuber is mature. New shoots by July with red leaves.

HABITAT & DISTRIBUTION: On thickets, inside forests etc. Less in the plains (scrub jungles) from the coast. Hills(300)750 to 1200(1500) m. Distributed across Peninsular India.

INDIGENOUS INFORMATION: The tubers have more fibre content, eating it reduces hunger.







Sub- Opposite
L.Tv.



Simple L.Sh.



Ovate - (Sub) orbicular





Obtuse -Mucronate



Obtuse - Rotund

L.Ma.



Dioscorea tomentosa J. Koenig ex Sprengel

DIOSCOREACEAE

Nurai -Ir

Nalvaelikkizhangu, Shaval Kilangu -Ta; Bellarai -Ka; Inthi kachchil, Nuli, Chavu, Pindi -Ma

HABIT: A spreading vine.

FLOWER: In axillary spikes, purplish. Flowering from July-October.

FRUIT: A capsule, cuneately oblong, winged, fruits downy, eventually becoming glabrous. Seeds 3, obovoid, apically winged. Fruiting August - November.

FIELD TIPS: Branchlets twining to the left, tomentose, rarely prickled. Leaves densely tomentose.

HABITAT & DISTRIBUTION: Occasional on slopes by forest borders, less in the plains. Foothills to 1400m. Found across the Indian subcontinent.

INDIGENOUS INFORMATION: Eating the cooked tuber is believed to help clean the digestive system and also promote hair growth. The tubers is steamed or roasted before eating.







L.Tv.

Variable Upper leaves, simple. Mostly 3-foliate, 5-6 foliate below.

L.Sh.



Elliptic-Ovate

L.Ap.



Acuminate-Acute



Acute L.Ma.



Entire

Entada rheedii Sprengel

MIMOSACEAE



Ladynut, Mackary Bean -E

Manga kodi -Ir

Yanaikozhinji, Irikki -Ta; Kaka valli -Ma; Gila-Hi

HABIT: A large liana.

FLOWER: In axillary pendulous spikes, cream. Flowering from April-June.

FRUIT: A pod, elongate, jointed, flat, woody. Seeds 10, ovoid, compressed, hard. Fruiting from June onwards.

FIELD TIPS: The thick stems are spirally twisted and angled.

MISCELLANEOUS: Seeds are cooked and eaten.

HABITAT & DISTRIBUTION: Occasional, upto 1100m. Tropical and South Africa, Sri Lanka, India to China, Malaysia to Australia.

INDIGENOUS INFORMATION: Small bird 'sitiki paki' collects the nectar. Seeds are made into a paste with water and cumin. The mixture is boiled and brought to half its original volume. This is used to relieve chest pain. The paste of the seeds is applied on the right side of the abdomen to cure pain in the stomach. A pinch of the kernel powder is added to omelets with small onion and coconut oil. This cures pain in the joints





distichous



Bipinnate L.Sh.



Ovate-Obovate L.Ap.



Obtuse, Retuse L.Ba.



L.Ma.



Gloriosa superba L.

LILIACEAE

Glory Lily -E

Kannanopoo -Ir

Kalaippaik kilangu, Kannuvalik kodi -Ta; Agnisikke -Ka; Medoni -Ma; Kalihari -Hi

HABIT: A climbing herb.

FLOWER: Solitary. At first green in colour, turning yellow to orange and scarlet to crimson. Flowering from August-October.

FRUIT: A capsule, ellipsoid-ovoid. Seeds many, globose, dorsally compressed, warty. Fruiting from November-December.

FIELD TIPS: Stem leafy. Leaf tip modified into tendrils. Difficult to locate the plant, conspicuous only during the monsoons especially when in flower.

MISCELLANEOUS: This is an important medicinal plant, used as an antidote for snake bites, is in demand commercially. The tuber is poisonous, when consumed in high quantities. Colchicine is the important alkaloid extracted from the seed and used in modern medicine. It is also the state flower of Tamil Nadu.

HABITAT & DISTRIBUTION: Occasional, in the plains from the coast to 500 (1000) m, climbing on hedges and in fire prone areas. Indian subcontinent.

INDIGENOUS INFORMATION: When the plant is in bloom it is the season of eye infections, therefore its name. Root of this plant mixed with other herbs is used as a good anti venom.





Entire

Grewia flavescens A.L.Juss.

TILIACEAE



Sunku kale, Kallai kodi -Ir

Semparandai -Ta

HABIT: An extensive straggler

FLOWER: In axillary cymes, yellow. Flowering from July-September.

FRUIT: A drupe, deeply or obscurely 2-lobed, wrinkled, densely hairy. Fruiting throughout the year.

FIELD TIPS: Branches radiating.

HABITAT & DISTRIBUTION: Common on the slopes by stream banks. Hills 500-900m. Central and South India, Tropical Africa.

INDIGENOUS INFORMATION: Edible fruits. Elephants eat the whole plant. Bears eat the fruit.



T Ar



L.Ty.



Simple L.Sh



L.Ap.



Abruptly acute L.Ba.



L.Ma



Denticulate

Hemidesmus indicus R Rr

ASCLEPIADACEAE

Indian Sarsaparilla -E

Kir magalie -Ir

Nannari, Suganthi paalaa -Ta

HABIT: A twiner or creeper.

FLOWER: In axillary fascicles, greenish on the outside, yellowish orange inside. Flowering from November-February.

FRUIT: A follicle, paired, long, thin, ventrally ridged. Seeds oblong, flattened, brownish. Fruiting from February-April.

FIELD TIPS: Milky latex present. Leaves often dark to pale green with white streaked midrib. Seeds end in long silky hairs.

MISCELLANEOUS: The roots are harvested for trade and used in Ayurvedic medicine and to flavour sherbet.

HABITAT & DISTRIBUTION: Sighted growing solitary in tilled or burnt fields. Plains from the coast, in scrub jungles and upto 1000m on the slopes. Peninsular India.

INDIGENOUS INFORMATION: Root is medicinal, aids in digestion and cures stomach ache.









L.Ba.



Subcordate



Hiptage benghalensis (L.) Kurz.

MALPIGHIACEAE



Piki ambu -Ir

Kurkatikodi, Karipakkukodi -Ta

HABIT: A large liana.



FLOWER: In terminal or axillary racemes, white. Flowering from February-April and August-December.

FRUIT: Samara with 3 unequal wings, golden brown. Seed 1, globose. Fruiting throughout the year.

FIELD TIPS: New foliage coppery. Dried branches peel off in layers. Branchlets densely woolly. Petals fringed at margin.

MISCELLANEOUS: Leaves used to roll cheroots.

HABITAT & DISTRIBUTION: Very common and abundant by stream banks. Foothills to 1300m. Throughout India, Sri Lanka, parts of South east Asia.

INDIGENOUS INFORMATION: The bark is used in medicinal preparations.







Oblong/Elliptic/ Ovate

L.Ap.



Acuminate -



Obtuse











Simple







L.Ma.

Ipomoea hederifolia L.

CONVOLVULACEAE

Red Star Glory -E

Ulumae -Ir

Kanavali kodi -Ta

HABIT: An extensive twiner with pubescent branches.

FLOWER: In cymes, red. Flowering from September-December.

FRUIT: A capsule. Seeds oblong, puberulous, white and membranous. Fruiting October onwards.

MISCELLANEOUS: Planted as an ornamental in gardens.

HABITAT & DISTRIBUTION: On disturbed grounds, close to plantations. Hills above 750m, Native of tropical America, now widely naturalized in the tropics.

INDIGENOUS INFORMATION: Flowers sweet tasting. The plant is highly medicinal. Sunbirds are often observed nesting in the plant.





L.Ar



Alternate L. Ty.



L.Sh



Ovate-Cordiform

I . A n



Acuminate L. Ba.



Cordate L.Ma.



Ipomoea obscura (L.) Ker-Gawl.

CONVOLVULACEAE

Lesser Glory -E

Suluku ambu -Ir

Siruthaali -Ta

HABIT: A slender twiner.

FLOWER: Solitary or in sub umbellate cymes, pale yellow. Flowering throughout the year.

FRUIT: A capsule, sub globose, apically beaked. Seeds many, thinly pubescent. Fruiting throughout the year.

HABITAT & DISTRIBUTION: Plains, up to 1400m in arable lands. Tropics.

INDIGENOUS INFORMATION: Leaves are crushed and applied to cure sprains.











Simple



L.Ap.



Acuminate



Cordate



Ipomoea quamoclit L.

CONVOLVULACEAE

Cypress Vine, Indian Pink -E

Ulumae -Ir

Mayil maanikam -Ta

HABIT: A slender vine.

FLOWER: Solitary, deep red. Flowering throughout the year.

FRUIT: A capsule. Seeds oblong, white, membranous. Fruiting throughout the year.

FIELD TIPS: Leaves dissected.

HABITAT & DISTRIBUTION: Plains from coast to 1000m. Native of New world tropics. Spread widely in tropical Asia, grown as ornamental.





Pinnafid L.Sh.





Acute L.Ba.

L.Ma.



Ipomoea staphylina Roemer & Schultes

CONVOLVULACEAE



Alternate

Ugina kodi -Ir Onan kodi -Ta

HABIT: An extensive climber.

FLOWER: In panicles, with a darker throat in crowded showy clusters. Flowering peaks from December-March.

FRUIT: A capsule. Seeds oblong. Fruiting January onwards.

HABITAT & DISTRIBUTION: Common. Gregarious in heavy masses on thickets, trees etc. Plains to 1200m. Sri Lanka through India to China.

INDIGENOUS INFORMATION: Cattle feed on the leaves. The stem is used as a rope to tie the firewood. Bulbs of plants near water courses are edible.









Gradually Acute-Apiculate L.Ba.

> Truncate-Subcordate

Jasminum trichotomum Heyne ex Roth

OLEACEAE

Kattumalli -Ir

HABIT: A climbing shrub.

FLOWER: In axillary and terminal dichasial cymes, white. Flowering from March-May.

FRUIT: A berry, obovoid-ellipsoid, dark purple when ripe. Seed 1, oblong-globose. Fruiting May onwards.

HABITAT & DISTRIBUTION: Foothills to 900m, on thickets. Peninsular India.

INDIGENOUS INFORMATION: The tender leaves are cooked and eaten to improve digestion.







Simple L.Sh.



Elliptic-Oblong
L.Ap.



Acute-Apiculate L.Ba.





Mucuna pruriens (L.) DC.

FABACEAE



Koniya kodi -Ir

Poonaikaali -Ta; Kiwach -Hi

HABIT: A slender climber.

FLOWER: In pendulous racemes. Dark purple. Flowering from December-March.

FRUIT: An S-shaped ridged pod with irritant reddish brown hairs. Seeds 6, flat, grey-black. Fruiting from January-March.

HABITAT & DISTRIBUTION: Along rivers, in plains and lower hills across the Indian subcontinent.

INDIGENOUS INFORMATION: Flies forage on flower. The hairs on the fruit have irritants that can cause fever. It is also used for black magic with some other herbs. The spells are strong and can be used for good or evil. The roots and seeds are also used in medicinal preparations.







Alternate

L.Ty.



trifoliate L.Sh.



Ovate-Rhomboid
L.Ap.



Acute-Mucronate L.Ba.



Subacute I. Ma



Pachygone ovata (Poiret) Hook.f.& Thomson

MENISPERMACEAE

Javanakodi-Ir Kattukodi-Ta

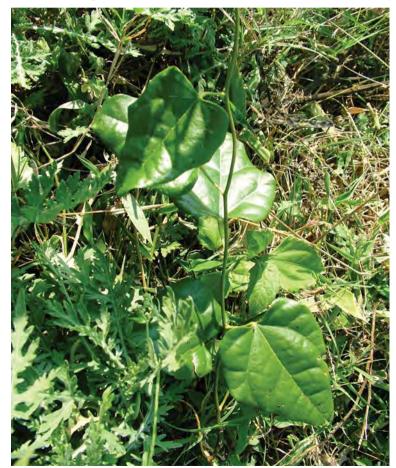
HABIT: A branched straggler.

FLOWER: Solitary or in clusters of 2-3, yellow. Flowering from February-April.

FRUIT: A drupe, reniform, green to orange to purple. Fruiting from April onwards.

HABITAT & DISTRIBUTION: More common in secondary forests. Foothills, scrub jungles to 900m, on the hill forests along the slopes and shola borders. Peninsular India, Sri Lanka, North east Australia, Malaysia, Java, Borneo, Timor, New Guinea.

INDIGENOUS INFORMATION: Fruits are edible. Leaves are eaten by cattle. Fibre is used as rope.





L.Ar.



I. Tv



Simple L.Sh.



L.Ap.

Retuse, Mucronate



Truncate, Rounded/Obtuse



Pergularia daemia (Forsskal) Chiov.

ASCLEPIADACEAE

Kurutigai -Ir

Vaelipparuthi, Seendhal kodi -Ta

HABIT: A slender climber.

FLOWER: In axililary umbelliform racemes, greenish, foetid. Flowering peaks from July-January.

FRUIT: A follicle, paired, curved, basally swollen, echinate. Seeds obovate, wings fringed, coma silky, brownish white. Fruiting throughout the year.

FIELD TIPS: Milky latex present.

HABITAT & DISTRIBUTION: Plains from the coast, in wastelands, wayside thickets, ready colonizer. Less on hills, to 1000m, common. Tropical Africa, West Asia to South east Asia.

INDIGENOUS INFORMATION: Leaves cooked and eaten, for cold and joint pain especially for the elders.









I. Tv



Simple L.Sh.



Cordiform



Acute L.Ba.



L.Ma.



Entire

Pterolobium hexapetalum (Roth) Santapau & Wagh

CAESALPINIACEAE

Bhoca -Ir

Karu indu -Ta

HABIT: An armed straggler.

FLOWER: In axillary or terminal racemes, white. Flowering from April-July.

FRUIT: A pod, samaroid, oblong, apically winged, dark green with a reddish terminal wing above. Seed 1, obovoid. Fruiting from August onwards.

FIELD TIPS: A thorny straggling shrub with reddish winged pod.

HABITAT & DISTRIBUTION: Locally abundant to dominant in foothills scrub jungles to 1200m on the dry slopes. Ready coloniser on cleared land. One of the characteristic species of the dry thorn forest of the foothills of the Peninsula.

INDIGENOUS INFORMATION: Honey harvested after the flowers bloom is the sweetest. Bees have been observed foraging twice a day on the same flowers. Cattle feed on the tender shoots. One can get entangled in thickets of this plant because of its spines. The jungle cat, 'Bhoca' (Ir) similarly never lets go of its prey.







L.Ar.



Alternate distichous



Bipinnate L.Sh.



Oblong-Oblanceolate



Obtuse I Ra



Cuneate-Truncate



Rivea hypocrateriformis (Desr.) Choisy

CONVOLVULACEAE

Common Night Glory -E

Musetai Kodi -Ir

Musuttai kodi, Budthi kiray -Ta; Phang-Hi

HABIT: A climbing shrub.

FLOWER: Axillary, solitary, or in cymes, fragrant, white. Flowering peaks from December-February.

FRUIT: A capsule. Seeds 4, enclosed by enlarged and woody calyx lobes. Fruiting from January onwards.

FIELD TIPS: Flowers fading brown by mid-day. Bark thin grey. Wood soft in concentric circles.

MISCELLANEOUS: Tender shoots used as vegetables and used in preparing bread.

HABITAT & DISTRIBUTION: Common in plains from the coasts, in scrub jungles to 900m, on hills. India and Nepal.

INDIGENOUS INFORMATION: The tender leaves are added to the batter for dosa. This helps in digestion and improves blood circulation in children.



L.Ar.





Simple



Cordiform L.Ap.



Obtuse



Cordate L.Ma.



Sarcostemma intermedium Decne.

ASCLEPIADACEAE

Pasandi Kodi, Mosurguduka -Ir

Phok -Hi

HABIT: A succulent straggler with trailing leafless jointed stem.

FLOWER: In terminal umbels, cream. Flowering peaks from July-September.

FRUIT: A follicle, smooth, oblong. Seeds oblong, flat, winged, and silky. Fruiting rare.

FIELD TIPS: Milky latex present. A tangled mass of leafless green terete branches.

HABITAT & DISTRIBUTION: Common in plains to 900m, in scrub jungles, on thickets and rocky landscapes. Peninsular India.

INDIGENOUS INFORMATION: Cattle graze on the plant. The plant is used in preparing veterinary medicine.







L.Ar.

L.Ty.

L.Sh.

L.Ap.

L.Ba.

L.Ma.

Scutia myrtina (Burm.f.) Kurz

RHAMNACEAE



Kokkimullu, Sodali -lr
Kokkimullu, Thuvadi -Ta

HABIT: A straggling thorny shrub.

FLOWER: In axillary umbellate clusters, green. Flowering from April-May.

FRUIT: A drupe, subglobose-obovoid, apiculate, dark blue when ripe. Seed 1, subglobose, compressed. Fruiting from June-July.

FIELD TIPS: Spines recurved. Leaves shining.

MISCELLANEOUS: The branches are cut for making dry hedges.

HABITAT & DISTRIBUTION: Common, by forest border and on denuded slopes. Plains, scrub jungle, 1200 m,. Africa, Madagascar, Seychelles, Sri Lanka, India, Burma, Thailand, North Vietnam.

INDIGENOUS INFORMATION: Fruit edible, eaten by sambar, deer and birds.



Opposite/Subopposite

L.Ty.



Simple L.Sh.



Ovate-Orbicular L.Ap.



Obtuse/Apiculate
L.Ba.



Cuneate L.Ma.



Entire



Secamone emetica (Retz.) R.Br. ex Schultes

ASCLEPIADACEAE

Elugina -Ir

Angaravalli, Siruathankodi -Ta

HABIT: A profusely branched straggler.

FLOWER: In axillary cymes, yellowish. Flowering from July - October.

FRUIT: Paired follicles, cylindrical, tapering above. Seeds many, oblong, with dull white silky hairs. Fruits dehiscing by March

FIELD TIPS: Plant with a milky latex. Bark brown, thick and corky.

HABITAT & DISTRIBUTION: Common, foothills to 1000m. Peninsular India.

INDIGENOUS INFORMATION: Leaves are used in the preparation of medicines for children. The fibre from the stem is used for house construction.







Cuneate L.Ma.



Solanum seaforthianum Andrews

SOLANACEAE

Potato Creeper -E

HABIT: A scandent shrub.

FLOWER: In terminal or leaf-opposed panicles, violet, pendulous. Flowering throughout the year.

FRUIT: A berry, blood red when ripe. Seeds many, pubescent. Fruiting throughout the year.

HABITAT & DISTRIBUTION: Occasional. Hills above 800m. Native of Brazil, widely naturalized.



L.Ar.



Opposite

Pinnatifed



Ovate-Obovate



Acute-Shortly Acuminate



L.Ma.



Toddalia asiatica (L.) Lam. var. gracilis Gamble

RUTACEAE

Lopez Root Tree, Forest Pepper -E

Maaseegai -Ir

Kindumullu -Ta; Jungli Kali Mirchi -Hi

HABIT: An armed straggler.

FLOWER: In terminal or axillary panicles, cream. Flowering throughout the year with a peak from July-October.

FRUIT: A berry, globose, compressed green to orange to red. Seeds 3-4, sub reniform. Fruiting peaks from December-February.

FIELD TIPS: Leaves gland dotted. Crushed leaves have an acidic odour.

HABITAT & DISTRIBUTION: Common, especially on denuded slopes in full sun. Foothills, scrub jungles upto 1200m.

INDIGENOUS INFORMATION: The leaves are used in curing skin diseases.







L.Ar.



Alternate distichous



Palmately trifoliate



Lanceolate-Elliptic





Obtuse/Acute L.Ba.



Narrow, cuneate



Entire

Tylophora indica (Burm.f.) Merr.

ASCLEPIADACEAE

Panacea Twiner -F

Kirumagali -Ir

Nangilaippiraptai, Paalaai keerai -Ta; Aiitmula -Ka; Vallipaala -Ma; Antamul -Hi

HABIT: A branching twiner.

FLOWER: In axillary umbels, greenish-yellow outside, purple inside. Flowering peaks from February-April (plains) and July-October (Hills).

FRUIT: A follicle, cylindrical. Seeds ovate, flat. Fruiting throughout the year.

FIELD TIPS: Watery latex present.

MISCELLANEOUS: Food plant of Glassy Tiger butterfly. Used in traditional medicine.

HABITAT & DISTRIBUTION: Common on way side thickets. Plains from the coast, 500-900m. India to South east Asia, Sri Lanka, Malayaisa.

INDIGENOUS INFORMATION: A tea is made from the tuber, which acts as a cleaning agent for the intestines.













Oblong-Lanceolate



Acute-Obtusely Mucronate



L.Ma.



Ventilago maderaspatana Gaertner

RHAMNACEAE

Red Creeper -E

Veppanankodi, Vembadam -Ta

HABIT: A liana.

FLOWER: In terminal or axillary panicle, fragrant, yellow. Flowering from December-March and July-November.

FRUIT: A samara, with basal globose nut, wings oblong, obtuse. Seed 1, globose. Fruiting throughout the year.

FIELD TIPS: Branches extensive, hanging from forest trees. New shoots by December.

MISCELLANEOUS: Good fodder for sheep.

HABITAT & DISTRIBUTION: Common on hills, from foothills, scrub jungle, to 1300 m. Peninsular India, Sri Lanka, Malay Peninsula to Malaysia.







Simple



Elliptic, Ovate/ Lanceolate



Acute-Acuminate



Obtuse/Subacute L.Ma.



Wattakaka volubilis (L.f.) Stapf

ASCLEPIADACEAE

Green Milkweed Climber -E

Peria palai/Pasandha ambu -Ir

Kodi palai, Kurinja -Ta; Dugdhive -Ka; Akad bel -Hi

HABIT: A liana.

FLOWER: In axillary umbels, greenish. Flowering peaks from April-May(hills) and July-November(Plains).

FRUIT: A follicle, oblong, gradually narrow, with golden indumentum when young. Seeds obovoid, flattened, soft, dull white. Fruiting throughout the year.

MISCELLANEOUS: Food plant of blue Tiger butterfly.

HABITAT & DISTRIBUTION: Common in plains from the coast to 1300m. Subtropical Himalaya, India, east to west and south China, Taiwan, Malayasia, Sri Lanka.

INDIGENOUS INFORMATION: Leaves are made into a tonic, this aids in weight loss.







L.Ty.



Simple L.Sh.



Cordiform

L.Ap.



Shortly Acuminate



Truncate-Rounded



Ziziphus oenoplia (L.) Miller

RHAMNACEAE

Suri, Battasodali -Ir

Kottei, Churai Mullu -Ta; Mulli -Ma; Makoh -Hi

HABIT: A large straggling climber with recurved prickles.

FLOWER: In axillary umbellate cymes, greenish. Flowering from July-November.

FRUIT: A drupe, globose, rugose, black when mature. Seed 1, ovoid. Fruiting from October-January.

FIELD TIPS: Presence of blackish galls on the stem. Leaves asymmetric, 3-nerved.

MISCELLANEOUS: The branches are used in fencing.

HABITAT & DISTRIBUTION: More common on the lower slopes. Plains from the coast to 1200 m. Throughout the hotter part of India, Sri lanka.

INDIGENOUS INFORMATION: Fruits edible, eating the fruit aids in secretion of saliva.









Alternate I Ty



Simple





Ovate-Lanceolate



Acute-Acuminate



Oblique, Subacute-Obtuse

L.Ma.



Denticulate

Adaptations in Plants of the Sigur Plateau:

A number of biotic and abiotic factors particular to the Sigur plateau may affect the external characters of the plants. Sigur lies in the rain shadow area and receives a very low precipitation of 800-500mm. Drainage provided from two rivers originating in the upper Nilgiri slopes on the eastern side and the Moyar river on the western side give little respite during the summer months of April and May. The area also has a large herbivore population both natural and introduced. The plateau is home to a large number of the Asian Elephant and ungulates like Indian Gaur, Sambhar and Chital. Cattle grazing is also a prominent livelihood option for the communities in the region. The region has more than a 300 year old history of cattle grazing.

Plants of the Sigur plateau have adapted to these conditions by developing, stem tendrils for climbing, thorns for protection, phylloclades for food manufacture and bulbils for vegetative reproduction.





TENDRILS are thin, wiry, leafless, spirally coiled branches used by the plant as a climbing organ. The stem tendrils may be a modification of an axillary bud or of a terminal bud, as in a vine, or even of a flower. E.g. Cardiospermum halicacabum, Cissus quadrangularis. Leaf tendrils are formed when a leaf may be partially or wholly modified. The terminal leaflet is modified into tendril as in glory lily. Eg: Gloriosa superba. Climbing organs are necessary for plants that do not want to invest in a trunk or main branch for support.





PHYLLOCLADES AND CLADODES

are green, flattened cylindrical stems or branches of unlimited growth in the case of phylloclades and limited growth in the case of cladodes. The phylloclade develops in many xerophytic (adapted to desert conditions) plants where the leaves often grow out feebly, or fall off early or are modified into spines, reducing evaporating surfaces. The phylloclade takes up the function of the leaves, particularly photosynthesis. It also often functions as storage organ, retaining plenty of water and mucilage.. E.g Opuntia - Phylloclade & Asparagus sp-- cladode.

THORNS, SPINES and PRICKLES are defense organs meant to keep browsing animals at a distance. Thorns are deep seated outgrowths and a modification of the stem or branches. Spines are modifications of the leaf and prickles can be a leaf or branch modification. Eg: of thorns, spines and prickles





Abutilon indicum (L.) Sweet ssp. indicum

MALVACEAE

Country Mallow -E

Uluku soppu -Ir

Thuthi -Ta

HABIT: A tomentose shrub.

FLOWER: Solitary, yellow. Flowering throughout the year.

FRUIT: A schizocarp, globose, black when ripe. Seeds ovoid to sub orbicular. Fruiting throughout the year.

HABITAT & DISTRIBUTION: Very common in wastelands. Foothills to 900m. Widely distributed throughout the tropics and sub tropics.

INDIGENOUS INFORMATION: The leaves are crushed and applied to heal sprains.











Alternate



Simple L.Sh.



Cordate L.Ap.



Acute-Acuminate L.Ba.



cordate L.Ma.



Acalypha fruticosa Forsskal

EUPHORBIACEAE

Sinnai, Segarai -Ir

Aathaathazhai, Seethaatthazhai, Sotthaachedi -Ta

HABIT: A gregarious shrub.

FLOWER: In axillary spikes. Flowering peaks from July-September.

FRUIT: A capsule. Seeds (sub) globose. Fruiting throughout the year.

FIELD TIPS: A strong smelling shrub with many yellow waxy glands.

MISCELLANEOUS: Used as green manure.

HABITAT & DISTRIBUTION: Locally abundant, as a dominant species in the foothills. Aggressive colonizer. Foothills, scrub jungles, to 900m. Peninsular India, Tropical Africa, Arabia, Burma.

INDIGENOUS INFORMATION: Leaves are medicinal and eaten to aid digestion and for deworming in children. Leaves also promote hair growth.







L.Sh.



Ovate



Gradually Acuminate



Truncate-Rounded



Crenate-Dentate

FOREST PLANTS OF THE NILGIRIS **■ 165**

Anisochilus scaber Benth.

LAMIACEAE

Sambrani poo - Ir

HABIT: A small shrub.

FLOWER: In terminal spikes, white tinged with pink. Flowering from October.

FRUIT: A nutlet, erect. Seed 1, enclosed at the base of enlarged, persistent calyx. Fruiting from October onwards.

FIELD TIPS: Stem obtusely quadrangular. Flowers turn purple when dry.

HABITAT & DISTRIBUTION: Foothills, occasional, in shallow soil among rocks, on exposed slopes facing the plains. Peninsular India.







Simple L.Sh.



L.Ap.



(Sub)Acute-Obtuse



(Sub)Acute-Attenuate



Antidesma zeylanicum Lam.

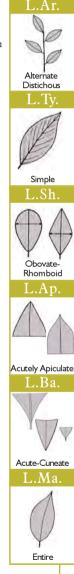
EUPHORBIACEAE

HABIT: A large shrub.

FLOWER: In axillary spikes, sessile. Flowering from March-April and September-November.

FRUIT: A drupe, (sub)globose, ripening blue. Fruiting thoughtout the year.

HABITAT & DISTRIBUTION: Common by forest borders, found on hills from 450-900m. Peninsular India and Sri Lanka.



Argyreia cuneata (Willd.) Ker Gawler

CONVOLVULACEAE

Bombara chedi -Ir

Vettai chedi, Kanvali poo -Ta

HABIT: An erect bushy shrub.

FLOWER: In axillary cymes, purple, shiny. Flowering from August onwards.

FRUIT: A berry, ellipsoid, pointed, yellowish-brown. Fruiting from November onwards.

HABITAT & DISTRIBUTION: Occasional on calcareous degraded slopes. Hills above 750m. Peninsular India.

INDIGENOUS INFORMATION: The fruit is used as a top by children.













Simple





Rounded-Retuse - Apiculate



L.Ma.



Asclepias curassavica L.

ASCLEPIADACEAE

Blood Flower -E

Kak tund, Raktapuspha -Hi

HABIT: An erect, simple or much branched shrub.

FLOWER: In sub terminal umbels, red. Flowering from January-December.

FRUIT: A follicle, tapering at both ends. Seeds flattened, winged, silky. Fruiting throughout the year.

FIELD TIPS: Milky latex present.

MISCELLANEOUS: Food plant of the Plain Tiger butterfly and other butterflies. Often grown in gardens.

HABITAT & DISTRIBUTION: Common in hills above 500m, in marshy land, along stream banks. Native to Tropical America. Naturalized in India, Sri Lanka.





L.Ty.



Simple L.Sh.



Lanceolate L.Ap.



Acute L.Ba.



Acute L.Ma.



Barleria prionitis L.

ACANTHACEAE

Yellow Hedge Barleria -E

Karu nega poo/Meem mul chedi -Ir

Shemmuli, Kattu Kangaambaram -Ta; Mullu gorante -Ka; Shemmuli -Ma; Jinti, Katsareya-Hi

HABIT: An armed shrub.

FLOWER: Soliatry or in cymose clusters, golden yellow to orange. Flowering peaks from November-January.

FRUIT: A capsule, ovoid. Seeds 2, sub orbicular, adpressed hairy. Fruiting throughout the year.

MISCELLANEOUS: Caterpillars of the Pansy group of butterflies feed on the plant. Roots used in traditional medicine.

HABITAT & DISTRIBUTION: Common in plains from the coast to 900m. Tropical Africa, tropical Asia, Sri Lanka, through India Malacca.

INDIGENOUS INFORMATION: Bees especially *Apis florea* forage on the flower. Leaves are medicinal.





IAr



Opposite

L.Ty.



Simple L.Sh.



Ovate-Obovate



Obtuse/ Acute, Mucronate



Attenuate I. Ma.



Ciliate

Calotropis gigantea (L.) R. Br.

ASCLEPIADACEAE

Giant Milkweed -E

Yerukku -Ir

Yerukku, Arkkam -Ta; Erikku -Ma; Mudar, Ak -Hi

HABIT: A shrub.

FLOWER: In lateral or terminal panicles, purple or lilac or dull white. Flowering peaks from December-May.

FRUIT: A follicle, oblong, inflated. Seeds oblong to ovate. Coma long and silky. Fruiting throughout the year.

FIELD TIPS: Leaves felted, clasping at base, sessile or subsessile. Milky latex present.

MISCELLANEOUS: Food plant of the Plain Tiger butterfly and painted grasshopper.

HABITAT & DISTRIBUTION: Common by the way side in wastelands, ready colonizer. Plains from the coast, to 900m. India, Sri Lanka, tropical Himalaya, China, Malayasia.

INDIGENOUS INFORMATION: Leaves are highly medicinal and sap is applied to the forehead to cure headache.













Acute



Auriculate L.Ma.



Enitre

Canthium coromandelicum (Burm.f.) Alston

RUBIACEAE



Mullukaarai, Theravai, Sengarai, Theranai, Karay chedi -Ta

HABIT: An armed shrub.

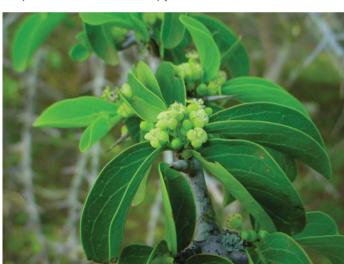
FLOWER: In decussate, lax cymes, greenish. Flowering from May-August.

FRUIT: A drupe, globose, flattened with a median longitudinal groove, orange when ripe. Seed 1, oblong. Fruiting from July onwards.

FIELD TIPS: A dense armed shrub with horizontal branches.

HABITAT & DISTRIBUTION: Common in plains from the coast (scrub jungles), upto 750-1000m. India, Indo-China, west and south China, Malesia.

INDIGENOUS INFORMATION: The fruits are eaten by birds, bear, squirrel. To remove thorns that have got into the skin, the tender leaves are boiled and tied on the iaffected part o remove the thorn. The bark is made into a paste with turmeric and lime and applied on the forehead to cure headache. The shoots of magarai along with the shoots of Bankini and Kakrolai are made into a paste which is applied over the body before a bath to relieve body pain.













Simple



Elliptic-Ovate to Obovate

L.Ap.



Sub Acute



Attenuate L.Ma.



Entire

Carissa carandas I.

APOCYNACEAE

Christ Thorn -E

Kalakai/Bode Kavala -Ir

Killeekkaai -Ta: Karvanda -Ka: Karaunda -Hi

HABIT: An armed evergreen shrub.

FLOWER: In axillary or terminal two - three chotomous, fragrant, white. Flowering from March-April.

FRUIT: A berry, ellipsoid often tinged red, ripening dark blue or purple. Fruiting from March onwards.

FIELD TIPS: Shrub with horizontal branches. Leaf tip rounded or retuse, glabrous. Milky latex present. Bark yellowish-brown, wood white with irregular grey to orangeyellow streaked heartwood.

MISCELLANEOUS: Seeds are dispersed by birds. Food plant of Olive green Hawkmoth. Fruits edible and pickled. Wood used to make combs and spoons, thorny branches used as fencing material.

HABITAT & DISTRIBUTION: Common in plains and scrub jungles along river banks upto 900m. India, Sri Lanka, Nepal, Burma, Malayasia.

INDIGENOUS INFORMATION: Fruits edible and sour to taste.





decussate



L.Sh



Ohovate-Oblanceolate



Emarginate,tip apiculate



L.Ma.

Entire

Carissa spinarum L.

APOCYNACEAE

Sirukavala -Ir

Sirukilaa -Ta; Karaunda -Hi

HABIT: An armed shrub.

FLOWER: In axillary and terminal corymbs, white, tinged red outside. Flowering from February-April.

FRUIT: A berry, globose, green, tinged red, ripening dark blue. Fruiting throughout the year.

FIELD TIPS: Branches zigzag, spines opposite. Leaves mucronate at apex.

MISCELLANEOUS: Fruits edible.

HABITAT & DISTRIBUTION: Common in the plains from the coasts, in scrub jungles. Found upto 900m, on degraded slopes. India, Sri Lanka, Burma.

INDIGENOUS INFORMATION: The bark is used to treat stomachaches. Fruits edible.







I. Tv



Simple



Elliptic-Ovate, Lower pairs (sub)orbicular

L.Ap.



Mucronate L.Ba.



Acute L.Ma.



Carmona retusa (Vahl) Masam.

CORDIACEAE

Kurunai -Ir

Kurangu vethilai, Kurinjaa chedi -Ta

HABIT: A small shrub.

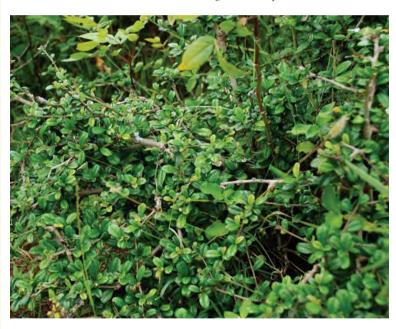
FLOWER: In axillary, solitary, cream. Flowering peaks from January-March and from July-September.

FRUIT: A drupe, globose, red when ripe. Fruiting throughout the year.

FIELD TIPS: Leaves with white-glands, each gland ending in a bristle.

HABITAT & DISTRIBUTION: Common in the plains, in scrub jungles. Peninsula, Malaysia to Formosa and Philippines.

INDIGENOUS INFORMATION: Goats graze on the plant.







Simple L.Sh.



Obovate-Spathuate





Obtuse-Truncate L.Ba.



Cuneate L.Ma.



Entire

Cassia auriculata L.

CAESALPINIACEAE

Tanner's Cassia -E

Avarikai -Ir

Aavaram -Ta; Tangedu -Ka; Avara -Ma; Tarvar -Hi

HABIT: A medium sized shrub.

FLOWER: In axillary or terminal corymbose racemes, golden yellow. Flowering throughout the year.

FRUIT: A pod, long-stipitate, flat, turgid, apices obtuse, mucronate, brown when mature. Seeds above 6, ovoid, brown. Fruiting throughout the year.

FIELD TIPS: Leaflets with glands on rachis or petiole and foliaceous stipules.

MISCELLANEOUS: Caterpillars of Emigrant butterflies feed on this plant. Earlier used as a source of tannin. Cattle do not eat it.

HABITAT & DISTRIBUTION: Widely distributed, even in poor soils, locally abundant in plains up to 900m. Sri Lanka, India, Burma; cultivated in the tropics.

INDIGENOUS INFORMATION: *Apis dorsata* observed foraging on the plant. The flowers are important for rituals. Porcupines eat the roots.







L.Ar.



L.Tv.



L.Sh.



Oblong-obovate

L.Ap.



Obtuse-Retuse Mucronate



Cuneate-Truncate



Cassia didymobotrya Fresen.

CAESALPINIACEAE

Kari avaram -Ir

Kariavaram -Ta

HABIT: A large shrub.

FLOWER: In terminal racemes, foetid, yellow. Flowering from October-March.

FRUIT: A pod, flat, brown when mature. Seeds many, compressed, brown. Fruiting throughout the year.

FIELD TIPS: Petioles do not have glands unlike other *Cassia spp*. Bracts prominent, black in color.

HABITAT & DISTRIBUTION: Plains from the coast upto 900m. Tropical Africa, widely dispersed.

INDIGENOUS INFORMATION: Found in waste lands.









L.Ar.



Alternate distichous





Paripinnate



Oblong



Obtuse-round L.Ba.





Entire

Cassia occidentalis L.

CAESALPINIACEAE

Thagarai -Ir

Payaveri -Ta; Kasaunda -Hi

HABIT: A small shrub.

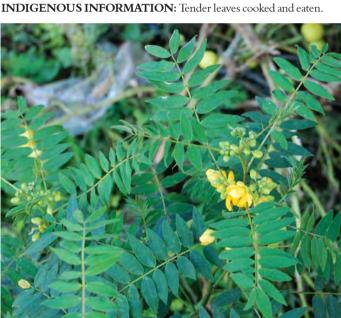
FLOWER: In axillary and terminal corymbose racemes, yellow. Flowering throughout the year.

FRUIT: A pod, short, flat, compressed, brown when mature. Seeds many compressed, brown. Fruiting throughout the year.

FIELD TIPS: Foetid when broken. Globose glands at the base of the leaf.

MISCELLANEOUS: Preferred food plant of Emigrant butterflies. Bark, leaves and seeds used in traditional medicine.

HABITAT & DISTRIBUTION: Gregarious weed of wasteland. Plains upto 900m. Pantropical, probably originating in tropical America.



L.Ar.



distichous



L.Sh.



Oblong-Lanceolate



Obtuse/Acute, Apiculate L. Ba.



Rotund L.Ma.



Cassia sophera L.

CAESALPINIACEAE

Senna Sophera -E

Thagarai -Ir

Sulari -Ta: Pounantakara -Ma: Kasaunda -Hi

HABIT: A small shrub.

FLOWER: In axillary and terminal racemes, yellow. Flowering throughout the year.

FRUIT: A pod, terete, brown when mature. Seeds many, compressed, brown. Fruiting throughout the year.

FIELD TIPS: Petiole and stem reddish in color. Foetid when bruised.

MISCELLANEOUS: Preferred food plant of Emigrant butterflies. Bark, leaves and seeds used in traditional medicine.

HABITAT & DISTRIBUTION: Common on plains upto 900m. India and Sri Lanka.

INDIGENOUS INFORMATION: Leaves eaten as vegetable. Caterpillars are found on this plant.









Alternate distichous

I. Tv



Paripinnate



Lanceolate I...An.



Acute I Ra



Oblique L.Ma.



Cassia tora L

CAESALPINIACEAE

Pot Cassia -E

Segutha, Bagarai/Oosi thagarai -Ir

Tagrai -Ta; Chakunda -Hi

HABIT: A small shrub.

FLOWER: In terminal racemes, yellow. Flowering throughout the year.

FRUIT: A pod, flat, compressed, brown when mature. Seeds many, oblong, longitudinal. Fruiting throughout the year.

FIELD TIPS: Foetid smell when broken.

MISCELLANEOUS: Caterpillars of the Emigrant and Grass Yellow butterflies feed on the plant.

HABITAT & DISTRIBUTION: Common in plains from the coast in low lying places, river banks, fallow fields, wastelands. Found upto 1400m. India to Polynesia.

INDIGENOUS INFORMATION: Tender shoots are cooked and eaten







distichous





L.Ap.



Obtuse-Apiculate



Cuneate-Rotund L.Ma.



Chromolaena odorata (L.) R. King & H. Robinson

ASTERACEAE

Common Floss Flower -E

Naraigeda -Ir

HABIT: An aromatic erect pubescent shrub.

FLOWER: In capitula, corymbose panicles, blue-purple. Flowering throughout the year.

FRUIT: An achene, angles thickened. Fruiting throughout the year.

MISCELLANEOUS: Flowers attract butterflies.

HABITAT & DISTRIBUTION: Less in the plains, introduced. Aggressive colonizer. Hills, lower slopes, 500-1000m. Native of south America. Widely naturalized in tropical Asia.









Simple





Acute



Coarsely serrate, entire and narrowed above.

Cissus vitiginea L.

VITACEAE

More chedi -Ir

HABIT: A small erect shrub.

 $\label{FLOWER:powering} \textbf{FLOWER:} \ In \ umbellate \ cymes, yellow. \ Flowering \ from \ June-November.$

FRUIT: A berry, pyriform, apiculate, blue. Seed 1. Fruiting throughout the year.

FIELD TIPS: The whole plant is grey tomentose, leaves 5 angular or deeply lobed.

 $\textbf{HABITAT \& DISTRIBUTION:} \ Plains \ from \ the \ coast \ to 900 m. \ Peninsular \ India,$

Sri Lanka.

INDIGENOUS INFORMATION: Leaves have medicinal value.









Alternate L.Tv.



Simple L.Sh



Broadly cordat



Acuminate L.Ba.



(Sub) cordate



Dentate

Commiphora berryi (Arn.) Engl.

BURSERACEAE

Esalae mara -Ir

Mulkilluvai -Ta

HABIT: An armed deciduous shrub.

FLOWER: In axillary clusters, white. Flowering in March.

FRUIT: A drupe, ovoid to sub globose, red. Seeds 2. Fruiting in April.

FIELD TIPS: Leaf fall in February. Wood white. Leaves arising from thorny branches.

HABITAT & DISTRIBUTION: Occasional on the lower dry deciduous slopes in full sun. Plains, scrub jungle to 900m. Peninsular India.

INDIGENOUS INFORMATION: The bark is medicinal. The sap is used to cure mouth ulcers.









Alternate-Clustered





Trifoliate L.Sh.



Ovate-Sub orbicular



Obtuse





acute



Crenate

Crotalaria pallida Aiton

FABACEAE

Jelligai mollai -lr

HABIT: An erect herbaceous shrub.

FLOWER: A terminal raceme, yellow, striped with red. Flowering throughout the year.

FRUIT: A pod, oblong, green. Seeds many, reniform. Fruiting throughout the year.

HABITAT & DISTRIBUTION: Introduced, native to Central and Tropical America. Found in plains, upto 1000m. Has also spread to Tropical Africa, Asia, Malaysia, Queensland.

INDIGENOUS INFORMATION: Ants feed on the nectar. Cattle stay away from the plant. Children play with the fruits as a rattle.











Trifoliate





Obtuse-Rotund/ Retuse / Apiculate



Cuneate - Sub acute



Datura metel L.

SOLANACEAE

Karu Umatha -Ir

Karu Umathai -Ta: Dhatura -Hi

HABIT: Shrub

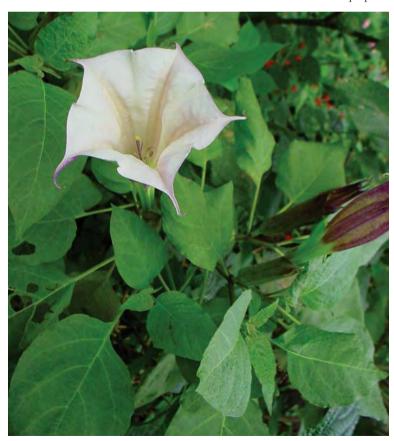
FLOWER: Solitary, white with purple on the outside. Flowering throughout the year.

FRUIT: A capsule covered with short blunt spines. Seeds many, circular, compressed, rugose. Fruiting throughout the year.

FIELD TIPS: Leaves unequal at base, purplish-dark green. Flowers trumpet-shaped.

HABITAT & DISTRIBUTION: Common in hills upto 1500m, occasional in plains. On wastelands, farms, roadsides. Peninsular India.

INDIGENOUS INFORMATION: Roots and leaves are used for medicinal purpose.





Alternatespiral

L.Tv.



Simple

L.Sh.

Angulate

L.Ap.



Acute

L.Ba.



Truncate

L.Ma.

Obtusely lobed, rarely entire

Euphorbia trigona Haw.

EUPHORBIACEAE

Mundukali -Ir



HABIT: A large shrub.

FLOWER: In dichasioid cymes.

L.Ar.

FRUIT: A capsule of three cocci, more or less compressed. Seeds smooth.

FIELD TIPS: Branchlets three-winged with straight paired spines. Leaves deciduous.

HABITAT & DISTRIBUTION: Less common on foothills, on dry rocky hills. Peninsular India

L.Ty.

INDIGENOUS INFORMATION: *Apis florea* like to build their nest on some of the large plants. When the plant is in bloom there will be many flies in the village. After the fruits set and fall off the houseflies also die. Blades of new knives and axes are struck against this plant so that it comes in contact with the milky sap and later is coated with mud from a termite mound. This sharpens the blades.

L.Sh.



Obovate, Spathulate

L.Ap.



Murconate L.Ba.

L.Ma.

Flueggea leucopyrus Willd.

EUPHORBIACEAE

Poolie-Ir

Madhuppullaanthi, Vellaipoolaa -Ta; Hartho -Hi

HABIT: An armed large shrub.

FLOWER: Female flowers sub solitary, male flowers in clusters, greenish. Flowering from February-May.

FRUIT: A capsule, white when ripe. Seed 1, globose. Fruiting from April-November.

FIELD TIPS: Branches arrested, stiff, thorn like.

MISCELLANEOUS: Fruits edible. Flowers attract numerous honeybees.

HABITAT & DISTRIBUTION: Common on foothills to scrub jungles from the coast to 900m. India, Sri Lanka, Burma.

INDIGENOUS INFORMATION: Butterflies and beetles are also found on the plant. Good deworming medicine. Goats prefer this plant.













Simple



Elliptic-Ovate



Emarginate L.Ba.



Acute/Cuneate L.Ma.

Entire

Glycosmis pentaphylla (Retz.) DC.

RUTACEAE

Ash Sheora -E

Kula pannai -Ta; Panal -Ma; Ban Nimbu -Hi

HABIT: A medium sized shrub.

FLOWER: In axillary cymes, pale white. Flowering from February-April.

FRUIT: A berry, globose to ellipsoid, white to pink. Seeds upto 2, green, round to plano convex. Fruiting March onwards.

FIELD TIPS: Leaves aromatic. Punctate glands present.

MISCELLANEOUS: Roots eaten in most parts of India

HABITAT & DISTRIBUTION: Common, undergrowth in forests and in fallow fields. 550-900m on the slopes. India and south east Asia.



L.Ar.



Oblique L.Ba.







Gmelina asiatica 1.

VERBENACEAE

Esalai -lr

Sirukumalaan, Mul kumizh -Ta

HABIT: An armed straggling shrub.

FLOWER: In axillary or terminal racemes, golden yellow. Flowering peaks from March-May.

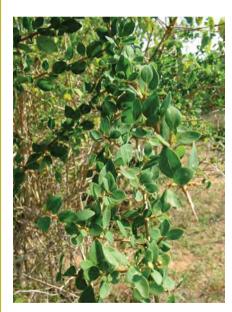
FRUIT: A drupe, ripening yellow. Fruiting from May onwards.

FIELD TIPS: Bark brownish, white, and thin. Wood hard, grey. Extensive horizontal branches. Spines upto 2.5cm, leaf bearing.

MISCELLANEOUS: Wood used for fuel and as fencing material.

HABITAT & DISTRIBUTION: Occasional in scrub jungles. Plains from the coast to 1000m, Peninsular India, Sri Lanka, Bangladesh.

INDIGENOUS INFORMATION: Bark medicinal.







L.Ar.





Simple



Elliptic-Ovate



L.Ba.



Cuneate



Entire

Grewia hirsuta Vahl

TILIACEAE



Bodu kale -Ir Kalunnu -Ta

HABIT: An erect to straggling shrub.

FLOWER: In axillary cymes, 1-3 in a cluster, white. Flowering peaks from June-August.

FRUIT: A drupe, globose, four-lobed, stiff-hirsute, red when ripe. Fruiting throughout the year.

FIELD TIPS: Branchlets densely velvety or woolly.

HABITAT & DISTRIBUTION: Common on the drier slopes in full sun. Hills 400-1000m, Peninsular India, Sri Lanka.

INDIGENOUS INFORMATION: Fruits edible. Stem fibre used to tie firewood bundles. Bears eat the fruit. Elephants eat the whole plant.



L.Ar.



distichous T Ty



Simple L.Sh



Oblong / Lanceolate



Acuminate/ Acute



Oblique/Rotund/ Obtuse/ Subcordate



Grewia rhamnifolia Heyne ex Roth

TILIACEAE

Kothi puduka, Erattali kalli -Ir

HABIT: A large shrub.

FLOWER: In axillary or terminal cymes, white. Flowering from May - August.

FRUIT: A drupe, globose, four-lobed, velvety. Fruiting throughout the year.

HABITAT & DISTRIBUTION: Occasional on plains from the coast to 400m. Peninsular India. Sri Lanka.

INDIGENOUS INFORMATION: Cattle and elephant feed on the plant. Wood used as fuel.









Simple L.Sh.







Acuminate / Acute



Sub cordate / Obtuse



Crenulate

Helicteres isora

STERCULIACEAE

East Indian Screw Tree -E

Valamburi -Ir

Valamburi, Idamburi, Kaiva -Ta; Valambiri -Ma; Marorphal -Hi

HABIT: A large shrub.

FLOWER: In axillary cymes, crimson, bluish before fading. Flowering peaks from September-December.

FRUIT: A follicles spirally twisted, cylindrical. Seeds many, wrinkled, truncate, angular. Fruiting from December-March.

FIELD TIPS: Leaves asymmetrical. Stem terete, softly villous.

MISCELLANEOUS: The barks give a coarse fibre and wood used for fuel.

HABITAT & DISTRIBUTION: Common on the deciduous slopes by forest clearing. Hills 400-1200m. Indian subcontinent, Malay peninsula, Sri Lanka, Australia.

INDIGENOUS INFORMATION: The fruits are used to prepare medicines for children.









distichous



Simple L.Sh.



Ohovate or Orbicular



cuminate.Rotund or Subacute





Hibiscus micranthus L.f.

MALVACEAE

Ottai kallai/Kallai chedi -lr

HABIT: A small shrub.

FLOWER: Solitary, white. Flowering peaks from March-May.

FRUIT: A capsule with hairy seeds. Fruiting throughout the year.

HABITAT & DISTRIBUTION: Very common on foothills, scrub jungles. India, Sri Lanka, Africa and Arabia.

INDIGENOUS INFORMATION: Leaves are crushed and applied on the head to reduce body heat.







Simple



Elliptic



Acute L.Ba.



Sub cordate L.Ma.



Jasminum bignoniaceum Wall.

OLEACEAE

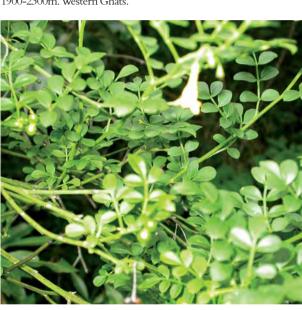
HABIT: An erect shrub with angular branches.

FLOWER: In cymes, opposite to the leaves, bright yellow. Flowering peaks from April-May.

FRUIT: A berry, globose, black when ripe. Seed 1. Fruiting from June onwards.

FIELD TIPS: Branchlets shallowly-angled from the base of two leaves above.

HABITAT & DISTRIBUTION: Shola borders, way side thickets, Hill slopes from 1900-2300m. Western Ghats.



L.Ar.



Alternate spiral



Imparipinnate L.Sh.



L.Ap.



Acute L.Ba.



I..Ma



Jatropha glandulifera Roxb.

EUPHORBIACEAE

Vellaikattukottai -Ta

HABIT: A shrub.

FLOWER: In cymes, greenish yellow. Flowering throughout the year.

FRUIT: A capsule, three-lobed. Fruiting throughout the year.

FIELD TIPS: Tender parts purplish green color. Leaves gland tipped.

HABITAT & DISTRIBUTION: From the coast in wastelands, scrub jungles. Plains upto 1000m. Peninsular India, Sri Lanka and tropical Africa.

INDIGENOUS INFORMATION: The paste of the root is used in treating snake bites. Cattle do not feed on this plant.







L.Ar.



Alternate distichous





Simple L.Sh.

3-5 lobed



Shortly acuminate $L.\mathrm{Ba}.$



(Sub) cordate



Serrate, Serrulate

Lantana camara L.

VERBENACEAE

Common Lantana -E Unni chedi -Ir

Unni chedi -Ta; Natahu gida -Ka; Amipu -Ma; Raimuniya -Hi

HABIT: A shrub forming extensive thickets on the hills.

FLOWER: In axillary, dense spikes, brick red (plains), pink (hills). Flowering throughout the year.

FRUIT: A drupe, globose, ripens dark blue. Seed 1, reticulate. Fruiting throughout the year.

FIELD TIPS: A strong smelling shrub with stout recurved prickles. Branches fourangled.

MISCELLANEOUS: Birds disperse the seeds. Flowers attract butterflies and moths. Food plant of Death's head Hawk moth. Used in traditional medicine.

HABITAT & DISTRIBUTION: Most aggressive weed of disturbed ground. Plains from the coast to the hills. Native of tropical America, widely naturalized in tropics and subtropics.









Simple L.Sh.





Acute L.Ba.



Cuneate rounded Cordate



Lantana wightiana Wallich ex Gamble

VERBENACEAE

Jujeki -Ir

HABIT: A low shrub with scandent or nearly prostrate branches.

FLOWER: In axillary, dense spikes, white. Flowering peak during September-February.

FRUIT: A drupe, globose. Seed 1, reticulate. Fruiting throughout the year.

FIELD TIPS: A strong smelling shrub. Branches four-angled.

MISCELLANEOUS: Birds disperse the seeds.

HABITAT & DISTRIBUTION: Occasional clumps. Plains and foothills to 900m in scrub jungles, by the way side. Peninsular India.

INDIGENOUS INFORMATION: The whole plant is mixed with other herbs and used as medicine.







Simple L.Sh.



Elliptic-Ovate L.Ap.



Subacute L.Ba.



Rounded-Acute L.Ma.



Lawsonia inermis L.

LYTHRACEAE

Henna, Egyptian Privet -E

Ugguru kannu soppu -lr

Marudani -Ta; Gorantu -Ka; Mailangi -Ma; Mehendi -Hi

HABIT: A deciduous shrub.

FLOWER: In terminal panicles, cream, fragrant. Flowering from January-April.

FRUIT: A capsule, globose. Seeds many, flat. Fruits persistent.

FIELD TIPS: Branchlet tips spiny. Bark grayish brown, thin.

HABITAT & DISTRIBUTION: Plains and lower hills, often cultivated. Central Asia and India.

INDIGENOUS INFORMATION: Leaf paste is used to dye hands.









Simple



Obovate-elliptic L.Ap.



Acute L.Ba.



Attenuate L.Ma.



Entire



Maesa indica (Roxb.) A.DC.

MYRSINACEAE

Peria unni, Thappa chedi -Ta; Kirithi -Ma

HABIT: A small tree.

FLOWER: In axillary and terminal panicles, white. Flowering peaks during January-March.

FRUIT: A drupe, fleshy with swollen cupule, globose, green with light red or yellow tinge. Seeds angular. Fruiting from April onwards.

FIELD TIPS: Bark thin, reddish-brown, lenticellate. Wood brownish-white, soft

HABITAT & DISTRIBUTION: Less common on the slopes, in thickets or by the shola borders. Hills above 800m. Lower Himalayas, India, Sri Lanka, Malaysia.





L.Ar.



Alternate distichous

L.Tv.



Simple I Sh



Elliptic-Obovate



Acute-Shortly Acuminate

L.Ba.



Rounded-Acute

L.Ma.



Maytenus emarginata (Willd.) Ding Hou

CELASTRACEAE



Thandisamaram/Mulmaram -Ir Tandrasi -Ka: Baikal -Hi

HABIT: A densely branched armed shrub.

FLOWER: In axillary or terminal condensed or diffused cymes, fragrant, white. Flowering from December-January.

FRUIT: A capsule, obovoid-globose. Seeds 6, ovoid. Fruits mature by March.

FIELD TIPS: Thorns straight, bearing leaves and flowers. Wood light reddish brown.

HABITAT & DISTRIBUTION: Common from the coast, in scrub jungle, upto 1000 m. Srilanka, southeast Asia, Malaysia to north Queensland.



distichous



Simple L.Sh



Oblanceolate L.Ap.





Attenuate, abruptly tapering







Opuntia monacantha (Willd.) Haw.

CACTACEAE

Dorai Kalli -Ir

Kalli -Ta

HABIT: An armed shrub.

FLOWER: Solitary, yellow, shaded pink. Flowering throughout the year.

FRUIT: A berry, obovoid. Fruiting throughout the year.

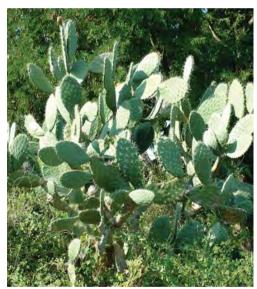
 $\textbf{FIELD TIPS:} \ Are oles \ densely woolly \ brown is h-bearing \ barbed \ bristles. \ Spines \ 1-3$

per areole.

MISCELLANEOUS: Fruits edible.

HABITAT & DISTRIBUTION: Common in wastelands. Plains from the coast to 1200m, Eastern & South America. Planted and naturalized widely in India.

INDIGENOUS INFORMATION: Fruits increase appetite.







L.Ar.

L.Tv.

L.Sh.



Subulate, Lanceolate

L.Ap.

L.Ba.

L.Ma.

Opuntia stricta (Haw.) Haw. var. dillenii (Ker Gawler) L. Benson





Prickly Pear -En

Mullu kalli -lr

L.Ar.

Chappathi kali -Ta; Nagphana -Hi

HABIT: An armed shrub.

FLOWER: Solitary, sessile, yellow. Flowering throughout the year.

FRUIT: A berry, obovoid, purple when ripe. Seeds many. Fruiting from March onwards.

L.Ty.

FIELD TIPS: Areoles raised, densely elongate bristles. Spines 5-7 per aereole.

MISCELLANEOUS: Fruits edible.

HABITAT & DISTRIBUTION: Common in wastelands. Plains from the coast to 900m. Native to America. Introduced, now in the wild.

L.Sh.

INDIGENOUS INFORMATION: Fruits edible, helps to increases appetite. Excessive amounts may cause diaorrhea. Flowers are placed over heat boils on body for healing. Fruits eaten by peacocks, squirrels, hares. Roots eaten by boar.

L.Ap.

L.Ba.

L.Ma.





Phoenix loureirii Kunth

ARECACEAE

Malai eecham, Chiru eecham -Ta

HABIT: A stout shrub.

FLOWER: Enclosed in a much branched spadix, in spikes. Flowering from October-December.

FRUIT: A drupe, oblong, green to orange to black. Seed 1, grooved ventrally. Fruiting from March-May.

HABITAT & DISTRIBUTION: Common on bare exposed slopes in plains from the coast in scrub jungles 1200 (1800) m. Indian subcontinent.

INDIGENOUS INFORMATION: The tender shoot just above the ground is edible.





Linear

L.Ap.





Sheathing L.Ma.



Entire

Sida cordifolia L.

MALVACEAE

Country Mallow -E

Ottumolai, Ottumar chedi, Thutti, Bhootacedi -Ir

HABIT: A small shrub.

FLOWER: Solitary or 5-7 in a cluster, pale yellow. Flowering throughout the year.

FRUIT: A schizocarp, margins ciliate. Seeds ovoid or trigonous. Fruiting throughout the year.

FIELD TIPS: Leaves fluffy white.

HABITAT & DISTRIBUTION: Common on the roadsides and slopes. Plains from the coast to 1000(1200) m. Pantropical.

INDIGENOUS INFORMATION: The plant is used in curing asthma by applying paste made with whole plant, pepper and garlic over the body.





Cordate or Ovate ${
m L.Ap.}$



Acute-Obtuse L.Ba.



Subcordate or Rounded



Serrate - Crenate



Solanum nigrum L.

SOLANACEAE

Black night shade -E

Kakkae dagu -Ir

Manathallaki, Milaguthakkali -Ta

HABIT: An erect shrub.

FLOWER: In umbels, white. Flowering peaks from December - March.

FRUIT: A berry, juicy, dark blue when ripe. Seeds many, discoid, minutely pitted. Fruiting from February onwards.

HABITAT & DISTRIBUTION: Very common, by river banks, moist places, fallow lands, arable lands. Plains from the coast to 1500m, almost cosmopolitan.

INDIGENOUS INFORMATION: Leaves cooked and eaten. It is used to cure stomach aches, chest pain, mouth ulcer and for de-worming.





Opposite L.Tv.



L.Sh.



Ovate-Elliptic L.Ap.



Acute I Ra



Rounded-Decurrent



Bluntly toothed

Solanum surattense Burm.f.

SOLANACEAE

Gulakai / Sundaka / Mullu sundai -Ir

HABIT: An armed shrub.

FLOWER: In extra-axillary cymes, purple. Flowering peaks from December- March and from July-September.

FRUIT: A berry, globose, variegated green, ripening yellow. Seeds many, smooth, circular. Fruiting throughout the year.

FIELD TIPS: Prickles on branches and leaves.

MISCELLANEOUS: The root is an important ingredient of the well known ayurvedic medicine, Dasamula.

HABITAT & DISTRIBUTION: Plains from the coast to 100m. India, Himalaya, south east Asia, Malaysia, Australia, Polynesia. **INDIGENOUS INFORMATION:** Bees forage mainly for pollen. Carpenter bees

have been observed foraging on the flower. Roots are medicinal. Young fruits are cooked and eaten.









Simple



L.Ap.



Acute



L.Ma.

Prickly

Solanum torvum Sw.

SOLANACEAE

Bed sundai -Ir

Soondai -Ta

HABIT: A small armed shrub.

FLOWER: In corymbose, extra axillary cymes, white. Flowering from February-March and August-November.

FRUIT: A berry, globose, green, ripening yellow. Seeds many, circular, smooth. Fruiting throughout the year.

FIELD TIPS: Whole plant is coated with a white dust which comes off when touched. Leaf sparsely stellate pubescent above.

MISCELLANEOUS: Fruits used in medicine.

HABITAT & DISTRIBUTION: Along wastelands and roadsides, less in the plains, sometimes cultivated for the fruit. Hills above 700m, Indian Subcontinent.

INDIGENOUS INFORMATION: Fruits edible. The seeds are removed and cooked with lentils.







Opposite L.Tv.



Simple I. Sh



Ovate I A n



Acute I Ra



Obliquely- sub Cordate-Truncate

L.Ma.

Sinuate

Strobilanthes cuspidata (Benth) T. Anderson ACANTHACEAE

HABIT: A shrub.

FLOWER: In terminal panicled spike, purplish. Flowering fromDecember-April.

FRUIT: A capsule. Seeds 4. Fruiting throughout.

FIELD TIPS: Leaves opposite & unequal, nerves prominently raised on both surfaces.

HABITAT & DISTRIBUTION: On dried exposed slopes, gregarious. Hills above 500m. Peninsular India.











Ovate-Obovat L.Ap.



Cuspidate L.Ba.





Tarenna asiatica (L.) Kuntze ex Schumann

RUBIACEAE

Tharani -Ir

Kura, Tharani -Ta

HABIT: A large evergreen shrub.

FLOWER: In terminal corymbose cymes, cream, fragrant. Flowering from December-April.

FRUIT: A berry, globose with a crown of calyx lobes, dark blue when ripe. Fruiting throughout the year.

FIELD TIPS: Leaves dark glossy green, drying black.

HABITAT & DISTRIBUTION: Very common, less in the scrub jungles. Hills to 1400m, Sri Lanka, Peninsular India and Malaysia.

INDIGENOUS INFORMATION: The fruits are eaten by crows. The wood is used as fuel wood. The wood is strong and used as a crobar.









decussate I. Tv



Simple



Oblong-Oblanceolate



Acute L.Ba.



Truncate L.Ma.



Tephrosia purpurea (L.) Pers.

FABACEAE

Wild Indigo -E

Kuggai -Ir

Kattukozhinji, Avuri -Ta; Empali -Ka; Kozhenjil -Ma; Sarphanka, Dhamasia -Hi

HABIT: A pubescent villous shrub.

FLOWER: In pseudo racemes, bluish-pink to purple. Flowering throughtout the

FRUIT: A pod, downy puberulous, continuous within, slightly falcate. Seeds many, reniform. Fruiting throughout the year.

HABITAT & DISTRIBUTION: Gregarious in wastelands, fallow fields even in poor soils. Plains from the coast to 750 (1000) m. Himalaya, India, Burma and Malaysia.

INDIGENOUS INFORMATION: The bark of the roots are chewed to cure stomachache. Plant used for mulching.







distichous

Imparipinnate



Obovate



Obtuse, Mucronate L.Ba.



L.Ma.



Thevetia peruviana (Pers.) Merr.

APOCYNACEAE

Yellow Oleander -E

Manjaaralie -Ir

Ponnarali, Thiruvachipoo -Ta; Kulkephul -Hi

HABIT: A large evergreen shrub.

FLOWER: In axillary and terminal cymes, yellow. Flowering throughout the year.

FRUIT: A drupe, broadly turbinate, slightly compressed laterally. Seeds flattened, without coma. Fruiting throughout the year

FIELD TIPS: Milky latex present. Leaves shiny, linear-tapering.

HABITAT & DISTRIBUTION: Common in wastelands. Plains from the coast to 1400m, Native of tropical Peru, widely naturalized.









L.Ar.



Alternate

L.Tv.



Simple I. Sh



Linear-Lanceolate



Acute L.Ba.



Cuneate L.Ma.

Recurved

Tithonia diversifolia (Hemsley) A. Gray

ASTERACEAE



Mexican sunflower -E Kattu suryakanthi -Ir

HABIT: A large gregarious shrub.

FLOWER: Solitary, yellow. Flowering from September-May.

FRUIT: An achene. Seeds many. Fruiting throughout the year.

MISCELLANEOUS: Genus named after Tithonus, a handsome youth and king of Troy, who was loved by Aurora who turned him into a grasshopper. Grown as a border plant and cultivated as green manure plant. Flowers used in traditional medicine.

HABITAT & DISTRIBUTION: Grows in wastelands. Plains to hills. Native of south America. Introduced in India, Burma, Malaysia, China, south Africa.

INDIGENOUS INFORMATION: Honey from this flower is bitter. All insects forage on flower but no animals graze on it. Good fencing material.



L.Ar.



Alternate spiral L.Ty.



Simple L.Sh.

Dissected L.Ap.



Acute-Acuminate



L.Ma.



Urena lobata L. ssp. sinuata (L.) Borssum.

MALVACEAE

Common Purple Mallow -E

Kattu vendai geda -Ir

Ottatti -Ta

HABIT: A shrub with rough tomentum.

FLOWER: Axillary, solitary or 2-3 in a cluster, pink. Flowering throughout the year.

FRUIT: A schizocarp, globose, trigonous, covered with bristles. Seeds reniform, angular, glabrescent. Fruiting throughout the year.

FIELD TIPS: Leaves angled or lobed, with a gland at the base of the midrib below.

MISCELLANEOUS: Cultivated for termite and water resistant fibre, used in making fishing line, rope and binding cord. Fruits and flowers used in traditional medicine.

HABITAT & DISTRIBUTION: Common in wastelands, by arable lands, wayside, and hills to 1400m. Circumtropical.

INDIGENOUS INFORMATION: Good fodder species.







Simple

Lobed, Angled



Obtuse -Acute L.Ba.



Cordate-Cuneate



Crenate-Dentate

Vitex negundo L.

VERBENACEAE

Common Chaste Tree -E

Loki/Neviladi -Ir

Nalla nochi -Ta; Lakhigida -Ka; Vellanochi -Ma; Sambhalu -Hi

HABIT: A large shrub.

FLOWER: In terminal panicles, purple to violet. Flowering peaks from January-April (plains) and July-October (hills).

FRUIT: A drupe, globose. Fruiting throughout the year.

FIELD TIPS: Stem 4-angular

MISCELLANEOUS: Flowers attract butterflies and moths. Food plant of the Death's Head Hawk moth. Leaves repel pest in stored grain. Used in traditional medicine.

HABITAT & DISTRIBUTION: Common, by river banks, along roadside as hedges. Plains from the coast to 1000m, India, Himalaya, Burma, Afghanistan, China, Indo-China, Sri Lanka, Malaysia.

INDIGENOUS INFORMATION: The whole plant is used during the puberty rituals



L.Ar.



L.Ty.



3-5 foliate L.Sh.



Oblanceolate

I An





Acuminate L.Ba.



Acute L.Ma.



Entire

Weeds, Invasives and Colonisers:

Any plant, especially an exotic which grows or self-propagates invasively, colonizing vast areas, is a threat to the environment. These plants tend to replace less aggressive native plants. The environment then loses its diversity and becomes susceptible to degradation. Most weeds are without natural predators in the regions they colonize.

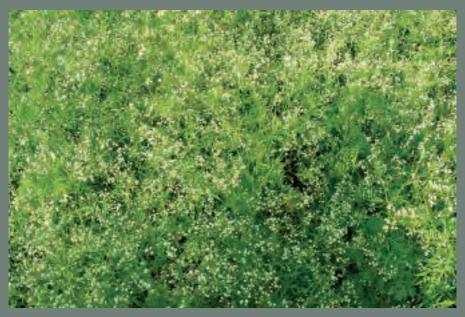
- Weeds can form dense thickets which obstruct visibility along road edges and also hampers movement of wildlife.
- The leaves of some weeds plants contain toxins which may act as growth inhibitors to other plants and affects the diversity of the area.
- Many weeds stop other plants from growing under them.
- Weeds affect human beings when they cover agricultural lands and time has to be spent to remove them.
- Many of the weed species cause allergic reactions to human beings because of their pollen.
- They are most often not preferred by cattle.



Chromolaena odorata (native of Mexico) commonly called Eupatorium is a common weed of the Sigur plateau, very often growing in fallow fields. The leaves have a high iodine content.



Lantana camara (native of Tropical America) commonly called Lantana is a particularly vigorous shrub found in this region and in the sanctuary areas. It forms dense thickets and catches fire easily in the dry season.



Parthenium hysterophorus (native of America) commonly called Congress grass is a weed that grows less vigorously and is found along the hedges and along fallow lands.

Xanthium indicum J. Koenig

ASTERACEAE

Cocklebur, Burweed -E

Ottarchedi -Ta

HABIT: A gregarious shrub.

FLOWER: In terminal capitulum, white and spiny. Flowering throughout the year.

FRUIT: An achene, enclosed in prickly glandular-hispid envelope, forming a utricle. Fruiting throughout the year.

FIELD TIPS: Spinous branchlets.

HABITAT & DISTRIBUTION: Common in wastelands. Plains from the coast to 1500m. India, south east Asia, Malaysia.

INDIGENOUS INFORMATION: Leaves are used for stunning fish and also to cure certain kinds of fevers.









Alternate I Ty



Simple L.Sh.

Broadly 3-5 lobed

L.Ap.

Hispidulous-Scabrid





I. Ma



Coarsely serrate-

Acalypha indica L.

EUPHORBIACEAE

Indian Acalypha -E

Kuppameynie -Ir

Kuppaimaeni, Naai kurungu -Ta

HABIT: An erect annual herb.

FLOWER: In axillary spikes, white. Flowering throughout the year.

FRUIT: A capsule. Seeds subglobose. Fruiting throughout the year.

FIELD TIPS: Leaves long petioled, unequal.

HABITAT & DISTRIBUTION: Common, on wastelands, in moist and shaded places, river banks. Plains from the coast to 100m. Tropical Africa eastward to Sri Lanka, India, Burma, Timor, Philippines.







Alternate L.Ty.



Simple L.Sh



Broadly Ovate



Acute L.Ba.



Rounded-Shortly Attenuate



Crenate-Serrate

Acanthospermum hispidum DC.

ASTERACEAE

Kanthi mul -Ir

Kombumul, Mullu chedi -Ta

HABIT: A well branched herb.

FLOWER: In solitary and axillary capitulum, at the forking of the branches, yellow. Flowering peaks from January-June.

FRUIT: An achene, smooth, enclosed within (echinate). Fruiting from June onwards.

HABITAT & DISTRIBUTION: A gregarious weed of wasteland, fallow field, aggressive colonizer. Plains from the coast to 1200m. Native of South America introduced into tropical and South Africa, India, Nepal, Hawaiian isles.





Coarsely Serrate

Achyranthes aspera L.

AMARANTHACEAE

Prickly Chaff Flower -E

Uthrani -Ir

Naaiyuruvi, Naagarkaai mullu -Ta

HABIT: An erect herb.

FLOWER: In terminal or axillary spikes, pink. Flowering throughout the year.

FRUIT: An utricle. Seed 1. Fruiting throughout the year.

FIELD TIPS: Flowers slightly bent at the top and tend to get into the skin like spines, if pulled at.

HABITAT & DISTRIBUTION: Abundant in plantation of the hills. Plains upto 1400m. Tropics.

INDIGENOUS INFORMATION: Cattle graze on the leaves. During Pongal and the ragi festival the flowers are used to decorate the house. The crushed leaves are used to treat dog bite.













Simple



Elliptic-Obovate-Orbicular(sub)



Obtuse-Acute(broadly) L.Ba.



Cuneate



Entire

Acorus calamus L.

ARACEAE

Sweet Flag -E

Bhajae -Ir

Vasambu -Ta; Bajai -Ka; Vashanpa -Ma; Gorbach -Hi

HABIT: An aromatic marsh herb.

FLOWER: In spadix, cylindrical, white. Flowering in July.

FRUIT: A berry, oblong. Seeds few, oblong. Fruiting in July, very rare.

MISCELLANEOUS: Rhizome used in traditional medicine and also to protect clothing from insect attack. Once believed to be abundant but now difficult to find growing wild.

HABITAT & DISTRIBUTION: Probably introduced and commonly seen by water courses and marshes. Plains from the coast to 1200m. North temperate hemisphere and Tropical Asia.

INDIGENOUS INFORMATION: The roots are made into a paste with milk and given to children to improve digestion.









Simple L.Sh.



L.Ap.



Acuminate L.Ba.



Decurrent L.Ma.



Aerva javanica (Burm.f.) A.L.Juss. ex Schultes

AMARANTHACEAE

HABIT: A tomentose, erect herb.

FLOWER: In terminal paniculate spikes, white, woolly. Flowering peaks from December-February.

FRUIT: An utricle.

HABITAT & DISTRIBUTION: Found in plains, even in poor, gravelly soil, waysides, wastelands, arable lands, scrub jungles. Widespread in the drier parts of the tropical and subtropical world.

INDIGENOUS INFORMATION: The flowers are used to fill pillows.



L.Ar.



Alternate spiral



Simple



Oblanceolate-Spathulate





Obtusely apiculate



Cuneate-Attenuate L.Ma.



Entire

Aerva lanata (L.) A.L. Juss.

AMARANTHACEAE

Poolai poo -Ir

Koola poo, Poolai poo -Ta

HABIT: An erect to decumbent herb.

FLOWER: In axillary spikes, clustered, white. Flowering peaks from November-April.

FRUIT: An utricle.

HABITAT & DISTRIBUTION: Common wayside weed by arable lands, fallow fields. Plains from the coast to 1200. Tropics, widely distributed.

INDIGENOUS INFORMATION: The flowers are used in religious rituals, especially during the festival of Pongal.





Ageratum conyzoides L.

ASTERACEAE

Goat Weed -E

Undai -Ir

Pampillu -Ta; Nayitulasi -Ka; Visadodi -Hi

HABIT: A soft hairy annual herb.

FLOWER: In terminal corymbs, white tending to blue with increase in altitude. Flowering from December-May.

FRUIT: An achene, slightly curved, narrowed below. Fruiting throughout the year.

MISCELLANEOUS: Common name from its goat like odour.

HABITAT & DISTRIBUTION: Most abundant weed of disturbed ground and fallows, damp places and forest undergrowth. Aggressive coloniser. Plains from the coast to 1300m. Native to America, now a common weed of all warm countries.

INDIGENOUS INFORMATION: Leaves are crushed and applied to heal open cuts and wounds.









I. Tv



Simple L.Sh.



Broadly ovate -





Gradually acute



Truncate-Acute L.Ma.



Alternanthera sessilis (L.) R.Br. ex DC.

AMARANTHACEAE

Tangle Mat -E

Minagonai daagu -Ir

Poonnankannikeerai -Ta; Honagone soppu -Ka; Gudrisag -Hi

HABIT: A prostrate, branched, low growing herb.

FLOWER: In spikes, white. Flowering peaks during November-April.

FRUIT: An utricle, cordiform, slightly compressed. Seeds orbicular.

MISCELLANEOUS: Flowers attract insects and also used in traditional medicine.

HABITAT & DISTRIBUTION: Abundant in moist places, clayey soil, in low lying areas, river banks. Plains from the coast to 1500m. Widespread in the tropics and subtropics of the world.

INDIGENOUS INFORMATION: Leaves are cooked and eaten.







Simple L.Sh.



Lanceolate-Sapthulate



Obtuse-Acute



Attenuate L.Ma.



Amaranthus caudatus 1.

AMARANTHACEAE

Fox Tail Amaranth -E

Thandu keerai -Ir

Thandu keerai -Ta

HABIT: An erect herb.

FLOWER: In axillary and terminal panicles, crimson.

FRUIT: An utricle, circumscissile.

MISCELLANEOUS: Grown as an intercrop. Tender leaves edible.

HABITAT & DISTRIBUTION: Cultivated. Unknown in the wild except as an escape . Hills, 500-900m.





Alternate spiral



Simple



Obovate-Rhomboid



Shortly Acuminate



Acute L.Ma.



Amaranthus graecizans L. ssp. thellungianus (Nevski) Gusev.

AMARANTHACEAE

Sillu keerai -lr

HABIT: A small annual, prostrate herb.

FLOWER: In axillary fascicles, white.

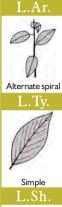
FRUIT: An utricle, (sub) globose, rugose. Seeds (sub) orbicular.

MISCELLANEOUS: Tender leaves and shoots are cooked and eaten.

HABITAT & DISTRIBUTION: Common, weed of waste and cultivated land. Plains to 1000m.

INDIGENOUS INFORMATION: Leaves are cooked and eaten.











Emarginate, Apicualte



L.Ma.



Amaranthus spinosus L.

AMARANTHACEAE

Prickly Amaranth -E

Mullu Keerai -Ir

Mullu keerai -Ta; Mullu harive soppu -Ka; Mullen cheera -Ma; Kanta nutiya -Hi

HABIT: An armed erect herb.

FLOWER: In terminal panicles or aggregated, green. Flowering from December-April.

FRUIT: An utricle, circumscissile.

FIELD TIPS: Stem reddish and hard, spines axillary.

HABITAT & DISTRIBUTION: Abundant near village wastelands, as a weed of cultivation, colonizer on new roads. Plains from the coast to 1500m. Cosmopolitan in the warmer regions of the world, presumed of american origin, in temperate regions.

INDIGENOUS INFORMATION: Leaves are cooked and eaten.



[.Ar



Alternate spiral



L.Sh



Elliptic-Obovate Rhomboid

L.Ap.



Acutely Emarginate



Acute L.Ma.



Amaranthus viridis I.

AMARANTHACEAE

Thippai keerai -Ir

Kuppai keerai -Ta

HABIT: A slender herb.

FLOWER: In axillary and terminal panicles, Flowering peaks in December-April.

FRUIT: An utricle, indehiscent, sub compressed, rugose, brownish.

FIELD TIPS: Stem ribbed, purple.

HABITAT & DISTRIBUTION: Abundant by arable lands and as weed of cultivation. Plains from the coast, to 1500m. Cosmopolitan in the tropics and subtropics regions of the world, penetrating more widely into the temperate regions.

INDIGENOUS INFORMATION: Stem and leaves are cooked and eaten. Good fodder plant. Flies observed foraging on the flowers. In a particular season the whole plant is covered with green caterpillars after which the leaves are not collected.





Entire-Undulate

Argemone mexicana L.

PAPAVERACEAE

Mexican Poppy -E

Mullu umathai -lr

Pirama thandu. Virumalakachi- Ta

HABIT: An armed herb.

FLOWER: Solitary, golden yellow. Flowering throughout the year.

FRUIT: A capsule, oblong, spinous. Seeds many, black, pitted. Fruiting throughout the year.

FIELD TIPS: The plant yields a yellow sap. Leaf nerves white and distinct.

MISCELLANEOUS: Sap used to treat eye infection.

HABITAT & DISTRIBUTION: Introduced. Common gregarious weed. Upto 900m. Native to West Indies, now widely naturalized in the tropics.

INDIGENOUS INFORMATION: The sap is applied to cure reddishness in the eye and the flower is used to cure heat boils.







L.Ar.





Oblong/Obovate



Lacerate



L.Ba.

Sub amplexicaul L.Ma.



Bacopa monnieri (L.) Pennell

SCROPHULARIACEAE

Thyme Leaved Gratiola -En

Goni poo -Ir

Nilappachai -Ta; Nirbrahmi -Ka; Nirbrahmi -Ma; Neer Brahmi -Hi

HABIT: A succulent slender herb

FLOWER: Axillary and solitary, white with violet and green bands inside the throat. Flowering throughout the year.

FRUIT: A capsule, oblong-globose. Seeds oblong. Fruiting throughout the year.

FIELD TIPS: Stem sub quadrangular. Rooting at nodes forming dense mats.

MISCELLANEOUS: Plants used in traditional medicine.

HABITAT & DISTRIBUTION: Common in low-lying marshy places, along watercourses. Plains from the coast, to 1400m. Palaeotropical.

INDIGENOUS INFORMATION: The leaves are cooked with lentils and eaten.









L.Sh.



Oblong



Obtuse L.Ba.

L.Ma.



Enitre

Bambusa arundinacea (Retz.) Willd.

POACEAE

Bamboo -E

Peria mungil -Ir

Mungil, Periya mungil, Peru varia mungi -Ta; Dongi, Bidungalu, Hebbidru -Ka; Mulla, Illi -Ma

HABIT: A tall erect green bamboo with spines.

FLOWER: In compound panicles.

FRUIT: Grain oblong or linear oblong, furrowed on one side.

FIELD TIPS: Culms thick and erect; culm sheath triangular with spiny hairs. Leaf sheath, glabrous, ligule short.

MISCELLANEOUS: Flowers only once in its lifetime (approx. 60 years).

HABITAT & DISTRIBUTION: A ready colonizer. Upto 1000m, in moist deciduous to semi evergreen forests. India (except in the Himalayas and Indo-Gangetic plain).

INDIGENOUS INFORMATION: Shoots and seed grains are edible. Stem used for a variety of purposes.





L.Ar.





Simple L.Sh.



L.Ap.



Acute L.Ba.



Sheathing L.Ma.



Entire

Bidens pilosa L.

ASTERACEAE

Selai kuthi mullu, Kothi mullu, Paimullu, Ottumullu -Ir

Mukkuthi -Ta

HABIT: A small herb.

FLOWER: In terminal capitula, solitary or paired, white. Flowering peaks from October-April.

FRUIT: An achene, linear, ends in awns. Fruiting October onwards.

HABITAT & DISTRIBUTION: Gregarious weed of fallow lands, aggressive colonizer. Hills above 800m.











3-Foliate



Lanceolate (terminal leaflet)



Acuminate L.Ba.





Blepharis maderaspatensis (L.) Roth

ACANTHACEAE



Creeping Blepharis -E

Barga poo -Ir

Kozhimookkan, Kooravaal chedi -Ta

HABIT: A prostrate wiry herb.

Whorled

FLOWER: In axillary clusters among the leaves, white with pink nerves. Flowering peaks from November-February.

FRUIT: A capsule, shining. Seeds 2,(sub) orbicular, flattened. Fruiting from December onwards.

FIELD TIPS: Stem rooting at the nodes. Bracts white veined with green.

MISCELLANEOUS: Bees pollinate the flowers.

HABITAT & DISTRIBUTION: Common on bare grounds even in poor gravelly soils, among rocks. Plains from the coast to 1400m. Common to Tropical Africa and

INDIGENOUS INFORMATION: Edible tuber, quenches thirst.





Elliptic-Ovate, Oblanceolate



Acutely apiculate L.Ba.







Boerhavia diffusa L.

NYCTAGINACEAE

Common Hogweed -E

Gurujei -Ir

Mookkaratti, Sarandai -Ta; Gadahpurna -Hi

HABIT: A diffuse herb.

FLOWER: In axillary or terminal panicles, deep pink. Flowering peaks from January-April.

FRUIT: An anthocarp, club shaped, glandular hairy, top rounded. Seed erect, smooth, swelling in water, slimy. Fruiting throughout the year.

MISCELLANEOUS: Food plant of the Hogweed Hawk moth. Whole plant is used in traditional medicine and as a potherb.

HABITAT & DISTRIBUTION: Very common by the waysides in very poor soils and on stone revetments. Plains upto 1000m. Found mostly in the tropics.

INDIGENOUS INFORMATION: Leaves are cooked with/out lentils as a vegetable. Some believe that they will catch a cold if they eat this vegetable. Good fodder plant.











Opposite

L.Tv.



Simple



Ovate-Subcordate L.Ap.



Obtuse-Acute



L.Ma.



Caralluma attenuata Wight

ASCLEPIADACEAE

Kallimulaiyaam -Ta

HABIT: An erect succulent herb.

FLOWER: In terminal racemes, brown to dark purple. Flowering with a peak during July-September.

FRUIT: A follicle, oblong to linear, apically beaked. Seeds oblong to obovoid, dull white or brownish. Fruiting from September onwards.

FIELD TIPS: Watery latex present. Leaves along the angles, minute often spine like, caducous, leaving scars.

HABITAT & DISTRIBUTION: Occasional. Plains and lowers slopes to 900m. Peninsular India, Sri Lanka.



L.Ma.



L.Ba.

Caralluma umbellata Haw.

ASCLEPIADACEAE

Kallichedi, China Kalli chedi -Ir

Kallimulaiyaam -Ta

HABIT: An erect succulent herb.

FLOWER: In terminal umbel, purple with cross stripes. Flowering with a peak from March-April.

L.Ar.

FRUIT: A cylindrical follicle, green, with small dark spot, hooked at apex, paired. Seed flattened, broadly margined, with silky white hairs.

FIELD TIPS: Stems and branches angled with watery latex. Leaves along the angles, caducous, leaving scars. Flowers foul smelling.

L.Ty.

HABITAT & DISTRIBUTION: Locally abundant. Foothills to 1300m among exposed rocks. Indian subcontinent.

INDIGENOUS INFORMATION: Tender stem edible, especially as a blood purifier for women.



L.Sh.

L.Ap.

L.Ba.

L.Ma.

Celosia argentea L. var. argentea

AMARANTHACEAE



Pannai keerai -Ir

Makilikkeerai, Pannaipoo -Ta; Safed murga -Hi

HABIT: An erect glabrous, profusely branched annual herb.

FLOWER: In spikes, dense, cylindrical, pink turning white.

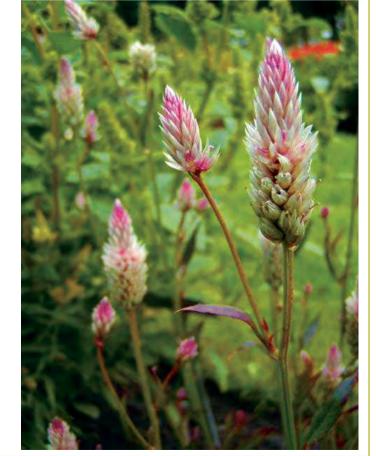
FRUIT: A capsule, globose. Seeds 12, reticulate.

MISCELLANEOUS: Flowers attract butterflies.

HABITAT & DISTRIBUTION: Hills, in arable lands, as a weed of cultivation, in harvested fields, less in plains. Cosmopolitan, probably originating in Africa.

INDIGENOUS INFORMATION: Tender shoots and leaves are cooked and eaten.





Cleome felina L.f.

CAPPARACEAE

HABIT: A prostrate herb.

FLOWER: In racemes, pink. Flowering from September-November.

FRUIT: A capsule, flat, closely striate. Seeds many with oblique closed clefts, crested. Fruiting in December.

HABITAT & DISTRIBUTION: Locally abundant, not widely distributed. In fallow fields upto 900m. Peninsular India.

INDIGENOUS INFORMATION: Cattle avoid grazing on this plant.







Trifoliate L.Sh.



Obovate L.Ap.



Obtuse L.Ba.



L.Ma.



Cleome gynandra L.

CAPPARACEAE

Whiskered Spider Flower -E

Bhurlai -Ir

Nallavelai -Ta; Aajgandha -Hi

HABIT: A much branched annual herb.

FLOWER: In corymbose racemes, pink or white. Flowering throughout the year.

FRUIT: A capsule, terete, striate, glandular. Seeds many, concentrically ridged and transversely crested. Fruiting throughout the year.

FIELD TIPS: Foetid when crushed. Stems glandular, pubescent.

MISCELLANEOUS: Seeds and leaves used in traditional medicine.

HABITAT & DISTRIBUTION: Common in village wastelands. Coloniser on disturbed grounds as a weed of cultivation. Plains from the coast to 900m. India, south east Asia, Sri Lanka, Malaysia.

INDIGENOUS INFORMATION: Leaves are cooked and eaten to improve digestion.



L.Ar.



Alternate L. Ty.



3-5 foliate L.Sh.



Obovate L.Ap.



Acute L.Ba.



Cuneate L.Ma.



Entire

Cleome viscosa

CAPPARACEAE

Yellow Spider Flower -E

Kaatu belai -lr

Naivelai, Naikadugu -Ta; Naibela -Ka; Ariavala -Ma; Hurhur -Hi

HABIT: A small herb

FLOWER: In racemes, yellow. Flowering throughout the year.

FRUIT: A capsule, terete, glandular hairy. Seeds many, glabrous with transverse ridges, prominent, concentric ones faint. Fruiting throughout the year.

FIELD TIPS: Foetid when broken. Whole plant is glandular hairy.

HABITAT & DISTRIBUTION: Locally abundant as a weed in fallow lands, wayside, dry river beds or even in very poor soils. Plains from the coast upto 900m. Native to tropical Africa, south Arabia, tropical Australia and Malaysia.

INDIGENOUS INFORMATION: Leaves used in traditional medicine. Cattle stay away from it.













L.Sh.



Obovate/Elliptic



Acute L.Ba.



Cuneate L.Ma.



Commelina benghalensis L.

COMMELINACEAE



Garden Commelina -E Kannae, Kanner -Ir

Aduthinnathalai, Kanavazhar -Ta; Kanchara -Hi

HABIT: A spreading herb.

FLOWER: In cymes, purple. Flowering from August-December.

FRUIT: A capsule, ellipsoid. Seeds 5, pitted. Fruiting throughout the year.

FIELD TIPS: Flowers are sometimes white. Leaf margin and spathe ciliate.

MISCELLANEOUS: Leafless underground suckers bear scapes of self pollinating white flowers which never open, but bear better seeds than those from the normal blue flowers. Used to indicate presence of sulphur dioxide as air pollutant.

HABITAT & DISTRIBUTION: Very widely distributed in scrub jungles, wayside puddles. Weed of arable lands, marshy. Plains from the coast to 1100m. India, Nepal, Sri Lanka.

INDIGENOUS INFORMATION: The juice of the fruit is squeezed into the eyes to clear dust. Fodder plant. Leaves and rhizomes are cooked and eaten.



Alternate spiral







Acute-Obtuse



Sub truncate-Asymetrical

Ciliate



Commelina ensifolia R.Br.

COMMELINACEAE

Bearded Commelina -E

Onaligai -Ir

Kana -Hi

HABIT: A spreading herb.

FLOWER: Solitary, blue. Flowering throughout the year.

 $\mbox{\bf FRUIT:}$ A capsule, two-celled. Seeds 3 , ovoid, smooth, orange brown. Fruiting throughout the year.

HABITAT & DISTRIBUTION: Common, especially in moist places. Hills, above 500m. India, Sri Lanka, Australia.

INDIGENOUS INFORMATION: Leaves are cooked and eaten.





Alternate spiral



Simple



Linear/Linear-Lanceolate

L.Ap.

Obtuse-Acute L.Ba.

Narrowed L.Ma.



Undulate

Croton bonplandianus Baillon

EUPHORBIACEAE



Seemainai pundu, Soraipoo -Ir Rail pindu, Aathuppoondu -Ta

HABIT: A bushy herb.

FLOWER: In axillary or terminal racemes, white. Flowering throughout the year.

FRUIT: A capsule of three, bivalved cocci, epicarp warty. Seeds oblong. Fruiting throughout the year.

FIELD TIPS: Tender parts with white warty out growth. Presence of watery latex.

HABITAT & DISTRIBUTION: Introduced. From the plains to 900m, abundant on wastelands, ready colonizer. Native of temperate south America naturalized throughout the Indian sub continent.

INDIGENOUS INFORMATION: Cows graze on the plant. Leaves are used in medicinal preparations.



L.Ar.



Alternate L.Ty.



Simple L.Sh.



Ovate-Lanceolate



Gradually Acute
L.Ba.



L.Ma.



Curcuma pseudomontana Grah.

ZINGIBERACEAE

Hill Turmeric -En

Kaatumanja -Ir

Kattumanjal -Ta+Ma; Kebu -Hi

HABIT: An aromatic herb.

FLOWER: Bright yellow flowers are borne among mauve-purple bracts. Flowering from August-September.

FRUIT: A capsule, three-valved. Seeds ovoid. Fruiting from August-September.

FIELD TIPS: Root stock small with almond-like tubers, white inside at the ends of fleshy fibres. Leaves deeply channeled.

MISCELLANEOUS: Food plant of grass demon skipper butterfly. The small almond shaped tubers are boiled and eaten.

HABITAT & DISTRIBUTION: Common in forested hill slopes. Western Ghats.

INDIGENOUS INFORMATION: Tubers eaten by porcupine & boar.







Radicle

L.Sh.



Oblong-Lanceolate



Acuminate L.Ba.



Acute L.Ma.



Cynodon dactylon (L.) Pers.

POACEAE

Gherkai pullu/Arugampullu -Ir

Arugam pillu -Ta; Kudi garikai, Karkrei hullu -Ka; Dub, Hariali -Hi

HABIT: A perennial creeping grass with erect culms.

FLOWER: In panicles of spikelets.

FRUIT: A caryopsis, linear.

HABITAT & DISTRIBUTION: Very common in tropical and warm temperate regions, throughout the world. Plains from the coast to lower hills.

INDIGENOUS INFORMATION: Whole plant is used in the preparation of medicines for children.









Alternate spiral



Simple



Oblong



Acuminate L.Ba.



L.Ma.



Dendrocalamus strictus (Roxb.) Nees

POACEAE

Kriva bidur -Ir

Kal mungil -Ta; Bans -Hi

HABIT: An unarmed slender bamboo.

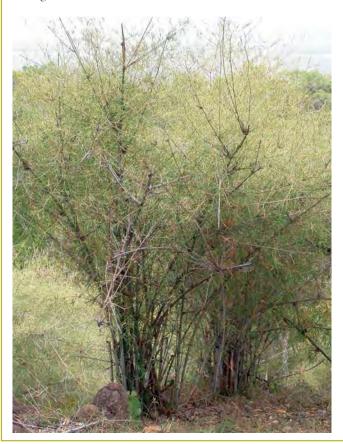
FLOWER: In compound panicles with spikelets.

FRUIT: Grain ovoid, brownish, beaked.

FIELD TIPS: Culms erect, with small cavity or none. Nodes swollen. Sheaths covered with golden brown hair or glabrous.

HABITAT & DISTRIBUTION: Occasional to common in dry regions. Found on hills 400–1000 m. Indian subcontinent, absent along the coast.

INDIGENOUS INFORMATION: The stem is used to make the butter milk churning stick. Skin of the stem mixed with lime and lichens are used to make a bandage to heal knife and axe cuts.







Simple L.Sh.





Acute L.Ba.



L.Ma.



Euphorbia heterophylla L.

EUPHORBIACEAE

Lesser Green Poinsettia -E

HABIT: An erect herb.

FLOWER: Cyathia in terminal clusters, greenish yellow. Flowering throughout the year.

FRUIT: A capsule. Seeds angled, green. Fruiting throughout the year.

FIELD TIPS: Upper floral leaves form a green rosette. Presence of milky white latex.

HABITAT & DISTRIBUTION: Weed of cultivation in fallow lands. Found along hills, river beds above 500m. Native to central America, now a pan tropical weed.

INDIGENOUS INFORMATION: The plant is fed to rabbits grown in farms.











Rhomboid-Oblanceolate



L.Ba.





Euphorbia hirta L.

EUPHORBIACEAE

Common Spurge -E

Pasal geda -Ir

Amman pacharisi -Ta; Dudhi -Hi

HABIT: A hispid ascending herb.

FLOWER: A cyathia, aggregated in single or paired heads in axils. Flowering throughout the year.

FRUIT: A capsule, pubescent, persistent. Seeds four angled, minutely furrowed.

FIELD TIPS: Milky latex present. Leaves vary from green to coppery red depending on its habitat.

MISCELLANEOUS: Used in traditional medicine and eaten as a vegetable in some parts of India.

HABITAT & DISTRIBUTION: Very common along the road sides and wastelands, upto 1400m. Pantropical.

INDIGENOUS INFORMATION: Goats eat the leaves. The sap is used as a tattoo dye. The plant has high medicinal value.







Opposite decussate

L.Tv.



Simple



Oblong(broadly)-Elliptic-Lanceolate

L.Ap.



Obtuse-(Sub) acute

L.Ba.



Obliquely truncate



Serrulate-Serrate

Evolvulus alsinoides (L.) L.

CONVOLVULACEAE

Little Glory -E

Vetusoppu -Ir

Vishnu kiranthi -Ta; Vishnu krantha -Ka; Vishnu clandi -Ma; Vishnu krantha -Hi

HABIT: A perennial prostrate herb.

FLOWER: Solitary, blue, fading by noon. Flowering peaks during November.

FRUIT: A capsule, conical. Seeds glabrous. Fruiting throughout the year.

MISCELLANEOUS: Plant used in traditional medicine.

HABITAT & DISTRIBUTION: Common along foothills, lowers slopes, scrub jungles even in poor soils, on bare exposed slopes. More abundant in the hills upto 1500m. Tropical and subtropical regions of the world.

INDIGENOUS INFORMATION: Open wounds from knife or axe cuts heal quickly if the juice of the leaves is applied to it. There is a common belief that if a whole plant is uprooted and braided with the hair it stimulates hair growth. If cattle eat the leaves they produce more milk.





I. Ar



L.Tv.



Simple ...Sh



Elliptic,Oblong-Lanceolate



Obutsely Apiculate





Acute L.Ma.



Entire

Gisekia pharnaceoides L.

AIZOACEAE

Sand Herbage -E

Manal sopu -Ir

Manal keerai -Ta

HABIT: A spreading herb.

FLOWER: In axillary umbellate cymes, green. Flowering throughout the year.

FRUIT: A capsule, papillose. Seeds 10, granular. Fruiting throughout the year.

FIELD TIPS: Leaves fleshy.

HABITAT & DISTRIBUTION: Common ready colonizer on disturbed grounds. Plains from the coast to 900m. From South Africa and Mascarene islands to Sri Lanka and India.

INDIGENOUS INFORMATION: The leaves are cooked and eaten.





Opposite decussate/ Whorled

L.Tv.



J C1



Oblanceolate



Obtuse, Apiculate



Cuneate L.Ma.



Hybanthus enneaspermus (L.) F. Muell.

VIOLACEAE

Orilai Thamarai -Ta

HABIT: An erect herb.

FLOWER: Solitary, pink. Flowering throughout the year.

FRUIT: A capsule, sub-globose, three valved. Seeds ribbed. Fruiting throughout the year.

FIELD TIPS: The conspicuous rose petal has a lining of a deeper hue.

HABITAT & DISTRIBUTION: Common in arable, pasture and wastelands. Plains from the coast to 900 m in exposed place. Widely found in Africa and Madagascar, scattered in India and Sri Lanka, in south east China to tropical Australia.



L.Ar.



Alternate distichous L.Ty.



Simple L.Sh



Linearly lanceolate or elliptic





Acute L.Ba.



Attenuate L.Ma.



Serrate

Kalanchoe grandiflora Wight & Arn.

CRASSULACEAE

Kappu geda -Ir

HABIT: An erect perennial herb with fleshy stems and leaves.

FLOWER: In terminal corymbose cymes, yellow.

FRUIT: A follicle, four. Seeds many, oblong, ellipsoid, ribbed longitudinally.

HABITAT & DISTRIBUTION: Common. Found in foot hills up to 900m.

INDIGENOUS INFORMATION: *Trigona* sp. observed foraging on the flowers.









Opposite





Simple I. Sh



Orbicular-Obovate L.Ap.



Rounded L.Ba.



Cuneate



Crenate-Entire

Lagascea mollis Cav.

ASTERACEAE



Opposite or

Alternate distichous American Softhead -E Kuppai chedi -lr

Tharwad -Hi

HABIT: An erect, white-pubescent herb.

FLOWER: In solitary terminal heads, white. Flowering peaks during September-March.

FRUIT: An achene, compressed or three-angled.

HABITAT & DISTRIBUTION: Common in fallow lands, more in open drier places. Native to tropical America, now in India and Malaysia.





Ovate or



Acuminate L.Ba.



L.Ma.









Leucas aspera (Willd.) Link

LAMIACEAE

Thumbai -Ir

Thumbai -Ta; Thumbe gida -Ka; Thumba -Ma; Gopha, Chota halkusa -Hi

HABIT: An erect herb, scabrid.

FLOWER: A verticillaster, white, arranged in terminal whorls and also in upper axils. Flowering from July-November.

FRUIT: A nutlet. Fruiting throughout the year.

MISCELLANEOUS: Bees pollinate the flowers. Leaves used in traditional medicine.

HABITAT & DISTRIBUTION: Common wayside weed, locally abundant in fallow fields, wastelands etc. Plains from the coast; smaller in size in the hills. Indian subcontinent

INDIGENOUS INFORMATION: Many medicinal uses of this plant including veterinary medicine. The flower and the leaf are important for rituals.













Acute





Martynia annua L.

PEDALIACEAE

Tiger-claw-E

Puliurugul -Ir

Thael kodukkukaai, Kaakkaa mookuchedi -Ta; Hathajori -Hi

HABIT: A pubescent herb.

FLOWER: In racemes, purple with yellow throat with one to two pink spots on each lobe. Flowering throughout the year.

FRUIT: A drupe, ovoid, with two apical curved beaks, splitting into two valves. Seeds many, oblong. Fruiting throughout the year.

FIELD TIPS: Stem purplish green, glandular hairs present. Leaves palmately fivenerved from base.

MISCELLANEOUS: Clawed fruits give it the common English name.

HABITAT & DISTRIBUTION: Common in waste lands, Found from coast upto 900m. Tropical and subtropical America, Mexico, west Pakistan, India, Nepal, Burma.

INDIGENOUS INFORMATION: The roots are crushed with lemon and used as medicine.







Opposite L.Ty.



Simple L.Sh



Cordiform L.Ap.



Acute L.Ba.



Cordate I M a



Mimosa pudica L.

MIMOSACEAE

Touch Me Not -E

Thotta surangi -lr

Thotta surungi -Ta; Lajja -Ka; Thottavadi -Ma; Chui mui, Lajvanti -Hi

HABIT: A small spreading herb.

FLOWER: In axillary or in clusters, pink. Flowering throughout the year.

FRUIT: A pod, clustered, flat, bristles along the margins. Seeds 2-5, compressed, ovoid. Fruiting throughout the year.

FIELD TIPS: Leaves fold when touched.

MISCELLANEOUS: Roots and leaves are used in traditional medicine

HABITAT & DISTRIBUTION: Common on moist and ungrazed places. Near riverbanks, bunds of arable lands, fallow lands and water courses. Found in plains from the coast to 1300m. Native of South America, now pan tropical.

INDIGENOUS INFORMATION: The root of the plant and lime is mixed with soil taken from crab burrows. This paste is applied to heal swelling due to evil spells. Veterinary medicine is prepared with the whole plant.









Alternate distichous



Bipinnate





Acute



L.Ma.



Mirabilis jalaba L.

NYCTAGINACEAE



Four O'Clock Plant -E

Ubathiundai -Ir

Anthimantharai, Kanvali chedi -Ta

HABIT: A large herbaceous plant.

FLOWER: In terminal corymbs, 3-7 flowered, pink, less often yellow or white. Flowering throughout the year.

FRUIT: An anthocarp, globose, black when mature, ribbed or knobbed. Fruiting throughout the year.

MISCELLANEOUS: Used in traditional medicines.

HABITAT & DISTRIBUTION: Planted or a garden escape. Found in hills 800-1400m. Native to Peru, now cultivated as an ornamental. In all tropical regions.

INDIGENOUS INFORMATION: The seeds are powdered and applied to the forehead as a pottu.





Simple



Triangular Ovate-Elliptic



Acute-Acuminate L.Ba.



Decurrent L.Ma.





Nicandra physaloides (L.) Gaertner

SOLANACEAE

Gumtae -Ir

HABIT: A leafy herb.

FLOWER: Solitary, extra axillary, bluish. Flowering throughout the year.

FRUIT: A yellow globose berry, enveloped by inflated persistent calyx. Seeds orange in colour. Fruiting throughout the year.

MISCELLANEOUS: Roots medicinal.

HABITAT & DISTRIBUTION: Common on fallow grounds and weed of cultivation. Found on hills from 900-1200m. Central America, now widely naturalized.

INDIGENOUS INFORMATION: Butterflies and *Trigona* sp. observed foraging on the flowers.







Alternate distichous



Simple



Oblong-Ovate-Lanceolate

L.Ap.



Acute L.Ba.



Attenuate I M a



Ocimum tenuiflorum L.

LAMIACEAE



Sacred Basil -E Nai thulasi -Ir

Nalla Thulasi -Ta

HABIT: A strong aromatic herb.

FLOWER: In terminal verticils, white purplish within. Flowering peak during November-January.

FRUIT: A nutlet. Fruiting throughouts the year.

FIELD TIPS: Stem 4-angled. Bracts spinous. Calyx purplish.

MISCELLANEOUS: Planted near houses and temples for religious offerings.

HABITAT & DISTRIBUTION: Abundant in fallow fields. Plains from the coast to 900m. India, Sri Lanka, Himalaya, Bangladesh south west Asia, Burma, China, Thailand, Malaysia, often cultivated.

INDIGENOUS INFORMATION: The whole plant is uprooted and used as a fan to drive flies away from the body at a funeral.



I. Ar



I. Tv



Simple L.Sh



Elliptic-Oblanceolate



Acutely apiculate L.Ba.



Truncate
I. Ma



Orthosiphon thymiflorus (Roth) Sleesen

LAMIACEAE

HABIT: An aromatic erect herb.

FLOWER: In axillary racemes, white. Flowering throughout the year.

FRUIT: A nutlet, erect, enclosed in enlarged, persistent calyx. Fruiting throughout the year.

HABITAT & DISTRIBUTION: Common on the slopes, in crevices of rocks, common, by arable lands, or as colonizer along the road. Found on hills above 600m. Sri Lanka to Indo-China, Malaysia.





Serrate

Oxalis corniculata L.

OXALIDACEAE

Pulisorai -Ir

Puliarai -Ta; Amrit sak -Hi; Hulichikkai -Ka; Puliyarel -Ma

HABIT: A spreading herb.

FLOWER: In axillary umbels, yellow. Flowering throughout the year.

FRUIT: A capsule, oblong, abruptly tapering above. Seeds many, ovoid or ellipsoidal. Fruiting throughout the year.

FIELD TIPS: Leaves cauline or radical. The pods dehisce at the slightest touch and stick to the skin.

HABITAT & DISTRIBUTION: Common in fallow fields. Optimum size in shade at higher altitudes. Found upto 500m. Widely spread.

INDIGENOUS INFORMATION: Leaves are edible. Cattle graze on the plant.



L.Ar.



Alternate spiral L.Ty.



Digitate L.Sh.



Obcordate L.Ap.



Emarginate L.Ba.



L.Ma.



Entire

Parthenium hysterophorus L.

ASTERACEAE

Congress Grass -E

Keepa geda/Boothkeda -Ir

Gajar ghas -Hi

HABIT: An erect, puberulous well branched herb.

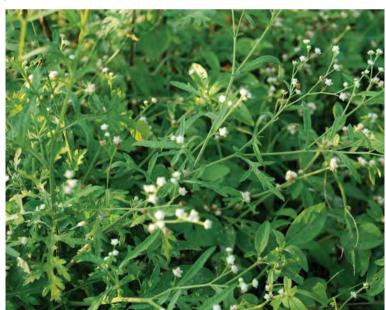
FLOWER: In terminal capitulums in panicles, white. Flowering peaks during November-March.

FRUIT: An achene, compressed, three-angled, puberulous along the sides. Fruiting March onwards.

MISCELLANEOUS: A known allergen of human beings and cattle, causes asthma, eczema and contact dermatitis. Dried plant used as fuel.

HABITAT & DISTRIBUTION: Very common in wastelands, an aggressive invader. Found in the plains from the coast, upto 1400m, less with increasing altitude. Native of America, now a pan tropical weed.

INDIGENOUS INFORMATION: This plant has been around since 15-20 years mostly around the cultivated lands. The dried plants are tied to make a broom. The plant is also mulched into the soil during ploughing. Some people are allergic to the plant.





L.Ar.



Alternate



Simple

L.Sh.



Lanceolate-Oblong

L.Ap.



Acute L.Ba.



I. Ma



Pinnatifid-penni nerved

Phyllanthus amarus Schum. & Thonn.

EUPHORBIACEAE

Kirunelli -Ir

Kizhar nelli -Ta+Ma; Nilla nelli -Ka; Jar amla -Hi

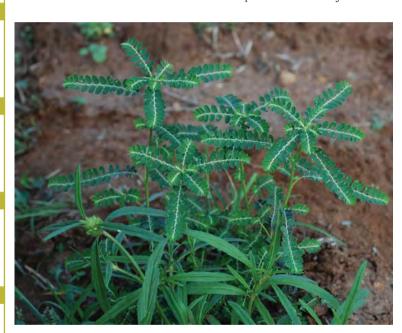
HABIT: A short herb.

FLOWER: Solitary, axillary. Flowering throughout the year.

FRUIT: A smooth capsule. Seeds vertically muriculate. Fruiting throughout the year.

HABITAT AND DISTRIBUTION: Common in arable or fallow lands. Found in the plains upto 900m. Native of America and now across the tropics

INDIGENOUS INFORMATION: The whole plant is used to treat jaundice.











L.Sh



Oblong L.Ap.



Obtuse -Apiculate L.Ba.



L.Ma.



Plumbago zeylanica L.

PLUMBAGINACEAE

White Plumbago -E

Antu geda -Ir

Kodivaeli, Chithiramoolam -Ta; Thumba -Ma; Chitrak, Chita -Hi

HABIT: A perennial herb.

FLOWER: In racemes, white. Flowering from December-April.

FRUIT: A five valved capsule enclosed in a persistent calyx. Seeds flat, dark brown or black

FIELD TIPS: Branches ascending. Flowers with glandular stalked calyx.

MISCELLANEOUS: Caterpillars of the Zebra Blue Butterfly feed on the plant.

HABITAT AND DISTRIBUTION: Common in scrub jungles, wastelands and fallow lands. Found on hills up to 1400m throughout the tropics and subtropics.

INDIGENOUS INFORMATION: Root is a strong medicine, sometimes used to induce abortions.







L.Ty.



Simple L.Sh.



Elliptic-Ovate L.Ap.



Acutely apiculate L.Ba.



Truncate



Polygonum glabrum (Willd.)

POLYGONACEAE

Common Marsh Buckwheat -E

Actalaree, Sivappu Kumbakodaali -Ta; Niru kanigalu -Ka; Chavanna mudela mukkum -Ma

HABIT: An annual herb.

FLOWER: In terminal racemes, pink. Flowering from September-May.

FRUIT: A nutlet, compressed. Fruiting throughout the year.

MISCELLANEOUS: Flowers attract butterflies. Pungent young shoots are cooked with other vegetables.

HABITAT & DISTRIBUTION: Common, grows gregariously in marshy areas. Plains from the coast to 1400m. India, Nepal, Sri Lanka, South China, Africa, Afghanistan, South Japan, Malaysia.









Alternate spiral L. Ty.



Simple L.Sh



Acuminate



L.Ma.



Portulaca oleracea L.

PORTULACACEAE

Common Purselane -E

Goni soppu -Ir

Vazhukkaikeerai, Pasalekeerai -Ta; Khursa, Badi-noni -Hi

HABIT: A prostrate succulent herb.

FLOWER: In terminal clusters, rarely solitary, yellow. Flowering throughout the year.

FRUIT: A capsule, ovoid, glabrous. Seeds many. Fruiting throughout the year.

FIELD TIPS: Stem reddish. Herb black when dry. Flowers open by morning and close by midday.

MISCELLANEOUS: Caterpillars of Great and Danaid Eggfly butterflies feed on this plant. Leaves used in salads. Stems pickled and used in traditional medicine.

HABITAT & DISTRIBUTION: Common by arable lands, drainages, wayside, generally in clayey soil. Found in plains from the coast to 1500m, Pan tropics.

INDIGENOUS INFORMATION: *Apis florea* mostly observed foraging on the flowers. Leaves cooked with lentils make a tasty vegetable. Sometimes brought for sale to the local market.









Alternate / Sub opposite



Simple L.Sh.



Obovate-Spathulate



Obtuse/Truncate



Attenuate I. Ma.



Priva cordifolia (L.f.) Druce

VERBENACEAE

Bellia ottai -Ir

HABIT: A profusely branched sticky herb.

FLOWER: Aggregated in a terminal, elongated spike, white. Flowering peaks during November-February.

FRUIT: A drupe of two pyrenes. Seeds 2, enclosed in calyx-base. Calyx persistent. Fruiting December onwards.

FIELD TIPS: Plant sticky-pubescent. Branchlets four angular. Leaves appressed-pubescent, chartaceous.

HABITAT & DISTRIBUTION: Plains (river banks) and Hills (under growth in thickets) to 1400m. India, Pakistan, Nepal.

INDIGENOUS INFORMATION: A highly medicinal plant used to cast powerful spells. Can also be used to treat migraines.







Simple L.Sh.



Broadly Ovate-Elliptic



Acute L.Ba.





Sansevieria roxburghiana Schultes & Schultes f.

AGAVACEAE

Godu manji -Ir

Mottamanji, Marul -Ta; Marul -Hi

HABIT: A stout herb.

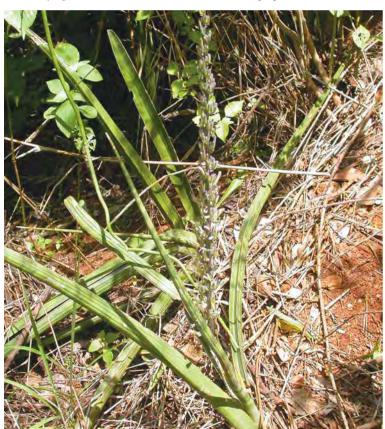
FLOWER: In racemes, greenish, tinged purple. Flowering in two seasons from July-September and from December-February.

FRUIT: A large berry, globose, fleshy. Seeds 1-3. Fruiting from January-October.

FIELD TIPS: Leaves radical, fleshy, sessile, apex flat, gradually tapering, base sub terete. The green-grey leaves have white striations.

HABITAT & DISTRIBUTION: Occasionaly found on dry forested slopes, gravelly soil and rock crevices, less in the plains. Foothills upto 1000 m. Coromandel Coast.

INDIGENOUS INFORMATION: The fibre made from the leaves is very strong, used for tying brooms. The roots are used in medicinal preparations.



L.Ar.

Radical

L.Ty.



Simple

L.Sh.



Linear -Lanceolate

L.Ap.



Acute L.Ba.



L.Ma.



Entir

Scilla hyacinthina (Roth) J.F. Macbr.

LILIACEAE

South Indian Squill -E

Kaatu vellai vengaya -lr

Narivengayam, Kattuvengayam -Ta; Safed khus -Hi

HABIT: A herb.

FLOWER: In terminal racemes, pinkish green. Flowering peaks during March-April in the plains and July-September in the hills.

FRUIT: A capsule, globose, thin walled. Seeds ovoid, black. Fruiting throughout the year.

FIELD TIPS: Bulb tunicate. Leaves obtusely keeled on the back, with purplish blotches above.

MISCELLANEOUS: Flowers are pollinated by nectar seeking bees and wasps. Tubers used in traditional medicine.

HABITAT & DISTRIBUTION: Found on the bare slopes especially by the thin layer of soil by rocks. Plains from the coast, scrub jungles to 1400m. Central and Peninsular India, Sri Lanka.

INDIGENOUS INFORMATION: The plant comes up after the rains.





L.Ar.

Radicle I Tv



Simple L.Sh



Linear, Oblong/ Lanceolate





Obtuse-Sub acute Mucronate I. Ra



attenuate + Sheathing



Sida rhombifolia L.

MALVACEAE

Angled Sida -E

Kuthukalagandrai -Ir

Chitha mutti, Karisalanganni -Ta; Binnegarugagida -Ka; Anakurunthotti -Ma; Atibala -Hi

HABIT: A spreading herb.

FLOWER: Solitary or in clustered cymes, yellow. Flowering throughout the year.

FRUIT: A schizocarp. Seeds ovoid. Fruiting throughout the year.

FIELD TIPS: Stem is dark purple.

MISCELLANEOUS: Flowers attract butterflies. Food plant for the caterpillars of the Lemon Pansy. Stem and root used in traditional medicine.

HABITAT & DISTRIBUTION: Common weed on wastelands, fallow fields, especially disturbed ground. Hills 500-1000m. Tropical and sub tropical regions of the world.

INDIGENOUS INFORMATION: Leaves and root are highly medicinal.









Ovate-Elliptic/ Rhomboid

L.Ap.







Cuneate



Proximally bidentatebiserrate-entire

Stachytarpheta jamaicensis (L.) Vahl

VERBENACEAE

Jamaican Bluespike -E

Neer panai utharani -Ir

Seemainaayuruvi -Ta; Kariyartharani -Hi

HABIT: A small shrub.

FLOWER: A spike, bluish to violet. Flowering peaks from December-March (Plains), throughout the year (hills).

FRUIT: A pyrene, cylindrical. Seed 1, oblong. Fruiting throughout the year.

FIELD TIPS: Branchlets 4-angular. Leaves glabrous, shiny on both sides.

MISCELLANEOUS: Flowers attract butterflies. Food plant of the Death's Head Hawkmoth.

HABITAT & DISTRIBUTION: Common in plains (stream banks, fallow fields etc.) weed in cultivation areas, disturbed lands. Upto 1400m. Widespread.

INDIGENOUS INFORMATION: Cattle graze on the plant.









Opposite



Simple L.Sh



Ovate-Elliptic



Acute-Blunt L.Ba.



Decurrent.



Tribulus terrestris I.

ZYGOPHYLLACEAE

Puncture Plant -E

Negul -Ir

Nerinji -Ta

HABIT: A prostrate, spreading herb.

FLOWER: In axillary, solitary, golden yellow. Flowering throughout the year.

FRUIT: Schizocarp, five angled woody, each with pair of unequal spines. Seed 1. Fruiting throughout the year.

FIELD TIPS: Branchlets sericeous. Leaves 4 - 5 pairs, unequal.

MISCELLANEOUS: Roots and fruits are used in traditional medicine.

HABITAT & DISTRIBUTION: Very common weed of wastelands, waysides even in poor soils. Plains from the coast 750m. Through out the tropics and warm temperate regions.

INDIGENOUS INFORMATION: Cattle graze on the plant.







Sub opposite



Paripinnate



Oblong



Acute/ Mucronate





Entire

Trichodesma indicum (L.) R.Br.

BORAGINACEAE

Indian Borage -E

Sunku thumbae -Ir

Kali thumbai, Kaasi thumbai, Palli chedi -Ta; Katte thumbai soppu -Ka; Chota Kulpha -Hi

HABIT: A rugose herb.

FLOWER: In axillary, solitary terminal racemes, light blue. Flowering peaks from September-November and January-March.

FRUIT: Nutlet, smooth on the outer, rugosely pitted on the inner surface. Seeds obovoid. Fruiting throughout the year.

FIELD TIPS: Leaf auriculate at base with white glands, each gland bears a bristle.

MISCELLANEOUS: Plant attracts milkweed butterflies.

HABITAT & DISTRIBUTION: Weed of arable land, fallow fields, ready coloniser. Plains from the coast to 1000m. Afghanistan, sub tropical Himalaya, India, Burma, Philippines, Mauritius.

INDIGENOUS INFORMATION: The plant is medicinal and effective in curing ulcers.











I. Tv



Simple L.Sh



Lanceolate I An



Acute L.Ba.



L.Ma.



Tridax procumbens L.

ASTERACEAE

Coat Buttons -E

Mukuthipoo -lr

Seruppadithazhai, Kenathuppoondu -Ta; Gabbu sannr savanthi -Ka + Ma; Akal kohadi -Hi

HABIT: A slender perennial herb, branched at base.

FLOWER: Solitary capitulum, on long peduncles, yellow. Flowering throughout the year.

FRUIT: An achene, turbinate, smooth or faintly ribbed. Fruiting throughout the year.

MISCELLANEOUS: Flowers attractive to butterflies and bees.

HABITAT & DISTRIBUTION: Widespread and abundant weed especially where soil has been disturbed. Plains from the coast to 1000m. Native of central America, now widespread, throughout tropical and subtropical regions of the world.









Opposite





I Sh



Lanceolate-Ovate I . A n



L.Ba.



L.Ma.



Coarsely serrate

Triumfetta annua L.

TILIACEAE



Common Burbush -E

Karottai -Ir

Chiki -Hi

HABIT: An annual herb.

throughout the year. FRUIT: A capsule, globose, apically recurved prickles. Seeds 10. Fruiting throughout

FLOWER: In axillary or leaf-opposed, cymes or racemes, yellow. Flowering

the year.

MISCELLANEOUS: Mammals disperse the bristly seeds which stick to their fur.

HABITAT & DISTRIBUTION: Common, upto 900m. India, Pakistan, East Indies, Madagascar, Tropical and southwest Africa.

INDIGENOUS INFORMATION: Fodder plant.



Simple



L.Ap.



Caudate



Rotund



Serrate



Triumfetta rhomboidea L.

TILIACEAE

Common Burbush -E

Karottai -Ir

Ottarai -Ta; Chiki -Hi

HABIT: An annual herb.

FLOWER: In axillary or leaf-opposed cymes or racemes, yellow. Flowering peak during September-November.

FRUIT: A capsule, globose, stellate-tomentose, recurved prickles. Seeds ten. Fruiting throughout the year.

MISCELLANEOUS: Mammals disperse the bristly seeds which stick to their fur.

HABITAT & DISTRIBUTION: Common by fallow lands. Plains from the coast to 1400m. Widely distributed. Pantropical.

INDIGENOUS INFORMATION: Fodder plant.





L.Ar.



Alternate I...Tv.



Simple, Palmately lobed

L.Sh.



upper ones rhomboid to narrow-lanceolate or Elliptic

L.Ap



Acuminate/Acute L.Ba.



uncate/Cuneate



Glossary

\boldsymbol{A}

Accrescent: increasing in size with age, as the calyx of some plants after flowering

Achene: a small dry one seeded indehiscent fruit, strictly of one carpel.

Acuminate: Tapering gradually with the sides of the apex concave.(Plate D1)

Acute: Sharp pointed. Margins straight to convex forming a terminal angle (Plate D2)

Alternate: One leaf per node (Plate A1,2)

Anthocarp: a structure comprising of a fruit enclosed in a persistent perianth

Apex: Tip of the leaf

Apically clustered: Leaves clustered at the apex of branchlets. (Plate A3)

Apiculate: with a short sharp point

Aril: an outgrowth of the the stalk connecting an ovule to its placenta, forming an appendage or outer covering of a seed.

Attenuate: Gradually tapering with the lower sides constricting concavely.(Plate E1)

Axil: The angle formed by the upper side of the leaf and the stem.

Axillary: In the axil

\boldsymbol{B}

Berry: A fleshy indehiscent fruit with the seed or seeds immersed in pulp.

\boldsymbol{C}

Calyx: The outer perianth composed of free or united sepals.

Capitate: pin headed

Capsule: A dry dehiscent fruit .

Caryopsis: a dry, one seeded indehiscent fruit, charesteristic of grasses

Caudate: With a tail like apex (Plate D3)

Climber: A plant that grows upwards by twining around nearby plants and other supports, or by clinging on to them with tendrils.

Cocci:

Compound: Composed of two or more similar parts.

Conical: Cone shaped

Connate: united with similar parts [as stipules, bracts, stamens or styles]

Cordate: heart shaped

Corymb: a racemose inflorescence with pedicels of different lengths causing the flower cluster

to be flat topped.

Crenate: with rounded teeth

Crenulate: with small rounded teeth

Culm: the jointed stem, especially the flowering stem of grasses

Cuneate: Wedge shaped (Plate E5)

Cyathia: the inflorescence of the genus euphorbiaceae

Cyme: A branching, determinate inflorescence, with a flower at the end of each branch.

\boldsymbol{D}

Deciduous: falling off of leaves in a particular season

Decurrent: running down, as when a base of a leaf is prolonged down the stem as a wing

Decussate: in opposite pairs, each pair at right angle to the next

Dehisce: open spontaneously when ripe

Deltoid: triangular **Dentate:** toothed

Determinate: A form of inflorescence in which the terminal flower opens first and prevents

further growth of the stem or branch.

Digitate: palmate with narrow leaflets

Distichous: arranged in two vertical ranks

Drupe: Fleshy fruit containing one or more seeds, each enclosed within a stony endocarp

E

Ellipsoid: Elliptical in outline with a 3 dimensional body.

Elliptic: In the form of an ellipse(Plate C6)

Emarginate: Distinctly notched at the apex(Plate D4)

Endocarp: Innermost layer of the fruit wall.

Ensiform: sword shaped

Entire: Margin forming a smooth line or arc without any noticeable projections or indentations (Plate F1)

Epiphytic: growing on another plant, but not deriving nourishment from it

Even pinnate(Paripinnate): Having an equal number of leaflets and lacking the terminal leaflet (Plate B6).

Evergreen: Retaining most of its leaves throughout the year.

\boldsymbol{F}

Fascicles: A close cluster or bundle.

Foetid: having a highly unpleasant smell

Follicle: a dry fruit formed from a single carpel

Fulvous: tawny

G

Galls: abnormal growth of plant tissue in response to an attack by insects, fungi, bacteria, mites

Glabrous: Without hairs

Gland: An organ producing a secretion.

Glandular: Possessing glands

Glaucous: Bluish grey or blue green. **Globose:** Spherical or globe shaped

H

Herb: A non woody plant or one that is woody only at the base.

Hirsute: Covered with long stiff hairs.

Hispid: having stiff bristly hair

Hyaline: thin, colourless, and translucent

I

Imparipinnate(Odd pinnate): Pinnate leaf with a terminal leaflet (Plate B7)

Indehiscent: remaining closed at maturity

Inflorescence: The arrangement of flowers on the floral axis; a flower cluster.

Interpetiolar: Between the petioles

L

Laciniate: Margin cut into ribbon like segments (Plate F11).

Lanceolate: Lance shaped (Plate C8)

Latex: a juice produced by special cells in many different plants

Leaf: A lateral outgrowth from the stem, usually consisting of a stalk (petiole) and a leaf blade (lamina).

Leaflet: A leaf like segment of a compound leaf.

Lenticels: a pore in the stem that allows gases to pass between the outside atmosphere and interior of a plant

Liana: A woody climber in tropical forests that grows from the ground into the tree canopy.

Ligule: A strap shaped structure, a projection from the top of the leaf sheath in grasses.

Linear: Long and narrow with parallel sides (Plate C14).

Lobed: Any division of an organ especially if the part is rounded (Plate F9,F10)

M

Megasporophyll: A specialized leaf that bears the female gametophyte, a scale arranged around the central axis of the female cone in gymnosperms.

Mesocarp: The middle layer of the pericarp.

Microsporophyll: A specialized leaf that bears the male spores, a scale arranged around the central axis of a male cone..

Mucronate: ending abruptly in a short straight point

Muricate: rough with short hard points.

O

Oblique: An asymmetrical leaf base (Plate E6)

Oblong: Longer than broad with more or less parallel sides (Plate C5)

Obovate: Inversely ovate, broadest towards the apex and tapering to the stalk.

Odd pinnate: (See imparpinnate)

Opposite: Leaves borne two together on different sides of the stem at the same level (Plate A4)

Orbicular:circular

Ovate: With an egg shaped outline (Plate C7)

P

Palmate: divided to the base into separate leaflets, all the leaflets arising from the end of the

Panicle: A much branched inflorescence Paniculate: In the form of a panicle Pedicel: The stalk of a single flower. Pedicellate: Of a flower, stalked

Peduncle: The stalk of an inflorescence.

Pendulous placentation: the arrangement in which the placenta is situated at the top of the ovary and the ovules hang down from it

Perennial: Living for a number of years, a plant that lives for a number of years.

Perianth: A collective term for the outer non-reproductive parts of a flower, often differentiated into calvx and corolla.

Persistant: remaining attached **Petioles:** Stalk of the leaf.

Pitted: with small depressions on the surface

Pod: a dry many seeded dehiscent fruit, particularly in the family leguminosae

Procumbent herb: lying along the ground

Puberulous: Slightly hairy Pubescent: Hairiness

Punctate glands: marked with dots, depressions or translucent glands.

Pyrene: the stone of a drupe, consisting of the seed surrounded by the hard endocarp

\boldsymbol{R}

Raceme: An indeterminate inflorescence with pedicellate flowers **Receptacle:** the end of the stem which bears the flower parts

Reflexed: bent abruptly backwards

Reniform: kidney shaped

Retuse: slightly notched at the apex

Rhomboid: diamond shaped with four equal sides

Rotund: round Rugose: wrinkled

S

Scabrid: slightly rough

Schizocarp: a fruit derived from a syncarpous ovary which breaks up at maturity into one seeded portions

Scrambler: a weak stemmed climbing plant

Sepals: A single segment of the calyx.

Serrate: Saw toothed, teeth sharp and ascending (Plate F7)

Serrulate: Minutely serrate (Plate F8)

Sessile: Without a stalk **Sheath:** A tubular covering

Shrub: A woody perennial plant generally smaller than a tree and with several stems arising from the ground level.

Simple: Of one piece

Sinuate: Having the blade of the leaf flat but with the margin winding strongly inward and outward.

Spadix: A spike with a fleshy axis.

Spathulate: spatula shaped

Spike: An indeterminate inflorescence with sessile flowers

Stellate: Star shaped hairs

Stipules: A leafy outgrowth often one of a pair arising at the base of the petiole. Straggler:

Strigose: Bearing stiff hairs or bristles.

Sub acute: (Plate D9)

Sub cordate: More or less heart shaped.

Sub opposite: Of the leaves when neither strictly opposite nor strictly alternate (Plate A6)

Sub orbicular: Almost circular Succulent: Fleshy and juicy

Sulcate: furrowed

T

Tendrils: A twining, thread like structure produced from a stem or leaf that enables a plant to hold its position securely.

Terete: like a slender tapering cylinder, more or less circular in any cross section

Terminal: At the apex or end

Tomentose: Densely covered in soft hairs.

Tooth: One of the small pointed projections that form the margin of many leaves, or sometimes the apex of a mature capsule.

Tree: A woody perennial plant usually tall with a single bole or trunk that bears a crown of branches.

Trigonous: Three angled Trigonous: three angled

Truncate: Cut straight across; ending abruptly almost at right angle to midrib (Plate D8 10)

Tubercles: a small tuber, a small rounded projection

\boldsymbol{U}

Umbels: an inflorescence in which the pedicels arise from the same point on the peduncle *Unarmed:* without any spines, prickles or thorns

Utricle: a bladder like structure, especially the membranous sac like structure in the genus carex

V

Valvate: When similar parts of the plant meet exactly without overlapping; in anthers or fruits opening by valves.

Valve: One of the pieces into which an anther splits at maturity to release the pollen; one of the pieces into which a fruit splits at maturity to release the seeds.

Verticellaster: a deceptive kind of inflorescence found in the Labiatae, which gives the appearance if a whorl, but in reality consists of two dichasial cymes on opposite sides of the stem.

\overline{W}

Whorled: The arrangement of three or more organs in a circle around the axis (Plate A7)

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