

**FLORA OF KERALA FOREST RESEARCH INSTITUTE
CAMPUSES PEECHI, NILAMBUR AND VELUPADAM IN TRICHUR
AND MALAPPURAM DISTRICTS KERALA STATE**

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ABSTRACT

The three campuses of Kerala Forest Research Institute at Peechi (Headquarters), Nilambur (Subcentre) and Velupadam (Field Research Station) cover an area of 118.96 ha in Trichur (Thrissur) and Malappuram districts, Kerala State. In total, the flora of the three campuses is composed of 565 taxa of angiosperms (flowering plants) and 3 species of gymnosperms. The angiosperm flora is of 404 taxa of dicotyledons and 161 species of monocotyledons.

The flora enumerates both natural elements and also the introduced or cultivated species growing in the three campuses. For each of the natural element of the flora, up-to-date nomenclature, diagnostic description, flowering and fruiting period and brief note on the occurrence in the campus(es) are given. For introduced or cultivated species appended towards the end of each family, up-to-date name and details of their distribution in the campus(es) are provided. Among the total 568 taxa, about 150 are tree species, excluding several bamboos, arborescent in habit.

A campus-wise analysis of the flora had shown that in Peechi campus there are 438 taxa of angiosperms and 3 species of gymnosperms. Out of the total 441 taxa, 356 are natural elements of the flora and the remaining 65 taxa are introduced or cultivated species. From Nilambur campus, the total number of species recorded is 268, of which 202 taxa are of natural occurrence and 66 species are introductions. At Velupadam, out of the total 202 taxa reported, 157 species are natural elements of the flora and the remaining 45 taxa are either introduced, cultivated or grown as part of the bamboo germplasm bank.

1. INTRODUCTION

Kerala Forest Research Institute (KFRI) is an autonomous Institution, established in 1975, under the Department of Science, Technology and Environment, Government of Kerala. Headquarters of the Institute is at Peechi, Trichur (Thrissur) District, Kerala State. The Institute has its Subcentre at Nilambur in Malappuram District, Kerala and Field Research Station at Velupadam, Trichur District, Kerala. The total area of the three campuses is 118.96 hectares.

1.1. Locations

Peechi campus, Trichur District is situated between $10^{\circ}31'$ North latitude and $76^{\circ}24'$ East longitude. 4 km before reaching Peechi dam and about 18 km from Trichur town via Pattikkad. The Nilambur Subcentre of the Institute is located near Chandakkunnu, about 4 km from Nilambur town. Nilambur is in Malappuram District, between $10^{\circ}20'$ North latitude and $76^{\circ}24'$ East longitude. The Field Research Centre, Velupadam, Trichur District, is about 25 km away from Trichur town and is located between $10^{\circ}26'$ North latitude and $76^{\circ}24'$ East longitude. All the three campuses of the Institute are established within reserve forest areas of the State, leased for the purpose.

1.2. Campus areas

The main campus of the Institute at Peechi covers an area of 28.17 hectares. The campus is divided lengthwise by the Trichur-Peechi road and the left bank irrigation canal of the Peechi dam reservoir cuts across it almost through the middle. The campus is of undulating terrain and the maximum altitude of the area is about 100 m above the mean sea level (Map 1).

Apart from office cum laboratory buildings, Guest house and about 75 staff quarters, the campus is covered by natural forests. Earlier, the area was under teak plantation, with several teak trees growing at present as part of the natural flora. Adjacent to the Institute buildings, an orchidarium, mist propagation facility and an insectorium have also been constructed. The germplasm collection of canes, medicinal plant garden, few introduced tree species, many garden plants, etc. are also available in the campus, apart from the natural flora.

The campus of the KFRI Subcentre at Nilambur, established in 1978, extends to an area of 43.36 ha and is about 40 m above msl. The campus is bordered by the Nilambur-Gudallure road along its western boundary with the river Karimpuzha and the private lands along the river bank as its northern limit. Reserve forests and private holdings demarcate the campus on its eastern side and the South-westerly running Nilambur-Gudallure road forms the limit of the campus in that part. The campus is the seat of the Teak Museum apart from the office cum laboratory buildings, few staff quarters and a Guest House (Map 2).

The Teak Museum, opened in 1994, contains several scientific and other exhibits on various aspects of teak, the reputed timber species of South-East Asia. Adjoining the Museum, on its northern side is the Bambusetum established by the Institute about 10 years back. In the campus, there are also plots containing live collections of teak, eucalypts, Dalbergias, Ailanthus, Acacias, Pterocarpus, Sandal, Cinnamon, and so on, and experimental plantations and trial plots of several other indigenous and exotic species related to forestry research.

The Field Research Centre, Velupadam, established in 1992, is in an area of 47.43 ha of clear-felled teak plantation in Palappilly Range of Trichur Forest Division. The area is more or less flat along the side of Varandarappilly-Palappilly road for about 50 metres inside and beyond that rises to the top of the hillock with an altitude of about 40 m above msl. Apart from the office cum laboratory building, there is a semi-permanent shade-net nursery in the campus and the remaining area is occupied by the germplasm collection of bamboos and the natural vegetation. There is also a perennial pond in the vicinity of the office building (Map 3).

1.3. Climate

The total rainfall for Peechi campus during 1995 is about 2578 mm, the precipitation being maximum in the month of July which is almost 1420 mm. During the months of March and April, 1995, temperature of the area rose upto 41°C and a minimum temperature of 18°C was recorded in the month of January in the same year.

Nilambur campus received a total rainfall of 1660mm during 1995, and it was during the month of July that the area received the maximum precipitation of about 597 mm, whereas in December, January and March there was no rain and it was the minimum (15mm) in February, 1995. Details of temperature for Nilambur campus for the year 1995 and the climatic data for Velupadam campus during the year are not available.

2. MATERIALS AND METHODS

The Flora is prepared based on repeated seasonal collections of plant specimens from the three campuses, either in the flowering or fruiting stage. Also, few species are included in the Flora based on field observations. The specimens collected were identified by consultation of literature and authentically identified herbarium specimens.

Based on identity, the nomenclature of various taxa were corrected and made upto-date as per *International Code of Botanical Nomenclature* (1988). To facilitate easy reference to national, regional or State Floras, synonyms were also gathered with relevant citations. Brief diagnostic descriptions were prepared for each taxon with the help of specimens collected, field observations and literature. Flowering and fruiting periods and occurrence of different taxa in the three campuses were recorded based on field observations and herbarium specimens. Various taxa were first arranged family-wise and the families were ordered as per the angiosperm classification of Bentham and Hooker (1862-83), commonly followed in Indian Floras.

3. FORMAT

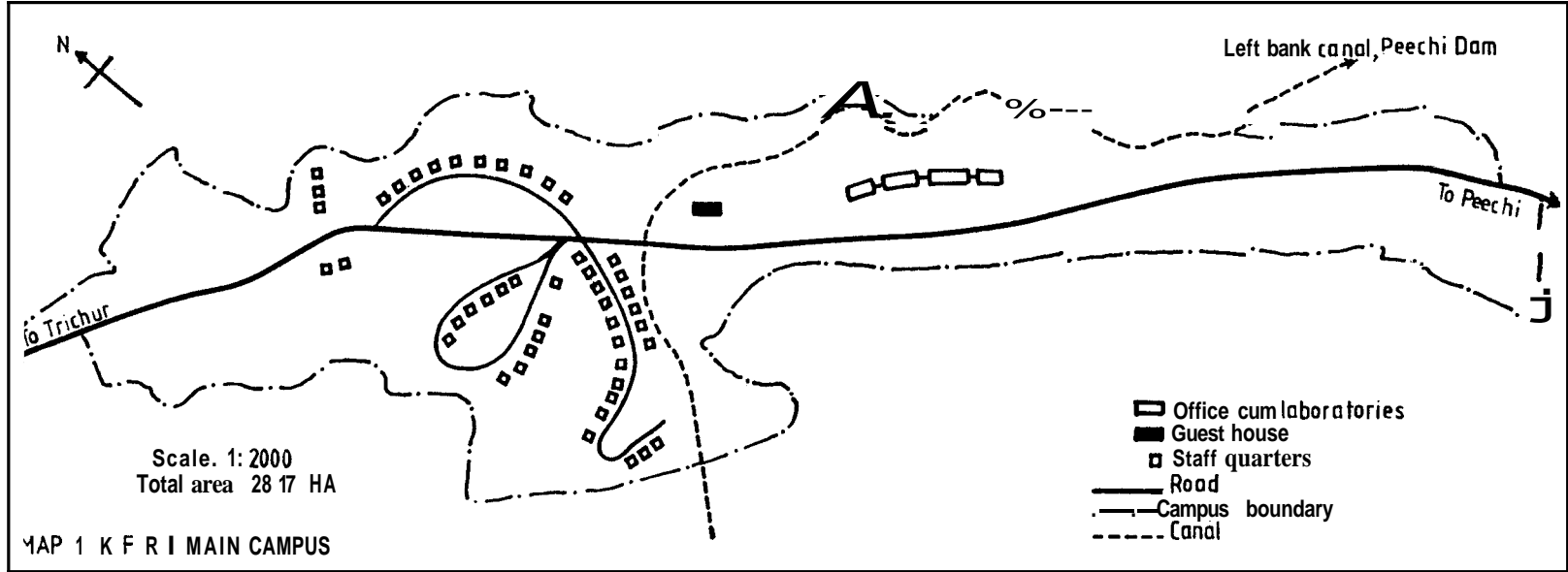
Families in the Flora part are arranged in accordance with the classification system of Bentham and Hooker (1862-83) which has been followed in Gamble's (1915-36) Flora of the Presidency of Madras. Species belonging to each family are arranged alphabetically by their botanical names. Up-to-date name of the plant is followed by basionym, if any, and synonyms and citations to Wight (1838-53), Hooker (1872-97), Bourdillon (1908), Rama Rao (1914), Gamble (1915-36) and relevant and recent revisions or monographs. Local name(s), diagnostic description, flowering (Fls.) and fruiting (Frs.) periods and details of occurrence of each of the species in the three campuses follow to complete the data provided for each

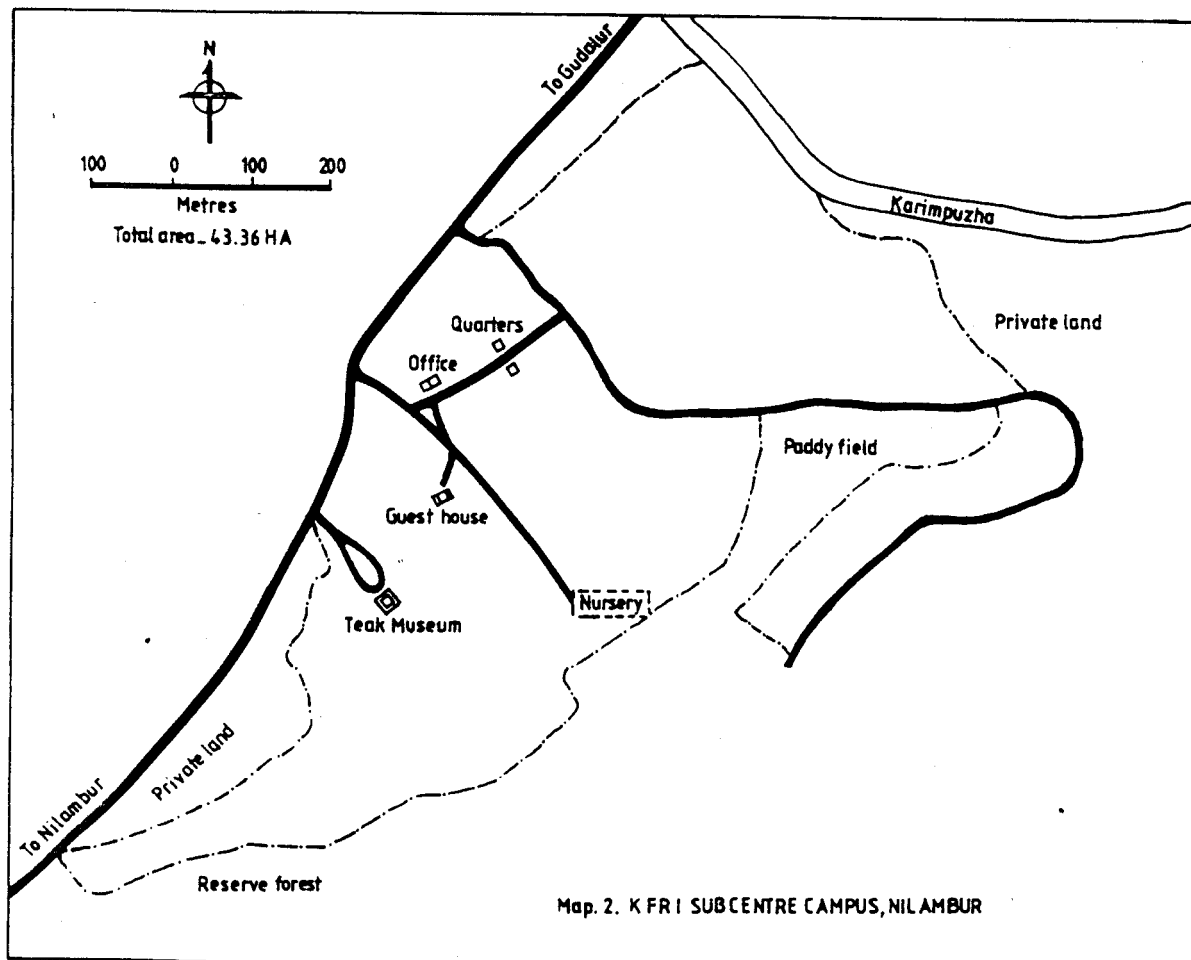
4. VEGETATION AND FLORA

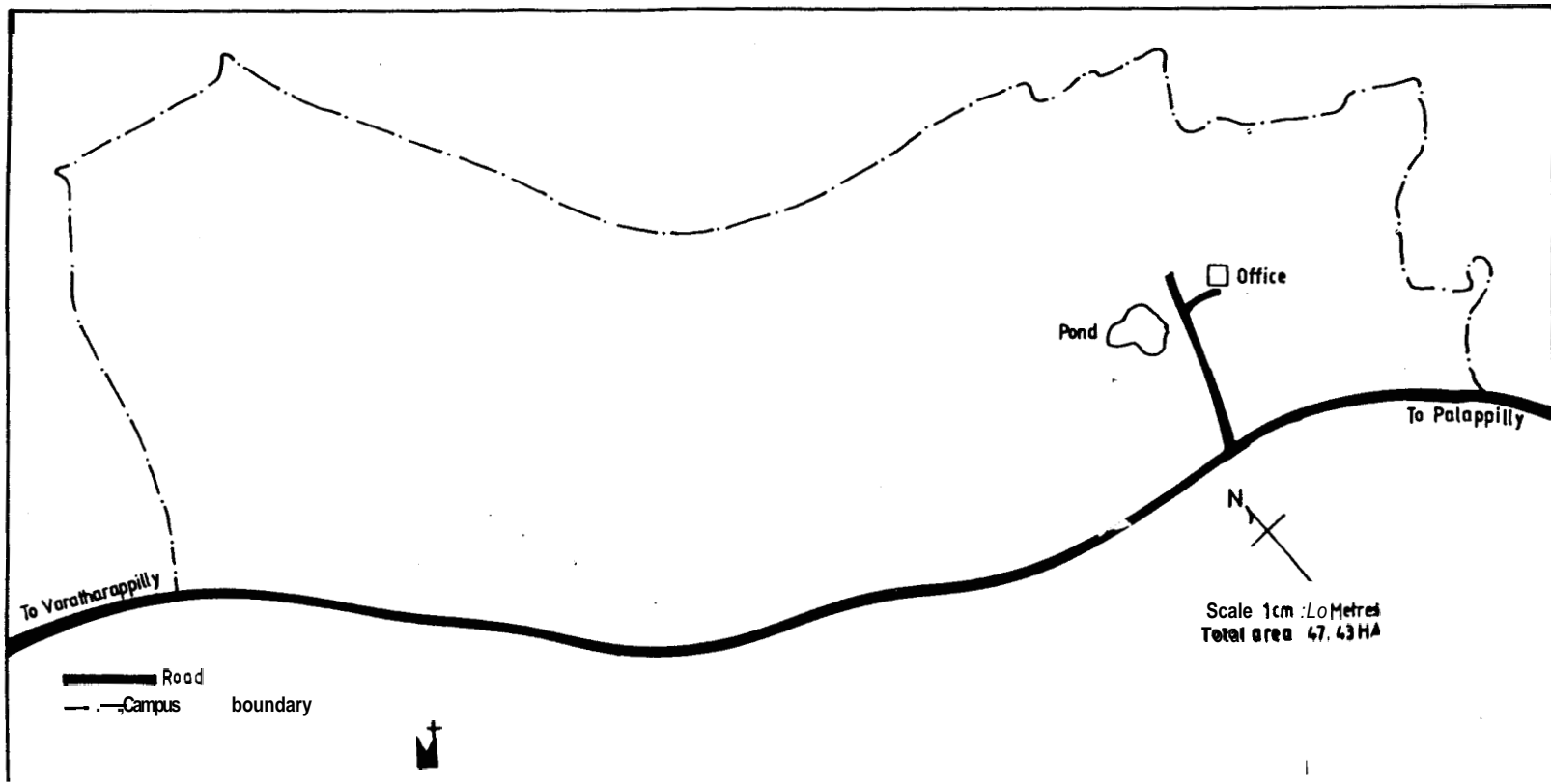
4.1. Peechi campus

41.1. Vegetation

The natural vegetation of Peechi campus is of the moist deciduous type with several trees of *Tectona grandis* growing as remnants of the earlier mixed teak plantation which existed there. Other dominant tree species characteristic to the vegetation of the campus are *Xylia xylocarpa*, *Grewia tiliaefolia*, *Cleistanthus collinus*, *Miliusa tomentosa*, *Dillenia pentagyna*, *Lagerstroemia microcarpa*, *Dalbergia sissoides*, *Pterocarpus marsupium*, *Haldina cordifolia*, *Alstonia scholaris*, *Melia dubia*, *Tetrameles nudiflora*, *Bombax ceiba*, and few species of *Ficus*. Subcanopy trees like *Strychnos nuxvomica*, *Tabernaemontana alternifolia*, *Wrightia tinctoria*, *Trema orientalis*, *Aporosa lindleyana* and *Antidesma acidum* are also rather common in the campus. The ground flora here is comparatively sparse, especially around the Institute buildings and staff quarters, but fairly rich in undisturbed areas and along hedges. Shrubby species like *Kirganelia reticulata*, *Hibiscus furcatus*, *Helecteris isora* and *Calotropis gigantea* and herbs like *Elephantopus scaber*, *Hemidesmus indicus*, *Conscora diffusa*, *Heliotropium scabrum*, *Cassia occidentalis*, etc. constitute the ground flora of the







Velupdam church MAP 3. K F R I FIELD RESEARCH STATION CHURCH, VEULUPADAM

campus. Hedge climbers like *Naravelia zeylanica*, *Asparagus racemosus*, *Cyclea peltata*, *Clitoria ternatea*, *Melothria maderaspatana*, *Passiflora foetida*, *Ichnocarpus frutescens*, *Abrus precatorius* and *Cryptolepis buchanani* are also rather common in the campus. Also, in the forest openings and waste places, weeds like *Mikania micrantha*, *Clerodendrum viscosum*, *Lantana camara*, *Mimosa invisa*, etc. and several members of the families Compositae, Cyperaceae, Gramineae, Boraginaceae, Scrophulariaceae, etc. occupy the ground. Epiphytic orchids like *Aerides ringens* and *Acampe praemorsa*, and lianas like *Acacia torta*, *Anamirta cocculus* and *Spatholobus parviflorus* are also recorded from the campus.

4.1.3. List of plants

- Abelmoschus moschatus* Medik.
Abrus precatorius L.
Abutilon indicum L.
Acacia auriculiformis A. Cunn. ex G. Don
Acacia mangium Willd.
Acacia torta (Roxb.) Craib
Acalypha indica L.
Acalypha hispida Burm.f.
Acampe praemorsa (Roxb.) Blatt. et Mc Cann
Achyranthes aspera L.
Adenanthera pavonina L.
Adhatoda vasica Nees
Aegle marmelos (L.) Corr.
Aerides ringens (Lindl.) Fisch.
Aerva lanata (L.) Juss.
Agave americana L.
Ageratum conyzoides L.
Ailanthus triphysa (Dennst.) Alston
Albizia lebbek (L.) Benth.
Albizia odoratissima (L.f.) Benth.
Albizia procera (Roxb.) Benth.
Allmania nodiflora (L.) R. Br. ex Wt.
 var. *dichotoma* (Heyne ex Roth) Hook.f.
Allophyllus cobbe (L.) Raeusch.
Alloteropsis cimicina (L.) Stapf
Alpinia galanga (L.) Sw.
Alseodaphne semicarpifolia Nees
Alstonia scholaris (L.) R.Br.
Alysicarpus vaginalis (L.) DC.
Amaranthus spinosus L.
Amorphophallus paeoniifolius (Dennst.) Nicol.
 var. *campanulatus* (Decne) Sivad.
 var. *paeoniifolius* Sivad.
Ampelocissus latifolia (Roxb.) Planch.
Anacardium occidentale L.
Anamirta cocculus (L.) Wt. et Am.
Andrographis paniculata (Burm.f.) Wall. ex Nees
Aneilema scaberrimum (Bl.) Kunth
Anisomeles indica (L.) O.Ktze.
Anogeissus latifolia (Roxb. ex DC.) Wall. ex Perr.
Anona squamosa L.
Antidesma acidum Retz.
Apluda mutica L.
Aporosa lindleyana (Wt.) Ball.
Araucaria columnaris (Forst.) Hook.
Argyrea nervosa (Burm.f.) Boj.
Aristolochia indica L.
Artocarpus heterophyllus Lamk.
Artocarpus hirsutus Lamk.
Artocarpus incisa L.
Asparagus racemosus Willd.
Atylosia goensis (Dalz.) Dalz.
Atylosia scarabaeoides (L.) Benth.
Axonopus compresses (Sw. P. Beau
Azadirachta indica A. Juss.

Bacopa monnieri (L.) Wetts.
Bambusa balcooa Roxb.
Bambusa bambos (L.) Voss.
Bambusa vulgaris Schrad. ex Wendl.
Bauhinia malabarica Roxb.
Bauhinia racemosa Lamk.
Bauhinia scandens L. var. *horsfieldii* (Miq.) Ohashi
Bauhinia variegata L.
Biophytum sensitivum (L.) DC.
Blumea membranacea DC.
Boerhavia diffusa L.
Bombax ceiba L.
Borreria articularis (L.f.) EN. Will.
Borreria latifolia (Aubl.) Schum.
Bougainvillea spectabilis Willd.
Brachiaria miliiformis (J. Persl. ex C. Presl) A. Chase
Brachiaria ramosa (L.) Stapf
Breynia retusa (Dennst.) Alston
Bridelia retusa (L.) Spreng.
Bridelia scandens (Roxb.) Willd.
Bulbostylis barbata (Roth.) Clarke

Caesalpinia coriaria (Jacq.) Willd.
Caesalpinia mimosoides Lamk.
Caesalpinia pulcherrima Sw.
Calamus andamanicus Kurz
Calamus brandisii Becc. et Hook.f.
Calamus delessertianus Becc.
Calamus dilaceratus Becc.
Calamus dransfieldii Renuka
Calamus gamblei Becc. et Hook.f.
Calamus hookerianus Becc.
Calamus karnatakensis Renuka et Laksh.
Calamus manan Miq.
Calamus metzianus Schlech.
Calamus nagabettai Fern. et Dey
Calamus peregrinus Furtado
Calamus pseudorivalis Becc.

Calamus pseudotenuis Becc. ex Becc. et Hook.f.
Calamus rotang L.
Calamus simplicifolius Wel.
Calamus tenuis Roxb.
Calamustetradactylus Hance
Calamus thwaitesii Becc. et Hook.f.
Calamus thysanolepis Hance
Calamus trachycoleus Becc.
Calamus travancoricus Bedd. ex Becc. et Hook.f.
Calamus vattayila Renuka
Calamus viminalis Willd.
Callicarpa tomentosa (L.) Murr.
Calophyllum inophyllum L.
Calotropis gigantea (L.) R.Br.
Calopogonium mucunoides Desv.

Dactyloctenium aegyptium (L.) Beauv.
Daemonorops kurzianus Hook. f.
Daemonorops margaritae Hance
Dalbergia horrida (Dennst.) Mabb.
Dalbergia lanceolaria L.f.
Dalbergia latifolia Roxb.
Dalbergia sissooides Grah. ex Wt. et Am.
Dalbergia volubilis Roxb.
Delonix regia (Boj. ex Hook.) Rafin
Dendrobium ovatum (Willd.) Kranz.
Dendrocalamus strictus (Roxb.) Nees
Dendroplithoefalcata (Lf) Etting
Derris scandens (Roxb.) Benth.
Desmodium gangeticum (L.) DC.
Desmodium triflorum (L.) DC.
Desmodium triquetrum (L.) DC.
Desmodium velutinum (Willd.) DC.
Dicliptera cuneata Nees
Digitaria bicornis (Lamk.) Roem. et Schult.
Digitaria ciliaris (Retz.) Koel
Digitaria griffithii (Hook.t) Henr.
Digitaria longiflora (Retz.) Pers.
Digitaria setigera Roth ex Roem. et Schult.
Dillenia pentagyna Roxb.
Dioscorea bulbifera L.
Dioscorea pentaphylla L.
Dioscorea wallichii Hook. f.
Diospyros buxifolia (Bl.) Hiem

Echinocloa colona (L.) Link
Eclipta alba (L.) Hassk.
Elephantopus scaber L.
Eleusine indica (L.) Gaertn.
Eleutheranthera ruderalis (SW.) Sch.-Bip.
Embelia acutipetalum (Lamk. ex Hassk.)
S.M. Alm. et M.R. Alm.
Emblica officinalis Gaertn.
Emilia sonchifolia (L.) DC.
Eragrostis minor Host
Eragrostis nutans (Retz.) Nees ex Steud.
Eragrostis tenella (L.) P. Beauv. ex Roem. et Schult.

Eragrostis uniloides (Retz.) Nees ex Steud.
Eragrostis viscosa (Retz.) Trin.
Eranthemum capense L.
Erythrina indica Lamk.
Eupatorium odoratum L.
Euphorbia hirta L.
Euphorbia nivulia Buch.-Ham.
Euphorbia thymifolia L.
Euphorbia tirucalli L.
Evodia lunu-ankenda (Gaertn.) Merr.
Evolvulus nummularis (L.) L.

Ficus amplissima Sm.
Ficus beddomei King
Ficus exasperata Vahl
Ficus hispida L.f.
Ficus racemosa L.
Ficus religiosa L.
Ficus tinctoria Forst.f. ssp. *parasitica* (Willd.) Comer
Ficus tsjahela Burm.f.
Filicium decipiens Thw.
Fimbristylis dichotoma (L.) Vahl

Garcinia cambogia (Gaertn.) Desr.
Gliricidia sepium (Jacq.) Kunth ex Walp
Gloriosa superba L.
Glycosmis arborea (Roxb.) DC.
Gmelina arborea Roxb.
Grevillea robusta A. Cunn.
Grewia tiliaefolia Vahl
Gymnema sylvestri (Retz.) R.Br. ex Schult.

Haldina cordifolia (Roxb.) Ridsdl.
Helecteris isora L.
Heliotropium scabrum Retz.
Hemidesmus indicus (L.) R. Br.
Hevea braziliensis Muell.-Arg.
Hibiscus aculeatus Roxb.
Hibiscus esculentus L.
Hibiscus rosa-sinensis L.
Holarrhena pubescens (Murr.) (Ham.) Wall. ex G. Don
Holigarna arnottiana Hook.f.
Holostemma ada-kodian Schult.
Hugonia mystax L.
Hydnocarpus pentandra (Ham.) Oken
Hyptis suaveolens (L.) Poir.

Ichnocarpus frutescens (L.) R.Br.
Ipomoea batatas (L.) Lam.
Ixora coccinea L.

Jasminum multiflorum (Burm.f.) Andr.
Jatropha curcas L.
Justicia trinervia Vahl

Kaempferia galanga L.

Kirganelia reticulata (Poir.) Ball.
Korthalsia laciniosa (Griff.) Mart.
Kyllinga nemoralis (J.R. et G. Forst.) Dandy ex Hutch.
Kyllinga triceps Rottb.

Lagenaria siceraria (Mol.) Stand.
Lagerstroemia hirsuta (Lamk.) Willd.
Lagerstroemia microcarpa Wt.
Lannm coromandelica (Houtt.) Merr.
Lantana camara L.
Laportea interrupta (L.) Chew.
Lawsonia inermis L.
Leea macrophylla Roxb. ex Homem
Lepidagathis incurva Buch.-Ham. ex D. Don
Leucaena leucocephala (Lam.) de Wit
Leucas mpera (Willd.) Spreng.
Lindernia ciliata (Colsm.) Pennell
Lindernia crustacea (L.) F.V. Muell.
Lindernia viscosa (Homem.) Boldingh.
Luffa acutangula (L.) Roxb.
Lycopersion lycopersicum (L.) Karst.

Macaranga peltata (Roxb.) Muell.-Arg.
Mallotus philippensis (Lamk.) Muell.-Arg.
Mangifera indica L.
Mariscus cyperinus (Retz.) Vahl
Mariscus squarrosus (L.) Clarke
Mecardonia procumbens (Mill.) Small
Melia dubia Cav.
Merremia tridentata (L.) Hall.f.
Merremia vitifolia (Burmf.) Hall.f.
Mesuaferrea L.
Micrococca mercurialis (L.) Benth.
Michelia champaca L.
Mikania micrantha Kunth
Milusa tomentosa (Roxb.) Sincl.
Mimosa invisita Mart. var. *inermis* Adelb.
Mimosa pudica L.
Mimusops elengi L.
Mitracarpus hirtus (L.) DC.
Mitragyna parviflora (Roxb.) Korth.
Mollugo pentaphylla L.
Momordica charantia L.
Moringa pterygosperma Gaertn.
Mukia madermpatana (L.) M. Roem.
Murdannia nudiflora (L.) Brenan
Murdannia pauciflora Bruck.
Murdannia spirata (L.) Bruck.
Murraya koenigii (L.) Spreng.
Musa paradisiaca L.
Mussaenda bellila Buch.-Ham.

Naregamia alata Wt. et Am.
Naravelia zeylanica (L.) DC.
Naringi crenulata (Roxb.) Nicol.

Oberonia denticulata Wt.
Oclilandra travancorica (Bedd.) Benth. ex Gamble
Ocimum canum Sims.
Ocimum sanctum L.
Olax scandens Roxb.
Olea dioica Roxb.
Oldenlandia herbacea (L.) Roxb.
Oplismenus burmanii (Retz.) Beauv.
Oplismenus compositus (L.) P. Beauv.
Orthosiphon thymifirius (Roth) Slees.
Oryza sativa L.
Ottochloa nodosa (Kunth) Dandy
Oxalis corniculata L.

Pancratium triflorum Roxb.
Paspalidium flavidum (Retz.) A. Camus
Passiflora foetida L.
Peltophorum pterocarpum (DC.) Baker ex Heyne
Pennisetum polystachyon (L.) Schult.
Peperomia pellucida (L.) H.B.K.
Peristrophe paniculata (Forsk.) Burmm.
Perotis indica (L.) O. Ktze.
Persea macrantha (Nees) Kosterm.
Phyllanthus amarus Schum. et Thonn.
Phyllanthus kozhikodianus Siv. et Manil.
Phyllanthus urinaria L.
Physalis angulata L.
Pilea microphylla (L.) Liem.
Piper betle L.
Piper longum L.
Piper nigrum L.
Pithecelobium dulce (Roxb.) Benth.
Plumbago zeylanica L.
Plumeria rubra L.
Polygala arvensis Willd.
Polyalthia coffeoides (Thw. ex Hook.f. et Thorns.) Thw.
Polyalthia longifolia (Sonner) Thw.
Pongamia pinnata (L.) Pierre
Potlios scandens L.
Pouzolzia zeylanica (L.) Benn.
Pseudarthria viscida (L.) Wt. et Am.
Psidium guajava L.
Pterocarpus marsupium Roxb.

Rauwolfia serpentina (L.) Benth. ex Kurz.
Rauwolfia tetraplylla L.
Redermachera xylocarpa (Roxb.) K. Schum.
Rhynchostylis retusa (L.) Bl.
Ricinus communis L.
Rostellularia procumbens (L.) Nees
Rourea minor (Gaertn.) Alston
Rungia parviflora Nees

Samanea saman (Jacq.) Merr.
Sansevieria roxburghiana J. & J. Schult.

Santalum album L.
Saraca asoca (Roxb.) de Wilde
Sauropus androgynus (L.) Merr.
Sauropus quadrangularis (Willd.) Muell.-Arg.
Schleichera oleosa (Lour.) Oken
Scleria lithosperma (L.) Sw.
Scoparia dulcis L.
Sebastiana chamaelea (L.) Muell.-Arg.
Sesamum indicum L.
Setaria pumik (Poir.) Roem. et Schult.
Sida acuta Burm.f.
Sida cordata (Burm.E) Borss.
Sida rhombifolia L.
Smilax zeylanica L.
Solanum anguivi Lamk.
Solanum torvum Sw.
Spatholobus parviflorus (Roxb. ex DC.) O. Ktze.
Spermacoce mauritiana Gideon ex Verdc.
Spermacoce pusilla Wall.
Sphaeranthus indicus L.
Spilanthes calva DC.
Sporobolus indicus (L.) Br. var. *diander* (Retz.) Jovet
Stactytarphetajamaicensis (L.) Vahl
Sterculia guttata Roxb. ex DC.
Sterculia villosa Roxb. ex DC.
Stereospermum colais (Buch.-Ham. ex Dillw.) Mabb.
Streblus asper Lour.
Strychnos nux-vomica L.
Swietenia macrophylla King
Syzygium cumini (L.) Skeels

Tabernaemontana alternifolia L.
Tamarindus indica L.
Tectona grandis L.f.
Tectona hamiitoniana Wall.
Tephrosia purpurea (L.) Pers.
Terminalia bellirica (Gaertn.) Roxb.
Terminalia catappa L.
Terminalia crenulata Roth

Terminalia paniculata Roth
Tetrameles nudiflora R. Br.
Theriophonum infaustum N.E. Br.
Thespesia lampas (Cav.) Daiz.
Thespesiapopulnea (L.) Sol. ex Corr.
Tiliacora acuminata (Lamk.) Miers.
Tinospora sinensis (Lour.) Merr.
Tonningia axillaris (L.) O. Ktze.
Torenia bicolor Dalz.
Tragia involucrata L.
Trema orientalis (L.) Bl.
Trichodesma zeylanicum (Bum. f.) R. Br.
Trichosanthes anguina L.
Trichosanthes cucumeriana L.
Tridax procumbens L.
Triumfetta rhomboidea Jacq.
Tylophora indica (Burm.f.) Merr.
Urena lobata L.
Uvaria narum (Dunal) Bl.

Vandatestacea (Lindl.) Reichb.f.
Vernonia cinerea (L.) Less.
Vicoa indica (L.) DC.
Vigna umbellata (Thunb.) Ohwi et Ohashi
Vitex altissima L.f.
Vitex negundo L.

Wattakaka volubilis (L.f.) Stapf
Wrightia tinctoria R.Br.

Xylia xylocarpa (Roxb.) Theob.

Zanthoxylum rhetsa (Roxb.) DC.
Zingiber officinale L.
Zingiber zerumbet (L.) Rosc. ex Smith
Ziziphus oenoplia (L.) Mill.
Ziziphus rugosa Lamk.
Zornia gibbosa Span.

4.1.3. Analysis of the flora

A total of 441 taxa of flowering plants were recorded from Peechi campus. Dicotyledons are 323 in number with 3 species of gymnosperms and 115 species of monocotyledons (Table 1). Among dicotyledons 276 species are of natural Occurence and 47 taxa are introduced or cultivated ones. Two species of gymnosperms

Table 1. Number of natural and introduced or cultivated species in Peechi campus

Category of species	Dicots	Gymnosperms	Monocots	Total
Natural	276	1	79	356
Introduced	47	2	36	85
Total	323	3	115	441

are grown in the campus and one gymnosperm, namely *Cycas circinalis* L. grows naturally here. Of the total 115 taxa of monocotyledons 79 species form component of the natural flora and 36 species are introduced or cultivated taxa.

4.2. Nilambur campus

4.2.1. Vegetation

The moist deciduous forests of Nilambur campus is fairly rich in lofty trees like *Terminalia paniculata*, *Terminalia crenulata*, *Xylia xylocarpa*, *Tectona grandis*, *Alstonia scholaris*, *Hopea parviflora*, *Dalbergia latifolia*, *Tetrameles nudiflora*, *Swetenia macrophylla*, etc. and medium sized trees like *Mitragyna parviflora*, *Olea dioica*, *Grewia tiliaefolia*, *Gmelina arborea*, *Litsea coriacea*, *Persea macrantha*, *Artocarpus hirsutus*, *Vitex negundo* and *Pterospermum reticulatum*. Also, there is a pure patch of *Hopea parviflora* close to the Guest House. The dry and lateritic nature of the campus has resulted in sparse ground flora constituted mainly of *Bambusa bambos* and few species belonging to families like Compositae, Verbenaceae and Labiatae. Stunted trees and shrubaceous plants like *Helecteris isora*, *Mussaenda bellila*, *Ichnocarpus frutescens*, *Tabernaemontana alternifolia*, *Wrightia tinctoria*, *Kirganelia reticulata* and *Ziziphus oenoplia* also form part of the subcanopy vegetation. Epiphytes or climbers like *Aerides ringens*, *Pothos scandens*, etc. and the shrubaceous parasite *Dendrophthoe falcata* rarely occur on the trunks or branches of trees in the campus. Part of the campus has also been converted into teak plantation with isolated trees of *Dalbergia latifolia* retained in the plantation.

4.2.2. List of plants

- | | |
|---|--|
| <i>Abrus precatorius</i> L. | <i>Bambusa glaucascens</i> (Willd.) Sieb. |
| <i>Abutilon indicum</i> L. | <i>Bambusa polymorpha</i> Munro |
| <i>Acacia auriculiformis</i> A. Cunn. ex G. Don | <i>Bambusa tulda</i> Roxb. |
| <i>Acacia mangium</i> Willd. | <i>Bambusa vulgaris</i> Schrad. ex Wendl. |
| <i>Acacia mellifera</i> (Vahl) Benth. | <i>Bauhinia racemosa</i> Lamk. |
| <i>Acacia torta</i> (Roxb.) Craib | <i>Bauhinia variegata</i> L. |
| <i>Acalypha hispida</i> Burm.f. | <i>Biophytum sensitivum</i> (L.) DC. |
| <i>Achyranthes aspera</i> L. | <i>Bombax ceiba</i> L. |
| <i>Adenanthera pavonina</i> L. | <i>Borassus flabellifer</i> L. |
| <i>Aerva lanata</i> (L.) Juss. | <i>Borreria latifolia</i> (Aubl.) Schum. |
| <i>Agave americana</i> L. | <i>Bougainvillea spectabilis</i> Willd. |
| <i>Ageratum conyzoides</i> L. | <i>Bridelia retusa</i> (L.) Spreng. |
| <i>Ailanthus triphysa</i> (Dennst.) Alston | <i>Bridelia scandens</i> (Roxb.) Willd. |
| <i>Albizia odoratissima</i> (L.f.) Benth. | <i>Butea monosperma</i> (Lamk.) Taub. |
| <i>Alseodaphne semicarpifolia</i> Nees | |
| <i>Alstonia scholaris</i> (L.) R.Br. | <i>Caesalpinia bonduc</i> (L.) Roxb. |
| <i>Alysicarpus vaginalis</i> (L.) DC. | <i>Caesalpinia coriaria</i> (Jacq.) Willd. |
| <i>Amorphophalus paeoniifolius</i> (Dennst.) Nicol. | <i>Calamus hookerianus</i> Becc. |
| var. <i>campanulatus</i> (Decne) Sivad. | <i>Calamus trachycoleus</i> Becc. |
| <i>Anacardium occidentale</i> L. | <i>Callicarpa tomentosa</i> (L.) Murr. |
| <i>Anamirta cocculus</i> (L.) Wt. et Am. | <i>Calophyllum inophyllum</i> L. |
| <i>Anisomeles indica</i> (L.) O.Ktze. | <i>Calycopteris floribunda</i> (Roxb.) Poir. |
| <i>Anogeissus latifolia</i> (Roxb. ex DC.) Wall. ex Perr. | <i>Canarium strictum</i> Roxb. |
| <i>Anona squamosa</i> L. | <i>Capsicum annum</i> L. |
| <i>Aporosa lindleyana</i> (Wt.) Ball. | <i>Capsicum frutescens</i> L. |
| <i>Aristolochia indica</i> L. | <i>Careya arborea</i> Roxb. |
| <i>Artocarpus heterophyllus</i> Lamk. | <i>Caricacappaya</i> L. |
| <i>Artocarpus hirsutus</i> Lamk. | <i>Caryota urens</i> L. |
| <i>Asparagus racemosus</i> Willd. | <i>Cassia alata</i> L. |
| <i>Azadirachta indica</i> A. Juss. | <i>Cassia fistula</i> L. |
| | <i>Cassia occidentalis</i> L. |
| <i>Bambusa balcooa</i> Roxb. | <i>Cassia tora</i> L. |
| <i>Bambusa bambos</i> (L.) Voss. | <i>Casuarina equisetifolia</i> L. |

Catharanthus roseus (L.) G. Don
Ceiba pentandra (L.) Gaertn.
Centrosema pubescens Benth.
Chasalia ophioxyloides (Wall.) Craib
Chrysophyllum cainito L.
Chukrasia tabularis Juss.
Cinnamomum malabratrum (Burm.f.) Ber. et Presl.
Cinnamomum verum J.S. Persl
Cissampelos pareira L.
Citrus medica L.f.
Cleistanthus collinus (Roxb.) Benth.
Ckome viscosa L.
Clerodendrum paniculatum L.
Clerodendrum serratum (L.) Moon.
Clerodendrum viscosum Vent
Clitoria ternatea L.
Cocos nucifera L.
Colocasia esculenta (L.) Schott
Commelina benghalensis L.
Crotalaria pallida Dryand.
Cryptolepis buchananii Roem. et Schult.
Curculigo orchioides Gaertn.
Cyathula prostrata (L.) Bl.
Cyclea peltata (Lamk.) Hook.f. et Thorns.
Cymbopogon flexuosus (Nees ex Steud.) Wats.
Cynodon dactylon (L.) Pers.

Dalbergia horrida (Dennst.) Mabb.
Dalbergia lanceolaria L.f.
Dalbergia latifolia Roxb.
Dalbergia sissooides Grah. ex Wt. et Am.
Dalbergia sissoo Roxb. ex DC.
Dalbergia volubilis Roxb.
Delonix regia (Boj. ex Hook.) Rafin
Dendrocalamus brandisii (Munro) Kurz.
Dendrocalamus giganteus Munro
Dendrocalamus hamiltonii Nees ex Am. et Munro
Dendrocalamus longispatus Kurz.
Dendrocalamus membranaceus Munro
Dendrocalamus strictus (Roxb)Nees
Dendrophthoe falcata (L.f.) Etting
Desmodium gangeticum (L.)DC.
Desmodium triflorum (L.) DC.
Desmodium velutinum (Willd.) DC.
Dillenia pentagyna Roxb.
Dioscorea bulbifera L.
Dioscorea pentaphylla L.
Diploclisia glaucascens (Bl.) Diels

Eclipta alba (L.) Hassk.
Eheocarpus tuberculatus Roxb.
Elephantopus scaber L.
Embelia acutipetalum (Lamk. ex Hassk.)
S.M. Alm. et M.R. Alm.
Emblia officinalis Gaertn.
Emilia sonchifolia (L.) DC.
Eragrostis tenella (L.) P. Beauv. ex Roem. et Schult.
Erythrina indica Lamk.

Eucalyptus brassicana S.T. Blake
Eucalyptus camaldulensis Dehn.
Eucalyptus citriodora Hook.
Eucalyptus deglupta Bl.
Eucalyptus globulus Lab.
Eucalyptus grandis Hill ex Maiden
Eucalyptus pellita F. Muell.
Eucalyptus tereticornis Sm.
Eucalyptus tessellaris F. Muell.
Eucalyptus urophylla S.T. Blake
Eugenia aromatica (L.) Baill.
Eupatorium odoratum L.
Euphorbia hirta L.
Evodia lunu-ankenda (Gaertn.) Merr

Ficus benghalensis L.
Ficus exasperata Vahl
Ficus hispida L.f.
ficus racemosa L.
Flemingia congesta Roxb. ex Ait.

Geophila repens (L.) Johnston
Gloriosa superba L.
Glycosmis arborea (Roxb.) DC.
Gmelina arborea Roxb.
Grevillea robusta A. Cunn.
Grewia tiliaefolia Vahl

Haldina cordifolia (Roxb.) Ridsdl.
Helecteris isora L.
Hemidesmus indicus (L.) R. Br.
Holarrhena pubescens much.-Ham.) Wall. ex G. Don
Holoptelia integrifolia (Roxb.) Planch.
Hopea parviflora Bedd.
Hugonia mystax L.
Hydnocarpus pentandra (Ham.) Oken
Hymenodictyon orixensis (Roxb.) Mabb.
Hyptis suaveolens (L.) Poir.

Ichnocarpus frutescens (L.) R.Br.
Ipomoea eriocarpa R.Br.
Ixora coccinea L.

Justicia betonica L.

Kirganelia reticulata (Poir.) Ball.

Lagerstroemia hirsuta (Lamk.) Willd.
Lagerstroemia microcarpa Wt.
Lannea coromandelica (Houtt.) Merr.
Lantana camara L.
Laportea interrupta (L.) Chew.
Lawsonia inermis L.
Leea indica (Burm. f.) Merr.
Leea macrophylla Roxb. ex Homem
Leucaena leucocephala (Lam.) de Wit
Leucas aspera (Willd.) Spreng.
Litsea coriacea (Heyne ex Meisn.) Hook.f.

Ludwigia hyssopifolia (G. Don) Exell
Macaranga peltata (Roxb.) Muell.-Arg.
Malaxis rheedii Sw.
Mangifera indica L.
Melaleuca leucadendron L.
Melia dubia Cav.
Melocana bambusoides Trin.
Merremia tridentata (L.) Hall.f.
Mikania micrantha Kunth
Mimosa invsia Mart. var. *invisa* Adelb.
Mimosa pudica L.
Mimusops elengi L.
Mitragyna parvifolia (Roxb.) Korth.
Mollugo pentaphyila L.
Momordica charantia L.
Moringa pterygosperma Gaertn.
Morus alba L.
Mukia maderaspatana (L.) M. Roem.
Murdannia japonica (Thunb.) Faden
Murraya koenigii (L.) Spreng.
Musa paradiriaca L.
Mussaenda bellila Buch.-Ham.

Naregamia alata Wt. et Am.
Naravelia zeylanica (L.) DC.
Naringi crenulata (Roxb.) Nicol.
Nervilia aragoana Gaud.

Ochlandra scriptoria (Dennst.) Fisch.
Ocimum sanctum L.
Olea dioica Roxb.

Pancratium triflorum Roxb.
Pandanus odoratissimus L. f.
Passiflora foetida L.
Pekophorum vogelianum Walp.
Peperomia pellucida (L.) H.B.K.
Persea macrantha (Nees) Kosterm.
Phyllanthus amarus Schum. et Thonn.
Phyllanthus kozhikodianus Siv. et Manil.
Pilea microphylla (L.) Liem.
Pinus caribaea Morelet
Piper longum L.
Piper nigrum L.
Polyalthia coffeoides (Thw. ex Hook.f. et Thoms.) Thw.
Pongamia pinnata (L.) Pierre
Pothos scandens L.
Psidium guajava L.
Pterocarpus dalbergioides Roxb.
Pterocarpus marsupium Roxb.
Pterocarpus santalinus L.f.
Pterospermum reticulatum Wt. ex Am.

Redermachera xylocarpa (Roxb.) K. Schum.

Samanea saman (Jacq.) Merr.
Santalum album L.
Sapindus laurifolia Vahl
Schleichera oleosa (Lour.) Oken
Scoparia dulcis L.
Sebastiania chamaelea (L.) Muell.-Arg.
Sida acuta Burm.f.
Sida cordata (Burm.f) Borss.
Sida rhombifolia L.
Similax zeylanica L.
Spermacoce mauritiana Gideon ex Verdc.
Spermacocepusilla Wall.
Spondias pinnata (L.f.) Kurz.
Sterculia guttata Roxb. ex DC.
Sterculia urens Roxb.
Stereospermum colais (Buch.-Ham. ex Dillw.) Mabb.
Streblus asper Lour.
Strychnos nux-vomica L.
Swiete. ia macrophylla King
Syzygium caryophyllatum (L.) Alston
Syzygium cumini (L.) Skeels

Tabernaemontana alternifolia L.
Tectona grandis L.f.
Tectona hamiltoniana Wall.
Terminalia bellirica (Gaertn.) Roxb.
Terminalia catappa L.
Terminalia crenulata Roth
Terminalia paniculata Roth
Tetrameles nudiflora R. Br.
Theobroma cacao L.
Thyrsostachys oliveri Gamble
Thyrsostachys siamensis Gamble
Toona ciliata Roem.
Tragia involucrata L.
Trema orientalis (L.) Bl.
Tridax procumbens L.

Urena lobata L.

Vernonia cinerea (L.) Less.
Vicoa indica (L.) DC.
Vitex altissima L.f.
Vitex negundo L.

Waltheria indica L.
Wattakaka volubilis (L.f.) Stapf
Wrightia tinctoria R.Br.

Xylia xylocarpa (Roxb.) Theob.

Zanthoxylum rhetsa (Roxb.) DC.
Zingiber zerumbet (L.) Rosc. ex Smith
Ziziphus oenoplia (L.) Mill.
Ziziphus rugosa Lamk.

4.2.3. Analysis of the flora

From Nilambur campus a total of 268 taxa of flowering plants were recorded. Out of them 226 taxa are dicotyledons, 2 taxa are gymnosperms and 40 taxa are monocotyledons. Both natural and introduced or

cultivated species are represented in dicotyledonous and monocotyledonous plants in the campus, whereas

Table 2. Number of natural and introduced or cultivated plants in Nilambur campus

Category of species	Dicots	Gymnosperms	Monocots	Total
Natural	183	0	19	202
Introduced	43	2	21	66
Total	226	2	40	268

gymnosperms are known in the area by two cultivated species, namely *Casuarina equisetifolia* L. and *Pinus caribaea* Morelet. The details are provided in Table 2.

4.3. Velupadam campus

4.3.1. Vegetation

The campus, being a clear-felled teak plantation area, there is proffuse coppicing of *Tectona grandis* from the stumps left behind, which dominate all other moist deciduous species characteristic to the area. Few lofty trees of *Dalbergia latifolia*, left after the removal of the borer-affected teak trees, had also fallen due to wind action. Few other tree species met with in the campus are *Pterocarpus marsupium*, *Spondias mangifera*, *Holoptelia integrifolia*, *Albizia odoratissima*, *Premna tomentosa*, *Hymenodictyon orixensis*, *Ailanthus triphysa*, *Terminalia paniculata*, and so on. A major portion of the campus has been planted up with species of bamboos as part of the germplasm collection. Shrubby species like *Embelia ribes*, *Jasminum humile*, *Ichnocarpus frutescens*, *Datura metel* and *Clerodendrum serratum* are also common in the vegetation of the campus along with herbs and weeds belonging to the families Compositae, Scrophulariaceae, Convolvulaceae, Boraginaceae, Verbenaceae, Labiatae, and so on. The epiphytic orchid *Aerides ringens* and the root climber *Pothos scandens* are rarely seen on trees in the campus. The semiparasitic shrub *Dendrophthoe falcata* is also rather common here.

Aquatic or semiaquatic species like *Nymphoides heterophylla*, *Limnophylla heterophylla*, *Bacopa monnieri*, *Nelumbium speciosum*, *Utricularia graminifolia*, *Nymphaea pubescens*, etc. flourish in and around the pond of the campus.

4.3.2. List of plants

<i>Abrus precatorius</i> L.	<i>Artocarpus hirsutus</i> Lamk.
<i>Acacia torta</i> (Roxb.) Craib	<i>Asparagus racemosus</i> Willd.
<i>Achyranthes aspera</i> L.	
<i>Aerides ringens</i> (Lindl.) Fisch.	<i>Bambusa balcooa</i> Roxb.
<i>Aerva lanata</i> (L.) Juss.	<i>Bambusa bambos</i> (L.) Voss.
<i>Ageratum conyzoides</i> L.	<i>Bambusa bambos</i> (L.) Voss. var. <i>gigantea</i> Benn et Gaur.
<i>Ailanthus triphysa</i> (Dennst.) Alston	<i>Bambusa blumeana</i> JA. et J.H.Schult.
<i>Albizia odoratissima</i> (L.E) Benth.	<i>Bambusa glaucascens</i> (Willd.) Sieb.
<i>Albizia procera</i> (Roxb.) Benth.	<i>Bambusa longispiculata</i> Gamble ex Brandis
<i>Alstonia scholaris</i> (L.) R.Br.	<i>Bambusa pallida</i> Munro
<i>Amaranthus spinosus</i> L.	<i>Bambusa polymorpha</i> Munro
<i>Amorphophalus paeoniifolius</i> (Dennst.) Nicol.	<i>Bambusa tulda</i> Roxb.
var. <i>campanulatus</i> (Decne) Sivad.	<i>Bambusa variegata</i> Siebold ex Miq.
var. <i>paeoniifolius</i> Sivad.	<i>Bambusa vulgaris</i> Schrad. ex Wendl.
<i>Anisomeles indica</i> (L.) O.Ktze.	<i>Bambusa wamin</i> Camus
<i>Aristolochia indica</i> L.	<i>Biophytum sensitivum</i> (L.) DC.

Boerhavia diffusa L.
Bombax ceiba L.
Borreria articularis (L.f.) F.N. Will.
Borreria latifolia (Aubl.) Schum.
Bougainvillea spectabilis Willd.
Bridelia retusa (L.) Spreng.
Bridelia scandens (Roxb.) Willd.
Butea monosperma (Lamk.) Taub.

Caesalpinia bonduc (L.) Roxb.
Calotropis gigantea (L.) R.Br.
Calopogonium mucunoides Desv.
Calycopteris floribunda (Roxb.) Poir.
Carallia brachiata (Lour.) Merr.
Cardiospermum helicacabum L.
Careya arborea Roxb.
Cassia alata L.
Cassia fistula L.
Cassia occidentalis L.
Cassipourea L.
Casuarina equisetifolia L.
Centella asiatica (L.) Urb.
Cissus quadrangularis L.
Clerodendrum serratum (L.) Moon.
Clerodendrum viscosum Vent.
Clitoria ternatea L.
Coffea travancorensis Wt. et Am.
Commelina attenuata Koen. ex Vahl.
Corchorus aestuans L.
Corchorus capsularis L.
Costus speciosus (Koen.) Smith.
Crotalaria pallida Dryand.
Crotalaria retusa L.
Curculigo orchhioides Gaertn.
Curcuma aromatica Salisb.
Cyathula prostrata (L.) Bl.
Cycas circinalis L.
Cyclea peltata (Lamk.) Hook.f. et Thoms.
Cymbopogon flexuosus (Nees ex Steud.) Wats.
Cynodon dactylon (L.) Pers.
Cyperus rotundus L.

Dalbergia horrida (Dennst.) Mabb.
Dalbergia latifolia Roxb.
Dalbergia sissooides Grah. ex Wt. et Am.
Datura metel L.
Dendrocalamus brandisii (Munro) Kurz.
Dendrocalamus calostachys (Kurz) Kurz.
Dendrocalamus giganteus Munro.
Dendrocalamus hookeri Munro.
Dendrocalamus longispathus Kurz.
Dendrocalamus membranaceus Munro.
Dendrocalamus sikkimensis Gamble.
Dendrocalamus strictus (Roxb.) Nees.
Derris trifoliata Lour.
Desmodium gangeticum (L.) DC.
Desmodium triquetrum (L.) DC.
Desmodium velutinum (Willd.) DC.

Dioscorea bulbifera L.
Dioscorea pentaphylla L.

Eclipta alba (L.) Hassk.
Embelia ribes Burm.f.
Emilia sonchifolia (L.) DC.
Eragrostis tenella (L.) P. Beauv. ex Roem. et Schult.
Eupatorium odoratum L.
Euphorbia hirta L.
Evodia lunu-ankenda (Gaertn.) Merr.

Ficus religiosa L.

Gigantochloa albociliata (Munro) Kurz.
Gigantochloa apus (Bl. ex Schult. f.) Kurz.
Gloriosa superba L.
Glycosmis arborea (Roxb.) DC.
Grewia tiliaefolia Vahl.

Haldina cordifolia (Roxb.) Ridsdl.
Helecteris isora L.
Hemidesmus indicus (L.) R. Br.
Holarrhena pubescens (Buch.-Ham.) Wall. ex G. Don.
Holoptelia integrifolia (Roxb.) Planch.
Hydnocarpus pentandra (Ham.) Oken.
Hymenodictyon orixensis (Roxb.) Mabb.
Hyptis suaveolens (L.) Poir.
Ichnocarpus frutescens (L.) R.Br.
Ipomoea mauritiana Jacq.
Ipomoea pes-caprae (L.) R.Br.
Ipomoea sepiaria Roxb.
Ixora coccinea L.

Jasminum humile L.
Justicia betonica L.
Justicia simplex D. Don.

Lantana camara L.
Leucas aspera (Willd.) Spreng.
Limnophylla heterophylla (Roxb.) Benth.
Lobelia alsinoides Lamk.
Ludwigia perennis L.
Luffa acutangula (L.) Roxb.

Macaranga peltata (Roxb.) Muell.-Arg.
Mangifera indica L.
Melocana bambusoides Trin.
Merremia tridentata (L.) Hallf.
Mikania micrantha Kunth.
Mimosa invisa Mart. var. *invisa* Adelb.
Mimosa pudica L.
Morinda umbellata L.
Mucuna pruriens (L.) DC.
Musa paradisiaca L.
Mussaenda bellila Buch.-Ham.

Naregamia alata Wt. et Am.
Naravelia zeylanica (L.) DC.

Nelumbo nucifera Gaertn.
Nervilia aragoana Gaud.
Nilgirianthus ciliatus (Nees) Bremek.
Nymphaea pubescens Willd.
Nymphoides hydrophylla (Lour.) O. Ktze.

Ochlandra scriptoria (Dennst.) Fisch.
Ochlandra setigera Gamble
Ochlandra travancorica (Bedd.) Benth. Giarnble
Ochlandra wightii Fisch.
Ocimum sanctum L.
Oldenlandia corymbosa L.
Ophiorrhiza mungos L.
Oroxylum indicum (L.) Vent.
Orthosiphon thymiflorus (Roth) Slees.
Oxalis corniculata L.

Phyllanthus amanus Schum. et Thonn.
Phyllostachys aurea Came ex A. Riviere
Phyllostachys pubescens Mazel ex H. de Leh.
Physalis peruviana L.
Piper nigrum L.
Pothos scandens L.
Premna tomentosa Willd.
Pseudarthria viscida (L.) Wt. et Am.
Pseudoserajaponica (Sieb. ex Zucc. et Steud.)
Makina et Nakai
Pseudoxytenanthera bourdillonii (Gamble) Naithani
Pseudoxytenanthera monodaelpha (Thw.) Soderstrom
Pseudoxytenanthera ritcheyi (Munro) Naithani
Pseudoxytenanthera stocksii (Munro) Naithani
Pterocarpus marsupium Roxb.

Rauvolfia serpentina (L.) Benth. ex Kurz
Rhynchosyilis retusa (L.) Bl.
Rourea minor (Gaertn.) Alston

Schizostachyum pergracile (Munro) Majundar
Schleichera oleosa (Lour.) Oken
Scoparia dulcis L.

Sida acuta Burm.f.
Sida cordata (Burm.f.) Borss.
Sida rhombifolia L.
Sphaeranthus indicus L.
Spondias pinnata (L.f.) Kurz
Stachytarphetajamaicensis (L.) Vahl
Sterculia guttata Roxb. ex DC.
Stereospermum colais (Buch.-Ham. ex Dillw.) Mabb.
Strychnos nux-vomica L.

Tabernaemontana alternifolia L.
Tecoma stans (L.) H.B.K.
Tectona grandis L.f.
Terminalia bellirica (Gaertn.) Roxb.
Terminalia chebuk Retz.
Terminalia paniculata Roth
Thyrsostachys oliveri Gamble
Thyrsostachys regia (Munro) Benn.
Thyrsostachys siamensis Gamble
Tinospora sinensis (Lour.) Merr.
Toddalia asiatica (L.) Lamk.
Torenia bicolor Dalz.
Tragia involucrata L.
Trema orientalis (L.) Bl.
Tridax procumbens L.

Uraria rufescens (DC.) Schindl.
Urena lobata L.
Utricularia graminifolia Vahl

Vernonia cinerea (L.) Less.
Vicoa indica (L.) DC.

Wrightia tinctoria R.Br.

Xylia xylocarpa (Roxb.) Theob.

Zingiber zerumbet (L.) Rosc. ex Smith
Ziziphus rugosa Lamk.

4.3.3. Analysis of the flora

A total of 203 taxa of flowering plants were recorded from the Velupadam campus of the Institute. This includes 143 taxa of dicotyledons, 2 species of gymnosperms and 58 taxa of monocotyledons. Among them,

Table 3. Number of natural and introduced or cultivated species in Velupadam campus

Category of species	Dicots	Gymnosperms		Total
Natural	135	1	21	157
Introduced	8	1	36	45
Total	143	2	57	202

8 taxa of dicotyledons, one species of gymnosperm and 36 taxa of monocotyledons are either introduced or cultivated species. One hundred and thirty-five taxa of dicotyledons, 1 species of gymnosperm and 22 species of monocotyledons constitute the native flora of the campus.

5. ENUMERATION

5.1. DICOTYLEDONS

1. RANUNCULACEAE

Naravelia zeylanica (L) DC., *dyst.* 1:167. 1817; Hook. f. *et* Thoms. in Hook. f., Fl. Brit. India 1. 7. 1872; Rama Rao, Fl. Pl. Trav. 2. 1914; Dunn in Gamble, Fl. Presid. Madras 1:3. 1915. *Astragene zeylanica* L.. Sp. Pl. 542. 1753. Kuruppakodi.

Thick climbers with downy young parts. Leaves opposite, trifoliate with the terminal leaflet transformed into tendril; leaflets broadly ovate, pubescent beneath, glabrous above, rounded at base, abruptly acute at apex. Flowers yellow in axillary or terminal panicles. Achenes linear with twisted, feathery tails.

Fls. & Frs.: October to April.

Rather rare, along hedges: Peechi, Nilambur and Velupadam campuses.

2. DILLENiaceae

Dillenia pentagyna Roxb., Pl. Corom. 1: 21 t. 20. 1795; Hook. f. *et* Thoms. in Hook. f., Fl. Brit. India 1: 38. 1872.; Bourd., For. Trees Trav. 1. 1908; Rama Rao, Fl. Pl. Trav. 3. 1914; Dunn in Gamble, Fl. Presid. Madras 1:8. 1915; Majumd., Fasc. Fl. India 2: 7. 1979. *Dillenia pilosa* Roxb., Fl. Ind. 2: 652. 1832 (non Ham. 1827). Kodapunna.

Lofty, deciduous trees with rough or flaking bark. Leaves simple, alternate, ovate or elliptic, margins with sharp villous teeth, densely hairy beneath when young, almost glabrous when mature. obtuse or subobtuse at apex. narrowed at base. Flowers yellow in clusters of 2-7 on twiggy branchlets. Fruits yellow, subglobose with persistent, fleshy sepals.

Fls. & Frs.: June to November.

Common trees, forming a typical component of the moist deciduous forests; Peechi and Nilambur campuses.

3. MAGNOLIACEAE

Introduced or cultivated species

Michelia champaca L.

Shrubs with white, scented flowers, often grown in gardens; Peechi campus.

4. ANONACEAE

Miliusa tomentosa (Roxb.) Sincl., Gard Bull. Singapore 14: 378. 1955. *Uvaria tomentosa* Roxb., Pl. Corom. t. 35. 1795. *Succopetalum tomentosum* (Roxb.) Hook f. *et* Thorns., Fl. Ind 152. 186: Bedd, Ic. t 49. 1868-74; Hook f *et* Thorns. in Hook f., Fl. Brit India 1:88. 1872; Dunn in Gamble, Fl. Presid Madras 1:22. 1915. Kannakkaittha

Lofty trees with tomentose branchlets. Leaves simple, alternate, ovate-oblong, entire, tomentose beneath. obtuse at base, acute at apex. Flowers pink in leaf-opposed terminal cymes. Fruits purple. subglobose.

Fls. & Frs.: October to May.

Fairly common in sparsely wooded areas around the Institute; Peechi campus.

Polyalthia coffeoides (Thw. *ex* Hook. f. *et* Thorns.) Thw., Enum. Pl. Zeyl. 399. 1864; Hook. f. *et* Thoms. in Hook. f., Fl. Brit. India 1:62. 1872; Bourd., For. Trees Trav. 5. 1908; Rama Rao, Fl. Pl. Trav. 6. 1914; Dunn in Gamble, Fl. Presid. Madras 1: 16. 1918. *Guattaria coffeoides* Thw. *ex* Hook. f. *et* Thorns., Fl. Ind. 141. 1855.

Tall trees. Leaves simple, alternate, oblong-lanceolate, entire, glabrous. cuneate at base. acuminate at apex. Flowers yellow. solitary, axillary. Capsules ovoid. glabrous.

Fls. & Frs.: February to October.

Rather rare, in less dense areas of deciduous forests; Peechi and Nilambur campuses.

Uvaria narum (Dunal) Bl., Fl. Java 5. 1858; Wt. et Arn., Prodr. 9. 1834; Hook. f. et Thoms. in Hook. f., Fl. Brit. India 1: 50. 1872; Dunn in Gamble, Fl. Presid. Madras 1: 13. 1915; Mithra, Fasc. Fl. India 10: 18. 1982. *Unona narum* Dunal, Anon. 99. 1817. Neram-panal.

Aromatic, subscented shrubs with zig-zag branches. Leaves simple, alternate, oblong-lanceolate, entire, glabrous, cuneate at base, acuminate at apex. Flowers yellow, solitary, axillary. Fruitlets green, stalked, globose. glabrous.

Fls. & Frs.: November to February.

Rare. as an undergrowth in dry forest areas; Peechi campus.

Introduced or cultivated species

Anona squamosa L.

Stunted trees yielding edible fruits, grown in homesteads and near guest house; Peechi and Nilambur campuses.

Polyalthia longifolia (Sonner) Thw.

Avenue trees, grown along roadsides and in gardens; Peechi campus.

5. MENISPERMACEAE

Anamirta cocculus (L.) Wt. et Arn., Prodr. 446. 1834; Hook. f. et Thoms. in Hook. f., Fl. Brit. India 1: 98. 1872; Rama Rao, Fl. Pl. Trav. 11. 1914; Dunn in Gamble, Fl. Presid. Madras 1: 27. 1915; Forman, Kew Bull. 32: 329. 1978. *Menispermum cocculus* L., Sp. Pl. 340. 1753. Kadalavanakku, Karantakam, Nanchu-valli.

Lianas with thick, vertically furrowed or corrugated bark. Leaves simple, alternate, broadly ovate, entire, subcoriaceous, glabrous above. pale and tufted hairy in the nerve axils beneath, rounded or subcordate at base. ovate, acute or obtuse at apex. Flowers greenish-white in drooping panicles. Berries white turning purple, globose.

Fls. & Frs.: August to March.

Rare in thickets of moist deciduous forests as climbers on lofty trees; Peechi and Nilambur campuses.

Cissampelos pareira L., Sp. Pl. 1031. 1753; Hook. f. et Thoms. in Hook. f., Fl. Brit. India 1: 103. 1872; Rama Rao, Fl. Pl. Trav. 12. 1914; Dunn in Gamble, Fl. Presid. Madras 1: 30. 1915; Forman, Kew Bull. 22: 356. 1968. Malathangi.

Slender, twining undershrubs. Leaves simple, alternate, peltate. orbicular or reniform, entire, pubescent on both surfaces when young, cordate or truncate at base, mucronate at apex. Flowers pale white or greenish-yellow in axillary, corymbose cymes. Drupes scarlet when ripe, ovoid.

Fls. & Frs.: July to September.

Rather common along hedges, fences and in forest openings; Peechi and Nilambur campuses.

Cyclea peltata (Lamk.) Hook. f. et Thoms., Fl. Ind. 1: 201. 1855 (quod basionym); Rama Rao, Fl. Pl. Trav. 13. 1914; Dunn in Gamble, Fl. Presid. Madras 1: 31. 1915; Sant. et Janardh., Bull. bot. Surv. India 10: 368. 1968. *Menispermum peltatum* Lamk., Encyl. Meth. Bot. 4: 96. 1797. *Cyclea burmanii* (DC.) Hook. f. et Thoms., Fl. Ind. 1: 201. 1855 & in Hook. f., Fl. Brit. India 1: 104. 1872. Padathali.

Twining and climbing undershrubs. Leaves simple, alternate, peltate, deltoid or ovate, entire or slightly sinuate at base, mucronate at apex. Flowers green in axillary, pseudo-racemose panicles. Drupes subglobose, wrinkled, pilose.

Fls & Frs.: August to November.

Fairly common along hedges, fences or as climbers on small trees in disturbed forest areas; Peechi, Nilambur and Velupadam campuses.

Diploclisia glaucescens (Bl.) Diels in Engl., Pflanzenz. 46: 225. 1910; Dunn in Gamble, Fl. Presid. Madras 1: 28. 1915. *Cocculus glaucescens* Bl. Bijdr. 25. 1825. *Cocculus macrocarpus* Wt. et Arn., Prodr. 13. 1834; Hook. f. et Thoms. in Hook. f., Fl. Brit. India 1: 101. 1872; Rama Rao, Fl. Pl. Trav. 12. 1914.

Lianas reaching the top of trees. Leaves simple, alternate, suborbicular or broadly ovate, entire, subcoriaceous, rounded to cordate at base, obtuse and mucronate at apex. Flowers yellowish in panicles from older branches. Drupes ovoid.

Fls. & Frs.: April to June.

Rare, in small thickets and along hedges; Nilambur campus.

Tiliacora acuminata (Lamk.) Miers, Arn. Mag. Nat. Hist. Ser. 2 (7): 39. 1851; Dunn in Gamble. Fl. Presid. Madras 1: 28. 1915. *Menispermum acuminatum* Lamk., Encycl. Meth. Bot. 4: 101. 1797. *Tiliacora racemosa* Colebt., Trans. Linn. Soc. London 13: 67. 1821; Hook. f. in Hook. f., Fl. Brit. India 1: 99. 1872; Rama Rao, Fl. Pl. Trav. 12. 1914.

Slender climbers. Leaves simple, alternate, ovate-lanceolate, entire, glabrous, subcordate or deltoid at base, acuminate at apex. Flowers yellow in loose, axillary panicles. Drupes ovate, compressed.

Fls. & Frs.: September to February.

Rare, as climbers on trees, bushes or along hedges; Peechi campus.

Tinospora sinensis (Lour.) Merr., Sunyatsenia 1: 193. 1934. *Campylus sinensis* Lour., Fl. Cochinch. 113. 1790. *Tinospora malabarica* (Lamk.) Hook. f. et Thoms., Fl. Ind. 1: 183. 1855 & in Hook. f., Fl. Brit. India 1: 96. 1873; Rama Rao., Fl. Pl. Trav. 10. 1914. Kattamruthu.

Large climbers with papery bark. Leaves simple, alternate, entire, pubescent, broadly ovate cordate at base, acuminate at apex with petioles twisted at base. Flowers greenish in racemes. Drupes red, ovoid, smooth.

Fls. & Frs.: February to April.

Rare, as climbers in moist deciduous forest areas; Peechi and Velupadam campuses.

6. NYMPEIAEACEAE

Introduced or cultivated species

Nymphaea pubescens Willd.

Grown in the pond; Velupadam campus.

7. NELUMBONACEAE

Introduced or cultivated species

Nelumbo nucifera Gaertn.

Grown in the pond; Velupadam campus.

8. CLEOMACEAE

Cleome burmanii Wt. et Arn., Prodr. 22. 1834; Dunn in Gamble, Fl. Presid. Madras 1: 41. 1915.

Diffuse herbs. Leaves trifoliate, alternate with leaflets obovate, entire, glabrous, cuneate at base, acute at apex. Flowers blue, solitary, axillary. Capsules linear, terete, glabrous, striate, attenuate at apex.

Fls. & Frs.: August to October.

A weed in waste places; Peechi campus.

Cleome viscosa L., Sp. Pl. 672. 1753; Hook. f. et T. And. in Hook. f., Fl. Brit. India 1: 170. 1872; Rama Rao. Fl. Pl. Trav. 17. 1914; Dunn in Gamble, Fl. Presid. Madras 1: 41. 1915. *Polanisea icosandra* Wt. et Arn., Prodr. 22. 1834; Wt., Ic. t. 2. 1838. Aria-veela.

Erect herbs. Leaves 3-5 foliate, alternate, obovate or elliptic, entire, ciliate along margins, cuneate at base, acute at apex. Flowers yellow, solitary, axillary or terminal. Capsules ridged, glandular-hairy.

Fls. & Frs.: July to December.

Common as a weed in forest openings, especially in wet and shaded areas; Peechi and Nilambur campuses.

9. FLACOURTIACEAE

Hydnocarpus pentandra (Ham.) Oken, Allg. Naturgesch. 3(2): 1381. 1841; K.K.N. Nair, J. Bombay nat. Hist. Soc. 80: 452.4.53.1983. *Chilmoria pentandra* Buch.-Ham., Trans. Linn. Soc. London 13: 501.1822. *Hydnocarpus laurifolia* (Dennst.) Sleum., Bot. Jahrb. 69: 33. 1938 (*nom. illeg.*). *Municksia laurifolia* Dennst., Schul. Hort. Malab. 13. t. 27. 1818 (*nom. nud.*). *Hydnocarpus wightiana* Bl., Rumph. 4: 22. 1848; Hook. f. *et* Thoms. in Hook. f., Fl. Brit. India 1: 196. 1872; Bourd., For. Trees Trav. 18. 1908; Rama Rao, Fl. Pl. Trav. 24. 1914; Dunn in Gamble, Fl. Presid. Madras 1: 52. 1915. Marotti.

Buttressed. medium to large sized trees. Leaves simple, alternate, ovate, oblong or lanceolate, entire, glabrous, acute or obtuse at base, acuminate at apex. Flowers dull white, solitary or in small racemes. Berries brown, globose or ovoid, hirsute when young.

Fls. & Frs.: December to July.

Rare. in valleys and depressions, especially near water courses; Nilambur and Velupadam campuses.

10. POLYGALACEAE

Polygala arvensis Willd., Sp. Pl. 3(2): 876. 11'02; Burt, Notes Roy. bot. Gard. Edinburgh 32: 404. 1973. *Polygala chinensis* auct. non L. 1753; Benn. in Hook. f., Fl. Brit. India 1: 204. 1872 (*pro parte*); Rama Rao, Fl. Pl. Trav. 25. 1914; Dunn in Gamble, Fl. Presid. Madras 1: 58. 1915.

Erect herbs. Leaves simple, alternate, sessile, oblong, entire, sparsely pubescent, narrowed towards base, apiculate at apex. Flowers yellowish in few-flowered, supra-axillary racemes. Capsules suborbicular.

Fls. & Frs.: November to February.

A weed along roadside and in grassy, wet areas; Peechi campus.

11. GUTTIFERAE

Calophyllum inophyllum L., Sp. Pl. 513. 1753; T. And. in Hook. f., Fl. Brit. India 1: 273. 1874; Bourd., For. Trees Trav. 27. 1908; Rama Rao, Fl. Pl. Trav. 34. 1914; Dunn in Gamble, Fl. Presid. Madras 1: 76. 1915; Mahesh., Bull. Bot. Surv. India 2: 145. 1960. Punna.

Trees with dense crown. Leaves simple, alternate, elliptic-obovate, entire, glabrous, acute at base, rounded at apex. Flowers white, fragrant in axillary racemes. Drupes yellow when ripe, smooth.

Fls. & Frs.: December to January.

Rather very rare in forest depressions, watersheds and near water courses; Nilambur campus.

Mesuaferrea L., Sp. Pl. 515. 1753; Wt. Ic. t. 118. 1839; T. And. in Hook. f., Fl. Brit. India 1: 277. 1874. Bourd., For. Trees Trav. 29. 1908 Rama Rao, Fl. Pl. Trav. 32. 1914; Dunn in Gamble, Fl. Presid. Madras 1: 77. 1915; *Mesuaferrea* ssp. *ferrea* Mahesh., Bull. bot. Surv. India 5: 335. 1963.

Buttressed trees. Leaves opposite-decussate, simple, oblong-lanceolate, entire, glabrous, rounded or attenuate at base. acute or acuminate at apex. Flowers white with a pinkish tinge, solitary or in pairs, axillary. Fruits ovoid with a conical point and persistent calyx.

Fls. & Frs.: October to April.

Very rare as planted and naturalised in the medicinal plants garden; Peechi campus.

Introduced or cultivated species

Gurcinia cambogia (Gaertn.) Desr.

Trees grown in homesteads for edible fruits; Peechi campus.

12. DIPTEROCARPACEAE

Hopea parviflora Bedd., Fl. Sylvat. 1: 308. 1874; Dyer in Hook. f., Fl. Brit. India 1: 308. 1874; Bourd., For. Trees Trav. 37. 1908; Rama Rao, Fl. Pl. Trav. 35. 1914; Dunn in Gamble, Fl. Presid. Madras 1: 82. 1915. Irumbakam, Kambakam, Thambakam.

Tall, evergreen trees. Leaves simple, alternate, ovate-lanceolate, entire, chartaceous, glabrous, obtuse or rounded at base, acute at apex. Flowers white in pubescent paniculate racemes. Fruits with 2 oblong wings developed from the accrescent calyx.

Fls. & Frs.: March to May.

Common in moist deciduous forests especially around the Guest House; Nilambur campus.

13. MALVACEAE

Abelmoschus moschatus Medik., Malv. 46. 1787. *Hibiscus abelmoschus* L., Sp. Pl. 696. 1750; Mast. in Hook. f., Fl. Brit. India 1: 342. 1874; Rama Rao, Fl. Pl. Trav. 42. 1914; Dunn in Gamble, Fl. Presid. Madras 1: 97. 1915. Kasthuri-venda.

Erect shrubs. Leaves simple, alternate with upper ones hastate, palmately 5-lobed, stellately pubescent. cordate at base with lobes lanceolate, serrate and acute at apex. Flowers yellow, axillary, solitary. Capsules ovoid or fusiform, hispid.

Fls. & Frs.: July to September.

Common in moist deciduous forests, as part of the ground flora; Peechi campus.

Abutilon indicum (L.) Sweet, Hort. Brit. ed. 1: 54. 1826; Wt., Ic. t. 12. 1838; Mast. in Hook. f., Fl. Brit. India 1: 326. 1874; Rama Rao, Fl. Pl. Trav. 39. 1914; Dunn in Gamble, Fl. Presid. Madras 1: 91. 1915; Borss.. Blumea 14: 170. 1966. Ooran.

Undershrubs with stout branches. Leaves simple, alternate. ovate, crenate, cordate at base, subacute at apex. Flowers yellow or orange, axillary, solitary. Mericarps stellate-hairy.

Fls. & Frs.: October to March.

Common in dry, waste places and along roadside; Peechi and Nilambur campuses.

Hibiscus aculeatus Roxb., Fl. Ind. 3: 206. 1832. *Hibiscus furcatus* Roxb. ex DC., Prodr. 1: 449. 1821; Mast. in Hook. f., Fl. Brit. India 1: 335. 1874; Rama Rao, Fl. Pl. Trav. 40. 1914; Dunn in Gamble. Fl. Presid. Madras 1: 97. 1915. Karthikappuvu.

Rambling shrubs with recurved prickles. Leaves simple, alternate, 3-5 lobed, crenate-serrate with densely hairy nerves beneath and lanceolate. ciliate stipules. Flowers bright yellow, solitary, axillary. Capsules bristly hairy.

Fls. & Frs.: September to January

Common along roadsides and in waste places: Peechi campus.

Sida acuta Burm. f., Fl. Ind. 147. 1768 emend K. Schum.. Fl. Bros. 12 (3): 326. 1891; Rama Rao. Fl. Pl. Trav. 37. 1914; Dunn in Gamble, Fl. Presid. Madras 1: 64. 1915. *Sida carpinifolia* sensu Mast. in Hook. f., Fl. Brit. India 1: 323. 1874 (non L. f.). Anakurunthoti.

Undershrubs with stellate tomentose branches. Leaves simple. alternate. elliptic-oblong to lanceolate. serrate. obtuse at base, acute at apex. Flowers yellow. 1-3 together, axillary. Mericarps 5 or rarely upto 8. awned.

Fls. & Frs.: September to November.

Common. especially along roadsides and in waste places; Peechi, Nilambur and Velupadam campuses.

Sida cordata (Burm. f.) Borss.. Blumea 14: 182. 1966. *Melochia cordata* Burm. f., Fl. Ind. 143. 1768. *Sida veronicaefolia* Lamk., Encyl. Meth. Bot. 1: 5. 1783; Dunn in Gamble, Fl. Presid. Madras 1: 89. 1915. *Sida humilis* Cav.. Diss. 5: 277. t. 134. fig. 2. 1788; Mast. in Hook. f., Fl. Brit. India 1: 322. 1874; Rama Rao. Fl. Pl. Trav. 37. 1914. Vallikurunthotti.

Erect or ascending herbs with tomentose branches. Leaves simple, alternate, lower ones suborbicular. upper ones ovate, crenate-serrate, deeply cordate at base. acuminate at apex. Flowers yellow, axillary, solitary. Mericarps 5, muticuous, 2-beaked.

Fls. & Frs.: July to September.

Common in openings, along roadsides and in waste places; Peechi, Nilambur and Velupadam campuses.

Sida rhombifolia L., Sp. Pl. 684. 1753; Mast. in Hook. f., Fl. Brit. India 1: 323. 1874. (incl. vars. *obovata*, *retusa* and *rhomboides*); Rama Rao, Fl. Pl. Trav. 38. 1914; Dunn in Gamble, Fl. Presid. Madras 1: 90. 1915; Bross., Blumea 14: 193. 1966. Kurunthotti.

Herbs or undershrubs with stellate-pubescent young parts. Leaves simple, alternate, obovate to orbicular, crenate, pubescent, cuneate at base, truncate or retuse at apex. Flowers yellow, solitary or rarely in clusters of 2-5. axillary. Mericarps flat-triangular, shortly 2 beaked.

Fls. & Frs.: October to January.

Common in waste places, along roadsides, etc.; Peechi, Nilambur and Velupadam campuses.

Thespesialampas (Cav.) Dalz. in Dalz. et Gibs., Bombay Fl. 19. 1861; Mast. in Hook. f., Fl. Brit. India 1: 315. 1874; Rama Rao, Fl. Pl. Trav. 43. 1914; Bross., Blumea 14: 116. 1966. *Hibiscus lampas* Cav., Diss. 3: 154. t. 56. fig. 2. 1787; Wt., Ic. t. 5. 1838; Dunn in Gamble, Fl. Presid. Madras 1: 99. 1915.

Shrubs or small trees with weak branches. Leaves simple, alternate, orbicular or 3-5 lobed, entire, glabrous, cordate or rounded at base, acuminate at apex. Flowers yellow, solitary or in racemes. Capsules globose-ovoid.

Fls. & Frs.: October to January.

Rare. in open areas and along pathsides; Peechi campus.

Thespesia populnea (L.) Sol. ex Con., Ann. Mus. Bat. Hist. 9: 290. t. 290. t. 8. fig. 1. 1807; Wt., Ic. t. 8. 1838; Mast. in Hook. f., Fl. Brit. India 1: 345. 1874; Bourd., For. Trees Trav. 43. 1907; Rama Rao, Fl. Pl. Trav. 43. 1914; Dunn in Gamble, Fl. Presid. Madras 1: 101. 1915; Bross., Blumea 14: 106. 1966. *Hibiscus populnea* L., Sp. Pl. 694. 1753.

Medium-sized trees. Leaves simple, alternate, ovate, entire, glabrous, cordate or subcordate at base, acuminate at apex. Flowers with a red tinge, solitary, axillary. Capsules globose or ovoid.

Fls. & Frs.: March to June.

A shade tree often-planted along avenues, rarely running wild; Peechi campus.

Urena lobata L., Sp. Pl. 692. 1753 (*sensulato*); Mast. in Hook. f., Fl. Brit. India 1: 329. 1875; Rama Rao, Fl. Pl. Trav. 39. 1914; Dunn in Gamble, Fl. Presid. Madras 1: 92. 1915; Bross., Blumea 14: 138. 1966. Uran, Udiram. Vatti.

Undershrubs with stellate-hairy branches. Leaves simple, alternate, variable in shape from orbicular to palmi-lobed or penni-parted, serrate or crenate with lobes varying in size and number, generally acute or acuminate at apex. Flowers rose-coloured or pink axillary, solitary or in 2-3 flowered clusters. Fruits brown, compressed-globular. glochidiate, separating into 5 cocci.

Fls. & Frs.: May to February.

Very common in dry areas and waste places especially along roadsides; Peechi, Nilambur and Velupadam campuses.

Introduced or cultivated species

Hibiscus esculentus L.

Grown as a vegetable in homesteads; Peechi campus.

Hibiscus rosa-sinensis L.

A garden plant, common in homesteads; Peechi campus.

14. BOMBACACEAE

Bombax ceiba L., Sp. Pl. 511. 1753 (*pro parte*); Robyns, Taxon 10: 257. 1961. *Bombax malabaricum* DC.. Prodr. 1: 479. 1824; Mast. in Hook. f., Fl. Brit. India 1: 349. 1874; Bourd., For. Trees Trav. 44. 1908; Rama Rao, Fl. Pl. Trav. 45. 1914; Gamble, Fl. Presid. Madras 1: 91. 1915. *Salmalia malabarica* (DC.) Sch. et Endl., Melet. Bot. 35. 1832. Elavu, Illavu.

Deciduous, lofty trees with straight trunk. Leaves degitately 5-7 foliate, alternate with elliptic-lanceolate, entire, acuminate leaflets. Flowers red, large, fleshy, solitary or 1-3 together with densely villous calyx. Capsules ellipsoid, cottony inside.

Fls. Frs.: January to March.

Rare. especially in the openings of moist deciduous forests, in valleys and near forest fringes; Peechi . Nilambur and Velupadam campuses.

Introduced or cultivated species

Ceibapentandra (L.) Gaertn.

Planted in homesteads, rarely running wild; Peechi and Nilambur campuses.

15. STERCULIACEAE

Helicteres isora L., Sp. Pl. 963. 1753; Mast. in Hook. f., Fl. Brit. India 1: 365. 1874; Rama Rao, Fl. Pl. Trav. 48. 1914; Gamble, Fl. Presid. Madras 1: 107. 1915. Edampiri-valampiri.

Large shrubs. Leaves simple, alternate, broadly elliptic or obovate, irregularly crenate-serrate. scabrous above. pubescent beneath, 3-5 nerved and truncate at base, acuminate at apex. Flowers red in axillary cymes or fascicles. Follicles linear and spirally twisted, pubescent.

Fls. & Frs.: August to December.

Common in the moist deciduous forests, especially in the openings; Peechi. Nilambur and Velupadam campuses.

Pterospermum reticulatum Wt et Arn, Prodr. 69. 1834; Mast. in Hook f., Fl. Brit India 1: 369. 1874; Bourd. For. Trees Trav. 53. 1908; Rama Rao, Fl. Pl. Trav. 49. 1914; Dunn. in Gamble, Fl. Presid Madras 1: 108. 1915.

Medium-sized trees. Leaves simple, alternate, cuneate-oblong, often cut at apex into several acute lobes or teeth, tomentose beneath, cuneate at base. Flowers white, 1-3 in upper axils. Capsules ovoid, tomentose.

Fls. & Frs.: March to December.

In dry, open areas and also in experimental plot: Nilambur campus.

Sterculia guttata Roxb. ex DC., Prodr. 1: 482. 1824; Mast. in Hook. f., Fl. Brit, India 1: 355. 1875; Bourd.. For. Trees. Trav. 49. 1908; Rama Rao, Fl. Pl. Trav. 47. 1914; Dunn in Gamble. Fl. Presid. Madras 1: 106. 1915. Peenari.

Trees with stellate-tomentose young shoots. Leaves simple, alternate. ovate-oblong, entire, glabrous above. stellate-pubescent beneath, cordate at base, acuminate at apex. Flowers dull-yellowish in axillary, stellate-tomentose racemes. Follicles 2-5. obovoid, densely brown-pubescent.

Fls. & Frs.: September to March.

Rather rare in the degraded deciduous forests, especially in rocky and exposed areas; Peechi, Nilambur and Velupadam campuses.

Sterculia urens Roxb., Pl. Corom. t. 24. 1795; Mast. in Hook. f., Fl. Brit. India 1: 355. 1874; Bourd., For. Trees Trav. 49. 1908; Rama Rao, Fl. Pl. Trav. 46. 1914; Dunn in Gamble. Fl. Presid. Madras 1: 106. 1915. Thondi.

Deciduous trees with papery, smooth bark. Leaves simple, alternate. 3 or 5 lobed-entire, glabrous cordate at base, caudate-acuminate at apex. Flowers yellow in terminal panicles. Follicles ovoid-blond, densely pubescent.

Fls. & Frs.: October to April.

Rare in dry and rocky, open forest areas; Nilambur campus.

Sterculia villosa Roxb. ex DC., Prodr. 1: 483. 1824; Mast. in Hook. f., Fl. Brit. India 1: 335. 1871; Bourd.. For. Trees Trav. 49. 1908; Rama Rao, Fl. Pl. Trav. 47. 1914; Dunn in Gamble, Fl. Presid. Madras 1: 76. 1915. Vakka.

Stunted trees. Leaves palmately 5-7 lobed, alternate, with lobes oblong-lanceolate, narrowed at base. acuminate at apex. Flowers pinkish in terminal. branched racemes. Follicles red, oblong, villous.

Fls. & Frs.: March to May.

Common in deciduous forests; Peechi campus.

Introduced or cultivated species

Theobroma cacao L.

Planted or as escape. along campus roadsides: Nilambur campus.

16. TILIACEAE

Corchorus aestuans L., Syst. ed. 10: 1079., *Corchorus ucutungulus* Lamk., Encyl. Meth. Bot. 2: 104. 1986; Mast. in Hook. f., Fl. Brit. India. 1: 398. 1874; Dunn in Gamble, Fl. Presid. Madras 1: 121. 1915.

Undershrubs with slender branches. Leaves simple, alternate, ovate, serrate, glabrous, rounded at base, acute at apex. Flowers yellow in leaf-opposed axillary cymes. Capsules 6 angled, 3-winged.

Fls & Frs.: October to February.

A weed along pathsides in less vegetated areas. Velupadam campus.

Corchorus capsularis L., Sp. Pl. 529. 1753; Mast. in Hook. f., Fl. Brit. India 1: 397. 1874; Dunn in Gamble. Fl. Presid. Madras 1: 122. 1915.

Erect or decumbent herbs. Leaves simple, alternate, ovate-lanceolate, serrate with lower serrations tailed, glabrous. 3-5 nerved and rounded or acute at base, acuminate at apex. Flowers yellow in leaf-opposed, shortly peduncled cymes. Capsules subglobose, deeply rugose.

Fls. & Frs.: September to October.

Rare along roadsides and in damp areas; Velupadam campus.

Grewia tiliaefolia Vahl, Symb. 1: 35. 1790. Mast. in Hook. f., Fl. Brit. India 1: 386. 1874; Bourd., For. Trees Trav. 57. 1908; Rama Rao, Fl. Pl. Trav. 52. 1914; Dunn in Gamble, Fl. Presid. Madras 1: 118. 1915. Chadachi.

Trees with rough bark. Leaves simple, alternate, ovate, crenate-serrate, subglabrous, oblique at base, acuminate at apes. Flowers yellow in axillary umbels. Drupes black, bilobed.

Fls. & Frs.: March to June.

Very common trees in the moist deciduous forests; Peechi. Nilambur and Velupadam campuses.

Triumfetta rhomboidea Jacq., Enum. Syst. Pl. 22. 1760; Mast. in Hook. f., Fl. Brit. India 1: 395. 1873; Rama Rao. Fl. Pl. Trav. 54. 1914; Dunn in Gamble, Fl. Presid. Madras 1: 120. 1915.

Woody undershrubs. stellate-pubescent all over. Leaves simple. alternate, ovate or elliptic, lower ones 3-5 lobed. serratedentate, tomentose beneath. cordate at base. acute at apex. Flowers yellow in leaf-opposed cymes. Capsules globose, stellate-tomentose.

Fls. & Frs.: September to December.

Common along the fringes of forests and also roadsides; Peechi campus.

Waltheria indica L., Sp. Pl. 673. 1753; Mast. in Hook. f., Fl. Brit. India 1: 374. 1874; Rama Rao. Fl. Pl. Trav. 51. 1913; Dunn. in Gamble, Fl. Presid. Madras 2: 111. 1915.

Undershrubs: Leaves simple. alternate. ovate, crenate-serrate. pubescent, cordate at base. rounded at apex. Flowers in dense axillary globose heads. Fruits 2 valved.

Fls. & Frs.: October to February.

A weed in waste places and along pathsides: Nilambur campus.

17. ELAEOCARPACEAE

Elaeocarpus tuberculatus Roxb., Fl. Ind. 2: 594. 1832. Mast. in Hook. f., Fl. Brit. India 1: 404. 1874; Bourd., For. Trees Trav. 59. 1908; Rama Rao, Fl. Pl. Trav. 55. 1914; Dunn in Gamble, Fl. Presid. Madras 1: 121. 1916.

Trees with spreading crown. Leaves obovate. alternate, crenate-dentate or subentire, pubescent beneath, rounded at base, obtuse at apex. Flowers white in axillary racemes. Drupes oblong with compressed stones.

Fls. & Frs.: January to May.

Planted near the roadside. growing naturally; Nilambur campus.

18. LINACEAE

Hugonia mystax L., Sp. Pl. 675. 1753; Hook. f. in Hook. f., Fl. Brit. India 1: 413. 1874; Rama Rao, Fl. Pl. Trav. 56. 1914; Gamble, Fl. Presid. Madras 1: 126. 1915. Modira-canni.

Straggling shrubs with woody hooks. Leaves simple, alternate, elliptic or obovate, entire, glabrous and shiny, cuneate at base, acute or obtuse at apex. Flowers yellow in terminal or axillary cymes with the lowest branches of the peduncle transformed into spiral hooks. Drupes fleshy, globose.

Fls. & Frs. : November to May.

Rare, along hedges or as climbers on low supports; Peechi and Nilambur campuses.

19. BALSAMINACEAE

Impatiens balsamina L., Sp. Pl. 938. 1753; Hook. f. in Hook. f., Fl. Brit. India 1: 453. 1874; Rama Rao, Fl. Pl. Trav. 61. 1914; Gamble, Fl. Presid. Madras 1: 142. 1915.

Annual herbs. Leaves simple, alternate, lanceolate, glabrous, fine-serrate, obtuse or acute at base, acute or acuminate at apex. Flowers pink in axillary fascicles. Capsules ovoid, densely tomentose.

Fls. & Frs.: September to November.

A garden plant, often running wild in the moist and shaded forest areas, especially near homesteads: Peechi campus.

20. OXALIDACEAE

Biophytum sensitivum (L.) DC., Prodr. 1: 690. 1824; Hook. f. in Hook. f., Fl. Brit. India 1: 436. 1874; Rama Rao, Fl. Pl. Trav. 58. 1914; Gamble, Fl. Presid. Madras: 1: 133. 1915. Mukkutti.

Annual or perennial herbs with short, unbranched stem. Leaves rosetted, pinnate with leaflets 6-15 pairs, opposite, the terminal pair largest and obovate. Flowers yellow in terminal, long-peduncled, clustered umbels. Capsules ellipsoid, glandular-pubescent, apiculate.

Fls. & Frs.: June to December.

Common in shaded areas, waste places, along roadsides, etc.; Peechi, Nilambur and Velupadam campuses.

Oxalis corniculata L., Sp. Pl. 435. 1753; Hook. f. in Hook. f., Fl. Brit. India 1: 436. 1874; Rama Rao, Fl. Pl. Trav. 58. 1914; Gamble, Fl. Presid. Madras 1: 132. 1915.

Erect or ascending perennial herbs, rooting at lower nodes. Leaves palmately 3-foliolate with leaflets obovate, entire, sparsely pubescent, emarginate at apex. Flowers yellow in axillary umbels. Fruits brown, linear, 5-ridged, tomentose, cuneate at base, shortly beaked at tip.

Fls. & Frs.: Throughout the year.

A very common weed in shaded areas, forest openings, along roadsides, etc.; Peechi and Velupadam campuses.

21. RUTACEAE

Aegle marmelos (L.) Corr., Trans. Linn. Soc. London 5: 223. 1800; Hiern in Hook. f., Fl. Brit. India 1: 516. 1875; Bourd., For. Trees Trav. 72. 1908; Rama Rao, Fl. Pl. Trav. 67. 1914; Gamble, Fl. Presid. Madras 1: 161. 1915. *Crataeva marmelos* L., Sp. Pl. 444. 1753. Koovalam, Vitra.

Armed, trees with rough bark. Leaves alternate, 3-5 foliolate with leaflets elliptic, lanceolate or oblong-obovate, chartaceous, entire, glabrous, rounded at base, obtuse at apex. Flowers greenish-white in axillary panicles. Bemes light yellow, globose, pulpy inside.

Fls. & Frs.: October to April.

Very rare in wild, but often grown in homesteads; Peechi campus.

Evodia lunu-ankenda (Gaertn.) Merr., Philipp. J. Sci. Bot. 7: 378. 1913; Gamble, Fl. Presid. Madras 1: 145. 1915. *Fagara lunu-ankenda* Gaertn., Fruct. 1: 334. t. 68. fig. 9. 1788. *Zanthoxylum triphyllum* Wt. Ic. t. 204. 1839. *Evodia roxburghiana* Benth., Fl. Hong. 59. 1861; Hook. f. in Hook. f., Fl. Brit. India 1: 487. 1875; Bourd., For. Trees Trav. 63. 1903; Rama Rao, Fl. Pl. Trav. 61. 1914. Kambili.

Medium-sized trees. Leaves alternate, trifoliate, with leaflets obovate or lanceolate, entire, glabrous, cuneate at base, acuminate at apex. Flowers in axillary, paniculate cymes. Fruits globose with muricate seeds.

Fls. & Frs: October to March.

Rare, along with other trees in densely forested areas; Peechi, Nilambur and Velupadam campuses.

Glycosmis arborea (Roxb.) DC., Prodr. 1: 538. 1824. *Limonia pentaphylla* Retz., Obs. Bot. 5: 24. 1788. *Limonia arborea* Roxb., Pl. Corom. t. 85. 1798. *Glycosmis pentaphylla auct. non L.* (Roxb.) DC. 1824; Hiern in Hook. f., Fl. Brit. India 1: 499. 1875; Fama Rao, Fl. Pl. Trav. 63. 1914; Gamble, Fl. Presid. Madras 1: 153. 1915. Panal.

Woody shrubs with pale white stems. Leaves imparipinnate, alternate with 3-5 oblong-lanceolate leaflets. entire glabrous, cuneate at base, obtuse or acute at apex. Flowers white in axillary racemes. Berries subglobose.

Fls. & Frs.: November to May.

Common in waste places and along fringes of forests; Peechi, Nilambur and Velupadam campuses.

Murraya koenigii (L.) Spreng., Syst. 2: 3 15. 1826; Hiern in Hook. f., Fl. Brit. India 1: 503. 1875; Bourd., For. Trees. Trav. 66. 1908; Rama Rao, Fl. Pl. Trav. 63. 1914; Gamble, Fl. Presid. Madras 1: 111. 1915. Kari-vepu.

Shrubs or rarely small trees. Leaves imparipinnate, alternate with leaflets sessile, oblong or lanceolate. entire, glabrous, oblique at base, acute at apex. Flowers white, fragrant in terminal cymes. Berries black ovoid.

Fls. & Frs.: March to June.

Running wild in open areas of the moist deciduous forests, mostly as an escape from homesteads; Peechi and Nilambur campuses.

Naringi crenulata (Roxb.) Nicol., Fl. Hassan Dist. 387. 1976; Panigrh., Bull. bot. Surv. India 17: 196. 1975. *Limonia crenulata* Roxb., Pl. Corom. t. 86. 1798. *Limonia acidissima auct. non L.* 1762; Hiern in Hook. f., Fl. Brit. India 1: 507. 1875; Rama Rao, Fl. Pl. Trav. 64. 1914.

Armed shrubs or small trees with axillary thornes. Leaves imparipinnate, alternate with jointed, winged rachis and leaflets 2-4 pairs, ovate-oblong, serrate, glabrous. narrowed towards base. obtuse, ovate or nouched at apex. Flowers white in axillary, umbelliform, leafy racemes. Berries black, globose.

Fls. & Frs.: May to November.

Rare, in moist deciduous forests, especially along hedges; Peechi and Nilambur campuses.

Toddalia asiatica (L.) Lamk., Encyl. Meth. Bot. 2: 116. 1793; Gamble, Fl. Presid. Madras 1: 150. 1915. *Paullinia asiatica* L., Sp. Pl. 365. 1753. *Toddalia aculeata* Pers., Syn. 1: 249. 1805; Hook. f. in Hook. f., Fl. Brit. India 1: 479. 1875.

Straggling or scandent shrubs with incurved prickles. Leaves alternate, 3-foliate, with leaflets elliptic-lanceolate or obovate, obscurely crenate, glabrous, obtuse at base, obtuse or nouched at apex. Flowers white in axillary cymes. Berries orange-coloured, lobed.

Fls. & Frs. : March to June

Rare, in the outskirts and along hedges, Velupadam campus.

Zanthoxylum rhetsa (Roxb.) DC., Prodr. 1: 728. 1824; Hiern in Hook. f., Fl. Brit. India 1: 495. 1895; Bourd., For. Trees Trav. 57. 1908; Rama Rao, Fl. Pl. Trav. 61. 1914; Gamble, Fl. Presid. Madras 1: 150. 1915; Babu, Bull. bot. Surv. India 16: 56. 1977. *Fagara rhetsa* Roxb., Fl. Ind. 1: 438. 1820. Mullilam.

Trees with straight trunk, armed with corical spines. Leaves crowded towards apex of branchlets, imparipinnate with leaflets ovate, oblong or oblong-lanceolate, subcoriaceous, entire or subcrenate, glabrous. cuneate or oblique at base, caudate or acuminate at apex. Follicles globose, apiculate.

Fls. & Frs.: September to January.

Rather common in dry rocky areas; Peechi and Nilambur campuses.

Introduced or cultivated species

Citrus medica L.f.

Shrubs or small trees grown in kitchen gardens. rarely running wild; Peechi and Nilambur campuses.

22. SIMAROUBACEAE

Ailanthus triphysa (Dennst.) Alston in Trimen, Handb. Fl. Ceylon 6 (Suppl.) 41. 1981; Benn. in Hook. f., Fl. Brit. India 1: 518. 1875; Bourd., For. Trees Trav. 73. 1908; Rama Rao, Fl. Pl. Trav. 68. 1914; Gamble. Fl. Presid. Madras 1: 116. 1915. Matti, Perumaram.

Trees with smooth trunk and grey bark. Leaves imparipinnate, alternate, clustered at apices of branchelets with leaflets obliquely ovate-lanceolate. entire, pubescent beneath, obtuse or rounded at base, acuminate at apes. Flowers light yellow in long, axillary or terminal panicles. Samaras linear-oblong, veined, 1-seeded.

Fls. & Frs.: April to May,

Rarely wild but often planted; Peechi, Nilambur and Velupadam campuses.

23. BURSERACEAE

Canarium strictum Roxb., Fl. Ind. 3: 138. 1882; Benn. in Hook. f., Fl. Brit. India 1: 534. 1875; Bourd., For. Trees Trav. 68. 1908; Rama Rao, Fl. Pl. Trav. 70. 1914; Gamble, Fl. Presid. Maras 1: 172. 1915. Kunthirikam. Thelli.

Lofty, trees with tomentose branchlets. Leaves alternate, imparipinnate with leaflets ovate to elliptic. entire crenate-serrate, coriaceous, glabrous above. tomentose beneath, subcordate, obtuse or broadly cuneate at base, acuminate at apex. Flowers creamy-white or yellowish in axillary panicles. Drupes ellipsoid or ovoid. 1 seeded.

Fls. & Frs.: January to November.

Rare. as planted and growing naturally; Nilambur campus.

24. MELIACEAE

Chukrasia tabularis Juss., Mem. Hist. Nat. Paris 19: 251. t. 33. 1831; Hiern in Hook. f., Fl. Brit. India 1: 568. 1875; Bourd., For. Trees Trav. 90. 1908; Rama Rao, Fl. Pl. Trav. 77. 1914; Gamble, Fl. Presid. Madras 1: 186. 1915. Akil.

Trees with lenticellate branchlets. Leaves alternate or subopposite. abruptly pinnate, with leaflets ovate or ovate-oblong, entire, glabrous above, unequal at base. acuminate at apex. Flowers yellow in spreading panicles. Capsules ovoid or obovoid, woody with winged seeds.

Fls. & Frs.: February to April, fruits throughout the year.

Rare in forested areas: Nilambur campus.

Melia dubia Cav., Diss. 7: 364. 1789; Hiern in Hook. f., Fl. Brit. India 1: 545. 1875; Bourd., For. Trees Trav. SO. 1908; Rama Rao, Fl. Pl. Trav. 73. 1914. *Melia composita* Willd., Sp. Pl. 2: 509. 1799; Gamble, Fl. Presid. Madras 1: 176. 1915. Kattu-veppu.

Trees with dense crown. Leaves bipinnate, alternate with leaflets ovate or lanceolate, entire. glabrous. unequal at base. acuminate at apex. Flowers dull yellow or white in branched panicles. Drupes yellow when ripe. ellipsoid, smooth.

Fls. & Frs.: November to February

Rare. in valleys and thickets of moist deciduous forests: Peechi and Nilambur campuses.

Naregamia alata Wt. et Arn., Prodr. 117. 1834; Wt., Ic, t. 90. 1838; Hiern in Hook. f., Fl. Brit. India 1: 542. 1875; Gamble, Fl. Presid. Madras 1: 175. 1915; Mabb., Taxon 26: 530. 1977. Nila-naragam.

Undershrubs with woody base. Leaves alternate, trifoliate with winged petioles and leaflets ovate-elliptic. entire. glabrous and glanddotted. cuneate at base, obtuse at apex. Flowers white. solitary, axillary. Fruits ovoid or glabose.

Fls. & Frs.: October to February

Rather common the forest floor: Peechi, Nilambur and Velupadam campuses.

Swietenia macrophylla King in Hook., Ic. Pl. 16: t. 1550. 1886.

Trees with buttressed base. Leaves, alternate. paripinnate with 2-8 pairs of opposite. elliptic or oblong. leaflets rounded at base. obtuse at apes. Flowers in large panicles. Capsule obovoid.

Fls. & Frs.: March to May.

Rare. mostly planted but growing naturally in forested areas; Peechi and Nilambur campuses.

Toona ciliata Roem. Syn. Hesp. 139. 1846; Sant., Bull. bot. Surv. India 3: 13. 1962. *Cedrela toona* Roxb. ex Rottl. e/Willd., Ges. Naturf. Fl., Neue Schr. 2: 198. 1803; Wt., Ic. t. 161. 1839; Hiern in Hook. f., Fl. Brit. India 1: 568. 1875; Bourd., For. Trees Trav. 91. 1908; Rama Rao, Fl. Pl. Trav. 77. 1914; Gamble, Fl. Presid. Madras 1: 187. 1915. Vembu.

Trees with dense crown and flaking bark. Leaves imparipinnate, alternate with leaflets lanceolate, entire, glabrous. inequilateral at base, acute or acuminate at apex. Flowers white in terminal, drooping panicles. Capsules oblong or ovoid with winged seeds.

Fls. & Frs.: November to June.

Rare. in forested areas; Nilambur campus.

Introduced or cultivated species

Azadirachta indica A. Juss.

Trees grown in homesteads, very rarely remaining wild; Peechi and Nilambur campuses.

25. OLACACEAE

Olax scandens Roxb., Pl. Corom. 2: 2. t. 102. 1799; Mast. in Hook. f., Fl. Brit. India 1: 575. 1875; Gamble, Fl. Presid. Madras. 1: 190. 1915. *Olax wightiana* Wall. ex Wt. et Arn., Prodr. 89. 1834; Rama Rao, Fl. Pl. Trav. 78. 1914.

Subscandent shrubs. Leaves ovate-oblong, entire, shiny above, pale beneath. rounded at base. obtuse or subacute at apex. Flowers white in lax, axillary racemes. Drupes subglobose with persistent, accrescent style.

Fls. & Frs.: January to May,

Rare in the shrubby thickets of the forests and also along hedges; Peechi campus.

26. RHAMNACEAE

Ziziphus oenoplia (L.) Mill., Gard. Dict. (ed.8): 3. 1768; Laws. in Hook. f., Fl. Brit. India 1: 634. 1875; Lima Rao. Fl. Pl. Trav. 87. 1914; Gamble. Fl. Presid. Madras 1: 220. 1915. *Rhamnus oenoplia* L.. Sp. Pl. 194. 1753.

Straggling shrubs with strigose branchlets. Leaves simple. alternate, ovate-lanceolate, entire. rufous-hairy beneath. oblique and 3-5 nerved at base, acute or subacuminate at apex. Flowers greenish-white in axillary, many-flowered cymes. Drupes black, globose.

Fls. & Frs.: November to December.

Rare. in dry rocky areas and also along hedges; Peechi and Nilambur campuses.

Ziziphus rugosa Lamk., Encyl. Meth. Bot. 3: 319. 1789; Laws. in Hook. f., Fl. Brit. India 1: 636. 1875; Bourd., For. Trees Trav. 106. 1908; Rama Rao, Fl. Pl. Trav. 87. 1914; Gamble, Fl. Presid. Madras 1: 158. 1915.

Straggling, thorny shrubs or small trees. Leaves simple, alternate, ovate, serrate, pubescent beneath, cordate at base. obtuse at apex. Flowers pale yellow in tomentose cymes. Drupes white, oblong.

Fls. & Frs.: February to April.

Rather common in dry, open areas of the moist deciduous forests; Peechi, Nilambur and Velupadam campuses.

27. VITACEAE

Ampelocissus latifolia (Roxb.) Planch.. Vigne Amer. Vit. Europe 8: 374. 1884; Gamble, Fl. Presid. Madras 1: 230. 1915. *Vitis latifolia* Roxb., Fl. Ind. 1: 661. 1820; Laws. in Hook. f., Fl. Brit. India 1: 652. 1875; Rama Rao. Fl. Pl. Trav. 90. 1914. *Cissus latifolia* (Roxb.) Vahl. Symb. 3: 18. 1794.

Large climbers with forked tendrils. Leaves alternate. orbicular. 3-7 angled or lobed. toothed, tomentose beneath. cordate at base. Flowers reddish brown in compound. thyrsoid cymes, pubescent when young. Berries globose. glabrous.

Fls. & Frs.: August to December.

Rare, along hedges and as climbers on trees; Peechi campus.

Cayratia mollissima (Wall.) Gagnep., Leconte. Notul. Syst. (Pairs) 1: 345. 1911; Gamble, Fl. Presid. Madras 1: 237. 1918. *Vitis mollissima* Wall. in Roxb., Fl. Ind. 2: 482. 1824; Laws. in Hook. f., Fl. Brit. India 1: 656. 1875.

Slender, villous climbers with tendrils. Leaves 3-foliolate, alternate, with leaflets broadly ovate, serrate, softly villous, oblique at base, acuminate at apex. Flowers white in axillary corymbs. Berries globose, white-hairy.

Fls. & Frs. : February to June.

Rare, along hedges in open forest areas; Peechi campus.

Cayratia pedata (Lamk.) Juss. ex Gagnep. in Leconte. Notul. Syst. (Paris) 1: 346. 1911; Gamble, Fl. Presid. Madras 1: 236. 1918; Furt., Taxon 13:240. 1961. *Cissus pedata* Lamk., Encyl. Meth. Bot. 1: 31. 1783. *Vitis pedata* (Lamk.) Vahl ex Wt. et Arn., Prodr. 426. 1884; Laws. in Hook. f., Fl. Brit. India 1: 661. 1875.

Slender, gregarious climbers. Leaves alternate, pedately 7-9 foliate with leaflets oblong-lanceolate, entire, hirsute on both sides, somewhat oblique at base, acuminate at apex. Flowers white in axillary, shortly pedunculate, corymbose cymes. Berries white, globose.

Fls. & Frs.: July to September.

A hedge climber in forest areas; Peechi campus.

Cissus discolor Bl., Bijdr. 181. 1825; Laws. in Hook. f., Fl. Brit. India 1: 647. 1875; Gamble, Fl. Presid. Madras 1: 235. 1918. *Vitis discolor* (Bl.) Dalz. in Hook., J. Bot. Kew. Gard. Misc. 2: 39. 1850; Rama Rao. Fl. Pl. Trav. 89. 1914.

Slender, tendril climbers with reddish stem. Leaves simple, alternate, oblong-lanceolate, serrate, cordate-truncate at base, acuminate at apex. Flowers reddish externally in umbellate cymes. Berries subglobose.

Fls. & Frs.: July to November.

Common as climbers on bushes in thickets of moist deciduous forests; Peechi campus.

Cissus glauca Roxb., Fl. Ind. 1: 406. 1820; Gamble, Fl. Presid Madras 1:234. 1918. *Vitis glauca* (Roxb.) Wt. et Arn., Prodr. 126. 1834; Laws. in Hook. f, Fl. Brit. India 1: 648. 1875; Rama Rao, Fl. Pl. Trav. 90. 1914.

Tendril climbing shrubs with fibrous stems and glaucous branchlets. Leaves simple, alternate, orbicular or broadly ovate, serrate, cordate at base, acuminate at apex. Flowers greenish-white in leaf-opposed, cymose umbels. Berries green, ovoid.

Fls. & Frs.: June to July.

Common along hedges; Peechi campus.

Introduced or cultivated species

Cissus quadrangularis L.

Succulent undershrubs with green, quadrangular stems. introduced as medicinal plant, growing naturally along hedges; Peechi and Velupadam campuses.

28. LEEACEAE

Leea indica (Burm. f.) Merr., Philip. J. Sci. Bot. 14: 245. 1919; Ridsdl., Blumea 22: 95. 1974. *Staphylea indica* Burm. f., Fl. Ind. 75. t. 33. fig. 2. 1768. *Leea sambucina* (L.) Willd., Sp. Pl. 1: 1177. 1798; Bourd.. For. Trees Trav. 107. 1908; Rama Rao, Fl. Pl. Trav. 92. 1914; Gamble, Fl. Presid. Madras 1: 240. 1915.

Large shrubs. Leaves alternate, 2-3 pinnate with leaflets oblong or elliptic, entire, glabrous, acute or cuneate at base, acuminate at apex. Flowers plae greenish in corymbose panicles. Berries purplish-black, depressed globose.

Fls. & Frs.: November to April.

Rare. in the *Hopea* growing area: Nilambur campus.

Leea macrophylla Roxb. *ex* Hornem., Hort. Hafn. 1: 231. 1831; Laws. in Hook. f., Fl. Brit. India 1: 664. 1875; Rama Rao, Fl. Pl. Trav. 92. 1914; Gamble, Fl. Presid. Madras 1: 239. 1918. *Leea robusta* Roxb., Fl. Ind. 2: 468. 1824; Gamble, Fl. Presid. Madras 1: 240. 1918. *Leea diffusa* Laws. in Hook. f., Fl. Brit. India 1: 664. 1875; Gamble, Fl. Presid. Madras 1: 240. 1918. *Leea latifolia* Wall. *ex* Kurz, J. Asiat. Soc. Benga 144: 178. 1875; Gamble, Fl. Presid. Madras 1: 240. 1918. *Leea venkoburaoii* Gamble, Kew Bull. 1917: 26. 1917. Large shrubs with pubescent young branches, glabrous when mature. Leaves tripinnate, alternate with leaflets obovate. serrate, cordate at base acuminate at apex. Flowers greenish white in corymbose, pubescent panicles. Bemes globose, black when ripe.

Fls. & Frs.: August to October.

Rare. along hedges and in forest openings; Peechi and Nilambur campuses.

29. SAPINDACEAE

Allophyllus cobbe (L.) Raeusch., Nom. Bot. ed. 3. 108. 1797; Hiern in Hook. f., Fl. Brit. India 1: 673. 1875; Bourd., For. Trees Trav. 109. 1908; Rama Rao, Fl. Pl. Trav. 94. 1914; Leenh., Blumea 15: 322. 1968. *Rhus cobbe* L., Sp. Pl. 267. 1753. *Allophyllus rheedii* (Wt.) Radlk., Pflanzenz. 3(5): 313. 1895; Gamble, Fl. Presid. Madras 1: 246. 1918. Mukkannan-peezeu.

Large shrubs or small trees. Leaves trifoliate, alternate with leaflets ovate or obovate, serrate, pubescent, narrowed at base, acuminate at apex. Flowers greenish-white in branched racemes. Fruits red, ovoid.

Fls. & Frs.: June to August.

Rare. as an undergrowth in moist deciduous forests; Peechi campus.

Cardiospermum helicacabum L., Sp. Pl. 366. 1753; Hiern in Hook. f., Fl. Brit. India 1: 670. 1875; Rama Rao, Fl. Pl. Trav. 93. 1914; Gamble, Fl. Presid. Madras 1: 244. 1918. Uzhinja.

Straggling herbs with tendrils. Leaves bipinnate, alternate with leaflets, lanceolate, deeply dentate or lobed. glabrous, acute or rounded at base, acute or shortly acuminate at apex. Flowers white in umbellate cymes with lower pedicels modified into circinate tendrils. Capsules pyriform, depressed.

Fls. & Frs.: October to December.

A very common weed, especially in wet areas, along roadsides, etc.; Peechi and Velupadam campuses.

Sapindus laurifolia Vahl, Symb. Bot. 3: 54. 1794; Gamble, Fl. Presid. Madras 1: 250. 1918. *Sapindus trifoliata auct. non* L. (1753); Hiern in Hook. f., Fl. Brit. India 1: 682. 1872; Bourd., For. Trees Trav. 110. 1908; Rama Rao, Fl. Pl. Trav. 95. 1914.

Medium-sized trees. Leaves alternate with 2-3 pairs of leaflets, elliptic or lanceolate, entire, glabrous. often subequal at base, acuminate at apex. Flowers dull white in terminal panicles. Drupes 3-lobed, velvety, black when ripe.

Fls. & Frs.: November to April.

Very rare. in sparsely wooded areas; Nilambur campus.

Schleichera oleosa (Lour.) Oken, Allg. Naturgesch. 3(2): 1341. 1841. *Pistacia oleosa* Lour., Fl. Cochinch. 615. 1790. *Schleichera trijuga* Willd., Sp. Pl. 4: 1096. 1805; Hiern in Hook. f., Fl. Brit. India 1: 681. 1875; Bourd., For. Trees. Trav. 110. 1908; Rama Rao, Fl. Pl. Trav. 94. 1914; Gamble, Fl. Presid. Madras 1: 248. 1918. Poovam.

Tall trees with rough, cracking bark. Leaves abruptly pinnate, alternate with leaflets obovate or oblong-lanceolate, entire, coriaceous, glabrous, shiny above, rounded or obtuse at base, obtuse at apex. Flowers small. in interrupted racemes. Capsules ovoid, echinate, pointed.

Fls. & Frs.: January to August.

Prominent trees with reddish young foliage, rather common in the deciduous forests; Peechi, Nilambur and Velupadam campuses.

Introduced or cultivated species

Filicium decipiens Thw.

Planted trees in the vicinity of the Institute, flowering during November to January; Peechi campus.

30. ANACARDIACEAE

Anacardium occidentale L., Sp. Pl. 383. 1753; Hook. f. in Hook. f., Fl. Brit. India 2: 20. 1876; Bourd., For. Trees Trav. 121. 1908; Rama Rao, Fl. Pl. Trav. 98. 1914; Gamble, Fl. Presid Madras 1: 260. 1918. Kasu-mavu
Spreading trees. Leaves simple, alternate, obovate, entire, coriaceous, cuneate at base, obtuse or retuse at apex. Flowers greenish with red stripes in terminal or subterminal, compound panicles. Drupes pale-white, reniform with enlarged, fleshy thalamus.

Fls. & Frs.: February to June

The cashewnut tree, growing wild as escapes in the moist deciduous forests; Peechi and Nilambur campuses.

Hotigarna arnottiana Hook. f. in Hook. f., Fl. Brit. India 2: 36. 1876; Bourd., For. Trees Trav. 124. 1908; Rama Rao, Fl. Pl. Trav. 101. 1914; Gamble, Fl. Presid. Madras 1: 268. 1918. Cheru.

Trees with dense crown. Leaves simple, oblanceolate, entire, glabrous, cuneate at base, obtusely acute at apex. Flowers white in pale golden-brown tomentose panicles. Drupes enclosed in the calyx and disc.

Fls. & Frs.: April to June.

Rare, in densely forested areas; Peechi campus.

Lannea coromandelica (Houtt.) Merr., J. Am. Arbor. 19: 35. 1939. *Dialium cornmandelicum* Houtt.. Nat. Hist. Ser. 2,2: 39, t.5, fig. 2. 1774. *Odina wodier* Roxb., Fl. Ind. 2: 293. 1832; Wt., Ic. t. 66. 1838; Hook. f. in Hook. f., Fl. Brit. India 2: 29. 1876; Bourd., For. Trees Trav. 126. 1908; Rama Rao, Fl. Pl. Trav. 100. 1914; Gamble, Fl. Presid. Madras 1: 263. 1918. Kalasam, Kalayam.

Medium sized, deciduous trees. Leaves alternate, imparipinnate, 6-11 foliate with leaflets ovate-oblong, entire, glabrous, rounded at base, acuminate at apex. Flowers yellowish-white in axillary panicles. Drupes red reniform, compressed

Fls. & Frs. : January to May.

Rare, in valleys and shaded areas of moist deciduous forests; Peechi and Nilambur campuses.

Mangifera indica L., Sp. Pl. 200. 1753; Bedd., Fl. Sylvat. t. 162. 1871; Hook. f. in Hook. f., Fl. Brit. India 2: 18. 1876; Bourd., For. Trees Trav. 117. 1908; Rama Rao, Fl. Pl. Trav. 97. 1914; Gamble, Fl. Presid. Madras 1: 259. 1918. Mavu, Kattu-mavu.

Spreading trees. Leaves simple, alternate, oblong-lanceolate, entire, glabrous, cuneate at base, acute at apex. Flowers greenish yellow in terminal panicles. Drupes yellowish-green, ovoid, fleshy.

Fls. & Frs.: December to May.

The mango tree, rarely growing wild in forested areas and commonly grown in homesteads; Peechi, Nilambur and Velupadam campuses.

Spondias pinnata (L.f.) Kuz, Prelim. Rep. For. Peg. App. A. 44 & B. 42. 1875; Airy Shaw et Form., Kew Bull. 21: 8. 1967. *Mangifera pinnata* L.f., Suppl. Pl. 156. 1782. *Spondias amara* Lamk., Encyl. Meth. Bot. 4: 261. 1797. *Spondias mangifera* Willd., Sp. Pl. 2: 751. 1799 (*non.; illeg.*); Hook. f. in Hook. f., Fl. Brit. India 2: 42. 1876; Bourd., For. Trees Trav. 127. 1908; Rama Rao, Fl. Pl. Trav. 102. 1914; Gamble, Fl. Presid. Madras 1: 261. 1918. Ambazham.

Trees, 15-20 m high with wrinkled, grey bark. Leaves alternate, imparipinnate with leaflets opposite, entire, glabrous, ovate at base, acuminate at apex. Flowers yellowish-white in terminal panicles. Fruits ovoid, fleshy, yellowish-brown when ripe, sourish-sweet.

Fls. & Frs.: December to April.

Rarely growing wild but often grown in homesteads; Nilambur and Velupadam campuses.

31. MORINGACEAE

Introduced or cultivated species

Moringa pterygosperma Gaertn.

Commonly grown in homesteads for edible leaves and fruits; Peechi and Nilambur campuses.

32. CONNARACEAE

Rourea minor (Gaertn.) Alston in Trim., Handb. Fl. Ceylon Suppl. 6: 67. 1931 (as *minus*). *Aegiceras minus* Gaertn., Fruct. 1: 216. t. 46. 1788. *Rourea santaloides* (Vahl) Wt. et Am., Prodr. 144. 1834; Hook. f. in Hook. f., Fl. Brit. India 2: 47. 1876; Rama Rao, Fl. Pl. Trav. 104. 1914; Gamble, Fl. Presid. Madras 1: 721. 1918. Kureel.

Lianas with circinate, woody tendrils. Leaves alternate, imparipinnate with 5-9, elliptic-lanceolate, entire, glabrous, coriaceous leaflets, acuminate at apex. Flowers white in glabrous panicles. Follicles yellow, elliptic, curved, often beaked.

Fls. & Frs.: October to May.

Rare, as undergrowth in **dry**, lateritic areas; Peechi and Velupadam campuses.

33. PAPILIONACEAE

Abrus precatorius L., Syst. Nat. ed. 2: 472. 1767; Baker in Hook f., Fl. Brit. India 2: 175. 1876; Rama Rao, Fl. Pl. Trav. 177. 1914; Gamble, Fl. Presid. Madras 1: 349. 1918; Verdc., Kew Bull. 24: 240. 1970. *Glycine abrus* L., Sp. Pl. 753. 1753. Kunni.

Wiry, climbing undershrubs with puberulent or glabrescent branchlets. Leaves alternate, paripinnate with leaflets oblong to elliptic, entire, glabrous above, glabrescence beneath, obtuse at base and apex. Flowers white or pinkish to lavender, in axillary or terminal racemes. Pods oblong, torulose, many seeded.

Fls. & Frs.: March to December.

Common along hedges; Peechi, Nilambur and Velupadam campuses.

Alysicarpus vaginalis (L.) DC., Prodr. 2: 353. 1825; Baker in Hook. f., Fl. Brit. India 2: 158. 1876; Rama Rao, Fl. Pl. Trav. 115. 1914; Gamble, Fl. Presid. Madras 1: 338. 1918; Steenis, Reinwardtia 6: 87. 1961. *Hedysarum vaginalis* L., Sp. Pl. 746. 1753.

Suberector creeping suffruticose herbs. Leaves 1-foliolate, alternate with the leaflets linear-oblong to orbicular, entire, glabrous, cordate at base, truncate and apiculate at apex. Flowers pink in terminal racemes. Pods terete, 4-8 jointed.

Fls. & Frs.: September to November.

Common in open and waste places; Peechi and Nilambur campuses.

Atylosia goensis (Dalz.) Dalz., J. Linn. Soc. Bot. 13: 186. 1873; Gamble, Fl. Presid. Madras 1: 369. 1918. *Cajanus goensis* Dalz. in Hook., Kew J. Bot. 2: 265. 1850. *Atylosia barbata* Baker in Hook. f., Fl. Brit. India 2: 216. 1876; Rama Rao, Fl. Pl. Trav. 127. 1914.

Climbing shrubs with woody base and grey-pubescent branches. Leaves alternate, trifoliolate with leaflets ovate-oblong, entire, pubescent beneath, acuminate at apex. Flowers yellow in short axillary racemes. Pods moniliform

Fls. & Frs.: December to April.

Common in disturbed forest areas; Peechi campus.

Atylosia scarabaeoides (L.) Benth. in Miq., Pl. Jungh 242. 1852; Baker in Hook f., Fl. Brit. India 2: 215. 1876; Rama Rao, Fl. Pl. Trav. 127. 1914; Gamble, Fl. Presid. Madras 1: 369. 1918. *Dolichos scarabaeoides* L., Sp. Pl. 726. 1753.

Slender twining shrubs. Leaves alternate, 3-foliolate with leaflets obovate-oblong, slightly grey-concescent beneath, acute at base, obtuse or shallowly notched at apex. Flowers yellow in short racemes. Pods covered with golden hairs.

Fls. & Frs.: September to December.

A weed in shaded thickets of moist deciduous forests; Peechi campus.

Butea monosperma (Lamk.) Taub. in Engl. & Prantl, Pflanzenfam. 3(3): 366. 1894. *Erythrina monosperma* Lamk., Encyl. Meth. Bot. 1: 391. 1785. *Butea frondosa* Koen. ex Roxb., Asiat. Res. 3: 369. 1793; Baker in Hook. f., Fl. Brit. India 2: 194. 1876; Bourd., For. Trees Trav. 130. 1908; Rama Rao, Fl. Pl. Trav. 120. 1914; Gamble, Fl. Presid. Madras 1: 357. 1918. Plas, Chamatha.

Medium sized trees. Leaves trifoliate, alternate with leaflets broadly ovate or obovate. entire. glabrous. leathery. rounded at base, rounded or obtuse at apex. Flowers bright orange-red in axillary racemes. Pods falcate-oblong, compressed, long-stalked.

Fls. & Frs.: March to April.

Rather rare in moist deciduous forests; Nilambur and Velupadam campuses.

Calopogonium mucunoides Desv., Ann. Sci. Nat. Ser. 1, 9: 423. 1826.

Straggling herbs with light green, densely brown, pilose stems. Leaves alternate, pinnate. with leaflets elliptic. entire. pubescent. obtuse at base, obtuse or slightly apiculate at apex. Flowers pale blue in axillary. Racemes. Pods narrowly oblong, septate, densely brown pilose, 5-6 seeded.

Fls & Frs: February to May.

An exotic weed. native to tropical America, rather gregarious in forest openings; Peechi and Velupadam campuses.

Centrosema pubescens Benth.. Common. Legum. Gen. 55. 1837. *Centrosema virginianum* auct. non (L.) Benth.. 1838: Subram., Bull. bot. Surv. India 3: 201. 1961.

Pubescent twiners. Leaves 3-foliate. alternate with leaflets ovate or elliptic. entire. obtuse or acute at base. acuminate at apex. Flowers rose-coloured or pinkish in axillary racemes. Pods oblong, pubescent. compressed with 4 raised ribs near the sutures.

Fls. & Frs.: September to December.

Native of America. often grown as cover-crop, common along hedges and in the openings of moist deciduous forests: Peechi and Nilambur campuses.

Clitoria ternatea L., Sp. Pl. 753. 1753; Baker in Hook. f., Fl. Brit. India 2: 208. 1876: Rama Rao. Fl. Pl. Trav. 125. 1914; Gamble. Fl. Presid. Madras 1: 365. 1918. Sankupushpam.

Twining herbs or undershrubs. Leaves imparipinnate, alternate with leaflets broadly elliptic. ovate or obovate. entire. glabrous. acute or obtuse at base, acute or shortly acuminate at apex. Pods linear. compressed apically beaked

Fls. & Frs.: March to April.

Very common along hedges and fences; Peechi, Nilambur and Velupadam campuses.

Crotalaria evolvuloides Wt. ex Wt. et Am.. Prodr. 188. 1834; Baker in Hook. f., Fl. Brit. India 2: 68. 1876: Rama Rao. Fl. Pl. Trav. 105. 1914; Gamble. Fl. Presid. Madras 1: 292. 1918.

Much branched herbs or undershrubs. Leaves alternate. imparipinnate with leaflets orbicular. oblong or oblong-lanceolate. entire, glabrous. membranous, round-oblong or elliptic at base. obtuse at apex. Flowers yellow in terminal racemes. Pods reflexed.

Fls. & Frs.: October to March.

A weed in waste places, along roadsides. etc.; Peechi campus.

Crotalaria mysorensis Roth. Nov. Pl. Sp. 332. 1821; Baker in Hook. f., Fl. Brit. India 2: 70. 1876: Gamble. Fl. Presid. Madras 1: 295. 1918; de Munk, Reinwardia 6: 210. 1962.

Silky-hairy, erect herbs. Leaves simple, alternate. linear oblong, entire. silky hairy beneath. rounded at base. rounded-apiculate at apex. Flowers yellow in erect. lax racemes. Pods oblong, glabrous.

Fls. & Frs. : October to February.

A weed along roadsides and in waste places: Peechi campus.

Crotalaria pallida Dryand. in Ait.. Hort. Kew. ed. 1. 3:20. 1789; Polh., Kew Bull. 22: 262. 1969. *Crotalaria striata* DC.. Prodr. 2: 131. 1825; Baker in Hook. f., Fl. Brit. India 3: 84. 1872: Rama Rao. Fl. Pl. Trav. 107. 1914; Gamble. Fl. Presid. Madras 1: 212. 1918. *Crotalaria mucronata* Desv., J. Bot. 3: 76. 1814 & in Ann. Sci. Nat. 9: 107. 1826; de Munk. Reinwardtia 6: 200. 1962.

Erect. glabrescent herbs. Leaves trifoliate. alternate with leaflets elliptic or obovate-rounded. minutely pubescent beneath. membranous. obtuse at base. acute at apex. Flowers yellow in terminal. many-flowered racemes. Pods oblong, minute-hairy or glabrous.

Fls. & Frs.: July to November.

A common weed in the open areas of moist deciduous forests and also along waysides; Peechi, Nilambur and Velupadam campuses.

Crotalaria retusa L., Sp. Pl. 715. 1753; Baker in Hook. f., Fl. Brit. India 2: 75. 1876; Gamble, Fl. Presid. Madras 1: 293. 1918; de Munk, Reinwardtia 6: 212. 1962.

Erect, pubescent undershrubs. Leaves simple, alternate, oblanceolate, entire, glabrous, obtuse at base, acute at apex. Flowers yellow in elongated racemes. Pods many-seeded, narrowed at base.

Fls. & Frs.: November to February.

Rather common in open areas, along pathsides, etc; Velupadam campus.

Dalbergia horrida (Dennst) Mabb., Taxon 25: 538. 1977; Thoth. et K.K.N. Nair, Taxon 30: 46. 1981; K.K.N. Nair, J. Em. Taxa. Bot. 13: 582. 1989. *Dalbergia sympathetica* Nimmo in Grah., Cat. Bombay Pl. 55. 1839; Baker in Hook f., Fl. Brit. India 2: 234. 1876; Rama Rao, Fl. Pl. Trav. 129. 1914. *Dalbergia multiflora* Heyne ex Prain, J. Asiat. Soc. Bengal 70(2): 59. 1901; Gamble, Fl. Presid Madras 1: 381. 1918. Ana-mullu

Armed lianas with occasionally prostrate branches. Leaves alternate, imparipinnate, with leaflets elliptic or oblong, entire, glabrous, cuneate or rounded at base, truncate or emarginate at apex. Flowers white in axillary, cymose panicles. Pods 1-3 seeded.

Fls. & Frs.: November to April

Rather common, especially in dry rocky areas; Peechi, Nilambur and Velupadam campuses.

Dalbergia lanceolaria L.f., Suppl. Pl. 316. 1781; Baker in Hook. f., Fl. Brit. India 2: 235. 1876; Bourd., For. Trees Trav. 134. 1908; Rama Rao, Fl. Pl. Trav. 130. 1904; Gamble, Fl. Presid. Madras 1: 383. 1918; K.K.N. Nair, J. Em. Tax. Bot. 13: 583. 1989. Velleetti, Mala-muringa.

Medium sized trees with smooth, greyish-white bark. Leaves imparipinnate, alternate with leaflets ovate-oblong, entire, glabrous above, glaucous beneath, obtuse or cuneate at base, obtuse at apex. Flowers bluish-white in lax, terminal or axillary panicles. Pods tapering at both ends, 1-3 seeded.

Fls. & Frs.: February to June.

Fairly common in the valleys and also along and forest boundaries; Peechi and Nilambur campuses.

Dalbergia latifolia Roxb., Pl. Corom. t. 113. 1799; Baker in Hook. f., Fl. Brit. India 2: 213. 1876; Bourd., For. Trees Trav. 132. 1908; Rama Rao, Fl. Pl. Trav. 129. 1914; Gamble, Fl. Presid. Madras 1: 383. 1918; K.K.N. Nair, J. Eco. Tax. Bot. 13: 583. 1989. Eeetti, Veetti.

Lofty trees with grey bark. Leaves imparipinnate, alternate with leaflets mostly orbicular or ovate, entire, subcoriaceous, glabrous, obtuse or rounded at base, emarginate or obtuse at apex. Flowers white in axillary panicles. Pods strap-shaped, green turning yellowish.

Fls. & Frs.: November to March.

One of the common trees in the moist deciduous forests, especially along the sides of valleys; Peechi, Nilambur and Velupadam campuses.

Dalbergia sissooides Grah. ex Wt. et Am., Prodr. 265. 1834; Gamble, Fl. Presid. Madras I: 383. 1918; K.K.N. Nair, J. Em. Tax. Bot. 13: 586. 1989. *Dalbergia latifolia* Roxb. var. *sissooides* (Grah. ex Wt. et Am.) Baker in Hook. f., Fl. Brit. India 2: 231. 1876. *Dalbergia latifolia* sensu Wt., Ic. t. 1156. 1846. (non Roxb.). Kam-vetti.

Deciduous trees with grey, smooth bark. Leaves imparipinnate, alternate with leaflets orbicular or ovate, entire, coriaceous, glabrous, cuneate or obtuse at base, acute or bluntly acuminate at apex. Flowers yellowish-white in lax, axillary panicles. Pods strap-shaped, green turning light yellowish.

Fls. & Frs.: November to March.

Rather common in the deciduous forests, especially along roadsides, side of valleys and in rocky and open areas; Peechi, Nilambur and Velupadam campuses.

Dalbergia sissoo Roxb. ex DC., Prodr. 2: 416. 1825; Baker in Hook. f., Fl. Brit. India 2: 237. 1876; Gamble, Fl. Presid. Madras 1: 384. 1918; Thoth., Bull. bot. Surv. India 25: 172-173. 1983; K.K.N. Nair, J. Eco. Tax. Bot. 13: 586-587. 1989.

Trees with rough, grey bark. Leaves alternate, imparipinnate with 3-5 leaflets, suborbicular or ovate-lanceolate, entire, glabrous, rounded or cuneate at base, mostly acuminate at apex. Flowers creamy white or yellowish in pubescent subcorymbose panicles. Pods strap-shaped, 1-3 seeded.

Fls. & Frs: November to August.

Planted trees growing naturally; Nilambur campus.

Dalbergia volubilis Roxb., Pl. Corom t. 191. 1805 & Fl. Ind. 3: 231. 1892; Baker in Hook f., Fl. Brit. India 2: 235. 1876; Rama Rao, Fl. Pl. Trav. 130. 1914; Gamble, Fl. Presid. Madras 1: 383. 1918; K.K.N. Nair, J. Eco. Tax Bot. 13: 587. 1989.

Lianas or stragglers with ridged main stem. Leaves alternate, imparipinnate with leaflets ovate or ovate-oblong, entire, glabrous, acute or obtuse at base, rounded or emarginate at apex. Flowers white with a pinkish tinge in corymbs. Pods strap-shaped, reticulate.

Fls. & Frs.: November to June.

Rare. along hedges and in thickets; Peechi and Nilambur campuses.

Derris scandens (Roxb.) Benth., J. Linn. Soc. Bot. Suppl. 103. 1860; Baker in Hook. f., Fl. Brit. India 2: 240. 1876; Gamble, Fl. Presid. Madras 387. 1918. *Dalbergia scandens* Roxb., Pl. Corom. 2: 49. t. 192. 1805. Ponnam-valli.

Lianas with young branches pale brown and pale white dotted. Leaves alternate. imparipinnate with leaflets oblong to obovate-oblong, glabrous above, puberulous beneath rounded or subacute at base, subacute or very shortly acuminate at apex. Flowers white or pinkish, in axillary and terminal racemes. Pods narrowly oblong, adpressed, silky hairy.

Fls. & Frs.: June to November.

Rather common as an undergrowth in forested areas; especially along hedges; Peechi campus.

Derris trifoliata Lour., Fl. Cochinch. 433. 1790; Thoth., Bull. bot. Sur. India 3: 181. 1961. *Derris uliginosa* (Roxb.) Benth. in Miq., Pl. Jungh. 1: 252. 1852; Baker in Hook. f., Fl. Brit.. India 2: 241. 1876; Rama Rao. Fl. Pl. Trav. 132. 1914; Gamble, Fl. Presid. Madras 1: 273. 1918.

Climbing shrubs. Leaves 5-7 foliate, alternate, with leaflets ovate, entire, glabrous, coriaceous, rounded or subcordate at base, acuminate at apex. Flowers rose-coloured in long, axillary racemes. Pods pale yellow.

Fls. & Frs. : August to November.

Rare as stragglers along the sides of the seasonal watercourse; Velupadam campus.

Desmodium gangeticum (L.) DC., Prodr. 2: 327. 1825; Wt., Ic. t. 271. 1840; Baker in Hook. f. Fl. Brit. India 2: 168. 1876; Rama Rao, Fl. Pl. Trav. 116. 1914; Gamble, Fl. Presid. Madras 1: 345. 1918; Meeuv.. Reinwardtia 6: 249. 1962. *Hedysarum gangeticum* L., Sp. Pl. 746. 1753. Orila.

Erect undershrubs with angular stem. Leaves 1-foliate, alternate, ovate-lanceolate, entire. glabrous above. obtuse at base. acute at apex. Flowers pale pinkish in racemes. Pods hooked-hairy.

Fls. & Frs.: August to December.

A weed in open areas and waste places; Peechi, Nilambur and Velupadam campuses.

Desmodium triflorum (L.) DC., Prodr. 2: 334. 1825; Baker in Hook f., Fl. Brit. India 2: 164. 1876; Rama Rao, Fl. Pl. Trav. 116. 1914; Gamble, Fl. Presid. Madras 1: 347. 1918.

Much-branched, wiry, trailing herbs. Leaves imparipinnate, alternate. with leaflets obovate or orbicular, white-hairy beneath, cuneate at base, truncate or emarginate at apex. Flowers blue in axillary racemes. Pods linear, 3-5 jointed.

Fls. & Frs.: July to December.

Very frequent as stragglers in forest areas and also in waste places; Peechi and Nilambur campuses.

Desmodium triquetrum (L.) DC., Prodr. 2: 326. 1825; Baker in Hook f., Fl. Brit. India 2: 163. 1876; Rama Rao, Fl. Pl. Trav. 115. 1914; Gamble, Fl. Presid. Madras 1: 345. 1918. *Hedysarum triquetrum* L., Sp. Pl. 746. 1753.

Undershrubs. Leaves unifoliate, ovate-lanceolate or ovate-oblong, entire. glabrous above, rounded at base. acute at apex. Flowers purple interterminal racemes or panicles. Pods oblong, compressed, adpressed-pubescent, apiculate.

Fls. & Frs.: September to October.

Common in both open areas and also shaded pockets; Peechi and Velupadam campuses.

Desmodium velutinum (Willd.) DC., Prodr. 2: 228. 1825. *Hedysarum velutinum* Willd., Sp. Pl. 3(2): 117. 1802. *Desmodium latifolium* DC., Prodr. 2: 328. 1825; Baker in Hook. f., Fl. Brit. India 2: 168. 1876; Rama Rao, Fl. Pl. Trav. 116. 1914; Gamble, Fl. Presid. Madras 1: 346. 1918.

Slender, erect undershrubs. Leaves 1-foliolate, alternate, broadly-ovate or deltoid, entire, coriaceous, densely pubescent, cordate or truncate at base, obtuse or subacute at apex. Flowers pinkish in racemes. Pods jointed, pubescent with hooked hairs.

Fls. & Frs.: October to January.

A weed in moist deciduous forests; Peechi, Nilambur and Velupadam campuses.

Flemingia congesta Roxb. ex Ait., Hort. Kew ed. 2, 4: 349. 1812; Wt., Ic. t. 390. 1840; Baker in Hook. f., Fl. Brit. India 2: 228. 1876; Rama Rao, Fl. Pl. Trav. 129. 1914; Gamble, Fl. Presid. Madras 1: 378. 1918.

Shrubs with appressed-hairy branchlets. Leaves alternate, 3-foliolate with leaflets lanceolate or oblanceolate, entire, cuneate at base, acuminate at apex. Flowers white in axillary or terminal racemes. Pods oblong, tomentose, beaked, 2-seeded.

Fls. & Frs.: January to April.

An undergrowth in forested areas; Nilambur campus.

Indigofera hirsuta L. Sp. Pl. 751. 1753; Baker in Hook. f., Fl. Brit. India 2: 98. 1876; Rama Rao, Fl. Pl. Trav. 109. 1914; Gamble, Fl. Presid. Madras 1: 312. 1918.

Rusty-pubescent, erect undershrubs. Leaves pinnate, alternate with leaflets obovate, entire, pubescent, acute at base, obtuse at apex. Flowers orange or brick-red in terminal pubescent racemes. Pods deflexed.

Fls. & Frs.: July to December.

Weed in waste places; Peechi campus.

Indigofera tinctoria L., Sp. Pl. 751. 1753; Baker in Hook. f., Fl. Brit. India 2: 79. 1876; Rama Rao, Fl. Pl. Trav. 109. 1914; Gamble, Fl. Presid. Madras 1: 312. 1918. Amari.

Branched erect shrubs. Leaves pinnate, alternate, with leaflets opposite, oblong or oblanceolate, entire, membranous, acute at base, apiculate at apex. Flowers pink, numerous, in nearly sessile, lax spicate racemes. Pods cylindrical, straight, glabrous.

Fls. & Frs.: October to March.

An undergrowth in deciduous forests; Peechi campus.

Indigofera trifoliata L., Amoen. Acad. 4: 327. 1759; Baker in Hook. f., Fl. Brit. India 2: 96. 1876; Rama Rao, Fl. Pl. Trav. 109. 1914; Gamble, Fl. Presid. Madras 1: 310. 1915.

Undershrubs with branches often trailing. Leaves pinnate, alternate with leaflets oblanceolate, entire, glabrous, rounded at base, minutely apiculate, at apex. Flowers red in congested racemes. Pods straight, glabrescent.

Fls. & Frs.: October to February.

Rare, in open areas; Peechi campus.

Mucuna pruriens (L.) DC., Prodr. 2: 405. 1825; Wt., Ic. t. 280. 1838; Rama Rao, Fl. Pl. Trav. 119. 1914. *Dolichos pruriens* L., Herb. Amboin. 23. 1754. *Mucuna purita* Hook., Bot. Misc. 2: 348. 1831; Gamble, Fl. Presid. Madras 1: 358. 1918. Naicornam.

Pubescent, slender climbers or stragglers. Leaves 3-foliolate, alternate, with leaflets ovate-rhomboid, entire, silky-pubescent beneath, shortly cuspidate at apex. Flowers purple in pendulous racemes. Pods curved, hairy and irritant.

Fls. & Frs.: December to April.

Rare, as straggles on bushes and small trees; Velupadam campus.

Pongamia pinnata (L.) Pierre, Fl. For. Cochinch. sub. t. 385. 1899; Thoth., Bull. bot. Surv. India 3: 417. 1960; Verdc., Kew Bull. 32: 25. 1977. *Cytisus pinnatus* L., Sp. Pl. 743. 1753. *Pongamia glabra* Vent., Jard. Malm. t. 28. 1803; Baker in Hook. f., Fl. Brit. India 2: 240. 1876; Bourd., For. Trees Trav. 136. 1908; Rama Rao, Fl. Pl. Trav. 132. 1914; Gamble, Fl. Presid. Madras 1: 385. 1918. *Derris indica* (Lamk.) Benn., J. Bombay nat. Hist. Soc. 68: 303. 1971. Pongu, Ungu.

Medium-sized trees. Leaves imparipinnate, alternate, leaflets ovate-oblong, entire, glabrous, acute at base, shortly acuminate at apex. Flowers pinkish-white in axillary racemes. Pods obliquely oblong, compressed.

Fls. & Frs.: June to July.

Rather common, especially near banks of canals, forest outskirts, sides the valleys, etc.; Peechi and Nilambur campuses

Pseudarthria viscida (L.) Wt et Am, Prodr 209. 1834; Baker in Hook f, Fl. Brit India 2: 154. 1876; Rama Rao, Fl. Pl. Trav. 114. 1914; Gamble, Fl. Presid Madras 1: 334. 1918. *Hedysarum viscidum* L., Sp. Pl. 747. 1753. Moovila

Viscid, pubescent undershrubs. Leaves alternate, imparipinnate with beend leaflet rhomboid and acuminate and laterals smaller, obliquely ovate, hairy beneath and acurminate at apex. Flowers pinkish in axillary or terminal, often branched racemes. Pods oblong, flat, viscid-pubesent.

Fls. & Frs.: October to December.

Common as an undergrowth in moist deciduous forests; Peechi and Velupadam campuses.

Pterocarpus marsupium Roxb., Pl. Corom. t. 116. 1799 & Fl. Ind. 3: 234. 1832; Baker in Hook. f., Fl. Brit. India 2: 239; Bourd., For. Trees Trav. 135. 1903; Rama Rao, Fl. Pl. Trav. 131. 1914; Gamble, Fl. Presid. Madras 1: 385. 1918. Venga, Chola-venga, Karin-thakara.

Large trees with thick, corked bark. Leaves imparipinnate, alternate, 5-7 foliate with leaflets obovate to broadly ovate or elliptic, entire, coriaceous, glabrous, obtuse, truncate or cuneate at base, retuse or obtuse at apex. Flowers yellow, scented in terminal paniculate racemes. Pods suborbicular, winged.

Fls. & Frs.: June to March.

Very common in open areas and valley sides; Peechi, Nilambur and Velupadam campuses.

Spatholobus parviflorus (Roxb. ex DC.) O. Ktze., Rev. Gen. Pl. 1: 205. 1891. *Butea parviflora* Roxb. ex DC., Prodr. 2: 415. 1825. ***Spatholobus roxburghii*** Benth. in Miq., Pl. Jungh. 238. 1852; Baker in Hook. f., Fl. Brit. India 2: 193, 1876; Bourd., For. Trees Trav. 131. 1908; Rama Rao, Fl. Pl. Trav. 120. 1914; Gamble, Fl. Presid. Madras 1: 358. 1918.

Lianas. Leaves alternate, trifoliate with leaflets rhomboid or elliptic, entire, silky-pubescent beneath, rounded at base, obtuse or acute at apex. Flowers reddish in terminal panicles. Pods stalked, ferruginous.

Fls. & Frs.: September to December.

Common climbers on lofty trees, often covering their canopy; Peechi campus.

Tephrosia purpurea (L.) Pers., Syn. Pl. 2: 329. 1807; Baker in Hook. f., Fl. Brit. India 2: 112. 1876; Rama Rao, Fl. Pl. Trav. 111. 1914; Gamble, Fl. Presid. Madras 1: 320. 1918. *Cracea purpurea* L., Sp. Pl. 752. 1753. Kozhinjil.

Erect, perennial, branched undershrubs. Leaves alternate, imparipinnate with leaflets 4-9 pairs, obovate-obtuse, entire, cuneate at base, acute at apex. Flowers dark-pinkish in leaf-opposed, lax racemes. Pod downy-puberulous, continuous within, slightly falcate.

Fls. & Frs.: August to September.

A common weed in open forest areas and also along roadsides; Peechi campus.

Uraria rufescens (DC.) Schindl., Fedde Repert. 21: 14. 1925; Meeuwen, Reinwardtia 5: 453. 1961. *Desmodium rufescens* DC., Ann. Sci. Nat. (Paris) 4: 101. 1825. *Uraria homosa* Wall ex Wt. et Am., Prodr. 222. 1834; Wt., Ic. t. 284. 1840; Baker in Hook. f., Fl. Brit. India 2: 156. 1876; Gamble, Fl. Presid. Madras 1: 336. 1918.

Undershrubs with straggling stems. Leaves trifoliate, alternate with the terminal leaflet largest, oblong-ovate, entire, obtuse at base, subacute at apex. Flowers pink in long racemes. Pods glandular-hairy.

Fls. & Frs.: November to March.

Common in open areas and along hedges; Velupadam campus.

Vigna umbellata (Thumb.) Ohwi et Ohashi, J. Jap. Bot. 44: 31. 1969; Verdc., Kew Bull. 24: 560. 1970. *Dolichos umbellatus* Thumb., Trans. Linn. Soc. London 2: 339. 1794. *Phaseolus calacarus* Roxb., Fl. Ind. 3: 289. 1832; Baker in Hook. f., Fl. Brit. India 2: 203. 1876; Rama Rao, Fl. Pl. Trav. 124. 1914; Gamble, Fl. Presid. Madras 1: 363. 1918.

Slender, herbaceous climbers, Leaves alternate, 3-foliolate with leaflets ovate, membranous, sparsely pubescent on both sides, obtuse or acute at base, acute at apex. Flowers yellow in axillary racemes. Pods glabrous, compressed, linear, slightly appressed-hairy.

Fls. & Frs.: November to March.

Rare, as climbers on hedges and other low supports, especially along forest boundaries; Peechi campus.

Zornia gibbosa Span., Linnaea 15: 192. 1841. *Zornia diphylla* Baker in Hook. f, Fl. Brit. India 2: 147. 1876; Rama Rao, Fl. Pl. Trav. 112. 1514; Gamble, Fl. Presid. Madras 1: 325. 1918.

Much branched, wiry, diffuse or prostrate herbs. Leaves 2-foliolate with leaflets oblong or ovate, membranous, red-glandular at base, acuminate or acute at apex. Flowers yellow in terminal or axillary, bracteate racemes. Pods 3-4 jointed, strongly reticulate.

Fls. & Frs.: September to December.

Rare, in open areas of moist deciduous forests; Peechi campus.

Introduced or cultivated species

Castanospermum australe A. Cunn.

The Australian chestnut tree with red flowers, planted for shade in homesteads; Peechi campus

Erythrina indica Lamk.

Often grown along fences near homesteads or forest boundaries, Peechi and Nilambur campuses.

Gliricidia sepium (Jacq.) Kunth ex Walp.

Often planted along hedges; Peechi campus.

Pterocarpus dalbergioides Roxb.

Introduced trees, growing naturally; Nilambur campus.

Pterocarpus santalinus L.f.

The Red sandal tree, flourishing naturally; Nilambur campus.

34. CAESALPINIACEAE

Bauhinia malabarica Roxb., Fl. Ind. 2: 321. 1832; Baker in Hook. f., Fl. Brit. India 2: 277. 1878; Bourd., For. Trees Trav. 150. 1908; Rama Rao, Fl. Pl. Trav. 145. 1914; Gamble, Fl. Presid. Madras 1: 407. 1919. *Piliostigma malabaricum* (Roxb.) Benth. in Miq., Pl. Jungh. 261. 1852. Arampuli.

Deciduous trees. Leaves simple, alternate, suborbicular, entire, coriaceous, glaucous beneath, cordate at base, broadly rounded at apex. Flowers creamy-white in axillary corymbs. Pods strap-shaped.

Fls. & Frs.: August to November.

Common in moist deciduous forests; Peechi campus.

Bauhinia racemosa Lamk., Encyl. Meth. Bot. 1: 390. 1785; Baker in Hook. f., Fl. Brit. India 2: 276. 1878; Rama Rao, Fl. Pl. Trav. 145. 1914; Gamble, Fl. Presid. Madras 1: 406. 1919; de Wit, Reinwardtia 3: 537. 1956. *Piliostigma racemosa* (Lamk.) Benth. in Miq., Pl. Jungh. 262. 1852.

Stunted, deciduous trees. Leaves deeply cleft, alterate, entire, grey-pubescent beneath, rounded at apex. Flowers dull-yellow in lax racemes. Pods falcate, thick, glabrous.

Fls. & Frs.: January to September.

Rare, in open areas and along the sides of thickets; Peechi and Nilambur campuses.

Bauhinia scandens* L. var. *horsfieldii (Miq.) Ohashi, EFPN2: 108, 1979. *Lasiobema horsfieldii* Miq., Fl. Ind. Bat. 1(1): 71. 1855. *Bauhinia anguina* Roxb., Pl. Corom. 3: 82. t. 285. 1819; Baker in Hook. f., Fl. Brit. India 2: 284. 1878; Gamble, Fl. Presid. Madras 1: 408. 1918.

Climbing shrubs with copious, circinate tendrils. Leaves simple, alternate, bilobed, entire, glabrous, deeply cordate at base, acuminate at apex. Flowers white in long, slender axillary and terminal paniced racemes. Pods oblong or obliquely elliptic, thin, flat.

Fls. & Frs.: October to January.

Rare, in moist deciduous forests; Peechi campus.

Caesalpinia bonduc (L.) Roxb., Fl. Ind. 2: 362. 1832; Hattink, Reinwardtia 9: 17. 1974. ***Guilandia bonduc*** L., Sp. Pl. 381. 1753. ***Caesalpinia bonducella*** (L.) Flem., Asiat. Res. 11: 159. 1810; Baker in Hook f., Fl. Brit. India 2: 254. 1878; Rama Rao, Fl. Pl. Trav. 134. 1914. ***Caesalpinia crista*** L., Sp. Pl. 380. 1753; Gamble, Fl. Presid. Madras 1: 393. 1919. Kazhanchi.

Armed, shrubby climbers or stragglers with reddish-brown or grey-dawny branchlets. Leaves alternate, biparipinnate with leaflets elliptic-oblong, entire, glabrous, acute at base, obtuse and mucronate at apex. Pods shortly stalked, densely prickly.

Fls. & Frs.: August to March.

Rather common in *dry* rocky areas, along hedges and in waste places.; Nilambur and Velupadam campuses.

Caesalpinia mimosoides Lamk., Encyl. Meth. Bot. 1: 452. 1785; Baker in Hook. f., Fl. Brit India 2: 256. 1878; Rama Rao, Fl. Pl. Trav. 135. 1914; Gamble, Fl. Presid. Madras 1: 394. 1919.

Straggling shrubs, prickly all over. Leaves alternate, biparipinnate with leaflets oblong or elliptic, entire, glabrous above, glaucous beneath, rounded at base, apiculate at apex. Flowers yellow in terminal racemes. Pods linear-oblong.

Fls. & Frs.: December to January.

A weed in the forested areas; Peechi campus.

Cassia alata L., Sp. Pl. 378. 1753; Wt., Ic. t, 253. 1843; Baker in Hook. f., Fl. Brit. India 2: 264. 1878; Rama Rao, Fl. Pl. Trav. 139. 1914; Gamble, Fl. Presid. Madras 1: 286. 1918; de Wit, Webbia 11: 231. 1955.

Shrubs. Leaves imparipinnate, alternate, with leaflets oblong or obovate, entire, glabrous, oblique at base, obtuse and mucronate at apex. Flowers bright yellow in terminal racemes. Pods thin, longitudinally winged.

Fls. & Frs.: November to April.

Rather common in open, *dry* waste places and along road sides; Peechi, Nilambur and Velupadam campuses

Cassia fistula L., Sp. Pl. 377. 1753; Baker in Hook. f., Fl. Brit. India 2: 261. 1878; Bourd., For. Trees Trav. 140. 1908; Rama Rao, Fl. Pl. Trav. 137. 1914; Gamble, Fl. Presid. Madras 1: 400. 1919. Konna, Kani-konna.

Trees with flaking bark. Leaves alternate, paripinnate with leaflets ovate or ovate-oblong, entire, glabrous above, silvery pubescent beneath when young, acute at base, acute or obtuse at apex. Flowers bright yellow in lax, drooping, terminal racemes. Pods cylindrical, septate, black when ripe.

Fls. & Frs.: March to July.

Rather rare in wild, especially in disturbed forest areas, but often planted in homesteads and gardens; Peechi, Nilambur and Velupadam campuses.

Cussia occidentalis L., Sp. Pl. 377. 1753; Baker in Hook f., Fl. Brit. India 2: 262. 1878; Rama Rao, Fl. Pl. Trav. 138. 1914; Gamble, Fl. Presid. Madras 1 :401. 1919.

Undershrubs. Leaves alternate, paripinnate with leaflets 5-6 pairs, lower smaller, ovate or elliptic-lanceolate, entire, glabrous, acute at base, acuminate at apex. Flowers yellow in axillary and terminal racemes. Pods short-stipitate, compressed, obtuse at apex.

Fls. & Frs.: March to April.

Common in wastelaces, as a weed; Peechi, Nilambur and Velupadam campuses.

Cussia tora L., Sp. Pl. 376. 1753; Baker in Hook. f., Fl. Brit. India 2: 263. 1878; Rama Rao, Fl. Pl. Trav. 138. 1914; Gamble, Fl. Presid. Madras 1: 401. 1919. Thakara.

Annual, glabrous herbs. Leaves alternate, paripinnate with leaflets 3 pairs, subsessile, ovate or obovate-oblong, entire, glabrous, rounded and rarely oblique at base, obtuse at apex. Flowers golden-yellow in axillary, few-flowered racemes. Pods linear, terete, glabrous.

Fls. & Frs.: October to November.

Common along roadsides, forest openings, etc. as a weed; Peechi, Nilambur and Velupadam campuses.

Saraca asoca (Roxb.) de Wilde, Blume 15: 393. 1968. *Jonesia asoca* Roxb., Asiat. Res. 4: 365. 1799; Wt., Ic. t. 206. 1839. *Saraca indica sensu* Baker in Hook. f., Fl. Brit. India 2: 271. 1878 (non L. 1769); Bourd., For. Trees Trav. 145. 1908; Rama Rao, Fl. Pl. Trav. 142. 1914; Gamble, Fl. Presid. Madras 1: 409. 1919. Asokam.

Medium-sized trees with dense crown. Leaves pinnate, alternate with leaflets oblong-lanceolate, entire, glabrous, cuneate at base, acute or acuminate at apex. Flowers orange-scarlet in dense, axillary, corymbose cymes. Pods black, linear-oblong, tapering at both ends.

Fls. & Frs.: March to July.

Often planted and naturalised in the moist deciduous forests; Peechi campus.

Introduced or cultivated species

Bauhinia variegata L.

Planted and growing naturally; Peechi and Nilambur campuses

Caesalpinia coriaria (Jacq.) Willd.

A common avenue tree; Peechi and Nilambur campuses.

Caesalpinia pulcherrima Sw.

Shrubs grown in gardens for its yellow or scarlet flowers; Peechi campus.

Cassia siamea Lamk.

Trees with dense crown and yellow flowers, planted along pathsides; Peechi campus.

Delonix regia (Bog. ex Hook.) Raffin.

Commonly grown as an avenue tree; Peechi and Nilambur campuses.

Peltophorum pterocarpum (DC.) Baker ex Heyne

An avenue tree, planted in homesteads and along pathsides: Peechi campus.

Peltophorum vogelianum Walp.

Avenue trees, planted for shade along pathsides; Nilambur campus.

Tamarindus indica L.

Large evergreen trees with pink yellow striped flowers, cultivated in homesteads and sometimes running wild; Peechi campus.

35. MIMOSACEAE

Acacia torta (Roxb.) Craib. Bull. Misc. Inform. Kew 1915: 410. 1915; Gamble, Fl. Presid. Madras 1: 428. 1919. *Mimosa torta* Roxb., Fl. Ind. 2: 566. 1832. *Acacia caesia* Wt. et Am., Prodr. 278. 1834. *quod. descr.* non (L.) Willd. (1806). *Acacia instsia* Willd. var. *caesia* (Wt. et Am.) Baker in Hook. f., Fl. Brit. India 2: 297. 1878; Rama Rao, Fl. Pl. Trav. 152. 1914. Incha.

Large, prickly climbing shrubs with pubescent or occasionally glabrous branchlets. Leaves alternate, paripinnate with pinnae 10-14 pairs; leaflets 25-40 pairs per pinnae, oblong-falcate, entire, pubescent beneath, cuneate at base, mucronate at apex. Flowers greenish-white, sessile in globose heads of peduncled umbels. Pods brown-velvety when young.

Fls. & Frs.: October to March.

Common in moist deciduous forests as hedge plants or as stragglers on low supports; Peechi, Nilambur and Velupadam campuses.

Adenanthera pavonina L., Sp. Pl. 384. 1753; Bedd., Fl. Sylvat t 46. 1870; Baker in Hook. f., Fl. Brit. India 2: 287. 1878; Bourd., For. Trees Trav. 133. 1908; Rama Rao, Fl. Pl. Trav. 147. 1914; Gamble, Fl. Presid. Madras 1: 418. 1919. Manchadi.

Trees with grey or straw coloured bark and sparsely or densely tomentellous or glabrous branchlets. Leaves alternate, bipinnate with leaflets 5-8 pairs per pinnae, subopposite or alternate, elliptic to ovate, obovate or obovate-elliptic, glabrescent or minutely pubescent, rounded or broadly cuneate at base, rounded or emarginate at apex. Flowers white turning yellowish, fragrant, in solitary or paniculate, axillary racemes. Pods straight to falcate or slightly twisted. glabrous. tapering at base. acute at apex, dehiscent.

Fls. & Frs.: January to August.

Rare, as wild in the moist deciduous forests and also grown in homesteads, gardens, etc.; Peechi and Nilambur campuses.

Albizia lebbeck (L.) Benth. in Hook., J. Bot. Kew Gard. Misc. 3: 87. 1844; Bedd., Fl. Sylvat. t. 53. 1870; Baker in Hook. f., Fl. Brit. India 2: 298. 1878; Bourd., For. Trees Trav. 158. 1908; Rama Rao, Fl. Pl. Trav. 152. 1914; Gamble, Fl. Presid. Madras 1: 432. 1919. *Mimosa lebbeck* L., Sp. Pl. 516. 1753. Vaka.

Tall trees with spreading crown. Leaves abruptly bipinnate, alternate, with leaflets elliptic-oblong, entire, appressed-pubescent, obtuse at base, obtuse or truncate at apex. Flowers yellowish-green in globose, umbellate heads. Pods yellowish-brown, strap-shaped, rigid.

Fls. & Frs.: August to November.

Rather common in moist deciduous forests, especially in the openings; Peechi campus.

Albizia odoratissima (L.f.) Benth. in Hook, J. Bot. Kew Gard Misc. 3: 88. 1844; Bedd, Fl. Sylvat. t. 54. 1870; Baker in Hook. f., Fl. Brit India 2: 298. 1878; Bourd, For. Trees Trav. 159. 1908; Rama Rao, Fl. Pl. Trav. 153. 1914; Gamble, Fl. Presid. Madras 1: 431. 1919. *Mimosa odoratissima* L. f., Suppl. 437. 1781. Kunni-vaka, Puli vaka.

Tall trees with flaking bark. Leaves abruptly bipinnate alternate with leaflets obliquely oblong, entire, glaucous beneath, truncate or obtuse at base, acute or obtuse at apex. Flowers yellowish-green in terminal, globose heads. Pods strap-shaped.

Fls. & Frs.: March to October.

Rather common in the moist deciduous forests, especially in openings and along the sides of valleys; Peechi, Nilambur and Velupadam campuses.

Albizia procera (Roxb.) Benth., London J. Bot. 3: 89. 1844; Baker in Hook. f., Fl. Brit. India 2: 299. 1872; Bourd., For. Trees Trav. 157. 1908; Rama Rao, Fl. Pl. Trav. 153. 1914; Gamble, Fl. Presid. Madras 1: 306. 1915. *Mimosa procera* Roxb., Pl. Corom. t. 121. 1798. Karin-thakara.

Tall trees with pubescent branchlets. Leaves bipinnate, alternate with 3-5 pairs of pinnae and leaflets 10-20, obliquely oblong, entire, grey-pubescent beneath, obliquely cuneate at base, obtuse or subacute at apex. Flowers yellowish-white in terminal and axillary panicles. Pods straight with thick margins.

Fls. & Frs.: August to February.

Occasional, in the less vegetated areas of moist deciduous forests; Peechi and Velupadam campuses.

Mimosa invisa Mart., Flora 20: Biebl. 2: 121. 1837 var. *inermis* Adelb., Reinwardtia 2: 359. 1953.

Straggling herbs devoid of prickles. Leaves bipinnate with 3-5 pairs of pinnae. each with 10-20 pairs of overlapping leaflets. Flowers pink in axillary, globose heads. Pods flat, compressed, septate between seeds.

Fls. & Frs.: February to April.

An exotic weed, colonising in open areas and wastelands; Peechi campus.

Mimosa invisa Mart. var. *invisa* Adelb., Reinwardtia 2: 359. 1953; Nayar et Giri, J. Eco. Tax. Bot. 3: 603. 1982.

This is the typical variety under the species which differs from var. *inermis* mentioned above by its prickly nature of the stems and rachis.

Fls. & Frs.: February to April.

A gregarious weed in the open forest areas and waste places; Nilambur and Velupadam campuses.

Mimosa pudica L., Sp. Pl. 518. 1753; Baker in Hook. f., Fl. Brit. India 2: 291. 1878; Rama Rao, Fl. Pl. Trav. 148. 1914; Gamble, Fl. Presid. Madras 1: 421. 1919. Pada-incha, Thotta-vadi.

Prostrate, prickly herbs. Leaves alternate, bipinnate with 2-4 digitate pinnae; leaflets linear-oblong, very small. Flowers pinkish-white or rose-coloured in axillary, solitary globose heads. Pods moniliform, prickly.

Fls. & Frs.: August to October or sometimes almost throughout the year.

A weed, common in the open, dry waste places, especially along road and path sides; Peechi, Nilambur and Velupadam campuses.

Pithecelobium dulce (Roxb.) Benth. in Hook., London J. Bot. 3: 199. 1844. Baker in Hook. f., Fl. Brit. India 2: 302. 1878; Gamble, Fl. Presid. Madras 1: 434. 1919. *Mimosa dulcis* Roxb., Fl. Ind. 2: 566. 1832. *Inga dulcis* (Roxb.) Willd., Sp. Pl. 4. 1005. 1806; Wt., Ic. t. 198. 1839. Koduka-puli.

Trees, armed with spines. Leaves alternate, bipinnate, with paired, oblong or oblanceolate leaflets. Flowers white in panicked, tomentose spikes. Pods twisted, moniliform.

Fls. & Frs.: March to August.

Planted and naturalised especially along hedges; Peechi campus.

Xylocarpus xylocarpa (Roxb.) Theob. in Mason., Burma ed. Theob. 2: 541. 1883; Gamble, Fl. Presid. Madras 1: 417. 1919; Mabb., Taxon 24: 155. 1985. *Mimosa xylocarpa* Roxb., Pl. Corom. t. 100. 1798. *Xylocarpus dolubrifolius* Benth. in Hook., London J. Bot. 4: 417. 1844; Baker in Hook. f., Fl. Brit. India 2: 286. 1978; Bourd., For. Trees Trav. 125. 1907; Rama Rao, Fl. Pl. Trav. 146. 1914. Irul, Iru-mullu.

Trees with rough, flaking bark. Leaves bipinnate, alternate with leaflets oblong-lanceolate, entire, glabrous, rounded at base, acute or acuminate at apex. Flowers creamy-white in axillary globose heads. Pods oblong, falcate. flat, rusty-pubescent, woody.

Fls. & Frs.: December to April.

Very common in dry, lateritic areas; Peechi, Nilambur and Velupadam campuses.

Introduced or cultivated species

Acacia auriculiformis A.Cum. ex G. Don

Trees often grown along pathsides and in homesteads; Peechi and Nilambur campuses.

Acacia mangium Willd.

Trees planted, especially for experimental purposes or in homesteads; Peechi and Nilambur campuses.

Acacia mellifera (Vahl) Benth.

Grown as a small plantation; Nilambur campus.

Leucaena leucocephala (Lam.) de Wit

Trees, usually planted in gardens or rarely running wild; Peechi and Nilambur campuses.

Samanea saman (Jacq.) Merr.

A shade tree often planted in avenues; Peechi and Nilambur campuses.

36. ONAGRACEAE

Ludwigia hyssopifolia (G. Don) Exell. in Gracia de Orta 5: 471. 1957. *Jussiaea hyssopifolia* G. Don. Gen. Syst. 2: 693. 1832. *Justicia linifolia* Vahl, Ecol. Amer. 2: 32. 1798 (non Poir. 1813); Gamble, Fl. Presid. Madras 2: 1875. 1936. *Fissendocarpa linifolia* (Vahl) Benn., J. Bombay nat. Hist. Soc. 67: 126. 1970.

Herbs with slender branches. Leaves oblong-elliptic, entire, acuminate at apex. Flowers yellow, axillary, solitary. Capsules linear, 8 ribbed.

Fls. & Frs.: February to October.

Common in waste, damp areas; Nilambur campus.

Ludwigia perennis L., Sp. Pl. 1: 119. 1753; Raven, Reinwardtia 6: 367. 1963. *Ludwigia parviflora* Roxb., Fl. Ind. 1: 440. 1820; Clarke in Hook. f., Fl. Brit. India 2: 558. 1879; Rama Rao, Fl. Pl. Trav. 181. 1914; Gamble, Fl. Presid. Madras 1: 365. 1919.

Erect glabrous herbs. Leaves simple, alternate, opposite, elliptic to lanceolate, entire, narrowed at base and apex. Flowers yellow, solitary, axillary. Capsules inflated, 4 angled.

Fls. & Frs.: July to January.

A weed in damp, waste places; Velupadam campus.

37. RHIZOPHORACEAE

Carallia brachiata (Lour.) Merr., Philipp. J. Sci. Bot. **15: 249. 1919.** *Distomu brachiata* Lour., Fl. Cochin. 296. 1790. *Carallia integerimu* DC., Prodr. 3: 33. 1828; Rama Rao, Fl. Pl. Trav. 160. 1914; Gamble, Fl. Presid. Madras 1: 459. 1919. Varangu.

Graceful trees with subhorizontal branches. Leaves simple, opposite, obovate, entire, glabrous, cuncate at base, obtuse or retuse at apex. Flowers yellowish green in small heads. Bemes globose.

Fls. & Frs.: November to May.

Rare, in less disturbed forests; Velupadam campus.

38. COMBRETACEAE

Anogeissus latifolia (Roxb. ex DC.) Wall. ex Perr., Fl. Seneg. Tent. 1: 280. 1832; Clarke in Hook. f., Fl. Brit. India 2: 450. 1878; Bourd., For. Trees Trav. 179. 1908; Rama Rao, Fl. Pl. Trav. 164. 1914; Gamble, Fl. Presid. Madras 1: 466. 1919; Scott, Kew Bull. 33:560.1979. *Conocarpus latifolia* Roxb. ex DC., Prodr. 3: 17. 1828; Wt., Ic. t. 994. 1845. Mazhu-kanjiram.

Medium-sized trees with rough, flaking bark. Leaves simple, alternate, elliptic-oblong, entire, glabrous, roundedcordate at base, acute at apex. Flowers creamy-white in dense heads forming short, axillary clusters. Fruits broadly winged.

Fls. & Frs.: August to December.

Very rare in the degraded and open areas of moist deciduous forests; Nilambur campus.

Calycopteris floribunda (Roxb.) Poir. in Lamk., Encyl. Meth. Bot. 2: 41. 1811; Clarke in Hook. f., Fl. Brit. India 2: 449. 1878; Rama Rao, Fl. Pl. Trav. 164. 1914; Gamble, Fl. Presid. Madras 1: 467. 1919 *Getonia floribunda* Roxb., Pl. Corom. 1: 61. t. 87. 1795. Mara-valli, Pullani-valli.

Scandent shrubs with peeling off, thin bark. Leaves simple, opposite, ovate-lanceolate, entire, glabrous, obtuse or cuneate at base, acute or acuminate at apex. Flowers greenish-yellow, sessile, in dense axillary panicles towards the tip of branchlets. Fruits pale green turning straw-coloured, ovoid, winged.

Fls. & Frs.: February to March.

Stragglers along hedges or climbers on trees, especially in forest outskirts and openings; Peechi, Nilambur and Velupadam campuses.

Terminalia bellirica (Gaertn.) Roxb., Pl. Corom. t. 198. 1805 (as *bellerica*); Clarke in Hook. f., Fl. Brit. India 2: 445. 1878; Bourd., For. Trees Trav. 173. 1908; Rama Rao, Fl. Pl. Trav. 161. 1914; Gamble, Fl. Presid. Madras 1: 463. 1919. *Myrobalanus bellerica* Gaertn., Fruct. 2: 90. t. 97. 1791. Thanni.

Deciduous trees. Leaves simple, alternate, broadly elliptic, entire, glabrous, coriaceous, cuneate at base, obtuse at apex. Flowers pale greenish-yellow in pubescent spikes. Fruits subglobose, brown-pubescent.

Fls. & Frs.: March to December.

Common in the valleys and along the sides of canals, roads, etc. in the moist deciduous forests; Peechi, Nilambur and Velupadam campuses.

Terminulia catappa L., Syst. Nat. (ed. 12) 2: 674. 1767; Clarke in Hook. f., Fl. Brit. India 2: 444. 1878; Bourd., For. Trees Trav. 173. 1908; Rama Rao, Fl. Pl. Trav. 161. 1914; Gamble, Fl. Presid. Madras 1: 463. 1919.

Medium-sized trees with almost horizontal branches. Leaves simple, alternate, obovate or oblanceolate, entire, glabrous above, tomentose beneath, narrowed towards base, obtuse or rounded at apex. Flowers greenish-white in axillary spikes. Drupes aoid, compressed, winged.

Fls. & Frs.: November to December.

Rare, as planted and naturalised along the sides of roads and canals; Peechi and Nilambur campuses.

Terminalia chebula Retz, Obs. Bot 5: 31. 1789; Clarke in Hook. f., Fl. Brit. India 2: 446. 1876 (*por parte*); Bourd., For. Trees Trav. 174. 1908; Rama Rao, Fl. Pl. Trav. 162. 1914; Gamble, Fl. Presid. Madras 1: 328. 1918. Kaduka

Medium sized trees. Leaves simple, alternate, ovate-oblong, entire, pubescent, rounded at base, obtuse at apex. Flowers greenish-white in terminal spikes. Fruits greenish-yellow, ovoid.

Fls. & Frs.: March to November

Very rare, close to the reserve forest boundary; Velupadam campus.

Terminalia crenulata Roth, Nov. Pl. Sp. 280. 1821; Gamble, Fl. Presid. Madras 1: 465. 1919. *Terminalia tomentosa* Bedd., Fl. Sylvat. t. 17. 1869; Clarke in Hook. f., Fl. Brit. India 2: 448. 1876; Bourd., For. Trees Trav. 176. 1908; Rama Rao, Fl. Pl. Trav. 162. 1908.

Tall trees with cracking bark. Leaves simple, subopposite or alternate, elliptic-obovate, entire, glabrous with two stalked glands near lower midrib, mostly cordate at base, rounded at apex. Flowers pale yellow in terminal panicles. Drupes brown, ovoid, 5-winged.

Fls. & Frs.: April to June.

Common in drier areas of moist deciduous forests; Peechi and Nilambur campuses.

Terminalia paniculata Roth, Nov. Pl. Sp. 383: 1821; Clarke in Hook. f., Fl. Brit. India 2: 448. 1878; Bourd., For. Trees Trav. 177. 1908; Rama Rao, Fl. Pl. Trav. 163. 1914; Gamble, Fl. Presid. Madras 1: 465. 1919. *Pentaptera paniculata* (Roth) Roxb., Fl. Ind. 2: 442. 1832. Maruthu, Pei-maruthu.

Tall trees. Leaves simple, alternate or subopposite, oblong, entire, glabrous, rounded or cordate at base, obtuse at apex. Flowers greenish in axillary and terminal panicles. Drupes reddish-brown, rusty-tomentose.

Fls. & Frs.: February to December.

Common in the moist deciduous forests; Peechi, Nilambur and Velupadam campuses.

39. MYRTACEAE

Syzygium caryophyllatum (L.) Alston in Trim. Handb. Fl. Ceylon (Suppl.) 6: 116. 1981. *Myrtus caryophyllatus* L., Sp. Pl. 472. 1753. *Syzygium caryophyllaeum auctnon* Gaertn. 1788.; Gamble, Fl. Presid. Madras 1: 480. 1919. *Eugenia caryophyllaea* Wt., Ic. t. 540. 1842; Duthie in Hook. f., Fl. Brit. India 2: 490. 1878; Rama Rao, Fl. Pl. Trav. 168. 1914.

Small spreading trees. Leaves simple, alternate, obovate, entire, glabrous, attenuate at base, obtuse or emarginate at apex. Flowers white in terminal, lax, trichotomous, umbellate panicles. Bemes black, globose.

Fls. & Frs.: March to June.

Planted and naturalised; Nilambur campus.

Syzygium cumini (L.) Skeels, US Dept. Agric. Bur. Pl. Industr. Bull. 248: 2. 1912. *Myrtus cumini* L., Sp. Pl. 471. 1753. *Eugenia jambolana* Lamk., Encycl. Meth. Bot. 3: 198. 1789; Wt., Ic. t. 535. 1840-43; Duthie in Hook. f., Fl. Brit. India 2: 499. 1879; Bourd., For. Trees Trav. 184. 1908; Rama Rao, Fl. Pl. Trav. 169. 1914. *Syzygium jambolunam* (Lamk.) DC., Prodr. 2: 259. 1828; Gamble, Fl. Presid. Madras 1: 481. 1919. Njaval, njara.

Evergreen trees with spreading branches. Leaves simple, alternate, elliptic-oblong or ovate, entire, glabrous, narrowed at base, subobtusate at apex. Flowers greenish-white in compound, divaricate cymes. Bemes black, ellipsoid or oblong.

Fls. & Frs.: August to December.

Planted and naturalised or naturally growing in deciduous forests; Peechi and Nilambur campuses.

Introduced or cultivated species

Eucalyptus brassiana S.T. Blake

Planted as part of species trial, Nilambur campus.

Eucalyptus camaldulensis Dehn.

Planted as part of species trial; Nilambur campus.

Eucalyptus citriodora Hook.

Planted as part of species trial; Nilambur campus.

Eucalyptus deglupta Bl.

Planted as part of species trial: Nilambur campus.

Eucalyptus globulus Lab.

Planted as part of species trial; Nilambur campus.

Eucalyptus grandis Hill ex Maiden

Planted as part of species trial; Nilambur campus.

Eucalyptus pellita F. Muell

Planted as part of species trial; Nilambur campus.

Eucalyptus tereticornis Sm.

Planted as part of species trial; Nilambur campus.

Eucalyptus tessellaris F. Muell.

Planted as part of species trial; Nilambur campus.

Eucalyptus urophylla S.T. Blake

Planted as part of species trial; Nilambur campus.

Eugenia aromatica (L.) Baill.

Much branched small trees with aromatic bark; Nilambur campus.

Melaleuca leucadendron L.

Shrubs, recently planted as a plot; Nilambur campus.

Psidium guajava L.

Small trees, often grown for its fruits in the homesteads; Peechi and Nilambur campuses.

40. LECYTHIDACEAE

Careya arborea Roxb., Pl. Corom t. 281. 1811; Clarke in Hook. f., Fl. Brit India 2: 511. 1879; Bourd., For. Trees Trav. 193. 1908; Rama Rao, Fl. Pl. Trav. 173. 1914; Gamble, Fl. Presid Madras 1: 488. 1919. Pezhu

Medium sized trees with thick, rough bark, often cracking. Leaves simple, alternate, oblong-ovate, entire, glabrous, tapering at base, rounded at apex. Flowers yellowish-white, sessile in terminal spikes. Fruits globose with persistent calyx lobes.

Fls. & Frs.: February to May.

Occasional, in the valleys and along forest fringes; Peechi, Nilambur and Velupadam campuses.

41. LYTHRACEAE

Lagerstroemia hirsuta (Lamk.) Willd., Sp. Pl. 2: 1178. 1799. *Adambea hirsuta* Lamk., Encyl. Meth. Bot. 1: 39. 1783. *Lagerstroemia reginae* Roxb., Pl. Corom, t. 65. 1795; Wt., Ic. t. 413. 1843 (*nom. illeg.*).

Lagerstroemia flos-reaginatae Retz., Obs. Bot. 2: 577. 1879; Clarke in Hook. f., Fl. Brit. India 2: 577. 1879; Bourd., For. Trees Trav. 198. 1908; Rama Rao, Fl. Pl. Trav. 180. 1914; Gamble, Fl. Presid. Madras 1: 513. 1919 (*nom. illeg.*) *Lagerstmemia speciosa* (L.) Pers., Syn. Pl. 2: 72. 1807. Maai-meruthu, Nir-venthekku.

Small trees with dense crown. Leaves simple, alternate, ovate, entire, glabrous, rounded or cuneate at base, acuminate at apex. Flowers pink in dense, terminal panicles. Capsules ellipsoid or subglobose, apiculate.

Fls. & Frs.: February to May.

Rare, in the moist deciduous forests, especially in open, wet areas, but often planted as an avenue tree; Peechi and Nilambur campuses.

Lagerstroemia microcarpa Wt., Ic. t. 109. 1839. *Lagerstmemia lanceolata* Wall. ex Clarke in Hook. f., Fl. Brit. India 2: 576. 1879; Bourd., For. Trees Trav. 175. 1908; Rama Rao, Fl. Pl. Trav. 180. 1914; Gamble, Fl. Presid. Madras 1: 513. 1918. Ven-thekku, Vellilavu.

Large deciduous trees with pale white, smooth, peeling-off bark. Leaves simple, alternate, broadly-ovate, elliptic-lanceolate, elliptic or broadly obovate, entire, glabrous above, tomentose or glabrous beneath, obtuse or cuneate at base, acute or acuminate at apex. Flowers white with rose tinge in terminal or axillary racemes. Capsules yellowish-brown, ellipsoid,

Fls. & Frs.: May to December.

Common and very prominent trees in the moist deciduous forests, especially in openings; Peechi and Nilambur campuses.

Introduced or cultivated species

Lawsonia inermis L.

Shrubs, grown along hedges near homesteads; Peechi and Nilambur campuses.

42. PASSIFLORACEAE

Passiflora foetida L., Sp. Pl. 959. 1753; Rama Rao, Fl. Pl. Trav. 183. 1914; Gamble, Fl. Presid. Madras 1: 524. 1919; Charkr., Bull. bot. Soc. Bengal 3: 57. 1949; Green, Kew Bull. 26: 555. 1972.

Silky-pubescent, tendril climbers. Leaves 3-lobed, suborbicular, ovate, entire, cordate at base, acuminate at apex with axillary tendrils. Flowers white, axillary, solitary, fragrant with moss-like pectinate involucre. Bemes globose, smooth, covered with pectinate, involucre bracts.

Rs. & Frs. July to November.

Common in waste places and along roadsides, but rare in forest areas; Peechi and Nilambur campuses.

43. CARICACEAE

Introduced or cultivated species

Caricapappaya L.

Weak-stemmed trees, commonly grown for its edible fruits, rarely running wild near homesteads; Peechi and Nilambur campuses.

44. CUCURBITACEAE

Coccinia grandis (L.) Voigt, Hort. Sub. Calc. 59. 1845. *Bryonia grandis* L., Mant. Pl. 1: 126. 1767. *Coccinia indica* Wt. et Am., Prodr. 347. 1834; Gamble, Fl. Presid. Madras 1: 537. 1919. *Cephalandra indica* (Wt. et Am.) Naud., Ann. Sci. Nat. ser. 5 (5): 16. 1866; Clarke in Hook. f., Fl. Brit. India 2: 621. 1879; Rama Rao, Fl. Pl. Trav. 189. 1914. Koval.

Scandent shrubs with fissured old stems. Leaves alternate, entire to palmately lobed, gland dotted with leaf-opposed tendrils. Flowers white, solitary, axillary. Fruits green turning bright scarlet, fusiform-ellipsoid, beaked. Fls. & Frs.: April to June.

Rare as escape in wild, but common in cultivation as a vegetable; Peechi campus.

Momordica charantia L., Sp. Pl. 1009. 1753; Clarke in Hook. f., Fl. Brit. India 2: 616. 1879; Rama Rao, Fl. Pl. Trav. 186. 1914; Gamble, Fl. Presid. Madras 1: 532. 1919. Kaippa, Pavel.

Herbaceous climbers with light green stems. Leaves alternate, orbicular-cordate, deeply dentate lobed, light green. Flowers yellow, axillary, solitary. Fruits oblong or fusiform, ribbed and triangular tubercled.

Fls. & Frs.: January to April or rarely throughout the year.

Commonly cultivated, but also running wild as escape, especially along the hedges; Peechi and Nilambur campuses.

Mukia maderaspatana (L.) M. Roem., Syn. Monogr. 2: 47. 1846. *Cucumis maderaspatanus* L., Sp. Pl. 1012. 1753. *Bryonia scabrella* L. f., Suppl. Pl. 424. 1781. *Mukia scabmilla* (L.f.) Am. in Hook., J. Bot. 3: 276. 1814; Clarke in Hook. f., Fl. Brit. India 2: 623. 1879; Rama Rao, Fl. Pl. Trav. 190. 1914. *Melothria maderaspatana* (L.) Cogn. in DC., Monogr. 3: 623. 1881; Gamble, Fl. Presid. Madras 1: 539. 1919.

Scabrid climbers. Leaves simple, alternate, ovate, angular or 3-5 lobed, cordate at base. Flowers yellow axillary, solitary or fascicled. Fruits red on ripening, globose.

Fls. & Frs.: September to December.

A common weed along hedges and also in waste places; Peechi and Nilambur campuses.

Trichosanthes cucumeriana L., Sp. Pl. 1008. 1753; Clarke in Hook. f., Fl. Brit. India 2: 609. 1879; Rama Rao, Fl. Pl. Trav. 185. 1914; Gamble, Fl. Presid. Madras 2: 529. 1919; Jeff., Kew Bull. 34: 796. 1980; Chakr., Fasc. Fl. India 11: 112. 1882. Kattu-padavalam.

Climbing herbs. Leaves simple, alternate, broadly-ovate, deeply 5-7 lobed with lobes acute-rounded at apex. Flowers white, solitary, axillary. Fruits ovoid-Worm, hispid, striped.

Fls. & Frs.: January to April.

Rare, along hedges; Peechi campus.

Introduced or cultivated species

Cucurbita pepo DC.

Trailing herbs yielding pumpkin, grown in homesteads; Peechi campus.

Lagenaria siceraria (Mol.) Stand.

The bottle gourd yielding climbers, grown in homesteads; Peechi campus.

Luffa acutangula (L.) Roxb.

Climbing herbs producing the vegetable ridged gour (grown in homesteads; Peechi and Velupadam campuses).

Trichosanthes anguina L.

Climbing undershrubs, grown for its fruits, the snake gourd; Peechi campus.

45. DASTICACEAE

Tetrameles nudiflora R Br. in Benn., Pl. Jav. Rar. 79, t. 17. 1838; Clarke in Hook. f., Fl. Brit. India 2: 657. 1879; Bourd., For. Trees Trav. 203. 1908; Rama Rao, Fl. Pl. Trav. 192. 1914; Gamble, Fl. Presid. Madras 2: 544. 1919. *Tetrameles grahamiana* Wt, Ic. t. 1956. 1853. Cheeni.

Large, buttressed trees with pale white bark. Leaves simple, alternate, ovate, coarsely dentate, pubescent beneath, obtuse at base, acuminate at apex. Flowers small, fragrant in dense cymes. Capsules globose.

Fls. & Frs.: April to May.

Prominent trees in sparsely wooded areas of the moist deciduous forests; Peechi and Nilambur campuses.

46. AIZOACEAE

Mollugo pentaphylla L., Sp. Pl. 89. 1753; Gamble, Fl. Presid. Madras 2: 553. 1919. *Mollugo stricta* L., Sp. Pl. ed 2: 131. 1762; Clarke in Hook. f., Fl. Brit. India 2: 663. 1879; Rama Rao, Fl. Pl. Trav. 194. 1914.

Erect, slender herbs with dichotomous branches. Leaves simple, whorled, ovate or elliptic, narrowed at base, apiculate at apex. Flowers dull-white in leaf-opposed or terminal cymes. Capsules oblong with reddish-brown seeds.

Fls. & Frs.: June to September.

Rare, in shaded areas; Peechi and Nilambur campuses.

47. UMBELLIFERAE

Centella asiatica (L.) Urb., Mart. Fl. Bras. 11: 287, t. 78. f. 1. 1874; Gamble, Fl. Presid. Madras 1: 556. 1919; Nasir, Biologia 3: 66. 1957. *Hydrocotyle asistica* L., Sp. Pl. 234. 1753; Clarke in Hook. f. Fl. Brit. India 2: 669. 1879; Rama Rao, Fl. Pl. Trav. 195. 1914. Kudangal.

Slender, stoloniferous herbs, rooting at nodes. Leaves simple, 1-4 at each node, reniform, crenate, glabrous, cordate at base, rounded at apex. Flowers reddish in simple, axillary, 3-4 flowered umbels. Mericarps compressed, ridged.

Fls. & Frs.: July to September.

Common as a weed in wet and shaded areas, especially near homesteads and along the sides of canals; Peechi and Velupadam campuses.

48. RUBIACEAE

Borreria articularis (L.f.) F.N. Will., Bull. Herb. Boiss. ser. 2,5: 956.1905; Sant. et Merch., Bull. bot. Surv. India 3: 107. 1962. *Spermacoce articularis* L.f., Suppl 119.1781. *Borreria hispida* (L.) K. Schum. Pflanzenfam. 4(4): 144.1891. (non Spruce ex K. Schum., 1880); Gamble, Fl. Presid Madras: 654.1921. *Spermacoce hispida* L., Sp. Pl. 102.1753; Hook. f. in Hook. f., Fl. Brit. India 3: 200.1880; Rama Rao, Fl. Pl. Trav. 217.1914.

Scabrid herbs with slender, 4-angled, hirsute or hispid branches. Leaves simple, opposite, elliptic-lanceolate to obovate. Entire, glabrous, acute at base, obtuse at apex; stipules bristled. Flowers pale blue in axillary clusters. Capsules ellipsoid, hirsute.

Fls. & Frs.: September to December.

Fairly common in open areas, waste places and along roadsides; Peechi and Velupadam campuses.

Borreria latifolia (Aubl.) Schum. in Mart., Fl. Bras. 4(6): 61. 1888. *Spermacoce latifolia* Aubl. Pl. Gui. 1: 55. t. 19. 1775. *Borreria eradii* Ram, J. Bombay nat. Hist. Soc. 66: 539-541. figs. 1-10. 1970.

Diffuse or rarely erect herbs with 4-angled, prominently winged and hispid stems. Leaves simple, opposite, broadly ovate or elliptic, entire, hispid, cuneate at base, acute at apex. Flowers white in axillary, few-flowered cymes. Capsules densely strigose.

Fls. & Frs.: August to December.

A very common weed in open areas, especially in gravelly soil along roadsides. Peechi, Nilambur and Velupadam campuses

Catunaregam spinosa (Thunb.) Tirv., Taxon 27: 515. 1978. *Gardeniaspinosa* Thunb., Diss. Gard. 7: 16. t. 2 f. 4. 1780. *Randia dumetorum* (Retz.) Poir. in Lamk, Encycl. Meth. Bot. 2: 829. 1811; Hook. f. in Hook. f., Fl. Brit. India 3: 110. 1880; Bourd., For. Trees Trav. 218. 1908; Rama Rao, Fl. Pl. Trav. 208. 1914. *Randia brandisii* Gamble, Fl. Presid Madras 2: 616.1921.

Armed shrubs or small trees with axillary spines. Leaves simple, opposite, elliptic or obovate, entire, puberulous above, densely tomentose beneath, pinnately-veined, acute at base, obtuse or subacute at apex. Flowers white, fragrant, axillary, solitary or fascicled. Fruits subglobose, ribbed, crowned with persistent calyx lobes.

Fls. & Frs.: April to May.

Rare, in thickets of moist deciduous forests; Peechi campus.

Chasalia ophioxyloides (Wall.) Craib, Gard Bull. Str. Settl. 6: 474.1930; Sant. et Merch., Bull. bot. Surv. India 3: 108. 1962. *Psychotria ophioxyloides* Wall. in Roxb., Fl. Ind. 2: 168. 1824. *Chasalia curviflora* auct. non (Wall.) Thw. 1859; Hook. f. in Hook. f., Fl. Brit. India 3: 176.1880; Rama Rao, Fl. Pl. Trav. 216.1914; Gamble, Fl. Presid. Madras 2: 643. 1921. Vellakurinji.

Erect undershrubs. Leaves simple, opposite, elliptic-lanceolate or oblanceolate, entire, glabrous, attenuate at base, acuminate at apex. Flowers pale-pinkish in terminal cymes. Fruits pinkish-black, globose.

Fls. & Frs.: March to October.

Common as an undergrowth in shaded forest areas; Peechi and Nilambur campuses.

Coffea travancorensis Wt. et Arn. Prodr. 435.1834; Hook. f. in Hook. f., Fl. Brit. India 3: 153.1880; Rama Rao, Fl. Pl. Trav. 214. 1914; Gamble, Fl. Presid. Madras 2: 637. 1921; Nicols. *et al.*, Intrap. Hort. Malab. 221.1988.

Shrubs with slender branches. Leaves simple, opposite, lanceolate, entire, membranous, glabrous, cuneate, or obtuse at base, acuminate at apex. Flowers white, fragrant in axillary fascicles or leafy branches. Drupes obovoid with thorny pyrenes.

Fls. & Frs.: February to May.

Very rare, as an undergrowth in forested areas; Velupadam campus.

Geophila repens (L.) Johnston, Sargentia 8: 281.1949; Verdc., Kew Bull. 28: 321.1973. *Rondeletia repens* L., Syst. ed. 10: 928.1758. *Geophila reniformis* D. Don, Prodr. Fl. Nepal. 136.1825; Hook. f. in Hook. f., Fl. Brit. India 3: 178. 1880; Rama Rao, Fl. Pl. Trav. 216. 1914; Gamble, Fl. Presid. Madras 2: 643. 1921. *Geophila herbacea* (Jacq.) K. Schum., Pflanzenfam. 4(4): 199.1891.

Prostrate herbs with rooting at lower nodes. Leaves simple, opposite, long-petioled, orbicular, entire, cordate at base, rounded at apex. Flowers white, solitary or in pedunculate umbels. Fruits purplish, globose.

Fls. & Frs.: October to February.

Rare, in shaded, wet areas; Nilambur campus

Haldina cordifolia (Roxb.) Ridsdl., Blumea 24: 361.1978. *Naucleo cordifolia* Roxb., Pl. Corom. 1: 40 t 53.1796. *Adina cordifolia* (Roxb.) Hook f. ex Brand., For. Fl. t. 33.1874; Hook. f. in Hook f., Fl. Brit. India 3: 24.1880; Bourd., For. Trees Trav. 212.1908; RamaRao, Fl. Pl. Trav. 201.1914; Gamble, Fl. Presid. Madras 2: 584.1921. Manja-kadambu

Trees with rough bark and dense crown. Leaves simple, opposite, orbicular, entire. glabrous, cordate or subcordate at base, abruptly acuminate at apex. Flowers yellowish in globose heads forming umbels. Capsules densely downy.

Fls. & Frs.: September to October.

Rather rare, forming atypical component of the moist deciduous forests, especially in depressions and along the sides of valleys; Peechi, Nilambur and Velupadam campuses.

Hymenodictyon orixensis (Roxb.) Mabb., Taxon 31: 66.1982. *Cinchona orixensis* Roxb., Bot. Descr. Swie. 21.1793. *Hymenodictyon excelsum* (Roxb.) Roxb., Fl. Ind. 149.1824; Hook f in Hook. f. Brit India 3: 35. 1880; Bourd., For. Trees Trav. 214.1908; RamaRao, Fl. Pl. Trav. 202.1914; Gamb. Fl. Presid. Madras 2: 589.1921. Valla-kadamba

Medium sized trees. Leaves simple, opposite, ovate, entire, pubescent, narrowed at base, acuminate at apex. Flowers pale greenish in fascicles; bracts leafy. Capsules ellipsoid.

Fls. & Frs.: September to January,

Rare as isolated trees; Nilambur and Velupadam campuses.

Ixora coccinea L., Sp. Pl. 110.1753; Wt., Ic. t. 152.1839; Hook. f. in Hook. f., Fl. Brit. India 3: 145. 1880; Rama Rao, Fl. Pl. Trav. 213.1914; Gamble, Fl. Presid. Madras 2: 631.1921. Chethi, Thechi.

Woody shrubs, often branched from the base. Leaves simple, opposite. elliptic-ovate, entire, glabrous, coriaceous, rounded or cordate at base, acute at apex. Flowers red in terminal, dense, corymbose cymes. Fruits red. subglobose, pulpy.

Fls. & Frs.: October to February or sometimes throughout the year.

Common, especially in lateritic soil: Peechi, Nilambur and Velupadam campuses.

Mitracarpus hirtus (L.) DC., Prodr. 4: 572.1830; Dyer, Ann. Missouri bot. Gard. 67: 248.1980. *Spermacoce hirta* L., Sp. Pl. ed. 2. 148. 1762. ***Staurospermum verticillatum*** Schum. et Thonn., Berskr. Guin. Pl. 73. 1827. *Mitracarpus villosus* (Sw.) DC., Prodr. 4: 572. 1830; Verdc., Kew Bull. 30: 317. 1975. *Mitracarpus verticillatus* (Schum. et Thonn.) Vatke, Linnaea 40: 196.1876; Seb. et Ramam., Bull. bot. Surv. India 9: 291.1967.

Erect or spreading herbs with pubescent stems, Leaves simple, opposite, sessile, ovate-lanceolate or elliptic, entire, glabrous, veined at base, acute at apex. Flowers white in axillary fascicles. Capsules straw-coloured, circumscissile.

Fls. & Frs.: April to December.

Fairly common as a weed in open areas and along roadsides; Peechi campus

Mitragyna parvifolia (Roxb.) Korth., Obs. Nacl. Ind. 19.1839; Gamble, Fl. Presid. Madras 2: 585.1921; Ridsdl., Blumea 24: 68. 1978; Bakh. f., Taxon 19: 472. 1970. *Nauclea parvijolia* Roxb., Pl. Corom. t. 52. 1798. ***Stephegyne parvifolia*** Korth. in Verh., Nat. Ges. 161. 1840; Hook. f. in Hook. f., Fl. Brit. India 3: 25. 1880; Bourd., For. Trees Trav. 213.1908; RamaRao, Fl. Pl. Trav. 201.1914. Nir-kadambu.

Medium-sized trees with spreading crown. Leaves simple, alternate, obovate or orbicular, entire, glabrous, rounded or acute at base, acute at apex. Flowers greenish-yellow in axillary, pedunculate clusters. Capsules with two cocci, ribbed.

Fls. & Frs.: November to May

Fairly common in drier forest areas; Peechi and Nilambur campuses.

Morinda umbellata L., Sp. Pl. 176.1753; Hook. f. in Hook. f., Fl. Brit. India 3: 157. 1880; RamaRao, Fl. Pl. Trav. 215.1914; Gamble, Fl. Presid. Madras 2: 652. 1921. Nuna-maram.

Shrubs with weak rusty-tomentose branches. Leaves simple. opposite, elliptic-lanceolate, to obovate. entire. pubescent. White in umbellata heads. Drupes green. connate. irregularly lobed.

Fls. & Frs.: August to February.

Rather common in open, waste places; Velupadam campus.

Mussaenda bellila Buch.-Ham., Trans. Linn. Soc. Bot. London 14: 203. 1824. *Mussaenda laxa* (Hook. f.) Hutch. ex Gamble, Fl. Presid. Madras 2: 610. 1921. *Mussaenda frondosa* Lvar. *laxa* Hook. f. in Hook. f., Fl. Brit. India 3: 89. 1880; Rama Rao, Fl. Pl. Trav. 207. 1914. *Vellila*

Climbing or straggling shrubs with hirsute branchlets. Leaves simple, opposite, broadly-ovate, entire. hirsute. acute at base. abruptly acuminate at apex. Flowers reddish-yellow in densely hirsute cymes with one calyx lobe white and showy-petaloid berries obovoid.

Fls. & Frs.: July to December.

Common, especially along hedges; Peechi, Nilambur and Velupadam campuses

Oldenlandia corymbosa L., Sp. Pl. 119. 1753; Hook. f. in Hook. f., Fl. Brit. India 3: 64. 1880; Rama Rao, Fl. Pl. Trav. 205. 1914; Gamble, Fl. Presid. Madras 2: 600. 1921. *Hedyotis corymbosa* (L.) Lamk., Encycl. Meth. Bot. 1: 272. 1792.

Prostrate or suberect herbs. often rooting at nodes. Leaves simple. opposite, sessile, linear-lanceolate, acute at apex. Flowers white, axillary, 2-3 together. Capsules crowned by the calyx lobes.

Fls. & Frs.: June to August.

Common in waste places: Velupadam campus

Oldenlandia herbacea (L.) Roxb., Fl. Ind. 1: 424. 1820; Hook. f. in Hook. f., Fl. Brit. India 3: 64. 1880; Gamble, Fl. Presid. Madras 2: 601. 1921. *Hedyotis herbacea* L., Sp. Pl. 102. 1753.

Much branched herbs with slender branches. Leaves simple. opposite. sessile, linear-lanceolate. glabrous. Flowers white, solitary, in axillary panicles. Capsules ovoid, glabrous, opening at apex.

Fls. & Frs.: July to August

Common in waste places, along lateritic slopes and also roadsides; Peechi campus.

Ophiorrhiza mungos L., Sp. Pl. 150. 1753; Hook. f. in Hook. f., Fl. Brit. India 3: 77. 1880; Rama Rao, Fl. Pl. Trav. 206. 1914; Gamble, Fl. Presid. Madras 2: 607. 1921. *Avilpori*.

Erect herbs or undershrubs. Leaves simple, opposite, elliptic-lanceolate, entire. glabrous. attenuate at base, acuminate at apex. Flowers white in subumbellate. rusty-puberulous cymes. Capsules glabrous.

Fls. & Frs.: November to March.

An undergrowth in shaded forest areas: Velupadam campus

Spermacoe mauritiana Gideon. ex Verdc., Kew Bull. 37: 547. 1983; Sivar. *et al.*, Proc. Indian Acad. Sci. (Pl. Sci.) 97: 356. 1987. *Spermacoe ocymoides* Burm. f., Fl. Ind. 34. t. 13. f. 1. 1768; Hook. f. in Hook. f., Fl. Brit. India 3: 200. 1881; Rama Rao, R. Pl. Trav. 217. 1914. *Borreria ocymoides* (Burm. f.) DC., Prodr. 4: 544. 1830; Gamble, Fl. Presid. Madras 2: 654. 1921. *Tharakeera*.

Procumbent herbs with 4-angled narrowly winged. densely hairy stems. Leaves simple, opposite. subsessile. ovate or elliptic, entire, glabrous. obtuse at base, acute at apex. Flowers white in terminal or axillary clusters. Capsules glabrous, slightly compressed.

Fls. & Frs.: January to February).

Common as weed in waste places, especially along roadsides: Peechi and Nilambur campuses.

Spermacoe pusilla Wall. in Roxb., Fl. Ind. 1: 379. 1820. *Spermacoe stricta* L. f., Suppl. 120. 1781. 1782; Hook. f. in Hook. f., Fl. Brit. India 3: 200. 1881. *Borreria stricta* (L. f.) K. Schum., Pflanzenfam. 4(4): 143. 1891 (*non* Mayer): Gamble, Fl. Presid. Madras 2: 654. 1921.

Erect, branched herbs or undershrubs with sharply 4-angled, hispid stems. Leaves simple. opposite. linear-lanceolate, entire, glabrous. cuneate at base, acute at apex. Flowers white in axillary and terminal, sessile. capitate clusters. Capsules obovoid or ellipsoid, densely white-hispid.

Fls. & Frs.: November to December.

Common. especially in latentic soil along slopes and in waste places: Peechi and Nilambur campuses.

49. COMPOSITAE

Ageratum conyzoides L., Sp. Pl. 839.1753; Hook. f. in Hook. f., Fl. Brit. India 3: 243. 1881; Rama Rao, Fl. Pl. Trav. 221. 1914; Gamble, Fl. Presid. Madras 2: 677. 1921.

Erect, soft-hairy herbs. Leaves simple, opposite, ovate or rhomboid, serrate or crenate, hairy, palmately 3-nerved at base, acute or obtuse at apex. Flowers (florets) pink in homogamous heads. Achenes 5-angled with free pappus.

Fls. & Frs.: September to October.

A smelling weed, common in shaded and wet pockets in the open forest floor, Peechi, Nilambur and Velupadam campuses.

Blumea membranacea DC., Prodr. 5: 440. 1836; Rand., Blumea 10: 269. 1960. *Blumea membranacea* DC. var. *gardneri* Hook. f. in Hook. f., Fl. Brit. India 3: 265. 1811; Rama Rao, R. Pl. Trav. 222. 1914; Gamble, Fl. Presid. Madras 2: 688. 1921.

Erect, small herbs. Leaves simple, opposite, ovate-lanceolate, basal ones often lyrate, pubescent. Flowers (florets) yellow in homogamous heads. Achenes brown, oblong, with white pappus.

Fls. & Frs.: February to May.

As a weedy undergrowth in the shaded forest areas, Peechi campus

Crassocephalum crepidioides (Benth.) S. Moore, J. Bot. : 211. 1912. *Gynura crepidioides* Benth. in Hook. Niger. Fl. 438. 1849. *Erechtites valerianifolius* sensu Fischer, Rec. bot. Surv. India 9: 98. 1921 & in Gamble, Fl. Presid. Madras 2: 1882. 1936. (non (Wolf.) DC. 1838).

Slender, erect herbs with fleshy, angular stems. Leaves simple, alternate, elliptic-lanceolate, glabrous, membranous, obtuse at base, acute at apex. Flowers (florets) red in terminal, cylindrical homogamous heads. upto 1 cm long. Achenes terete, 10-ribbed with white, silky pappus.

Fls. & Frs.: July to December.

A rare weed in forest openings, especially in shaded and wet localities; Peechi campus.

Eclipta alba (L.) Hassk., Pl. Jav. 528. 1848; Hook. f., in Hook. f., Fl. Brit. India 3: 304. 1881; Rama Rao, Fl. Pl. Trav. 224. 1913; Gamble, Fl. Presid. Madras 2: 705. 1921. Kayyuni.

Erect or diffuse, pubescent herbs. Leaves simple, opposite, subsessile, elliptic, oblong or lanceolate, irregularly serratedentate, hirsute, tapering at base, rounded or subacute at apex. Flowers (florets) white in axillary, solitary, heterogamous heads. Achenes dimorphic with ray achenes triquetrous and disc achenes compressed.

Fls. & Frs.: September to February.

A weed in the open areas, especially along canal banks, roadsides, waste places, etc.; Peechi, Nilambur and Velupadam campuses.

Elephantopus scaber L., Sp. Pl. 814. 1753; Wt., Ic. t. 1086. 1846; Hook. f. in Hook. f., Fl. Brit. India 3: 242. 1881; Rama Rao, Fl. Pl. Trav. 220. 1914; Gamble, Fl. Presid. Madras 2: 676. 1921. Anachovadi.

Scapigerous herbs with appressed pubescent parts. Leaves basal, obovate-oblong, entire, densely hairy, cuneate at base, obtuse at apex. Flowers purple in clustered heads. Achenes ribbed with pappus bristles.

Fls. & Frs.: September to January.

A weed in open areas and waste places; Peechi and Nilambur campuses.

Eleutheranthera ruderalis (Sw.) Sch.-Bip., Bot. Zeit. 24: 165. 239. 1866; Koster, Blumea 25: 266. 1979. *Melampodium ruderale* Sw., Fl. Ind. Occ. 3: 1372. 1806.

Erect herbs. Leaves simple, alternate, ovate-obtuse, serrate, pubescent on both sides, obtuse at base, acute at apex, Flowers (florets) yellow in axillary or terminal, pedunculate, homogamous heads. Achenes 4-angled, obovoid, narrowed at base, broadened towards apex, devoid of pappus.

Fls. & Frs.: November to May.

A weed, especially in waste places: Peechi campus

Emilia sonchifolia (L.) DC. in Wt., Contrib. Bot. 24. 1834; Hook. f. in Hook. f., Fl. Brit. India 3: 336. 1881; Rama Rao, Fl. Pl. Trav. 227. 1914; Gamble, Fl. Presid. Madras 2: 716. 1921. *Calcalia sonchifolia* L., Sp. Pl. 835. 1753. Muzalchevian.

Erect. branched herbs. Leaves both radical and cauline, simple, opposite, obovate to ovate-triangular or orbicular, amplexicaul or auricled at base, acute or obtuse at apex. Flowers (florets) purple in homogamous heads. Achenes ribbed, hairy along the angles.

Fls. & Frs.: June to October.

A weed common in waste places and forest openings, especially in lateritic soil; Peechi, Nilambur and Velupadam campuses.

Eupatorium odoratum L. Syst. Nat. ed. 10: 1205. 1759; Hook. f. in Hook. f., Fl. Brit. India 3: 244. 1881; Koster, Blumea 25: 249. 1979. *Chromolaena odorata* (L.) King et Rob., Phytologia 20: 204. 1970. Communist-pacha.

Erect. pubescent undershrubs. Leaves simple, opposite, ovate, crenate-serrate, 3-veined from base, acute or acuminate at apex. Flowers (florets) white in terminal, corymbose, homogamous heads. Achenes 4-angled, ciliate along the angles.

Fls. & Frs.: December to January.

A gregarious weed. Habituated to disturbed forest areas and waste places, especially along the hedges; Peechi, Nilambur and Velupadam campuses.

Mikania micrantha Kunth in H.B.K., Nov. Gen. Sp. 4: 134. 1820. *Mikania scandens* auct. non Willd.; Hook. f. in Hook. f., Fl. Brit. India 3: 224. 1881. *Mikania micrantha* (Burm. f.) Rob., Contr. Gray Herb. 104: 65. 1934.

Straggling herbs with sparsely pubescent stems. Leaves simple, opposite, ovate, irregularly wavy or dentate, subglabrous, subcordate at base, acuminate at apex. Flowers (florets) greenish-white in homogamous heads forming terminal panicles. Achenes dark brown, narrowly oblong with pappus white turning reddishbrown.

Fls. & Frs.: July to December.

A noxious weed in disturbed areas, especially along hedges and in forest openings; Peechi, Nilambur and Velupadam campuses.

Sphaeranthus indicus L., Sp. Pl. 1314. 1753; Hook. f. in Hook. f., Fl. Brit. India 3: 275. 1881; Rama Rao, Fl. Pl. Trav. 223. 1914; Gamble, Fl. Presid. Madras 2: 692. 1921. *Sphaeranthus hirtus* Willd., Sp. Pl. 3: 1395. 1802; Wt. Ic. I. 1094. 1846. Adaka-maniyan.

Aromatic, subprostrate herbs with glandular-hairy, winged stems. Leaves simple, alternate, decurrent on the stem, ovate or obovate, glandular-villous, acute at apex. Flowers (florets) pinkish-red in globular heads. Achenes oblong, angular.

Fls. & Frs.: November to March.

A weed, common in plains, along roadsides, near canals, etc.; Peechi and Velupadam campuses.

Spilanthes calva DC. in Wt., Contrib. Ind. Bot. 19. 1834; Koster, et Philipp., Blumea 6: 354. 1950. *Spilanthes acmella* auct. non (L.) Murr. 1774; Hook. f. in Hook. f., Fl. Brit. India; 307. 1881; Rama Rao, Fl. Pl. Trav. 225. 1914; Gamble, Fl. Presid. Madras 2: 708. 1921.

Erect herbs. Leaves opposite, ovate-lanceolate, distantly serrate, glabrous, cuneate at base, acute at apex. Flowers (florets) yellowish-white in terminal, homogamous heads. Achenes oblong, compressed, almost glabrous.

Fls. & Frs.: November to April.

A weed in the waste places, canal banks, etc.; Peechi campus.

Tridax procumbens L., Sp. Pl. 900. 1753; Hook. f. in Hook. f., Fl. Brit. India 3: 311. 1881; Rama Rao, Fl. Pl. Trav. 226. 1914; Gamble, R. Presid. Madras 2: 711. 1921.

Herbs with creeping or ascending branches. Leaves simple, opposite, ovate, deeply incisodentate or pinnatisect, hairy, acute at base and apex. Flowers (florets) yellowish-white in long-stalked, solitary, heterogamous heads. Achenes oblong, silky-hairy with feathery pappus.

Fls. & Frs.: June to November or almost throughout the year.

A very common weed in the forest floor, waste places along roadsides, etc.; Peechi, Nilambur and Velupadam campuses.

Vernonia cinerea (L.) Less., *Linnaea* 291: 1829; Hook f in Hook.f., *Fl. Brit. India* 3: 233. 1881; Rama Rao, *Fl. PI. Trav.* 219. 1914; Gamble, *Fl. Presid. Madras* 2: 696. 1921. *Conyza cinerea* L., *Sp. Pl.* 862. 1753. Puam-curundal. Erect herbs. Leaves simple, opposite, ovate-elliptic, entire or irregularly toothed. attenuate or rounded at base. acute or obtuse at apex. Flowers (florets) pink in terminal, homogamous, panicled heads. Achenes 5-angled adpressed-hairy with 2-senate pappus.

Fls. & Frs.: January to March.

A common weed in forest openings, waste places and along roadsides; Peechi, Nilambur and Velupadam campuses.

Vicoa indica (L.) DC. in *Wt., Contrib. Bot. Ind.* 10. 1834; Gamble, *Fl. Presid. Madras* 2: 701. 1921. *Irula indica* L., *Sp. Pl. ed. 2.* 1236. 1762. *Vicoa auriculata* Cass., *Ann. Sci. Nat Paris* 17: 418. 1829; Hook. f in Hookf., *Fl. Brit. India* 3: 297. 1881; Rama Rao, *Fl. PI. Trav.* 224. 1914.

Erect herbs. Leaves simple. opposite, oblong-lanceolate or lanceolate, scabrid, reddish auricled at base. acute at apex. Flowers (florets) bright yellow in terminal, homogamous, paniculate heads. Achenes cylindrical with white pappus.

Fls. & Frs.: February to March

Common as weed in the forests openings, waste places, along pathsides and in other barren areas; Peechi, Nilambur and Velupadam campuses.

50. CAMPANULACEAE

Lobelia alsinoides Lamk., *Encyl. Meth. Bot.* 3: 588. 1792. *Lobelia trigona* Roxb., *Fl. Ind.* 2: 111. 1824; Clarke in Hook.f., *Fl. Brit. India* 3: 423. 1881; Rama Rao, *Fl. PI. Trav.* 230. 1914; Gamble, *Fl. Presid. Madras* 2: 736. 1921.

Herbs upto 25 cm long Leaves simple. alternate. ovate or oblong, rounded or elliptic. menate-dentate, glabrous. 3 nerved at base, acute at apex. Flowers blue, solitary, axillary. Capsules baccate. opening by 3 valves.

Fls. & Frs.: Septemberto April.

A weed in damp areas; Velupadam campus.

51. PLUMBAGINACEAE

Plumbago zeylanica L., *Sp. Pl.* 151. 1753; *Wt., Ic. t.* 179. 1839; Clarke in Hook.f., *R. Brit India* 3: 180. 1882; Rama Rao, *Fl. PI. Trav.* 231. 1914; Gamble, *Fl. Presid. Madras* 2: 744. 1921.

Ramplng or subscandent herbs or undershrubs with striated branches. Leaves simple, opposite, ovate. entire. glabrous. attenuate into the petiole at base. acute at apes. Rows white in terminal. elongate spikes. Capsules oblong, grooved.

Fls. & Frs.: Septemberto February

A weed naturalised as an undergrowth in shaded and damp areas of the moist deciduous forests; Peechi campus.

52. MYRSINACEAE

Embelia acutipetalum (Lamk. ex Hassk.) S. M. Alm. et M. R. Alm., *J. Bombaynat. Hist. Soc.* 81: 741. 1984. *Easr acutipetalum* Lamk. ex Hassk., *Hort. Malab. Rheede Clav.* 40. 1876. *Embelia tsjarium-corttam* (Roem. et Schm A. DC., *Trans. Linn. Soc. London* 17: 131. 1834; Clarke in Hook.f., *Fl. Brit. India* 3: 515. 1882; Gamble, *Fl. P esid Madras* 2: 753. 1921.

Large shrubs or small trees. Leaves simple. alternate. elliptic or obovate, glabrous above, reddish oeneath. rounded or subacute at base, acuminate at apex. Flowers greenish-white in elongated racemose panicles. Berries red, globose.

Fls. & Frs.: May to August

Rare in moist deciduous forests, especially in the openings: Peechi and Nilambur campuse

Embelia ribes Burm.f., *Fl. Ind* 62. t 23 1768; Clarke in Hook f, *Fl. Brit India* 3: 513. 1882.: Rama Roa *Fl. PI. Trav.* 233. 1914; Gamble, *Fl. Presid. Madras* 2: 752. 1921. *Embelia glandulifera* Wt., *Ic. t.* 1207. 1848.

Shrubs with tubercled stems. Leaves simple, elliptic-lanceolate, entire, glandular on either side of the midrib below, cuneate at base, acute at apex. Flowers white in racemes or panicles. Berries globose.

Fls. & Frs.: November to February.

Rare, in bushy areas; Velupadam campus.

53. SAPOTACEAE

Chrysophyllum cainito L., Sp. Pl. 192. 1753; Gamble, Fl. Presid. Madras 21: 759. 1921; Vink, Blumea 9: 26. 1958.

Small trees. Leaves simple, alternate, elliptic, entire, thick, glaucous above, reddish-pubescent beneath with close and parallel lateral veins, rounded or cuneate at base, abruptly acuminate at apex. Flowers greenish-yellow in axillary fascicles. Berries yellowish-green, globose.

Fls. & Frs.: August to September.

Rare, as planted and naturalised; Peechi and Nilambur campuses.

Mimusops elengi L., Sp. Pl. 349. 1753; Clarke in Hook. f., Fl. Brit. India 3: 548. 1882; Bourd., For. Trees Trav. 240. 1908; Rama Rao, Fl. Pl. Trav. 238. 1914; Gamble, Fl. Presid. Madras 2: 675. 1921. Elengi.

Trees with dark brown stem. Leaves simple, alternate, elliptic-ovate to lanceolate, subcoriaceous, glabrous, acute or rounded at base, acute or acuminate at apex. Flowers white, fragrant, solitary or clustered in the upper axils. Berries yellow when ripe, ovoid, fleshy.

Fls. & Frs.: November to March.

Rare, as planted and naturalised in forest areas, homesteads and gardens; Peechi and Nilambur campuses.

54 EBENACEAE

Diospyros buxifolia (Bl.) Hiern., Trans. Camb. Phil. Soc. 12: 218. 1873. *Leucoxyllum buxifolium* Bl., Bijdr. 1169. 1827. *Diospyros microphylla* Bedd., Fl. Sylvatt. 133. 1868-74; Clarke in Hook. f., Fl. Brit. India 3: 1559. 1882; Bourd., For. Trees Trav. 246. 1908; Rama Rao, Fl. Pl. Trav. 241. 1914; Gamble, Fl. Presid. Madras 2: 776. 1923. Kattu-thovara

Trees with hirsute branchlets. Leaves simple, alternate, elliptic-ovate, coriaceous, glabrous above, pubescent beneath, cuneate at both ends, covered with long, yellow hairs on both surfaces when young. Flowers white, minute, 1-3 together in short, axillary cymes. Fruits purple, ovoid, glabrous.

Fls. & Frs.: January to July.

Rare as planted and naturalised in the moist deciduous forests; Peechi campus.

55. OLEACEAE

Chionanthus mala-elengi (Dennst.) P.S. Green, Bull. bot. Surv. India 26: 126. 1984 (1985). *Forsythia mala-elengi* Dennst., Schluss. Hort. Malab. 12, 21 & 31. 1818. *Linociera malabarica* Wall. ex G. Don, Gen. Syst. 4: 53. 1837-38; Clarke in Hook. f., Fl. Brit. India 3: 607. 1882; Bourd., For. Trees Trav. 259. 1908; Rama Rao, Fl. Pl. Trav. 248. 1914; Gamble, Fl. Presid. Madras 2: 794. 1923.

Trees with pale white stems. Leaves simple, opposite, elliptic-oblong, more or less revolute along the margins, cuneate at base, shortly acute or acuminate at apex. Flowers yellowish-white, sessile, capitate, on short, axillary peduncles. Drupes ellipsoid.

Fls. & Frs.: October to February.

rare; in moist deciduous forests, especially in sparsely wooded areas; Peechi campus.

Jasminum humile L., Sp. Pl. 7. 1753; Clarke in Hook. f., Fl. Brit. India 3: 602. 1882; Rama Rao, Fl. Pl. Trav. 247. 1914; *Jasminum bigonianum* Wall. ex DC., Prodr. 8: 313. 1844; Gamble, Fl. Pl. Presid. Madras 2: 791. 1923.

Erect shrubs with angular young branches. Leaves opposite, imparipinnate with leaflets rhomboid-oblong, entire, glabrous, rounded at base, acute at apex. Flowers yellow in cymes. Berries ellipsoid. Flowers yellow in cymes. Berries black, globose.

Fls. & Frs.: February to May.

Rare in shaded thickets; Velupadam campus.

Jusminum multiflorum (Burm.f.)Andr., Bot. Rep. t. 496.1801. *Nyctanthes multiflora* Burmf., Fl. Ind 5. t. 3.f. 1.1768. *Jasminum pubescense* (Retz.) Wdd, Sp.Pl. 1: 37.1797; Clarke in Hook. f., Fl. Brit. India 3: 592.1882; Rama Rao, Fl. PI. Trav. 245.1914; Gamble, Fl. Presid. Madras 2: 789. 1923. Kattu-mulla.

Scandent shrubs. Leaves simple, opposite, ovate to elliptic. entire. pubescent, rounded at base, acute or acuminate at apex. Flowers white in terminal, subcapitate cymes. Bemes ellipsoid.

Fls. & Frs.: April to May,

Common in moist deciduous forests, especially along the hedges; Peechi campus.

Olea dioica Roxb., Fl. Ind. 1: 105. 1820; Clarke in Hook.f..R. Brit. India 3: 612. 1882; Bourd..For. Trees Trav. 261.1908; Rama Rao, Fl. PI. Trav. 248.1914; Gamble, Fl. Presid. Madras 2: 796.1923. Vidana.

Small trees. Leaves simple, opposite, elliptic-oblong, distantly serrate. glabrous. acute at base, acute or acuminate at apex. Flowers greenish white in axillary panicles. Drupes dark blue, ellipsoid.

Fls. & Frs.: February to December.

Common in moist deciduous forests, especially in the openings; Peechi and Nilambur campuses

56. APOCYNACEAE

Alstonia scholaris (L.)RBr., Mem. Wern. Nat. Hist Soc. 1: 76.1811; Wt., Ic. t.422. 184043; Hook.f. in Hook f., Fl. Brit. India 3: 642. 1882; Bourd., For Trees Trav. 2265.1908; Rama Rao, Fl. PI. Trav. 253.1914; Gamble. Fl. Presid. Madras 2: 810.1923. *Echites scholaris* L., Mant 53. 1767. Ezhilam-pala

Large, buttressed trees with pale white bark. Leaves in whorls of 4-7 (rarely more), oblong-elliptic to oblanceolate. glabrous, tapering at base, obtuse or bluntly acuminate at apex. Flowers greenish-white in umbellate-branched. many-flowered, pubescent, capitate cymes. Follicles paired. linear. divergent.

Fls. & Frs.: December to March.

Occasional. in the moist deciduous forests, especially in openings; Peechi, Nilambur and Velupadam campuses.

Catharanthus roseus (L.)G. Don, Gen. Hist. 4: 95. 1837. *Vinca rosea* L., Syst. Nat. ed. 10: 944.1759; Hook. f. in Hook.f., Fl. Brit. India 3: 640. 1882. *Lochnera rosea* (L.)Reichb.. Consp. Reg. Veg. 134.1828; Gamble. Fl. Presid Madras 2 809.1923. Savam-nari.

Perennial herbs. Leaves simple, opposite, obovate to elliptic, entire, glabrous, obtuse or acute at base. obtuse or rounded at apex. Flowers pink or white, axillary, solitary or paired, shortly pedicellate. Follicles yellowish green, linear. puberulous.

Fls. & Frs.: Almost throughout the year.

Wild as a weed in open areas and also grown in gardens; Peechi and Nilambur campuses.

Holarrhena pubescens (Buch.-Ham.) Wall. ex G. Don, Gen. Syst. 4: 78. 1838; Panigr., Taxon 36(2): 466.1987. *Echites pubescens* Buch.-Ham., Trans. Linn. Soc. London 13: 524.1822. *Holarrhena antidysenterica* Hook. f. in Hook. f., Fl. Brit. India 3: 644. 1882 non (L.)Wall; Bourd..For. Trees Trav. 266. 1908; Rama Rao. Fl. PI. Trav. 254.1914; Gamble, Fl. Presid Madras 2: 811.1923. Kodagapala

Shrubs or small trees. Leaves simple, opposite, broadly ovate to elliptic. entire. glabrous, obtuse at base. obtuse or obtusely acuminate at apex. Flowers white in terminal, corymbose cymes. Follicles cylindrical. often whitedotted.

Fls. & Frs.: September to March,

Rare, in moist deciduous forests; Peechi, Nilambur and Velupadam campuses

Ichnocarpus frutescens (L.)R. Br. in Ait. f., Hort. Kew ed. 2, 2: 69. 1811; Wt., Ic. t. 420. 1841; Hook. f. in Hook. f., Fl. Brit. India 2: 669. 1882; Rama Rao, Fl. PI. Trav. 258. 1914; Gamble, FL Presid. Madras 2: 820. 1923. *Apocynum frutescens* L., Sp. Pl. 213.1753. Palu-valli.

Twining undershrubs with dark brown stem. Leaves simple. opposite. elliptic-oblong, entire, glabrous above, usually rounded at base, acute or acuminate at apex. Flowers greenish-white in axillary or terminal, paniculate cymes. Follicles green, cylindrical.

Fls. & Frs.: July to February

Climbers on bushes. hedges or small trees: Peechi. Nilambur and Velupadam campuses

Plumeria rubra L., Sp. Pl. 209. 1753. *Plumeria acuminata* (R. Br.) Ait. Hort Kew 2: 70. 1789; Hook. in Curt, Bot. Mag. t. 3952. 1842. *Plumeria acutifolia* Poir. in Lamk. Ency. 1. Suppl. 2: 667. 1812; Hook. f. in Hook. f., Fl. Brit. India 3: 641. 1882; Rama Rao, Fl. Pl. Tmv. 252. 1914; Gamble, R. Presid. Madras 2: 821. 1923. *Ezha-shempagom* Trees with regular branches. Leaves clustered at branch apices, elliptic to oblanceolate, entire, glabrous, acute at both ends. Flowers white with a yellowish centre inside, in terminal panicles. Fruits seldom set.

R.s. & Frs.: March to May.

Commonly grown as a garden plant, but also sometimes running wild as escapes: especially near homesteads; Peechi campus.

Rauvolfia serpentina (L.) Benth. ex Kurz, For. R. Burma 2: 171. 1877; Hook. f. in Hook. f., Fl. Brit. India 3: 632. 1882; Rama Rao, Fl. Pl. Tmv. 251. 1914; Gamble, Fl. Presid. Madras 2: 807. 1923. *Ophioxylon serpentinum* L., Sp. Pl. 1043. 1753. Sarpagandhi.

Undershrubs. Leaves simple in opposite pairs or in whorls of 3. lanceolate or oblanceolate, entire, glabrous. tapering at base, acute or acuminate at apex. Flowers white interterminal, subumbellate cymes. Bemes red, subglobose.

Fls. & Frs.: August to September.

Rare, in the openings of moist deciduous forests; Peechi and Velupadam campuses.

Rauvolfia tetraphylla L., Sp. Pl. 208. 1753; Rao, Ann Missouri bot. Gard. 43: 285. 1956. *Rauvolfia canescens* L., Sp. Pl. ed 2: 303. 1762; Gamble, Fl. Presid. Madras 2: 808. 1923.

Pubescent undershrubs. Leaves simple in whorls of 4, ovate to obovate. unequal entire. glabrous. cuneate at base, acute at apex. Flowers white in terminal or axillary, 5-7 flowered, corymbose cymes. Drupes purple-red when ripe.

Fls. & Frs.: June to November.

Common in moist deciduous forests, especially along roadsides and in waste places; Peechi campus.

Tabernaemontana alternifolia L., Sp. Pl. 211. 1753; Nicols. et al., Inpr. Hort. Malab. 57. 1988. *Tabernaemontana heyneana* Wall., Bot. Reg. sub. t. 1273. 1829; Hook. f. in Hook. f., Fl. Brit. India 3: 572. 1882; Bourd., For. Trees Trav. 267. 1908; Rama Rao, Fl. Pl. Trav. 254. 1914. *Ervatamia heyneana* (Wall.) Cooke, Fl. Presid. Bombay 2: 134. 1904; Gamble, Fl. Presid. Madras 2: 813. 1923. Koonam-pala.

Stunted, deciduous trees. Leaves opposite, simple, elliptic-oblong, entire, glabrous, coriaceous, acute at base, acuminate at apex. Flowers white, fragrant in pedunculate, many-flowered cymes. Follicles yellow when ripe. subsessile, wed, somewhat boat shaped; usually with recurved short beak and two sharp side ribs.

Fls. & Frs.: June to August.

Rare, in the moist deciduous forests, especially in the openings: Peechi, Nilambur and Velupadam campuses.

Wrightia tinctoria R. Br., Mem. Wern. Nat. Hist. Soc. 1: 47. 1810: Wt., Ic. t. 444. 1840-43; Hook. f. in Hook. f., R. Brit. India 3: 653. 1882; Bourd., For. Trees Trav. 267. 1907; Rama Rao, R. Pl. Trav. 256. 1914; Gamble, Fl. Presid. Madras 2: 815. 1923. Dhantha-pala.

Trees, up to 8 m high. Leaves simple, alternate. elliptic-lanceolate or oblong-lanceolate. entire, glabrous. acute or rounded at base, acuminate at apex. Flowers white, fragrant, in lax. terminal, dichotomous cymes. Follicles paired slender. cylindrical, glabrous.

Fls. & Frs.: March to November.

Fairly common in open areas of moist deciduous forests; Peechi, Nilambur and Velupadam campuses

57. ASCLEPIADACEAE

Calotropis gigantea (Z.) R. Br. in Ait. f., Hort. Kew (ed. 2) 2: 78. 1811; Hook. f. in Hook. f., R. Brit. India 4: 17. 1883; Rama Rao, Fl. Pl. Trav. 259. 1914; Gamble, Fl. Presid. Madras 2: 832. 1923. *Asclepias gigantea* L., Sp. Pl. 214. 1753. Eriku, Vellerik

Shrubs with milky latex and terete branches. appressed-cottony-pubescent towards apex. Leaves simple. opposite, broadly obovate or elliptic-oblong, thick and fleshy, entire auriculate at base. acute at apex. Flowers light bluish-white in terminal or axillary cymes. Follicles fleshy, glabrous. oblong, inflated.

Fls. & Frs.: Almost throughout the year.

Common in open areas and also along roadsides in the moist deciduous forests: Peechi and Velupadam campuses.

Cryptolepis buchananii Roem et Schult., Syst. Veg. 4: 409.1819; Hook. f. in Hook f., Fl. Brit. India 4: 5.1883; Rama Rao, Fl. Pl. Trav. 259.1914; Gamble, Fl. Presid Madras 2: 826.1923. Katupalvalli, Pal-valli.

Much branched, shrubaceous climbers. Leaves simple, opposite, elliptic-oblong, apiculate, entire, glabrous. acute at base, acute to acuminate at apex. Flowers pale yellow in axillary cymes. Follicles in pairs, divaricate. triquetrous, tapering at apex, glabrous.

Fls. & Frs.: March to April.

Rare, in moist deciduous forests, often as a hedge plant; Peechi and Nilambur campuses.

Gymnema sylvestre (Retz.) R Br. ex Schult. in Roem et Schult. System. 6: 57.1820; Wt., Ic. t. 349.1840; Hook. f. in Hook. f., Fl. Brit. India 4: 29.1883; Gamble, Fl. Presid. Madras 2: 839. 1923. *Periploca sylvestris* Retz., Obs. Bot 2: 15. 1781. Chkkara-kolli.

Straggling or climbing shrubs. Leaves simple, opposite, ovate-oblong, entire, pubescent, rounded or cordate at base. acute at apex. Flowers yellow in axillary cymes. Follicles lanceolate. glabrous.

Fls. & Frs.: November to February

Rare. along hedges as planted and naturalised climber; Peechi campus.

Hemidesmus indicus (L.) R Br., Mem. Klem. Wem. Soc. 1: 56.1809; Hook. f. Hook. f., Fl. Brit. India 4: 5.1883; Rama Rao, Fl. Pl. Trav. 258. 1914; Gamble, Fl. Presid. Madras 2: 825. 1923. *Periploca indica* L., Sp. PL 211.1753. Naruneenti, Nannari.

Perennial. prostrate or twining undershrubs with tuberous roots. Leaves simple, opposite, very variable. narrowly lanceolate to elliptic, cuneate at base, shortly acute at apex. Flowers yellowish with a pinkish tinge in subsessile, axillary cymes. Follicles cylindrical, tapering towards apex.

Fls. & Frs.: September to December.

Common in moist deciduous forests, especially in the openings and waste places; Peechi, Nilambur and Velupadam campuses.

Holostemma ada-kodian Schult. in L., Syst Veg. 6: 95,1820. *Holostemma rheedii* Wall., Pl. As. Rar. 2: 51.1831; Hook. f. in Hook. E, Fl. Brit. India 4: 21. 1883; Rama Rao, Fl. Pl. Trav. 261.1914. *Holostemma annulare* (Roxb.) Schum in Engl., Nat. Pflanzenfam 4, 2: 250.1895; Gamble, Fl. Presid. Madras 2: 834.1923. Adakodian Adapatiyam.

Large. glabrous, twining shrubs. Leaves simple, opposite, ovate, narrowly cordiform to oblong, entire. glabrous. cordate to hastate at base, obtusely acute at apex. Flowers purple in axillary cymes. Follicles thick, lanceolate.

Fls. & Frs.: July to September.

Rare, in shaded areas or openings in the moist deciduous forests; Peechi campus.

Tylophora indica Burm. f.) Merr., Philipp. J. Sci. 19: 373. 1921. *Cynanchum indicum* Burm. f., Fl. Ind. 70.1768; *Tylophora asthmatica* (L.f) Wt. et Am. in Wt., Contrib. Ind. Bot. 5 1.1834; Hook. f. in Hook. f., Fl. Brit. India 4: 44: 1883; Rama Rao, Fl. Pl. Trav. 263.1914; Gamble, Fl. Presid Madras 2: 593.1957. Valli-pala

Twining, pubescent undershrubs, Leaves simple, opposite, elliptic-oblong, entire, pubescent, rounded at base. acute or acuminate at apex. Flowers pale pinkish in axillary, umbellate cymes. Follicles cylindrical, acute at both ends.

Fls. & Frs.: October to November.

Climbers especially along the hedges: Peechi campus.

Wattakaka volubilis (L.f.) Stapf, Curtis Bot. Mag. sub. t. 8976. 1922. *Asclepias volubilis* L. f., Suppl. Pl. 170. 1781. *Dregea volubilis* (L.f.) Benth. ex Hook. f. var. *lacuna* (Ham.) Hook. f. in Hook. f., Fl. Brit. India 4: 46.1883; Rama Rao, Fl. Pl. Trav. 263. 1914. *Marsdenia volubilis* (L.f.) T. Cooke, Fl. Presid Bombay 2: 166.1904; Gamble, Fl. Presid. Madras 2: 846. 1923.

Climbing shrubs. Leaves cordiform, broadly ovate, glabrous, truncate to rounded at base, abruptly acuminate at apex. Flowers greenish-white in axillary, umbellate cymes. Follicles in pairs, ovoid, tapering to a very blunt point.

Fls. & Frs.: December to May.

Occasional. mostly along the boundaries of moist deciduous forests, as climbers on hedges; Peechi and Nilambur campuses.

58. LOGANIACEAE

Stychnos nux-vomica L., Sp. Pl. 189.1753; Clarke in Hook.f., Fl. Brit. India 5: 90.1883; Bourd., For. Trees Trav. 269.1908; Rama Rao, Fl. Pl. Tm. 269.1914; Gamble, Fl. Presid. Madras 2: 868.1923. Kanjiram.

Trees with lenticellate bark. Leaves, simple, opposite, broadly ovate or orbicular, entire, glabrous, rounded at base, obtuse or acute at apex. Flowers pale green in terminal and axillary cymes. Fruits orange-red when ripe, globose.

Fls. & Frs.: February to April.

Rare, in the opening: of moist deciduous forests; Peechi, Nilambur and Velupadam campuses.

59. GENTIANACEAE

Canscora diffusa (Vahl) R Br. ex Roem. et Schult., Syst. Væg 3: 301.1820; Clarke in Hook.f., Fl. Brit. India 4: 103.1833; Rama Rao, Fl. Pl. Trav. 269.1914; Gamble, Fl. Presid. Madras 2: 873.1923. *Gentiana diffusa* Vahl, Symb. Bot. 3: 47. 1894. *Canscora lawii* Wt., Ic. t. 1327.1848. Jeeraka-pullu.

Annual herbs with green branchlets. Leaves simple, elliptic to ovate-lanceolate, entire, membranous, glabrous, attenuate at base, acute at apex. Flowers pink with filiform pedicels. Capsules oblong.

Fls. & Frs.: October to December.

Common, in wet and shaded pockets, sometimes forming patches; Peechi campus.

60. MENYANTHACEAE

Nymphoides hydrophylla (Lour.) O. Ktze., Rev. Gen. Pl. 2: 429.1891. *Menyanthes hydrophylla* Lour., Fl. Cochinch. 1: 129.1790. *Limnanthemum cristatum* (Roxb.) Griseb., Gen. Sp. Gent. 342.1839; Clarke in Hook.f., Fl. Brit. India 4: 131.1883; Rama Rao, Fl. Pl. Trav. 270.1914; Gamble, Fl. Presid. Madras 2: 883.1923.

Rhizomatous herbs with erect stem and floating foliage. Leaves orbicular, entire, glabrous, cordate at base, rounded at apex. Flowers white in dense clusters. Capsules subglobose with 4-10 seeds.

Fls. & Frs.: August to January.

Hydrophytes, common in the pond; Velupadam campus.

61. BORAGINACEAE

Heliotropium cabrum Retz., Obs. Bot. 2: 8.1781; Wt., Ic. t. 1389.1848; Clarke in Hook.f., Fl. Brit. India 4: 152.1883; Gamble, Fl. Presid. Madras 2: 897.1923. *Heliotropium murifolium* Retz., Obs. Bot. 2: 1781; Kazmi, J. Am. Arbor. 51: 154.1970.

Suberect herbs. Leaves opposite, elliptic, oblong or linear-lanceolate, strigose-hirsute, acute at apex. Flowers white in racemes. Nutlets subglobose, bristly.

Fls. & Frs.: July-September.

A weed in the waste places; Peechi campus.

Trichodesma zeylanicum (Bunn.f.) R Br., Pmdr. 946.1810; Clarke in Hook.f., Fl. Brit. India 4: 154.1883; Rama Rao, Fl. Pl. Trav. 274.1914; Gamble, Fl. Presid. Madras 2: 899.1923. *Borago zeylanica* Bunn.f., Fl. Ind. 41.1768.

Erect, hispid herbs. Leaves simple, opposite, oblong-lanceolate, hairy, narrowed at base, acute or subobtuse at apex. Flowers pale blue, solitary, drooping or upper ones in leafy racemes. Fruits ellipsoid with oblong nutlets.

Fls. & Frs.: November-May

A weed in waste places; Peechi campus.

62. CONVULVACEAE

Argyreia nervosa (Burm.f.) Boj., Hort. Maurit. 224.1837. *Convolvulus nervosus* Burm. f., Fl. Ind. 48. t. 20. f. 1. 1768; *Argyreia speciosa* Sweet, Hort. Brit. 289.1827; Clarke in Hook.f., Fl. Brit. India 4: 185.1883; Rama Rao, Fl. Pl. Trav. 275.1914; Gamble, Fl. Presid. Madras 2: 907.1923.

Climbing shrubs with short, white-tomentose stems. Leaves simple, alternate, ovate-orbicular, entire, densely velvety beneath, glabrescent above, cordate at base, acute or obtuse at apex. Flowers rose-purple in pedunculate, capitate cymes. Fruits subglobose, indehiscent.

Fls. & Frs.: June to July.

Rare, along hedges and in waste places; Peechi campus.

Evolvulus nummularis (T.,)L., Sp. Pl. ed. 2: 391.1762; Stearn, Taxon 21:649. 1972. *Convolvulus nummularis* L., Sp. Pl. 157.1753. *Volvolvopsis nummularis* (T.,)Rob., Candollea 14:28.1952.

Perennial, prostrate herbs, rooting at nodes. Leaves simple, alternate, rounded or suborbicular, entire, glabrous. Subcordate or truncate at base, obtuse at apex. Flowers creamy-white, axillary, solitary or paired. Capsules subglobose.

Fls. & Frs.: September to November.

A weed, common in waste places and other open areas of the moist deciduous forests; Peechi campus.

Ipomoea cairica (L.) Sweet, Hort. Brit. 287.1827; Gamble, Fl. Presid. Madras 2: 918.1921. *Convolvulus cairicus* L., Syst. Nat. ed. 10:922.1759. *Ipoemoea palmata* Forsk., Fl. Aeg.-Arab. 43.1775; Clarke in Hook. f., Fl. Brit. India 4: 214.1883; Rama Rao, Fl. Pl. Trav. 281.1914.

Slender climbers. Leaves simple, alternate, deeply 5-lobed, palmately cut almost to the base with elliptic-ovate, mucronate lobes. Flowers rose-purple, solitary or in axillary, pedunculate cymes. Capsules subglobose, glabrous.

Fls. & Frs.: January to April.

Rare, growing wild in moist deciduous forests and also planted as an ornamental; Peechi campus.

Ipomoea eriocarpa R.Br., Prodr. 484.1810; Clarke in Hook. f., Fl. Brit. India 4: 204.1883; Rama Rao, Fl. Pl. Trav. 278.1914; *Ipomoea hispida* (Vahl) Roem. et Schult., Syst. Veg. 4:238.1819 (non Zucc., 1809); Gamble, Fl. Presid. Madras 2: 915.1923.

Slender, hispid, twining herbs. Leaves simple, alternate, ovate-triangular, entire, villous, hastate or cordate at base, acute at apex. Flowers pink in sessile, capitate clusters. Capsules globose, hairy.

Fls. & Frs.: November to February.

Occasional in moist deciduous forests, spreading on hedges; Peechi and Nilambur campuses.

Ipomoea mauritiana Jacq., Collect. 4: 216.1791. *Ipomoea digitata sensu* Clarke in Hook. f., Fl. Brit. India 4: 202.1883 (non L. 1753). *Ipomoea paniculata* R.Br., Rock. 486.1810; Gamble, Fl. Presid. Madras 2: 644.1923.

Trailing herbs, rooting at nodes. Leaves bilobed with lobes entire, glabrous, rounded at base, bilobed at apex. Flowers red or pink, solitary, axillary. Capsules ovoid.

Fls. & Frs.: December to April.

A weed in wet areas and along forest boundaries; Velupadam campus.

Ipomoea pes-caprae (L.) R.Br. in Turk. Narl. Exped. R. Zaine 477.1818; Gamble, Fl. Presid. Madras 2: 644.1923. *Convolvulus pes-caprae* L., Sp. Pl. 159.1753. *Ipomoea biloba* Forsk., Fl. Aeg.-Arab. 44.1775; Clarke in Hook. f., Fl. Brit. India 4: 212; 1883; Rama Rao, Fl. Pl. Trav. 280.1914.

Undershrubs or shrubs with spines and stellate hairs on the stems and leaves. Leaves simple, sinuately to deeply lobed, entire or subentire with acute lobes, cordate, cuneate or truncate at base. Flowers bluish-violet in extra-axillary cymes. Fruits orange-yellow, globose.

Fls. & Frs.: October to March.

A weed in open areas; Velupadam campus.

Ipomoea pes-tigridis L., Sp. Pl. 162.1753; Clarke in Hook. f., Fl. Brit. India 4: 204.1883; Rama Rao, Fl. Pl. Trav. 278.1914; Gamble, Fl. Presid. Madras 2: 918.1923.

Hairy: climbing herbs. Simple, alternate, palmately 7-9 lobed with lobes ovate or elliptic, entire, pubescent, acute at apex. Flowers pinkish in axillary, capitate clusters. Capsules ovoid.

Fls. & Frs.: November to February.

Rare, in moist deciduous forests as climbers on hedges; Peechi campus.

Ipomoea quamoclit L., Sp. Pl. 159. 1753; Clarke in Hook f., Fl. Brit. India 4: 199. 1883; Rama Rao, Fl. Pl. Trav. 276. 1914. *Quamoclit pinnata* Boj., Hort. Maurit 224. 1837; Gamble, Fl. Presid Madras 2: 919. 1923.

Slender twiners. Leaves simple, alternate, pinnatifid with entire, glabrous, acute lobes. Flowers deep red, solitary or in axillary cymes. Capsules 4-loculed.

Fls. & Frs. : Almost throughout the year.

Rare, in the moist deciduous forests; Peechi campus.

Ipomoea sepiaria Roxb., Fl. Ina 2: 90. 1824; Clarke in Hook f., Fl. Bnt. India 4: 209. 1883; Rama Rao, Fl. Pl. Trav. 279. 1914; Gamble, Fl. Prsid. Madras 2: 916. 1923. *Ipomoea maxima* auct. (non L. f.) G. Don, 1798.

Slender climbers; stem glabrous. Leaves ovate or hastate, entire, cordate at base, acuminate at apex. Flowers pink in axillary panicles. Capsules ovoid, glabrous.

Decumbent or straggling herbs. Leaves palmately 3-6 lobed, alternate, orbicular in outline, with lobes entire or sinuate, cordate at base, acuminate at apex. Flowers pink in axillary cymes. Capsules ellipsoid.

Fls. & Frs. : November to February.

A weed along hedges and in barren areas; Velupadam campus.

Merremia tridenata (L.) Hall. f., Bot. Jahrb. Syst. 16: 352. 1893; Gamble, Fl. Presid. Madras 2: 928. 1923. *Convolvulus tridentatus* L., Sp. Pl. 157. 1753. *Ipomoea tridentata* (L.) Roth in Roem., Arch. Bot. 1: 38. 1798; Clarke in Hook f., Fl. Brit. India 4: 205. 1883; Rama Rao, Fl. Pl. Trav. 279. 1914. Prasarani.

Slender, twining or trailing herbs. Leaves simple, alternate, linear-lanceolate to oblong, truncate to hastate, dilated into toothed auricles at base, deeply emarginate and 3-toothed at apex. Flowers white in axillary, 1-3 flowered, pedunculate cymes. Capsules globose, glabrous.

Fls. & Frs.: December to January.

Rare, in moist deciduous forests; Peechi, Nilambur and Velupadam campuses

Merremia vitifolia (Burm. f.) Hall. f., Bot. Jahrb. Syst. 16: 552. 1893; Gamble, Fl. Presid Madras 2: 928. 1923. *Convolvulus vitifolius* Burm. E, Fl. Ind. 45, 18. 1768. *Ipomoea vitifolia* (Burm. f.) Bl., Bijdr. 709. 1825; Clarke in Hook f., Fl. Brit. India 4: 213. 1883; Rama Rao, Fl. Pl. Trav. 280. 1914.

Twiners or trailers with hairy stems and petioles. Leaves simple, alternate, palmately 5-7 lobed, coarsely serratedentate, hairy above and along the nerves beneath, cordate at base, acuminate at apex. Flowers yellow in axillary, 2-3 flowered cymes. Capsules globose.

Fls. & Frs.: October to April.

Common in the moist deciduous forests, especially in openings and waste places; Peechi campus.

Introduced or cultivated species.

Ipomoea batatas (L.) Lam.

The sweet potato plant, often grown in the homesteads for its edible tuberous roots; Peechi campus.

63. SOLANACEAE

Datura metel L., Sp. Pl. 179. 1753; Clarke in Hook f., Fl. Brit. India 4: 243. 1883; Gamble, Fl. Presid. Madras 2: 941. 1923. *Datura fastuosa* L., Syst. Nat. ed. 10, 2: 932. 1759. *Datura alba* Nees, Trans. Linn. Soc. Bot. London 17: 73. 1837; Wt., Ic. t 852. 1844-45; Rama Rao, Fl. Pl. Trav. 288. 1914. Ummam.

Undershrubs. Leaves simple, alternate, ovate-lanceolate, entire, glabrous, unequal at base, acute at apex. Flowers white on short solitary peduncles. Capsules globose, spiny.

Fls. & Frs. : February to June.

Rare, in waste places, especially along roadsides; Velupadam campus.

Physalis angulata L., Sp. Pl. 183. 1753. *Physalis minima* L., Sp. Pl. 183. 1753; Clarke in Hook f., Fl. Brit. India 4: 238. 1883; Rama Rao, Fl. Pl. Trav. 285. 1914; Gamble, Fl. Presid Madras 2: 939. 1923.

Erect, glabrous or pubescent, fleshy, annual herbs. Leaves simple, alternate, elliptic-ovate, chartaceous, coarsely toothed along margins, rounded at base, acute at apex. Flowers pale yellow, solitary, campanulate. Berries fleshy, globose, enclosed in the accrescent calyx.

Fls. & Frs. : July to November.

Common in plains as a weed and also in forest areas where trees are sparsely distributed; Peechi campus.

Physalis peruviana L., Sp. Pl. ed 2: 1670.1768; Clarke in Hook f., Brit. India 4: 236.1883; Gamble, Fl. Presid Madras 2: 939.1923; Wat, Rhodora 60: 141.1958. Jgota-nodian.

Rambling or erect. viscid-glandular or pubescent herbs. Leaves simple opposite, ovate-cordate, sinuate or angular. Flowers yellow, purple-spotted at base. Berries orange-yellow, enclosed in 5 lobed calyx.

Fls. & Frs.: Octoberto January.

An esotic weed in open forest areas; Velupadam campus.

Solanum anguivi Lamk., Encyl. Meth. Bot. 2: 23. 1794; Hebbler, Bot. J. Linn. Soc. 76: 290. 1978. *Solanum indicum* auct. non L. 1753; Wt, Ic. t. 346.1840; Clarke in Hook f., Fl. Brit. India 4: 234.1883; Rama Rao, Fl. Pl. Trav. 284. 1914; Gamble, Fl. Presid Madras 2: 938.1923; Sant., J. Bombay nat. Hist. Soc. 47: 653.1948. Cheru-chunda Cheru-vazhuthana.

Undershrubs or shrubs with spines and stellate hairs on the stems and leaves. Leaves simple, sinuately to deeply lobed, entire or subentire with acute lobes, cordate, cuneate or truncate at base. Flowers bluish-violet in extra-axillary cymes. Fruits orange-yellow, globose.

Fls. & Frs.: Throughout the year.

Rather common in waste places and along road sides; Peechi campus.

Solanum torvum Sw., Prod. Descr. Veg. 47.1788; Wt., Ic. t. 345. 1838; Clarke in Hook f., Fl. Brit. India 4: 234. 1883; Rama Rao, Fl. Pl. Trav. 284.1914; Gamble, Fl. Presid. Madras 2: 937.1923; Sant, J. Bombay nat Hist Soc. 17: 654.1948. Anachunda, Para-chunda.

Shrubs with spines and stellate hairs on the stem and leaves. Leaves simple, alternate, subovate, shallowly lobed. entire, cordate-oblique at base, ovate-acute at apex. Flowers white in axillary or extra-axillary, many-flowered. corymbose cymes. Fruits yellow when ripe, globose.

Fls. & Frs.: October to June.

Rather common in waste places, along roadsides and in open areas; Peechi campus.

Introduced or cultivated species

Capsicum annum L.

Herbs cultivated for its fruits in homesteads, but sometimes running wild; Peechi and Nilambur campuses.

Capsicum frutescens L.

Undershrubs, grown for fruits in homesteads but also seen in wild as escapes; Peechi and Nilambur campuses.

Lycopersion lycopersicum (L.) Korst.

Cultivated in homesteads for its fruits, ie. tomato; Peechi campus.

64. SCROPHULARIACEAE

Bacopa monnieri (L.) Wetts., Pflanzenfam. 4(3b): 77.1891; K.K.N. Nair, J. Eco. Tau. Bot. 11: 359-365.1967. *Lysimachia monnieri* L., Cent. Pl. 2: 9. 1756. *Monniera cuneifolia* Mich., Fl. Bor. Am. 2: 22. 1803; Gamble, Fl. Presid. Madras 2: 953. 1923. *Herpestis monnieri* (L.) H.B.K., Nov. Gen Sp. 2: 366. 1818 (nom. illeg.); Hook. f. in Hook. f., Fl. Brit. India 4: 272.1884. Barhmi.

Aquatic or semiaquatic, prostrate herbs with ascending branches, rooting at lower nodes. Leaves simple. decussate, sessile, ovate-oblong, entire, glabrous, cuneate at base, obtuse or rounded at apex. Flowers blue. solitary, pedicellate. Capsules ovoid, apiculate.

Fls. & Frs.: Septemberto December.

Common in wet and shaded areas or near seasonal water bodies; Peechi campus.

Linnophylla heterophylla (Roxb.) Benth., Scroph. Ind. 25.1835; Hook. f. in Hook. f., Fl. Brit. India 4: 270.1884: Rama Rao, Fl. Pl. Trav. 290. 1914; Gamble, Fl. Presid. Madras 2: 952. 1923; Philcox Kew Bull. 24: 121.1970. *Columnnea heterophylla* Roxb., Fl. Ind. 3: 97. 1832.

Erect herbs with slender stems. Leaves variable and dimorphic with aerial ones ovate-elliptic and submerged leaves multifid with capillary segments. Flowers light rose-coloured, solitary, axillary or in terminal spikes. Capsules orbicular.

Fls. & Frs.: August to January.

Aquatic or amphibian, in and around the pond; Velupadam campus.

Lindernia ciliata (Colsm.) Pennell, Brittonia 2: 182. 1936. *Gratiola ciliata* Colsm., Prodr. Descr. Grat 14. 1793; *Bonnaya brachiata* Link Otto. Ic. Pl. Select. 25. t. 11. 1820; Hook. f. in Hook f., Fl. Brit. India 4: 284. 1884; Rama Rao, Fl. Pl. Trav. 291. 1914; *Ilysanthes serrata* (Roxb.) Urban in Berl., Deutsch Bot. Ges. 2: 436. 1934, Gamble, Fl. Presid Madras 2: 962. 1923.

Small, stiff, erect herbs with 4-angular stems. Leaves simple, opposite, oblong-obtuse, glabrous, aristate-dentate along margins, obtuse or subacute at apex. Flowers pale pink in terminal racemes. Capsules linear-oblong, exceeding the calyx.

Fls. & Frs.: August to January.

Common in plains and openings of moist deciduous forests; Peechi campus.

Lindernia crustacea (L.) F.V. Muell., Syst. Cens. Austral. Pl. 1: 97. 1882; *Capraria crustacea* L., Mant. Pl. 1: 87. 1767; *Landellia crustacea* (L.) Benth., Scroph. Ind. 35. 1835; Hook. f. in Hook f., Fl. Brit. India 4: 279. 1884; Rama Rao, Fl. Pl. Trav. 291. 1914; Gamble, Fl. Presid. Madras 2: 459. 1923.

Diffuse, branched herbs, sometimes rooting at lower nodes. Leaves simple, opposite, ovate-suborbicular, serrate, glabrous, obtuse, subobtusate, rounded or cordate at base, acute at apex. Flowers purple, axillary, solitary. Capsules linear.

Fls. & Frs.: November to February.

Rare, in open areas; Peechi campus.

Lindernia viscosa (Hornem.) Boldingh., Zokfl. Landb. Java. 165. 1916. *Gratiola viscosa* Hornem., Enum. Pl. Hort. Hafn. 19. 1807. *Vandellia hirsuta* Benth., Scroph. Ind. 36. 1835; Hook. f. in Hook. f., Fl. Brit. India 4: 280. 1884; Rama Rao, Fl. Pl. Trav. 291. 1914; Gamble, Fl. Presid. Madras 2: 959. 1923.

Small, pubescent, diffuse herbs. Leaves simple, opposite, ovate-oblong, upper ones smaller, sessile shallowly serrate, truncate or rounded at base, acute at apex. Flowers white with a yellow throat, in terminal and axillary racemes. Capsules ovoid, glabrous, equal or slightly longer than the calyx.

Fls. & Frs.: September to October.

Common in the openings of moist deciduous forests; Peechi campus.

Mecardonia procumbens (Mill.) Small, Fl. South-East US 1065, 1338. 1903; Joseph. et Suresh, Ind. J. Bot. 5: 127. 1982. *Erinus procumbens* Mill., Prodr. Veg. Ind. Occ. 92. 1788. *Bucopa procumbens* (Mill.) Green, Publ. Field Columb. Mus. Bot. Soc. 2: 261. 1907.

Herbs with 4-angled stems. Leaves simple, subsessile, triangular-ovate, crenate-serrate, glabrous, acute at apex. Flowers yellow, axillary, solitary with outer 3 calyx lobes larger and inner 2 smaller. Capsules included in the calyx.

Fls. & Frs.: December to April.

Rare, as a weed in open areas and waste places; Peechi campus.

Scoparia dulcis L., Sp. Pl. 1: 116. 1753; Hook. f. in Hook. f., Fl. Brit. India 4: 289. 1884; Rama Rao, Fl. Pl. Trav. 292. 1914; Gamble, Fl. Presid. Madras 2: 964. 1924.

Erect, much branched herbs. Leaves opposite or whorled, ovate or elliptic, serrate, glabrous, cuneate at base, acute at apex. Flowers white, axillary, solitary or paired. Capsules ellipsoid-globose with truncate and 4-angled seeds.

Fls. & Frs.: January to April.

Common near the Institute buildings and also in waste places; Peechi, Nilambur and Velupadam campuses.

Torenia bicolor Dalz. in Hook, Kew J. Bot. 3: 38. 1851; Hook. f. in Hook. f., Fl. Brit. India 4: 278. 1884; Rama Rao, Fl. Pl. Trav. 291. 1914; Gamble, Fl. Presid. Madras 2: 957. 1923.

Trailing herbs, rooting at nodes. Leaves simple, deltoidsvate, crenate, sparsely hirsute, subcordate at base, acute at apex. Flowers dark violet, solitary, axillary, pedicellate. Capsules oblong, included in the calyx.

Fls. & Frs. : Septemberto December.

Rare, in moist and open places; Peechi and Velupadam campuses.

65. LENTIBULARIACEAE

Utricularia graminifolia Vahl, Enum. Pl. 1: 195.180i. Gamble, Fl. Presid. Madras 2: 981. 1924; Janardh. et Henry, Bladdenvorts India 57-59, fig. 14.1992. Utricularia caerulea auct. non L.; Oliv., J. Proc. Linn Soc. Bot. 3: 179. 1859; Clarke in Hookf., Fl. Brit. India 4: 331.1884(pro parte); Rama Rao, Fl. Pl. Trav. 294.1914.

Herbs with glandular rhizoids and profusely branched stolons. Foliar organs linear to strap-shaped with traps subglobose, numerous on vegetative organs. Flowers bluish-violet or pink in racemes. Capsules ovoid, thckened along margins.

Fls. & Frs. : Almost throughout the year.

Common in marshy and weedy areas near the pond; Velupadam campus.

66. BIGNONIACEAE

Oroxylum indicum (L.) Vent., Dec. Gen. Nov. 8.1808; Clarke in Hook.f, Fl. Brit. India 4: 378.1884; Bourd., For. Trees Trav. 279.1908; Rama Rao, Fl. Pl. Trav. 295.1914; Gamble, Fl. Presid Madras 2: 994.1924. Bignoniua indica L., Sp. Pl. 625. 1753. Culosunthus indica (L.) Bl., Bijdr. 761.1826; Wt., Ic. t 1337.1848. Palaka-payyani.

Trees with dense, apical crown. Leaves pinnate with elliptic leaflets. Flowers dark-reddish in stout peduncled, terminal racemes. Fruits flat, sword-shaped, upto 80 cm long.

Fls. & Frs. : July to December.

Very rare in open areas; Velupadam campus.

Redermachera xylocarpa (Roxb.) K Schum., Pflanzenfam 4,3b: 243.1895; Gamble, FL Preid Madras 2:999.1924. Bignoniaxylocarpa Roxb, Fl.M3: 108.1832; Wt, Ic. tt 1335,1336.1848; bourd, For. Trees Trav 277.190 & Sterospermum xylocarpus Benth et Hook.f, in Hookf, Fl. Brit. India 4: 383.1884; Rama Rao, Fl. Pl. Trav 298.1914.

Medium to large sized trees. Leaves bipinnate, opposite with 1-3 pairs of pinnae. Flowers white with an yellowish tinge in densely tomentose corymbs, Capsules woody, cylindric, tubercled with winged seeds.

Fls. & Frs. : February to September.

Rare, in open forests; Peechi and Nilambur campuses.

Stereospermum colais much.-Ham. ex Dillw.) Mabb., Taxon 27: 553. 1978. Bignoniua colais Buch. -Ham. ex Dillw.: Rev. Ref. Hort. Malab. 28. 1839. Stereospermum personatum (Hassk.) Chatt., Bull. bot. Soc. Bengal 2 (1): 70. 1948. Stereopermum tetragonum A DC. in DC., Prodr. 9: 210.1845; Gamble, Fl. Presid Madras 2: 998. 1924. Stereospermum chelonoides auct. non (L.f.) DC. (1845); Wt. Ic. t. 1341. 1848; Clarke in Hook f., Fl. Brit. India 4: 382.1884. Poo-pathiri.

Medium-sized trees. Leaves pinnate, with leaflets 7-9, elliptic, entire, glabrous, caudate-acuminate at apex. Flowers yellow with pinkish shade in glabrous panicles. Capsules 4-angled, elongated, spirally twisted.

Fls. & Frs. : March to June.

Rare. in sparsely wooded areas; Peechi, Nilambur and Velupadam campuses.

Introduced or cultivated species

Tecoma stuns (L.) H.B.K.

Ornamental trees, planted near the pond; Velupadam campus.

67. PEDALIACEAE

Sesumum indicum L., Sp. Pl. 634.1753; Hook.f. in Hook f., Fl. Brit. India 4: 387.1884; Rama Rao, Fl. Pl. Trav. 299. 1914; Gamble, Fl. Presid. Madras 2: 1008. 1924. Ellu,

Erect, much-branched, glandular-pubescent herbs with 4-angled, white-pubescent stems. Leaves, simple, opposite, basal ones often digitately lobed, upper ones simple, entire, elliptic-lanceolate, acute at apex. Flowers light-pink or white, axillary, solitary. Capsules oblong, upto 2 cm long.

Fls. & Frs. : July to December.

In open areas as naturalised escapes from cultivation; Peechi campus.

68. ACANTHACEAE

Adhathoda vasica Nees in Wall., Pl. AS. Rar. 3: 103.1832; Clarke in Hook f., Fl. Brit. India 4: 540.1885; Rama Rao, Fl. Pl. Trav. 310.1914; Gamble, Fl. Presid Madras 2: 1082.1924. *Justicia adhatoda* L., Sp. Pl. 15. 1753; Stearn, J. Am. Arbor. 52: 640.1971. *Adhatoda zeylanica* Medic., Hist. Commentat. Acad. Elect. Sci. Theod. Palat 6: 393. 1790. Adalodakam.

Erect shrubs. Leaves simple, opposite, elliptic-lanceolate, entire, glabrous, acute to attenuate at base, acuminate at apex. Flowers white in long, axillary spikes. Capsules ovate, compressed.

Fls. & Frs.: March to April.

Rare, along borders of thickets in forest areas and also common in cultivation; Peechi campus.

Andrographis paniculata (Burm. f.) Wall. ex Nees in Wall., Pl. AS. Rar. 3: 116.1832; Hook. f. in Hook. f., Fl. Brit. India 4: 501.1884; Rama Rao, Fl. Pl. Trav. 307.1914; Gamble, Fl. Besid Madras 2: 1048.1924. *Justicia paniculata* Burm. f., Fl. Ind. 9.1768. Kiriyath.

Erect, much branched herbs with 4-angled stems. Leaves simple, opposite, elliptic to lanceolate, entire, glabrous, acute at both ends. Flowers pink in terminal or axillary panicles. Capsules linear-oblong, compressed.

Fls. & Frs.: November to December.

Rare, especially beyond the headges of the medicinal plants garden; Peechi campus.

Dicliptera cuneata Nees in Wall., Pl. As. Rar. 3: 111.1832; Wt., Ic. t. 1552.1850; Clarke in Hook. f., Fl. Brit. India 4: 552.1884; Gamble, Fl. Presid Madras 2: 1073.1924.

Suberect herbs with green stem. Leaves simple, opposite, ovate or elliptic, entire, glabrous, acute or obtuse at base, acuminate at apex. Flowers pink in subcapitate clusters. Capsules clavate.

Fls. & Frs.: November to February.

A weed forming part of the ground flora; Peechi campus.

Eranthemum capense L., Sp. Pl. 9.1753. *Eranthemum montanum* (Roxb.) Roxb., Fl. Ind. 1: 100.1824; Wt. Ic. t. 466. 1841; Gamble, Fl. Presid. Madras 2: 1025. 1924. *Daedalacanthus montanus* (Roxb.) T. Anders. in Thw., Enum. Pl. Zeyl. 229.1860; Clarke in Hook. f., Fl. Brit. India 4: 421.1884.

Undershrubs. Leaves simple, opposite, elliptic, entire, glabrous, narrowed at base, acuminate at apex. Flowers bluish in narrow spikes. Capsules oblong, 4-seeded.

Fls. & Frs.: November to February.

In shaded areas; Peechi campus.

Justicia betonica L., Sp. Pl. 15. 1753; Clarke in Hook. f., Fl. Brit. India 4: 525. 1885; Rama Rao, Fl. Pl. Trav. 309. 1914; Gamble, Fl. Presid. Madras 2: 1078. 1924; *Adhatoda betonica* (L.) Nees in Wall., Pl. Asiat. Rar. 3: 103. 1832.

Branched undershrubs. Leaves simple, opposite, ovate-lanceolate, entire, glabrous, attenuate at base, acuminate at apex. Flowers white with pink patches in leafy spikes. Capsules pubescent.

Fls. & Frs.: December to March.

Rare, as undergrowth in moist areas; Nilambur and Velupadam campuses.

Justicia simplex D. Don, Prodr. Fl. Nepal. 118.1825; Clarke in Hook. f., Fl. Brit. India 4: 539.1885; Gamble, Fl. Presid. Madras 2: 1080.1924.

Diffuse, slender, branched herbs. Leaves simple, opposite, ovate-oblong to linear, entire, glabrous, acute at base, subobtusate at apex. Flowers pink in long spikes. Capsules papery, villous at apex.

Fls. & Frs.: November to February.

Rare in the fringes of forests; Velupadam campus

Justicia trinervia Vahl, EnumPl. 1: 156.1804; Clarke in Hookf, Fl. Brit. India 4: 562.1885; Rama Rao, Fl. PL Trav. 309. 1914; Gamble, Fl. Presid. Madras 2: 1079. 1924. *Adhatoda trinervia* (Vahl) Nees in Wall., Pl. As. Rar. 3: 103.1832.

Procumbent herbs, branching from the woody rootstock. Leaves simple, opposite, ovate-oblong, rarely linear, obtuse at apex. Flowers pale pinkish in slender spikes. Capsules pubescent.

Fls. & Frs. : April to May,

Rare, in moist deciduous forests as an undergrowth; Peechi campus.

Lepidagathis incurva Buch.-Ham. ex D. Don, Prodr. Fl. Nepal. 119.1825. *Lepidagathis hyalina* Nees in Wall., Pl. As. Rar. 3: 95.1832, Clarke in Hook.f., Fl. Brit. India 4: 522.1885; Gamble, Fl. Presid. Madras 2: 1068.1924.

Branched, diffuse herbs. Leaves simple, opposite, variable in shape from ovate to lanceolate, entire, glabrous, decurrent at base, acuminate at apex. Flowers white in axillary or terminal spikes. Capsules oblong-lanceolate, acute.

Fls. & Frs.: February to May

A weed in open and disturbed forest areas; Peechi campus.

Nilgirianthus ciliatus (Nees) Bremek, Mat. Mon. Strob. 172. 1944. *Strobilanthus ciliatus* Nees in Wall., Pl. As. Rar. 3: 85.1832; Wt, Ic. t. 15 17. 1850; Clarke in Hook.f., Fl. Brit. India 4: 439.1884; Rama Rao, Fl. P1. Trav. 302. 1914; Gamble, Fl. Presid. Madras 2: 1039.1924. Kari-kurinji

Undershrubs with terete or subquadangular stems, often winged at nodes. Leaves simple, opposite, lanceolate, serrate, almost glabrous, attenuate at base, acuminate at apex. Flowers white or pale purple in dense spikes. Capsules oblong, apically ciliate.

Fls. & Frs.: December to March.

Rare as an undergrowth in shaded areas; Velupadam campus.

Peristrophe paniculata (Forssk.) Brumm, Kew Bull. 38: 451. 1983. Clarke in Hook.f., Fl. Brit. India 4: 554.1884; *Peristrophe bicalyculata* (Retz.) Nees in Wall., Pl. As. Rar. 3: 113. 1832; Rama Rao, Fl. Pl. Trav. 312.1914; Gamble, Fl. Presid. Madras 2: 1084. 1924. *Dianthera bicalyculata* Retz., Act. Holm. 297.1775.

Herbs or undershrubs with green hexangular, grooved hairy stems. Leaves simple, opposite, elliptic-lanceolate, entire, hairy, cuneate at base, acuminate at apex. Flowers pink in terminal, loose panicles. Capsules minute, ellipsoid.

Fls. & Frs.: October to February.

A weed in waste places and along roadsides; Peechi campus.

Rungia parviflora Nees in Wall., Pl. As. Rar. 3: 110.1832; Clarke in Hook.f., Fl. Brit. India 4: 550.1885; Gamble, Fl. Presid. Madras 2: 1071.1924.

Prostrate herbs. Leaves simple, opposite, membranous, ovate-lanceolate or linear-spathulate. Flowers white in spikes. Capsules oblong.

Fls. & Frs.: October to March.

A weed in waste places and open areas; Peechi campus

Rostellularia procumbens (L.) Nees, Pl. As Rar. 3: 101. 1832. *Justicia procumbens* L., Sp. Pl. 15.1753; Clarke in Hook f, Fl. Brit India 4: 539.1884; Rama Rao, Fl. Pl. Trav. 310.1914; Gamble, Fl. Presid. Madras 2: 1080.1924.

Diffuse herbs with slender, divaricate branches, often rooting at lower nodes, glabrous or pubescent. Leaves simple, opposite, variable in shape from elliptic to ovate, softly pubescent on both sides, usually obtuse at both ends. Flowers pale violet-pink in rather diffuse, cylindrical, terminal spikes. Capsules oblong, shortly pointed

Fls. & Frs.: October to March.

Rare, in moist deciduous forests as an undergrowth; Peechi campus

69. VERBENACEAE

Callicarpa tomentosa (L.) Murr., Syst. Veg. ed. 13: 130.1774; Meeuse, Blumea 5: 71.1942. *Tomex tomentosa* L., Sp.Pl. 118.1753. *Cullicarpa lanata* L., Mant. 331.1771; Clarke in Hook.f., Fl. Brit. India 4: 567.1885; Bourd., For. Trees Trav. 291.1908; Rama Rao, Fl. Pl. Trav. 314.1914; Gamble, Fl. Presid. Madras 2: 1092.1924. Thin-peruvalem, Cheru-thecku

Stunted trees with hirsute branchlets. Leaves simple, opposite, broadly elliptic, entire, glabrescent above, densely stellate-tomentose beneath, rounded at base, acuminate at apex. Flowers purple, in axillary, corymbose cymes. Drupes globose glabrous, black or reddish-purple, smooth.

Fls. & Frs.: Almost throughout the year.

Rather scarce in open and disturbed areas of the moist deciduous forests; Peechi and Nilambur campuses.

Clerodendrum paniculatum L., Mant. 90.1797; Clarke in Hook. f., Fl. Brit. India 4: 593.1885; Vivek, Bull. Bot. Surv. India 10: 240.1968.

Shrubs with stems quadrangular towards apex. Leaves simple, opposite, 3-5 lobed with lobes cordate at base, acuminate at apex. Flowers red in terminal, dichotomous, cymes.

Fls. & Frs.: July to October.

A naturalised exotic, common in the forests around the Institute; Peechi and Nilambur campuses.

Clerodendrum serratum (L.) Moon., Cat. Pl. Ceylon 46.1824; Wt., Ic. t. 1472.1849; Clarke in Hook f., Fl. Brit. India 4: 592.1885; Rama Rao, Fl. Pl. Trav. 318.1914; Gamble, Fl. Presid. Madras 2: 1100. 1924. *Volkameria serrata* L., Mant. Pl. 90.1767. Tsjerou-theku.

Shrubs with 4-angled stems. Leaves simple, opposite, oblong or elliptic, glabrous, cuneate to decurrent at base, acute to shortly acuminate at apex. Flowers blue, numerous, showy, in pubescent, terminal panicles. Drupes purple, broadly obovoid, 4-lobed with one pyrene in each lobe.

Fls. & Frs.: August to November.

Rare, in moist deciduous forests, but more common in waste places, along roadsides, etc. as a weed; Peechi, Nilambur and Velupadam campuses.

Clerodendrum viscosum Vent., Jard. Malm. t. 25.1803; Sant., Bull. bot. Surv. India 3: 14.1961. *Clerodendron infortunatum* Lour., FL Cochinch. (ed. 1) 2: 387.1790 (*auct. mult. non* L. 1753); Clarke in Hook. f., Fl. Brit. India 4: 594.1885 (*pro parte*); Bourd., For. Trees Trav. 288.1908; Rama Rao, Fl. Pl. Trav. 319.1914; Gamble, Fl. Presid. Madras 2: 1100.1924. Peruvu, Peruvalem.

shrubs with often quadrangular branches. Leaves simple, opposite, ovate or suborbicular, almost entire, cordate or rounded at base, acuminate at apex. Flowers white tinged with rose inside, fragrant, in terminal panicles. Drupes black, subglobose, seated on enlarged, pinkish calyx.

Fls. & Frs.: October to March.

Common along roadsides and in open, waste places inside the moist deciduous forests; Peechi, Nilambur and Velupadam campuses.

Gmelina arborea Roxb., Pl. Corom. t. 246.1815; Clarke in Hook. f., Fl. Brit. India 4: 581.1885; Bourd., For. Trees Trav. 289.1908; Rama Rao, Fl. Pl. Trav. 316.1914; Gamble, Fl. presid. Madras 3: 1097.1924. Kumbil.

Medium sized trees with dense crown. Leaves simple, opposite, deltoid-ovate, entire, fulvous-tomentose beneath, cordate or sometimes truncate and shortly cuneate at base, acuminate at apex. Drupes ovoid or pyriform, smooth, orange-yellow when ripe.

Fls. & Frs.: February to April.

Very rare in the moist deciduous forests, but not planted in the surroundings of the Institute; Peechi and Nilambur campuses..

Lantana camara L., Sp. Pl. 627.1753; Clarke in Hook. f., Fl. Brit. India 4: 562.1885; Rama Rao, Fl. Pl. Trav. 313. 1914; Gamble, Fl. Presid. Madras 2: 1087.1924. Sema-pacha, Kongini, Poochedi.

Straggling, prickly shrubs with angular stems. Leaves simple, opposite, ovate, serrate, hairy, rounded-cordate at base, acute or acuminate at apex. Flowers yellowish-red or orange-coloured in terminal, capitate spikes. Drupes dark-blue or black, globose.

Fls. & Frs.: August to December.

An exoitic weed, gregarious along hedges, waste places, roadsides, pathsides, etc. in moist deciduous forests; Peechi, Nilambur and Velupadam campuses.

Premna tomentosasa Willd, Sp. P1.3: 314.1800; Wt., Ic. t. 1468.1849; Rama Rao, Fl. Pl. Trav. 315.1914; Clarke in Hook f., Fl. Brit. India 4: 576.1885; Gamble, Fl. Presid Madras 2: 1095.1924.

Deciduous trees. Leaves simple, opposite, broadly-ovate, entire, stellate-yellowish tomentose along the nerves, chartaceous rounded at base, shortly acuminate at apex. Flowers white externally, yellowish inside pyramidal panicles. Drupes enclosed in the calyx, 4 seeded

Fls. & Frs.: February to May.

Rare in open forest areas; Velupadam campus.

Stachytarpheta jamaicensis (L.) Vahl, Enum. Pl. 1: 206. 1804. *Verbena jamaicensis* L., Sp. P1.15. 1753. *Stachytarpheta indica auct. non* (L.) Vahl.; Clarke in Hook f., Fl. Brit. India 4: 564.1885 (*pro parte*); Rama Rao, Fl. Pl. Trav. 313.1914; Gamble, Fl. Presid Madras 2: 1090.1924. Seema-kongini.

Undershrubs with profuse branches. Leaves elliptic-ovate, crenate-serrate, glabrous, cuneate at base, acute at apex. Flowers blue in terminal spikes. Fruits oblong, ribbed.

Fls. & Frs.: January to May

A weed in waste places; Peechi and Velupadam campuses.

Tectona grandis L.f., Suppl. 151.1781; Clarke in Hook.f., Fl. Brit. India 4: 570.1885; Bourd., For. Trees Trav. 283.1908; Rama Rao, Fl. Pl. Tm. 314.1914; Gamble, Fl. Presid Madras 2: 1092.1924. Thekku

Deciduous trees with rough, flaking bark. Leaves simple, opposite, obovate, glabrous above, tawny to tomentose beneath, cuneate at base, acute or acuminate at apex. Flowers white in terminal cymose panicles. Drupes brown, enclosed in enlarged calyx.

Fls. & Frs.: July to December.

Common in the deciduous forests as a typical component of the vegetation and also grown as plantations; Peechi, Nilambur and Velupadam campuses.

Vitex altissima L. f., Suppl. P1.294.1781; Wt., Ic. t. 1466.1849; Clarke in Hook f., Fl. Brit. India 4: 584.1885; Bourd., For. Trees Trav. 280.1908; Rama Rao, Fl. Pl. Trav. 317.1914; Gamble, Fl. Presid Madras 2: 1102.1924. Kattu-mayila,

Trees with quadrangular, pubescent branchlets. Leaves opposite, digitately 3-foliolate, sessile, lanceolate or ovate-lanceolate, glabrous above, sparsely pubescent beneath, acuminate at apex. Flowers pale blue or white in grey pubescent paniculate cymes. Drupes globose.

Fls & Frs July to October.

Common in moist deciduous forests; Peechi and Nilambur campuses.

Vitex negundo L., Sp. P1.638.1753; Clarke in Hook.f., Fl. Brit. India 4: 583.1885; Bourd., For. Trees Trav. 281. 1908; Rama Rao, Fl. Pl. Trav. 317. 1914; Gamble, Fl. Presid. Madras 2: 1102.1924. Nirkundi, Nocchi.

Trees with quadrangular, hairy branchlets. Leaves opposite, digitately 3-5 foliolate with leaflets lanceolate, glabrous above, grey pubescent beneath, acute or rounded at base, acuminate at apex. Flowers bluish-purple in terminal, lax panicles. Drupes globose.

Fls. & Frs.: March to April.

Rare, as planted or natural; Peechi and Nilambur campuses.

Introduced or cultivated species

Citharexylum spinosum L.

Small trees with white, fragrant flowers, locally known as Pari-jatham, grown in the premises of the Institute; Peechi campus.

Tectona hamiltoniana Wall.

Trees growing naturally from grafted cuttings; Peechi and Nilambur campuses.

70. LABIATAE

Anisomeles indica (L.) O.Ktze., Rev. Gen. Pl. 2: 512. 1891; Gamble, Fl. Presid Madras 2: 1140. 1924; Keng, Gard. Bull. Str. Settl. 24: 34. 1969. *Nepta indica* L., Sp. Pl. 571. 1753. *Anisomeles ovata* Ait., Hort. Kew ed 2, 2: 364. 1811; Wt., Ic. t. 865. 1845; Hook. f. in Hook. f., Fl. Brit. India 4: 672. 1885; Rama Rao, Fl. Pl. Trav. 325. 1914. Karim-thumha

Erect, aromatic herbs with quadrangular stems. Leaves simple, opposite, ovate-lanceolate, deeply crenate, truncate-cordate at base, acute at apex. Flowers whitish-blue or pink in sessile cymes. Nutlets broadly ovoid. Fls. & Frs.: December to February.

A weed in dry, open areas; Peechi, Nilambur and Velupadam campuses.

Hyptis suaveolens (L.) Poir., Ann. Mus. Pairs 7: 472. t. 29. fig. 2. 1800; Hook. f. in Hook. f., Fl. Brit. India 4: 630. 1885; Gamble, Fl. Presid Madras 2: 1129. 1924; Mukh., Rec. bot. Surv. India 14: 63. 1940. *Bullota suaveolens* L., Syst. Nat. ed. 10: 1100. 1759.

Annual herbs, glandular hairy and aromatic. Leaves simple, opposite, ovate, serrulate, densely soft-hirsute beneath, cordate at base, obtuse at apex. Flowers blue in terminal, verticillate cymes. Nutlets oblong.

Fls. & Frs.: September to January.

A weed in waste places, forest openings, along roadsides, etc.; Peechi, Nilambur and Velupadam campuses.

Leucas aspera (Willd.) Spreng., Syst. Veg. 2: 743. 1825; Hook. f. in Hook. f., Fl. Brit. India 4: 690. 1885; Rama Rao, Fl. Pl. Trav. 326. 1914; Gamble, Fl. Presid Madras 2: 1150. 1924. *Phlomis aspera* Willd., Enum. Pl. Hort. Berol. 621. 1809. Thumba.

Erect, diffusely branched, scabrid herbs with 4 angled stems. Leaves simple, opposite, linear-lanceolate or lanceolate, pubescent, entire or crenate, tapering at base, acute at apex. Flowers white in terminal and axillary whorls of about 2 cm in diameter. Nutlets oblong, subtruncate at apex, angled on the inner side, smooth.

Fls. & Frs.: December to February.

A common weed in forest openings, waste places, etc; Peechi, Nilambur and Velupadam campuses.

Ocimum canum Sims in Curt., Bot. Mag. 51: t. 2452. 1823; Hook. f. in Hook. f., Fl. Brit. India 4: 607. 1885; Rama Rao, Fl. Pl. Trav. 320. 1914; Gamble, Fl. Presid Madras 2: 1111. 1924.

Erect, much branched herbs with subquadrangular, striate stems, pubescent when young. Leaves simple, opposite, elliptic-lanceolate, slightly serrate, pubescent, acute at base and apex. Flowers pinkish-white in long racemes. Nutlets black, ellipsoid.

Fls. & Frs.: May to December.

Rare in moist deciduous forests; Peechi campus.

Orthosiphon thymiflorus (Roth) Slees., Reinwardia 5: 42. 1959. *Ocimum thymiflorum* Roth, Nov V. Pl. Sp. 269. 1821. *Orthosiphon glabratus* Benth. in Wall., Pl. As. Rar. 2: 14. 1830-31, Rama Rao, Fl. Pl. Trav. 322. 1914; Gamble, Fl. Presid. Madras 2: 1114. 1924; Mukh., Rec. bot. Surv. India 14: 23. 1940. *Orthosiphon tomentosus* Benth. var. *glabratus* (Benth.) Hook. f. in Hook. f., Fl. Brit. India 4: 614. 1885.

Erect herbs with quadrangular stems. Leaves simple, opposite, ovate-elliptic, serrate, cuneate at base, acute at apex. Flowers white in whorled racemes. Nutlets ellipsoid, enclosed in enlarged, persistent calyx.

Fls. & Frs.: November to February.

Common in open forest areas; Peechi and Velupadam campuses.

Introduced or cultivated species

Ocimum sanctum L.

Strongly aromatic herbs grown in homesteads and in gardens for medicinal and religious purposes; Peechi, Nilambur and Velupadam campuses.

71. NYCTAGINACEAE

Boerhavia diffusa L., Sp. Pl. 3.1753; Rama Rao, Fl. Pl. Trav. 327. 1914; Gamble, Fl. Presid. Madras 2: 1162. 1925. *Boerhavia repens* L., Sp. Pl. 3.1753; Hook. f. in Hook. f., Fl. Brit. India 4: 709. 1885. *Boerhavia procumbens* Roxb., Fl. Ind 1: 146. 1820; Wt., Ic. t. 874. 1844-45. Tbazhuthama.

Diffuse. procumbent herbs with branches brownish-red and swollen at nodes. Leaves simple, opposite, broadly-ovate, oblong or orbicular, entire, glabrous, subcordate at base, rounded at apex. Flowers pink or purple in axillary, corymbose umbels. Fruits clavate, ribbed, glandular.

Fls. & Frs.: September to May.

Common as a weed in wet and shaded areas of moist deciduous forests and also along roadsides; Peechi and Velupadam campuses.

Introduced or cultivated species

Bougainvillea spectabilis Willd.

Large thorny stragglers with showy inflorescence, grown in gardens and along hedges; Peechi, Nilambur and Velupadam campuses.

72. AMARANTHACEAE

Achyranthes aspera L., Sp. Pl. 204. 1753; Wt., Ic. t. 1771. 1852; Hook. f. in Hook. f., Fl. Brit. India 4: 730. 1885; Rama Rao, Fl. Pl. Trav. 331. 1914; Gamble, Fl. Presid. Madras 2: 1175. 1925.

Erect herbs with terete, hairy branches. Leaves simple, opposite, broadly-ovate or elliptic-lanceolate, entire, hairy, rounded at base, acute at apex. Flowers greenish, deflexed, sessile, in terminal and axillary elongated spikes. Fruits obovoid, spiny or prickled.

Fls. & Frs.: July to January.

An exotic weed, common in waste places and along roadsides; Peechi, Nilambur and Velupadam campuses.

Aerva lanata (L.) Juss., Ann. Mus. Hist. nat. Paris 2: 131. 1803; Hook. f. in Hook. f., Fl. Brit. India 4: 728. 1885; Rama Rao, Fl. Pl. Trav. 331. 1914; Gamble, Fl. Presid. Madras 2: 1178. 1925. *Achyranthes lanata* L., Sp. Pl. 204. 1753. Scheru-bula.

Suberect herbs with pubescent, striate stems. Leaves simple, alternate, obovate or orbicular, entire, rounded or cuneate at base, obtuse or acute at apex. Flowers white in axillary spikes. Fruits broadly-ovoid, acute.

Fls. & Frs.: September to December.

A weed in waste places and other drier areas; Peechi, Nilambur and Velupadam campuses.

Allmania nodiflora (L.) R. Br. ex. Wt. var. *dichotoma* (Heyne ex Roth) Hook. f., Fl. Brit. India 4: 717. 1885; Rama Rao, Fl. Pl. Trav. 329. 1914; Gamble, Fl. Presid. Madras 2: 1168. 1925. *Celosia dichotoma* Heyne ex Roth, Nov. Pl. Sp. 172. 1821. *Allmania dichotoma* (Heyne ex Roth) Wt., Ic. t. 1771. 1852.

Erect herbs. Leaves simple, opposite, elliptic or ovate, glabrous, apiculate at apex. Flowers pale reddish in sessile, globose heads.

Fls. & Frs.: June to September.

A weed in waste places; Peechi campus.

Amaranthus spinosus L., Sp. Pl. 991. 1753; Wt., Ic. t. 513. 1841; Hook. f. in Hook. f., Fl. Brit. India 4: 718. 1885; Rama Rao, Fl. Pl. Trav. 329. 1914; Gamble, Fl. Presid. Madras 2: 1170. 1925. Mullen-cheera.

Spiny, erect herbs with stems swollen at nodes. Leaves simple, ovate or oblong, entire, cuneate at base, obtuse or mucronate at apex. Flowers greenish in compact, axillary and terminal spikes. Fruits ovoid, rugose, thickened at apex.

Fls. & Frs.: September to March.

An exotic weed, rare in moist deciduous forests but common in waste places, along roadsides. etc.; Peechi and Velupadam campuses.

Cyathula prostrata (L.) Bl., Bijdr. 549.1825; Hook f. in Hook f., Fl. Brit India 4: 723.1885; Rama Rao, Fl. Pl. Trav. 330.1914; Gamble, Fl. Presid Madras 2: 1172.1925. *Achyranthes prostrata* L., Sp. Pl. ed. 2: 296. 1762.

Diffuse herbs, rooting at lower nodes. Leaves simple, opposite, elliptic, ovate or obovate, often tinged purple beneath, entire, sparsely hairy on both surfaces, cuneate at base, subacute at apex. Flowers greenish white in small, drooping clusters of lax terminal racemes. Fruits long, ovoid, membranous.

Fls. & Frs.: October to December.

A common weed in open areas and waste places; Peechi, Nilambur and Velupadam campuses.

73. ARISTOLOCHIACEAE

Aristolochia indica L., Sp. Pl. 860.1753; Hook f. in Hook f., Fl. Brit India 5: 75.1886, Rama Rao, Fl. Pl. Trav. 336.1914; Gamble, Fl. Presid Madras 2: 1202.1925. Garudakodi.

Slender twiners. Leaves simple, alternate, ovate-oblong to lanceolate, entire, glabrous, truncate to subcordate at base, acuminate at apex. Flowers greenish-yellow in axillary, slender racemes. Capsules globose-oblong, ribbed, glabrous.

Fls. & Frs.: September to March.

Fairly common in the outskirts of moist deciduous forests; Peechi, Nilambur and Velupadam campuses.

74. PIPERACEAE

Peperomia pellucida (L.) HB.K., Nov. Gen 1: 64.1815; Gamble, Fl. Presid Madras 2: 1210.1925. *Piper pellucidum* L., Sp. Pl. 30.1753. *Peperomia exigua* (Bl.) Miq., Syst. Pip. 77.1843; Hook f. in Hook f., Fl. Brit India 597.1886.

Erect or subprostrate, succulent herbs with translucent stems. Leaves simple, alternate, ovate-deltoid, membranous, thin, rounded or cordate at base, acute at apex. Flowers greenish in slender, leaf-opposed spikes. Nutlets globose, ribbed, reticulate.

Fls. & Frs.: July to October.

Common in wet or moist, shaded areas; Peechi and Nilambur campuses.

Piper longum L., Sp. Pl. 29.1753; Hook f. in Hook f., Fl. Brit. India 5: 83.1886; Rama Rao, Fl. Pl. Trav. 336.1914; Gamble, Fl. Presid Madras 2: 1205.1925. Thippali.

Slender scandent undershrubs with downy young shoots and branches creeping and rooting at nodes. Leaves simple, alternate, ovate-cordate, entire, glabrous, often unequal at base, acuminate at apex. Flowers greenish-yellow in axillary spikes. Berries red when ripe, globose, partly sunken in the rachis.

Fls. & Frs.: October to November.

Rare in the moist deciduous forests, especially in shade, as climbers on bushes, hedges and trees; Peechi and Nilambur campuses.

Piper nigrum L., Sp. Pl. 28.1753; Hook f. in Hook f., Fl. Brit India 5: 90.1886; Rama Rao, Fl. Pl. Trav. 337.1914; Gamble, Fl. Presid Madras 2: 1206.1925. Kuru-mulagu

Stout, glabrous root climbers. Leaves simple, alternate, ovate, coriaceous, entire, 5-9 ribbed at base, acuminate at apex. Flowers yellowish in slender spikes. Berries light-red, globose.

Fls. & Frs.: December to May.

Rather rare along hedges and as climbers on trees; Peechi, Nilambur and Velupadam campuses.

Introduced or cultivated species

Piper betle L.

Climbers, producing the betle-leaf, grown in homesteads; Peechi campus.

75. LAURACEAE

Alseodaphne semicarpifolia Nees in Wall., Pl. As. Rar. 2: 72. 1829; Hook f., Fl. Brit. India 5: 144. 1886; Rama Rao, Fl. Pl. Trav. 343. 1914; Gamble, Fl. Presid. Madras 2: 858. 1925.

Lofty trees. Leaves simple, alternate, obovate, entire, glaucous beneath, penninerved, narrowed at base, obtuse at apex. Flowers in axillary or subterminal panicles. Berries purple, ovoid, seated on enlarged calyx.

Fls. & Frs.: March to May.

Rare, in front of the teak museum; Nilambur campus.

Cinnamomum malabattrum (Burm.f.) Bert Prorost Rostl 2: 46. 1825; Kosterm., Bull. Bot Surv India 25: 104. 1983.

Laurus malabattrum Burmf., Fl. Ind. 92. 1768 (*pro parte*). *Cinnamomum iners* auct. non Reinw. ex Bl.; Wt., Ic. t. 122. 1839; Hook. f. in Hook. f., Fl. Brit. India 5: 130. 1886; Gamble, Fl. Presid. Madras 2: 1224. 1925. Kattu-karuva

Medium-sized trees with smooth or slightly cracked bark. Leaves simple, opposite or subopposite, elliptic to subobovate, entire, glabrous, acute and 3-ribbed from or little above the base, obtusely acuminate at apex. Flowers yellowish-green in many flowered, pseudoterminal panicles. Bemes oblong, fleshy on the cup of the pedicel.

Fls. & Frs.: February to April.

Planted and naturalised; Peechi and Nilambur campuses.

Cinnamomum verum J.S. Persl, Rostl. 2: 36. 1825; Kosterm., Bibl. Laur. 360. 1964 & Reinwardtia 7: 141. 1965.

Cinnamomum zeylanicum Garc. ex Bl., Bijdr. 568. 1826; Hook. f. in Hook. f., Fl. Brit. India 5: 131. 1886; Bourd., For. Trees Trav, 301. 1908; Rama Rao, Fl. Pl. Trav. 341. 1914; Gamble, Fl. Presid. Madras 2: 1224. 1925. Karuva

Medium-sized trees with aromatic bark. Leaves simple, opposite or subopposite (rarely alternate), ovate or ovate-lanceolate, entire, glabrous, coriaceous, shining above, slightly paler beneath, acute or rounded at base, obtuse or obtusely acuminate at apex. Flowers greenish-white, fragrant in axillary. or terminal few-flowered cymose panicles. Berries dark-purple, oblong, seated on the persistent perianth.

Fls. & Frs.: October to July.

Planted and growing naturally near Guest House in shaded forest areas; Nilambur campus.

Litsea coriacea (Heyne ex Meisn.) Hook. f. in Hook. f., Fl. Brit. India 5: 166. 1886; Bourd., For. Tree Trav. 306. 1908; Rama Rao, Fl. Pl. Tmv. 345. 1914; Gamble, Fl. Presid. Madras 2: 1236. 1925. *Tetranthera coriacea* Heyne ex Meisn., DC. Prodr. 15: 186. 1864. Maravetti-thali.

Trees with dense crown, Leaves simple, opposite, elliptic-ovate, entire, glabrous, grey beneath when dry, narrowed at base, acute at apex. Flowers yellow in subsessile, grey-silky umbels. Berries oblong, seated on cupular perianth lobes.

Fls. & Frs.: Almost throughout the year.

Rather common in forested areas; Nilambur campus.

Persea macrantha (Nees) Kosterm., Reinwardtia 6: 193. 1962. *Machilus macrantha* Nees in Wall., Pl. As. Rar. 2: 70.

1831; Wt., Ic. t. 1824. 1852; Hook. f. in Hook. f., Fl. Brit. India 5: 140. 1886; Bourd., For. Trees Trav. 299. 1908; Rama Rao, Fl. Pl. Trav. 342. 1914; Gamble, Fl. Presid. Madras 2: 1227. 1925. Ooravu, Kula-mavu.

Trees with glabrous branchlets. Leaves simple, alternate, mostly crowded at the apex of branchlets, elliptic-oblong or oblong-ovate, entire, coriaceous, pale or glaucous beneath, acute or obliquely truncate at base, obtuse or acute at apex. Flowers greenish-white or yellowish in long, copiously branched terminal panicles with reddish peduncles. Berries dark green dotted with white, globose with persistent perianth lobes.

Fls. & Frs.: November to March.

Rather rare in comparatively undisturbed forests; Peechi and Nilambur campuses.

16. PROTEACEAE

Introduced or cultivated species

Grevillea robusta A. Cunn.

Moderate-sized trees, grown in gardens: Peechi and Nilambur campuses

77. LORANTHACEAE

Dendrophthoe falcata (L.f.) Etting, Denkschr. Akad Wissen. Math. Natur. C1.32: 52,53,58, t. 13, f. 14.1872. *Loranthus falcatus* L. f, Suppl. 211.1781. *Loranthus longiflorus* Desr. in Lamk., Encyl. Meth. Bot 3: 598.1789; Hook. f. in Hook. f., Fl. Brit. India 5: 214.1886; Rama Rao, Fl. Pl. Trav. 348.1914; Gamble, Fl. Presid Madras 2: 1253.1925. Ithyl-kanni.

Parasitic shrubs with terete, stout, lenticellate, glabrous branchlets. Leaves simple, opposite, elliptic, oblong or orbicular. leathery, brittle when dry, glabrous, ovate or acute at base, acute at apex. Flowers yellowish-green in axillary racemes at leafless nodes. Berries ovoid oblong, pink when ripe.

Fls. & Frs. Septemberto March.

Common on branches of trees in the moist deciduous forests and teak plantations; Peechi and Nilambur campuses.

78. SANTALACEAE

Introduced or cultivated species

Santalum album L.

Small, evergreen trees planted in gardens, homesteads and in plots; Peechi and Nilambur campuses.

79. EUPHORBIACEAE

Acalypha indica L., Sp. Pl. 1003.1753; Wt. Ic. t. 877.1844-45; Hook. f. in Hook f., Fl. Brit. India 5: 416.1887; Rama Rao, Fl. Pl. Trav. 369.1914; Gamble, Fl. Presid. Madras 2: 1330.1925; Airy Shaw, Kew Bull. 26: 206.1972.

Erect herbs with angular stems. Leaves simple, alternate, ovate, crenate-serrate, glabrous, deltoid at base, acute at apex. Flowers greenish in axillary monoecious spikes. Capsules small, hirsute.

Fls. & Frs.: Septemberto January.

A weed in the shaded forest floor; Peechi campus.

Anridesma acidum Retz., Obs. Bot 5: 30.1788. *Antidesmadiandrum* (Roxb.) Roth, Nov. Pl. Sp. 369.1821; Hook. f. in Hook. f., Fl. Brit. India 5: 361.1887 (pro parte); Rama Rao, Fl. Pl. Trav. 363.1914; Gamble, Fl. Presid Madras 2: 1298.1928.; *Antidesmalanceolatum* Wall. ex Wt., Ic. t. 766.1844.

Shrubs or small trees. Leaves simple, opposite, elliptic or obovate, entire, glabrous, acute at base. acute or acuminate at apex. Flowers greenish in slender racemes. Fruits red, ellipsoid.

Fls. & Frs. July to October.

Rather common in rocky, open areas; Peechi campus.

Aporusa lindleyana (Wt.) Baill., Etud. Gen. Euph. 645. 1858; Hook. f. in Hook. f., Fl. Brit. India 5: 349. 1887; Bourd. For. Trees Trav. 323. 1908; Rama Rao, Fl. Pl. Tm 362.1914; Gamble, Fl. Presid Madras 2: 1309.1925; Mand et Panigr., Bull. bot. Surv. India 26: 42. 1984. *Scopalinidleyana* Wt., Ic. t. 361. 1840. Vetti.

Medium sized trees. Leaves simple, opposite, elliptic-oblong, serrate, glabrous, rounded or acute at base, acuminate at apex. Male flowers yellow, sessile in axillary spikes; female flowers pale green, hairy in short, bracteate spikes. Capsules globose with persistent style at apex.

Fls. & Frs.: November to April.

Rather scarce in shaded areas of the moist deciduous forests; Peechi and Nilambur campuses.

Breynia retusa (Dennst.) Alston in Ann. bot. Gard. Peradeniya 11: 204. 1929. *Phyllanthus retusa* Dennst., Schul. Hort. Malab. 31. 1818. *Phyllanthus patens* Roxb., Fl. Ind. 3: 667.1832. *Breyniapatens* (Roxb.) Rolfe, J. Bot. 11: 359. 1882; Hook. f. in Hook. f., Fl. Brit. India 5: 329. 1887; Rama Rao, Fl. Pl. Trav. 359.1914; Gamble, Fl. Presid. Madras 2: 1304.1925.

Shrubs with spreading branches. Leaves simple, alternate, membranous, elliptic, entire, glaucous beneath, rounded or narrowed at base, obtuse at apex. Flowers yellowish green, axillary; male flowers often in small fascicles; female flowers solitary. Berries, depressed globose, orange-coloured turning purplish-black on ripening.

Fls. & Frs.: May to June,

Rare, in moist deciduous forests, especially in the openings: Peechi campus

Bridelia retusa (L.) Spreng., Syst. Veg. 3: 48. 1826; Hook. f. in Hook. f., Fl. Brit. India 5: 268. 1887; Rama Rao, Fl. Pl. Trav. 353. 1914; Gamble, Fl. Presid. Madras 2: 1280. 1925; Airy Shaw, Kew Bull. 26: 230. 1972. *Clusia retusa* L., Sp. Pl. 1042. 1753. Mukkayini.

Stunted trees with thorny young branches. Leaves simple, alternate, elliptic-oblong, entire, chartaceous, glabrous, obtuse at base, retuse at apex. Flowers yellow in clustered spikes. Drupes black, globose.

Fls. & Frs.: July to December.

Rather common in thickets and dry of the moist deciduous forests; Peechi, Nilambur and Velupadam campuses.

Bridelia scandens (Roxb.) Willd., Sp. Pl. 4: 974. 1806; Gamble, Fl. Presid. Madras 2: 1281. 1925. *Clusia scandens* Roxb., Pl. Corom. t 173. 1802. *Bridelia stipularis* Muell.-Arg. in DC., Prodr. 15: 149. 1866; Hook. f. in Hook. f., Fl. Brit. India 5: 270. 1887 (*pro parte*); Rama Rao, Fl. Pl. Trav. 354. 1914.

Shrubby climbers with thorny stems. Leaves simple, alternate, elliptic, entire, f. pubescent beneath. glabrous above, rounded or cordate at base, obtuse at apex. Flowers greenish-yellow in distichous spikes with small leaves. Drupes black, globose.

Fls. & Frs.: October to February.

Rather common in dry, rocky and lateritic areas, mostly in openings and along hedges; Peechi, Nilambur and Velupadam campuses.

Cleistanthus collinus (Roxb.) Benth. in Benth et Hook. f., Gen. Pl. 3: 268. 1880; Hook. f. in Hook. f., Fl. Brit. India 5: 274. 1887; Rama Rao, Fl. Pl. Trav. 354. 1914; Gamble, Fl. Presid. Madras 2: 1282. 1925. *Clusia collina* Roxb., Pl. Corom. t 169. 1802. Oduvu.

Stunted trees with rough bark. Leaves simple, alternate, elliptic-ovate to orbicular, entire, glabrous, coriaceous, obtuse at base, retuse at apex. Flowers greenish-yellow in axillary, villous clusters. Capsules dark brown, shining, hard.

Fls. & Frs.: February to April.

Very common in dry, open areas, especially in rocky soil; Peechi and Nilambur campuses.

Emblica officinalis Gaertn., Fruct. 2: 122. 1790; Wt., Ic. t. 1896. 1852. Gamble, Fl. Presid. Madras 2: 1295. 1925. *Phyllanthus emblica* L., Sp. Pl. 982. 1753; Hook. f. in Hook. f., Fl. Brit. India 5: 288. 1887; Bonrd., For. Trees Trav. 332. 1908; Rama Rao, Fl. Pl. Trav. 355. 1914; Airy Shaw, Kew Bull. 26: 319. 1972. Nelli. l.

Much branched, medium-sized trees, often with flaking bark. Leaves simple, closely distichous, linear-oblong, entire, glabrous, acute at base, apiculate at apex. Flowers greenish yellow or pinkish in axillary fascicles. Berries yellowish-green, globose, smooth, depressed at the stalk-end.

Fls. & Frs.: November to April.

Rare, in rocky, degraded and dry areas of the moist deciduous forests; Peechi and Nilambur campuses

Euphorbia hirta L., Sp. Pl. 454. 1753; Gamble, Fl. Presid. Madras 2: 1275. 1925; Sant., Bull. bot. Soc. Bengal 8: 15. 1954. *Euphorbia pilulifera* auct. non L.; Hook. f. in Hook. f., Fl. Brit. India 5: 250. 1887; Rama Rao, Fl. Pl. Trav. 351. 1914.

Erect herbs with purplish, jointed branches. Leaves simple, opposite, obliquely-lanceolate or elliptic, serrulate, oblique at base, acute at apex. Flowers green in terminal, clustered cyathia. Capsules globose, hairy.

Fls. & Frs.: October to May.

Rather scarce in wet areas, especially along the sides of rocks and paths near forest boundaries; Peechi, Nilambur and Velupadam campuses

Euphorbia nivulia Buch.-Ham., Trans. Linn. Soc. London 14: 286. 1825; Hook. f. in Hook. f., Fl. Brit. India 5: 225. 1887; Bourd., For. Trees Trav. 317. 1908; Rama Rao, Fl. Pl. Trav. 352. 1914; Gamble, Fl. Presid. Madras 2: 1277. 1925. Ela-kalli.

Armed, fleshy, erect shrubs or small trees with rounded, somewhat verticillate, glabrous branches. Leaves simple, alternate, obovate or obovate-oblong, entire, glabrous, tapering towards base, rounded at apex. Flowers greenish in solitary or twin cyathia in the axils of fallen leaves. Capsules broad, undivided.

Fls. & Frs.: March to May.

Rare as planted and naturalised in dry and open areas of moist deciduous forests; Peechi campus.

Euphorbia thymifolia L., Sp. Pl. 1454.1753; Hook f. in Hook. f., Fl. Brit India 5: 252.1887; Rama Rao, Fl. Pl. Trav. 351.1914; Gamble, Fl. Presid. Madras 2: 1276.1925.

Annual. prostrate herbs. Leaves simple, opposite, oblong-obtuse, serrulate along margins, glabrous, obliquely cordate at base, rounded at apex. Flowers in axillary, subsessile clusters of cyathia. Capsules, obtusely keeled, pubescent.

Fls. & Frs. : December to January.

Common in waste places and openings of moist deciduous forests; Peechi campus.

Jatropha curcas L., Sp. Pl. 1006.1753; Hook f in Hook f., Fl. Brit. India 5: 383.1887; Rama Rao, Fl. Pl. Trav. 364.1914; Gamble, Fl. Presid Madras 2: 1340.1925. Kattavanaku.

Erect. shrubs with acrid latex and smooth, peeling-off bark. Leaves simple, alternate, 3-5 lobed, orbicular, serrate. glabrous, subcordate at base, acuminate at apex. Flowers yellowish-green in terminal or axillary, paniced cymes. Capsules ellipsoid and 3-lobed, rugose on drying.

Fls. & Frs.: Throughout the year.

Rare, in moist deciduous forests, especially in waste places; Peechi campus.

Kirganelia reticulata (Poir.) Baill., Etud Euphorb. 613.1874; Gamble, Fl. Persid Madras 2: 1294.1925. *Phyllanthus reticulatus* Poir. in Lamk., Encyl. Meth. Bot. 5: 298. 1804; Hook. f. in Hook. f., Fl. Brit. India 5: 288. 1887; Rama Rao, Fl. Pl. Trav. 355.1914.

Much branched shrubs. Leaves elliptic, obovate or suborbicular, entire, glabrous, tapering or obtuse at base, acute at apex. Flowers light yellow; male flowers in axillary fascicles; female flowers Solitary, axillary. Bemes purple when ripe, globose.

Fls. & Frs. : April to March.

Fairly common in the outskirts and plains of moist deciduous forests; Peechi and Nilambur campuses.

Macaranga peltata (Roxb.) Muell.-Arg. in DC., W. 15(2): 1010.1866; Gamble, Fl. Presid. Madras 2: 1326.1925. *Osyris peltata* Roxb., Fl. Ind. 3: 755.1887. *Macaranga roxburghii* Wt. Ic. t. 1949.1853; Hook. f. in Hook f, Fl. Brit. India 5 448.1887; Bourd., For. Trees Trav. 349.1908; Rama Rao, Fl. Pi. Trav. 372.1914. Vatta, Oothooni.

Medium sized trees with leaves confined to apex of branchlets. Leaves simple, alternate, peltate, ovate or orbicular, obscurely toothed towards apex, glabrous above, pubescent beneath, acuminate at apex. Flowers pale yellow in axillary panicles. Capsules glandular, muricate.

Fls. & Frs.: June to October.

Common in disturbed and open forest areas, sometimes becoming gregarious; Peechi. Nilambur and Velupadam campuses.

Mallotus philippensis (Lamk.) Muell.-Arg., Linnaea 34: 1%. 1865. Hook. f. in Hook. f., Fl. Brit. India 5: 442.1887; Rama Rao, Fl. Pl. Trav. 371.1914; Bourd., For. Trees. Trav. 347.1908; Gamble, Fl. Presid Madras 2: 1322.1925. *Croton philippense* Lamk. Encyl. Meth. Bot. 2: 206.1786.

Shrubs or small trees. Leaves simple, alternate or slightly toothed, ovate-lanceolate, entire, glandular beneath, obtuse at base, acuminate at apex. Flowers pale yellow in terminal or axillary racemes. Capsules 3-valved red-glandular.

Fls. & Frs. : August to February.

Rare, in forested areas, especially along hedges; Peechi campus.

Micrococcu mercurialis (L.) Benth. in Hook., Niger. Fl. 503.1849; Gamble, Fl. Presid. Madras 2: 1328.1925. *Tragia mercurialis* L., Sp. Pl. ed 3: 1391. 1764. *Claoxylon mercurialis* Thw., Enum. Pl. Zeyl. 271. 1861; Hook. f. in Hook. f., Fl. Brit. India 5: 412. 1887; Rama Rao, Fl. Pl. Trav. 368.1914.

Erect. glabrous or subglabrous herbs. Leaves simple, alternate, ovate to lanceolate, membranous, serrate, rounded or acute at base, shortly acuminate at apex. Flowers in axillary spiciform. slender, interrupted inflorescence. Capsules 3-lobed.

Fls. & Frs.: November to December.

A common weed in the forest openings, barren areas and near homesteads; Peechi campus.

Phyllanthus amarus Schum. et Thonn., Kongl. Danske Vidensk. Selsk. Skr. 4: 195.1829; *Phyllanthus fraternus* Webster, Contr. Gray Herb. 176: 53. 1955. *Phyllanthus niruri auct. non* L. 1753; Hook. f. in Hook. f., Fl. Brit. India 5: 298.1887; Rama Rao, Fl. Pl. Trav. 356.1914; Gamble, Fl. Presid Madras 2: 1290.1925. Keeza-dli.

Herbs with slender branches. Leaves simple, distichous, elliptic-oblong, entire, glaucous, rounded at base, obtuse or acute at apex. Flowers yellowish, very numerous; male flowers axillary, 1-3 together, female flowers axillary, solitary. Capsules glabrous, depressed-globose, smooth, scarcely lobed.

Fls. & Frs.: Almost throughout the year.

Common in open areas, gardens, homesteads, etc. ; Peechi, Nilambur and Velupadam campuses.

Phyllanthus kozhikodianus Sivar. et Manil., J. Indian Bot. Soc. 56: 165.1977; Sivar. et Joseph, J. Bombay nat. Hist. Soc. 17: 369.1981.

Erect herbs. Leaves simple, alternate, broadly-elliptic to obovate, entire, glabrous, rounded at base, obtuse or subacute at apex. Flowers yellowish, axillary, fascicled; male flowers in clusters of 2-3; female flowers solitary. Capsules depressed-globose, glabrous.

Fls. & Frs. : June to December.

Common in plains and also shaded, lateritic slopes in the moist deciduous forests; Peechi and Nilambur campuses.

Phyllanthus urinaria L., Sp. Pl. 982.1753; Hook f. in Hook f., Fl. Brit India 5: 293.1887; Rama Rao, Fl. Pl. Trav. 356.1914; Gamble, Fl. Presid. Madras 2: 1289.1925.

Erect herbs with glabrous branches. Leaves sessile, linear-oblong, membranous, glabrous, pale beneath hispid along the margins, oblique or obtuse at base, acute and mucronate at apex. Flowers minute, subsessile, solitary, axillary. Capsules globose or depressed globose, trilobed, verrucose.

Fls. & Frs.: October to December.

Common in plains and open areas of moist deciduous forests; Peechi campus.

Ricinus communis L., Sp. Pl. 1007.1753; Hook f. in Hook f., in Fl. Brit India 5: 457.1887; Rama Rao, Fl. Pl. Trav. 372.1914; Gamble, Fl. Presid Madras 2: 1335.1925. Avanakku.

Shrubs with greyish brown stems. Leaves digitately lobed, alternate, with the lobes oblanceolate, entire, glabrous, acuminate at apex. Flowers monoecious, females below, males above in paniculate racemes. Capsules globose, spinous.

Fls. & Frs.: April to June.

Running wild as escapes from cultivation; Peechi campus.

Sauropus androgynus (L.) Merr., Philp. Bur. For. Bull. 1: 30.1903; Gamble. Fl. Presid Madras 2: 1303.1925; *Airy* Shaw, Kew Bull. 26: 333.1972. *Clutia androgyna* L., Mant. 128.1767. *Sauropus albicans* Bl., Bijdr. 596. 1825; Hook. f. in Hook f., Fl. Brit. India 5: 332.1887; Rama Rao, Fl. Pl. Trav. 359.1914.

Shrubs with weak stems. Leaves simple subopposite or alternate, ovate or lanceolate, entire, glaucous beneath, obtuse or acute at base, acute at apex. Flowers greenish, minute, in clusters. Capsules white, inflated.

Fls. & Frs.: August to November.

Planted and naturalised; Peechi campus.

Sauropus quadrangularis (Willd.) Muell.- Arg., Linnaea 32: 73.1863; Hook. f. in Hook. f., Fl. Brit India 5: 335. 1887; Rama Rao, Fl. Pl. Trav. 360. 1914; Gamble, Fl. Presid. Madras 2: 1303.1925. *Phyllanthus quadrangularis* Willd, Sp. Pl. 4: 585.1805.

Small shrubs with twiggy branches. Leaves simple, alternate, ovate, suborbicular or elliptic, thin, glabrous, acute, obtuse or narrowed at base, acute or rounded at apex. Flowers minute, axillary, solitary or clustered. Capsules depressed globose with persistent calyx.

Fls. & Frs. : July to December.

Common in rocky, lateritic and degraded areas of moist deciduous forests: Peechi campus.

Sebastiana chamaelea (L.) Muell.-Arg. in DC., Prodr. 15(2): 1175. 1866; Hook. f. in Hook. f., Fl. Brit. India 5:475. 1888; Rama Rao, Fl. Pl. Trav. 375. 1914; Gamble, Fl. Presid. Madras 2: 1344. 1925. *Tragia chamaelea* L., Sp. Pl. 981. 1753.

Erect or diffuse herbs. Leaves simple, alternate, linear-lanceolate, minutely dentate, tapering at base, obtuse at apex. Flowers yellowish; male flowers in axillary or leaf-opposed, slender, short spikes; female flowers usually solitary at the base of the male inflorescence or lateral on branches without any males. Capsules subglobose-oblong with 3 cocci, crustaceous.

Fls. & Frs.: September to December.

Common in plains, along lateritic slopes and banks of canals in moist deciduous forests; Peechi and Nilambur campuses.

Tragia involucrata L., Sp. Pl. 980. 1753; Hook. f. in Hook. f., Fl. Brit. India 5: 645. 1888; Rama Rao, Fl. Pl. Trav. 373. 1913; Gamble, Fl. Presid. Madras 2: 1332. 1925. Choriyanam, Chori-kannan.

Slender, straggling herbs with stinging hairs. Leaves simple, alternate, ovate-lanceolate, serrate, hairy, 5 nerved and obtuse or acute at base, acuminate at apex. Flowers in axillary spikes. Capsules of 3, 2-valved, densely hairy cocci.

Fls. & Frs.: October to March.

Weed in waste places; Peechi, Nilambur and Velupadam campuses.

Introduced or cultivated species

Acalypha hispida Burm. f.

Much branched shrubs, occasionally grown in gardens; Peechi and Nilambur campuses.

Euphorbia tirucalli L.

Often grown in gardens, sometimes running wild; Peechi campus.

Hevea brasiliensis Muell.-Arg.

Trees, widely cultivated for latex, the source of the natural rubber of commerce; Peechi campus.

80. ULMACEAE

Holoptelia integrifolia (Roxb.) Planch., Ann. Sci. Nat. Bot. Ser. 3, 10: 269. 1848; Wt., Ic. t. 1968. 1853; Hook. f. in Hook. f., Fl. Brit. India 5: 481. 1888; Fisch. in Gamble, Fl. Presid. Madras 3: 1348. 1928. *Ulmus integrifolia* Roxb., Pl. Corom. t. 78. 1798. Aaval.

Trees with pale white, smooth, smelling bark and leaves. Leaves simple, alternate, elliptic-oblong, entire, glabrous, acute at apex. Flowers brownish in fascicles. Fruits samaroid, flat, winged, crowned by persistent styles.

Fls. & Frs.: October to February.

Rare in the degraded forests and teak plantation cleared areas; Nilambur and Velupadam campuses.

Trema orientalis (L.) Bl., Mus. Bot. Lugd.-Bat. 2: 61. 1856; Hook. f. in Hook. f., Fl. Brit. India 5: 484. 1888; Bourd. For. Trees Trav. Rama Rao, Fl. Pl. Trav. 377. 1914; Fisch. in Gamble, Fl. Presid. Madras 3: 1350. 1928; Polh, Kew Bull. 19: 141. 1964. *Celtis orientalis* L., Sp. Pl. 1044. 1753. *Sporea wightii* Planch., Ann. Sci. Bot. Ser. 3, 10: 322. 1848; Wt., Ic. t. 1971. 1853. Malan-thodai.

Medium sized, evergreen trees with pubescent young parts. Leaves simple, alternate, ovate-lanceolate, serrate, pubescent beneath, scabrid above, obtuse at base, acuminate at apex. Flowers greenish in axillary cymes. Drupes greenish, ovoid or subglobose, black when dry.

Fls. & Frs.: August to May.

Rather rare, in disturbed, openings of moist deciduous forests; Peechi, Nilambur and Velupadam campuses.

81. MORACEAE

Artocarpus hirsutus Lamk., Encyl. Meth. Bot. 3: 210. 1789; Wt, Ic. t 1957. 1853; Hook. f. in Hook. E, R. Brit. India 5: 541. 1888; Bourd, For. Trees Trav. 368. 1908; Rama Rao, Fl. Pl. Trav. 386. 1914; Fisch in Gamble, Fl. Presid Madras 3: 1369. 1928. Anjili, Anjili-plavu.

Lofty trees with rough, flaking bark. Leaves simple, alternate, elliptic, rhomboid or ovate, entire, coriaceous, rounded or cuneate at base, shortly acuminate at apex. Fruits greenish-yellow, echinate with straight spines.

Fls. & Frs.: January to April.

Rather common especially in the openings of moist deciduous forests, Peechi, Nilambur and Velpadam campuses.

Ficus amplissima Sm. in Rees, Cyclop. 14. no. 1. 1810; Corner, Gard Bull. Str. Settl. 21: 11. 1965. *Ficus tsiela* Roxb. ex Ham, Trans. Linn. Soc., London 15(1): 149. 1826; Wt, Ic. t 668. 1840; Hook f. in Hook f., Fl. Brit India 5: 515. 1888; Fisch. in Gamble, R. Presid. Madras 3: 1362. 1928. Kal-athi.

Trees with spreading branches. Leaves simple, alternate, ovate, entire, coriaceous, glabrous, obtuse and 3-ribbed at base, acute or bluntly cuspidate at apex. Flowers in paired, axillary, globose receptacles.

Fl. & Frs.: January to March.

Rare, in dense areas of moist deciduous forests, Peechi campus.

Ficus beddomei King Ann Fay. bot. Gard. Calcutta 1 : 26. t 24. 1888; Hook. f. in Hook f., Fl. Brit India 5: 502. 1888; Bourd, For. Trees. Trav. 360. 1908; Rama Rao, Fl. Pl. Trav, 380. 1914; Fisch. in Gamble, Fl. Presid. Madras 3: 1364. 1928.

Trees, often epiphytic when young. Leaves simple, alternate, ovate, entire, glabrous, 3 ribbed and rounded or truncate at base, acuminate at apex. Flowers in paired, ovoid, vertically ridged peduncled receptacles.

Fls. & Frs.: October to June

Rare, in dense forest areas; Peechi campus.

Ficus benghalensis L., Sp. Pl. 1059. 1753; King Ann. Roy. bot. Gard. Calcutta 1: 18. t. 13, 81 C, 1887-88; Hook f. in Hook. f., Fl. Brit India 5: 499. 1888; Bourd., For. Trees Trav, 358. 1908; Rama Rao, Fl. Pl. Trav. 379. 1914; Fisch. in Gamble, Fl. Presid. Madras 3: 1361. 1928.

Trees, 10-15 m high with aerial roots. Leaves simple, alternate, ovate-oblong, entire, coriaceous, acute or obtuse at base, obtuse at apex. Flowers male and female. in the same receptacle. Fruits greenish yellow, globose, paired, almost sessile.

Fls. & Frs.: January to May.

Rare, in the openings and disturbed forest areas; Nilambur campus.

Ficus exasperata Vahl, Enum Pl. 2: 187. 1806, Corner, Gard. Bull. Str. Settl. 21: 74. 1965. *Ficus asperrima* Roxb., Fl. Ind. 3: 554. 1882; Wt, Ic. t 633. 1843; Hook f. in Hook. f., Fl. Brit India 5: 522. 1888; Bourd For. Trees Trav. 366. 1908; Rama Rao, Fl. Pl. Trav. 383. 1914; Fisch in Gamble, Fl. Presid Madras 3: 1866. 1928. Therakam.

Small trees with rough bark. Leaves simple, alternate, obovate-ovate, elliptic-oblong or lanceolate, entire, scabrid above, hispid beneath, obtuse and triple nerved at base, acuminate at apex. Male flowers numerous, sessile; female flowers pedicellate; gall flowers sessile. Fruits yellowish-red globular, pubescent.

Fls. & Frs.: May to November

Fairly common in disturbed and open areas of the moist deciduous forests and also along hedges; Peechi and Nilambur campuses.

Ficus hispida L. f, Suppl. 442. 1781; Hook f. in Hook. f., Fl. Brit. India 5: 522. 1888, Bourd., For. Trees Trav 367. 1908; Rama Rao, Fl. Pl. Trav. 383. 1914; Fisch. in Gamble, R. Presid, Madras 3: 1367. 1928; Comer, Gard. Bull. Str. Settl. 21: 89. 1965. *Ficus oppositifolia* Roxb., Pl. Corom. t 124. 1795.

Medium sized trees. Leaves simple, opposite, oblong-elliptic to ovate-elliptic, entire, scabrid, obtuse and triple nerved at base, acuminate at apex. Flowers in racemes. Figs plae green when ripe, very hispid, axillary or cauliflorous, obovoid, clustered.

Fls. & Frs.: November to March.

Common in dense areas of moist deciduous forests: Peechi and Nilambur campuses

Ficus racemosa L., Sp. Pl. 1060. 1753; Comer, Gard. Bull. Str. Setti. 21: 34. 1965. *Ficus glomerata* Roxb., Pl. Corom. t. 123.1798; Wt. Ic. t. 667.1843; Hook. f. in Hook. f., Fl. Brit. India 5: 535.1888; Bourd., For. Trees Trav. 367.1908; Rama Rao, Fl. Pl. Trav. 384.1914; Fisch in Gamble, Fl. Presid Madras 3: 1364.1928. Athi.

Deciduous trees. Leaves simple, alterante, elliptic-lanceolate, ovate or obovate-oblong, entire, glabrous 3-nerved and narrowed at base, acute at apex. Flowers in subglobose receptacles produced on leafless branchlets
Fls. & Frs. : August to November.

Rare. in less thick forest areas; Peechi and Nilambur campuses.

Ficus religiosa L.. Sp. Pl. 1960 1753; King, Ann. Roy. bot. Gard Calcutta 1: 55 t. 67A 84U. 1887-88; Hook.f. in Hook. E, Fl. Brit. India 5 513.1888; Bourd., For. Trees Trav. 363.190S; Rama Rao, Fl. Pl. Trav. 382.1914; Fisch in Gamble. Fl. Presid Madras 3: 1368. 1928. *Urostigma religiosum* Gasp., Ricer. Caprif. 82, t. 7.1845.; Wt., Ic. t. 1967.1843. Ara-aal.

Trees with occasional aerial roots not reaching the ground. Leaves simple, alternate, ovate-rotund, entire, glabrous, truncate or cordate at base, narrowed into a linear-lanceolate tail at apex. Male flowers sessile or pedicelled. Fruits depressed globose.

Fls. & Frs. : February to July.

Rather rare, sometimes epiphytic, in the moist deciduous forests; Peechi and Velupadam campuses.

Ficus tinctoria Forst. f. ssp. *parasitica* (Willd.) Comer, Gard. Bull. Str. Settl. 17: 476. 1960. *Ficus parasitica* Willd., Mem. Acad. Roy. Sci. Hist. (Berlin) 102.1798 *Ficus gibbosa* Bl. var. *parasitica* (Willd) King., Ann. Roy. bot. Gard. Calcutta 1: t 2a-b. 1887; Hook f. in Hook f., Fl. Brit. India 5: 597.1888; Bourd, For. Trees Trav. 357. 1908; Rama Rao, Fl. Pl. Trav. 379.1914; Fisch in Gamble, Fl. Presid Madras 3: 1365.1928 (incl. var. *cuspidifera* (Miq.) Fisk). Kallathi.

Trees with hanging aerial roots. Leaves simple, alternate, oblong or rhomboid-lanceolate, entire or shallowly lobed, sparsely hairy or glabrous, acute at base; acute or acuminate at apex. Receptacles yellow, often paired or fascicled, subglobose, shortly peduncled.

Fls. & Frs.: November to May.

Rather rare in forested areas; Peechi campus.

Ficus tsjahela Burm. f., Fl. Ind. 227.1768; Hook f. in Hook f., Fl. Brit. India 5: 5 14.1888; Bourd., For. Trees Trav. 364. 1908; Rama Rao, Fl. Pl. Trav. 382.1914; Fisch. in Gamble, Fl. Presid Madras 3: 1362.1928; Comer, Gard Bull. Str. Settl. 21: 7.1965. Kallal.

Lofty trees. Leaves simple, alternate, ovate-lancedate, entire, glabrous, glossy above, 3-5 ribbed and rounded at base. abruptly acuminate at apex. Flowers in depressed globose, sessile, axillary receptacles, yellow when ripe.

Fls. & Frs.: October to April.

Rare, in less dense forest areas, in rocky soil; Peechi campus.

Streblus asper Lour., Fl. Cochinch. 615.1790; Hook. f. in Hook. f., Fl. Brit. India 5: 489.1888; Bourd., For. Trees Trav. 374.1908; Rama Rao, Fl. Pl. Trav. 378.1914; Gamble, Fl. Presid Madras 3: 1353.1928; Comer, Gard Bull. Str. Settl. 19: 228.1962.

Stunted trees. Leaves simple, alternate, elliptic-oblong or obovate, dark green above, pale beneath, unequal, rounded or cordate at base, acute or acuminate at apex. Flowers in dense, capitate clusters (male) or 1-2 in the axils (female). Drupes globose or subglobose.

Fls. & Frs.: February to April.

Rare, in dry, open areas and along the sides of valleys; Peechi and Nilambur campuses.

Introduced or cultivated species

Artocarpus heterophyllus Lamk.

Trees often grown in the homesteads, rarely running wild; Peechi and Nilambur campuses.

Artocarpus incisa L.

Medium sized trees, cultivated for its fruits; Peechi campus.

***Morus alba* L.**

Shrubs, very rarely planted along road sides; Nilambur campus.

82 URTICACEAE

***Laportea interrupta* (L.) Chew, Gard Bull. Str. Settl. 21:200.1965, *Urtica interrputa* L., Sp. Pl. 985.1753. *Fleurya interrupta* (L.) Gaud. in Freyc., Voy Bot 497.t.8.1830; Wt., Ic. t 1975.1853; Hook.f.in Hook.f., Fl. Brit India 5:548. 1888; Rama Rao, FL. PL. Trav. 387.1914; Fisch in Gamble, Fl. Presid Madras 3: 1372.1928. Ana-chorian**

Herbs with stinging hairs and succulent, furrowed stems. Leaves simple, alternate, ovate, coarsely-toothed hairy: truncate-cordate at base, acuminate at apex. Flowers greenish in slender racemes. Achenes ovoid, compressed.

Fls. & Frs. : October to December.

A weed, very common in shaded and damp areas; Peechi and Nilambur campuses.

***Pilea microphylla* (L.) Liebm. in Vidensk. Selsk 5(2):296. 1851; Hook.f. in Hook.f., Fl. Brit. India 5:551.1888, Fisch. in Gamble, Fl. Presid Madras 3: 1379. 1928. *Parietaria microphylla* L., Syst. Nat. ed 10: 1808. 1759.**

Slender herbs with bifarious branches. Leaves simple, opposite, ovate, elliptic to spatulate, entire, glabrous, acute at base, subacute or obtuse at apex. Flowers greenish, minute, in axillary cymes. Achenes minute. ovoid, compressed.

Fls. & Frs.: July to December.

A weed during post-monsoon period common in moist and shaded areas; Peechi and Nilambur campuses.

***Pouzolzia zeylanica* (L.) Benn., Pl. Jav. Rar. 67.1888. *Parietaria zeylanica* L., Sp. Pl. 1052. 1753. *Pouzolzia indica* (L.) Gaud., Freyc. Voy. Bot 503.1830; Wt., Ic. tt 1980. fig. 1 & 2000, fig. 40. 1853; Hook. f. in Hook. f., Fl. Brit India 5:581.1888; Rama Rao, Fl. P1. Trav, 388.1914; Fisch in Gamble, Fl. Presid. Madras 3: 1382.1928.**

Erect or procumbent herbs with slender, hirsute branches. Leaves simple, opposite or alternate, linear-lanceolate or ovate-lanceolate, entire, hirsute to glabrous, rounded at base, acute at apex. Flowers pale pinkish-green, strigose. Fruits ovoid, 2-4 winged.

Fls. & Frs.: July to December.

Rather common in shaded and wet areas; Peechi campus

83. CASUARINACEAE

Introduced or cultivated species

***Casuarina equisetifolia* L.**

Trees with needle-like leaves, often grown along hedges and path sides; Peechi, Nilambur and Velupadam campuses.

5.2 GYMNOSPERMS

84. CYCADACEAE

***Cycas circinalis* L., Sp. Pl. 1188.1753; Dyer in Hook. f., Fl. Brit India 5: 656.1888; Rama Rao, Fl. P1. Trav. 391. 1914; Fisch. in Gamble, Fl. Presid. Madras 3: 1394.1928. Eeenthu.**

Trees with rough trunk. Leaves in terminal crowns, pinnate with leaflets linear, entire, glabrous, acute at base, acuminate at apex. Ovuliferous scales terminal, imbricate, pinnatifid with 1 to 3 pairs of Ovules along the margins. Seeds ellipsoid, smooth yellowish-green.

Fls. & Frs.: January to September.

Rather rare, along the sides of valleys in moist deciduous forests; Peechi and Velupadam campuses.

85. ARAUCARIACEAE

Introduced or cultivated species

Araucaria columnaris (Forst) Hook.

Ornamental trees with conical growth pattern, planted in the Institute premises; Peechi campus.

86. PINACEAE

Introduced or cultivated species

Pinus caribaea Morelet

Planted in a plot and few trees surviving at present; Nilambur campus.

5.3. MONOCOTYLEDONS

87. ORCHIDACEAE

Acampe praemorsa (Roxb.) Blatt. et McCann, J. Bombay nat. Hist. Soc. 35: 495. 1932. *Epidendrum praemosum* Roxb., Pl. Corom. t. 43. 1795. *Acampowightiana* (Lindl. ex Wt.) Lindl., Fol. Orch. 2: 95. 1853; Fisch in Gamble, Fl. Presid. Madras 3: 1447. 1928. *Vandawightiana* Lindl. ex Wt., Ic. t. 1670. 1852. *Saccolobium wightianum* (Lindl. ex Wt.) Hook. f. in Hook. f., Fl. Brit. India 6: 62. 1890.

Herbs, epiphytic on trees. Leaves alternate, lorate, entire, glabrous, unequally bilobed at apex. Flowers yellow, fragrant, in leaf-opposed, short racemes. Capsules fusiform, longitudinally ribbed.

Fls. & Frs.: October to May.

Rare, growing on tree trunks in open forest areas; Peechi campus.

Aerides ringens (Lindl.) Fisch, Bull. Misc. Inform. Kew 1928: 284. 1928 & in Gamble, Fl. Presid. Madras 3: 442. 1928. *Saccolobium ringens* Lindl., Gen. Sp. Orch. 221. 1833. *Saccolobium rubrum* Wt., Ic. t. 1673. 1851. *Aerides lineare* Hook. f. in Hook. f., Fl. Brit. India 6: 47. 1890; Rama Rao, Fl. Pl. Trav. 396. 1914.

Epiphytes with thick stem. Leaves linear, coriaceous, entire, glabrous, sheathing at base, cleft at apex. Flowers pink or mauve in racemes. Capsules obovoid-oblong.

Fls. & Frs.: March to April.

Rare, as epiphytic on trees in sparsely wooded areas; Peechi and Velupadam campuses.

Dendrobium ovatum (Willd.) Kranz, Pfl. Anz. 45: 71. 1910; Fisch. in Gamble, Fl. Presid. Madras 3: 1416. 1928; Abr. et Vats., Introd. Orch. 353. 1981. *Cymbidium ovatum* Willd., Sp. Pl. 4: 101. 1805. *Dendrobium barbatulum acut. non* Lindl.; Wt., Ic. t. 910. 1844; Hook. f. in Hook. f., Fl. Brit. India 5: 719. 1890; Rama Rao, Fl. Pl. Trav. 393. 1914.

Slender, tufted epiphytes, devoid of leaves when flowering. Leaves oblong-lanceolate. Flowers white, creamy in the centre, in racemes. Capsules oblong-ovoid.

Fls. & Frs.: January to April.

Rare on trunks and branches of trees; Peechi campus.

Malaxis rheedi Sw., Kongol. Vetensk. Acad. Nyat. Handl. 21: 235. 1800; Wt., Ic. t. 902. 1845; Hook. f. in Hook. f., Fl. Brit. India 5: 690. 1890; Rama Rao, Fl. Pl. Trav. 392. 1914; Seidenf., Bot. Tidsskr. 73: 97. 1978. *Microstylis versicolor* Lindl., Gen. Sp. Orch. 21. 1830; Fisch. in Gamble, Fl. Presid. Madras 3: 985. 1928.

Terrestrial herbs. Leaves many, plicate, entire, puberulous beneath, narrowed and sheathed at base, acuminate at apex. Flowers greenish yellow in terminal racemes. Capsules clavate-oblong, shortly stalked, erect.

Fls. & Frs.: May to July.

Rare, in the forest floor, in humus soil between rocks; Nilambur campus.

Nervilia aragoana Gaud., Bot. Voy. Freyc. 122. t. 36. 1826; Fisch. in Gamble, Fl. Presid. Madras 3: 1459. 1928. *Pogonia flabelliformis* Wall. ex Lindl., Gen. Sp. Orch. 415. 1835; Hook. f. in Hook. f., Fl. Brit. India 6: 123. 1. 1890.

Nervilia carinata Wt., Ic. t. 1750. 1852. *Pogoniascottii* Reichb. f., Flora 276. 1872; Hook. f., Ioc. cit. 120 & in Ann. Roy. bot. Gard. Calcutta 5 : 62. t. 93. 1895. *Orila-thamara*.

Tuberous, stoloniferous herbs. Leaves simple, arising from tubers, broadly-ovate or orbicular, entire, glabrous. cordate at base, acuminate or apiculate at apex. Flowers greenish-yellow in drooping, racemose scapes.

Fls. & Frs.: October to April.

A ground orchid. rather common in shaded, rocky areas; Nilambur and Velupadam campuses,

Oberonia denticulata Wt., Ic. t. 1625. 1851; Rama Rao, Fl. Pl. Trav. 392. 1914. *Oberonia iridvolia* Lindl. var. *denticulata* (Wt) Hook. f. in Hook. f., Fl. Brit. India 5: 67C. 1890 Fisch. in Gamble, Fl. Presid. Madras 3: 1406. 1928; Ansari, J. Eco. Tax. Bot. 3: 115. 1982.

Epiphytic herbs. Leaves ensiform, jointed, fleshy, ovate-oblong. Flowers greenish-yellow in drooping spikes. Capsules oblong.

Fls. & Frs.: February to May.

Growing on tree trunks, especially in sparsely wooded forest areas; Peechi campus.

Rhynchostylis retusa (L.) Bl., Bijdr. 286. t. 49. 1825; Hook. f. in Hook. E, Fl. Brit. India 6: 32. 1890; Rama Rao, Fl. Pl. Trav. 396. 1914; Fisch. in Gamble, Fl. Presid. Madras 3: 1440. 1928. *Epidendrum retusum* L., Sp. Pl. 953. 1753. *Saccolobium guttatum* Lindl., Gen. Sp. Orch. 22C. 1833; Wt., Ic. t. 1745, 1746. 1852.

Epiphytic herbs with woody stem. Leaves simple, alternate, articulate, dense, distichous, linear, keeled. Flowers pinkish in dense, showy, pendulous racemes. Fruits ovoid-oblong, ridged.

Fls. & Frs.: October to May.

Growing on branches of trees in sparsely wooded areas of the moist deciduous forests; Peechi and Velupadam campuses

Vanda testacea (Lindl.) Reichb. f., Gard. Chron. 2: 166. 1877. *Aerides testaceum* Lindl., Gen. Sp. Orch. 238. 1835. *Vanda parviflora* Lindl., Bot. Reg. 30: 45. 1844; Wt., Ic. t. 1669. 1852; Hook. f. in Hook. f., Fl. Brit. India 6: 50. 1890; Fisch. in Gamble, Fl. Presid. Madras 3: 1444. 1928. *Mara-vazha*.

Epiphytic herbs with stout stem and fleshy, hanging roots. Leaves channelled, linear, keeled. 2-lobed at apex. Flowers yellow, pedicellate in few flowered racemes. Capsules clavate or fusiform, ridged and winged.

Fls. & Frs.: February to October.

Rather rare. growing on branches of trees like *Pterocarpus marsupium* Roxb. in the moist deciduous forests: Peechi campus.

88 ZINGIBERACEAE

Alpinia galanga (L.) Sw., Obs. Bot. 2. 1791; Baker in Hook. E, Fl., Brit. India 6: 253. 1892; Rama Rao, Fl. Pl. Trav. 101. 1914; Fisch. in Gamble, Fl. Presid. Madras 3: 1492. 1928; Mangi. et Sabu, *Rheedea* 2(1): 43. 1992. *Maranta galanga* L., Sp. Pl. ed. 2: 3. 1762. *Alpinia rheedii* Wt., Ic. t. 2026. 1853. *Aratha*.

Rhizomatous herbs with aerial pseudostems. Leaves simple, alternate, oblong-lanceolate, entire, glabrous. cuneate at base, acuminate at apex. Flowers greenish-white in terminal panicles. Capsules orange-red subglobose.

Fls. & Frs.: April to August.

Planted and naturalised near water bank; Peechi campus.

Costus speciosus (Koen.) Smith, Trans. Linn. Soc. London 1: 247. 1791; Wt., Ic. t. 2014. 1853; Baker in Hook. f., Fl. Brit. India 6: 247. 1892; Rama Rao, Fl. Pl. Trav. 403. 1914; Fisch. in Gamble, Fl. Presid. Madras 3: 1490. 1928; Burt et Sm., Notes Roy. bot. Gard. Edinburgh 31: 200. 1972. *Banksea speciosa* Koen. in Retz., Obs. 3: 75: 1783. *Channa-koova*.

Herbs with aerial twisting stem and underground rhizomes. Leaves elliptic-obovate, entire, silky-pubescent beneath, cuneate at base, acute at apex. Flowers white in dense. long spikes. Fruits globose.

Fls. & Frs.: October to December.

An undergrowth in shaded forest areas; Peechi and Velupadam campuses.

Curcuma aromatica Salisb., Paract. London. fig. 96.1805; Wt., Ic. t. 2005. 1853; Baker in Hook. f., Fl., Brit. India 6: 210.1890; Rama Rao, Fl. Pl. Trav. 400.1914; Fisch in Gamble, Fl. Presid Madras 3: 1483.1928; Mangl. et Sabu, Rheedea 3(2): 145.1993. Kattu-mangal.

Aromatic, rhizomatous herbs. Leaves simple, distichous, broadly-lanceolate, entire, densely pubescent beneath, sheathing at base, acuminate at apex. Flowers pinkish-white in pubescent, pedunculate spikes.

Fls. & Frs.: May to August.

In shaded areas with humous soil in the moist deciduous forests; Peechi and Velupadam campuses.

Curcuma calcarata Sivr., et. Indu, Notes Roy. bot. Gardn. Edinburgh 41: 321. 1983; Mangl. et Sabu, Rheedea 3(2): 151.1983.

Rhizomatous herbs with aerial, leafyshoots. Leaves simple, bifarious, broadly-ovate, entire, minute-pubescent, unequally cordate at base, acuminate at apex. Flowers yellow or orange-yellow in pubescent, pedunculate spikes. Fruits obovoid, slightly triangular, pubescent.

Fls. & Frs.: August to November.

A common undergrowth in open areas and along fringes of moist deciduous forests; Peechi campus.

Zingiber zerum et(L.)Rosc.ex Smith, Exot, Bot. 2: 105. t. 112.1805; Wt., Ic. t. 2003.1853 Baker in Hook. f., Fl. Brit. India 6: 247. 1892; Rama Rao, Fl. Pl. Trav. 402.1914; Fisch in Gamble, Fl. Presid. Madras 3: 1489.1928; Burt et Smith, Notes Roy. bot. Gard. Edinburgh 31: 182.1972. *Amomum zerumbet* L., Sp. Pl. 1: 1.1753. Kattinchi.

Rhizomatous herbs with areial pseudostem. Leaves simple, sessile, oblong-lanceolate or lanceolate, entire, pubescent beneath, narrowed at base, acuminate at apex. Flowers creamy-yellow in ovate-oblong spikes with red bracts. Capsules white, oblong.

Fls. & Frs.: July to October.

Rare, in the forest floor, especially in wet and shaded areas; Peechi, Nilambur and Velupadam campuses.

Introduced or cultivated species

Kaempferia galanga L.

Commonly grown in homesteads for its aromatic rhizomes and also rarely wild as an escape: Peechi campus.

Zingiber officinale L.

Grown in homesteads for its edible rhizomes; Peechi campus.

89. MUSACEAE

Introduced or cultivated species

Musa paradisiaca L.

Often cultivated in homesteads and adjacent forest areas; Peechi, Nilambur and Velupadam campuses.

90. DIOSCOREACEAE

Dioscorea bulbifera L., Sp. Pl. 1033. 1753; Wt., Ic. t. 878.1844; Rama Rao, Fl. Pl. Trav. 410. 1914; Fisch. in Gamble, Fl. Presid. Madras 3: 1511.1928; Prain et Burk., Ann. Roy. bot. Gard. Calcutta 14(1): 188. t. 77. 1936. *Dioscorea sativa* Thunb., Fl. Jap. 15.1784(non L. 1753); Hook. f. in Hook. f., Fl. Brit. India 6: 296.1892. Kattu-kachil.

Slender, tuberous climbers with 4-angular, ridged stems. Leaves simple, alternate, ovate to suborbicular, entire, glabrous, cordate at base, caudate-acuminate at apex; bulbils common in leaf axils. Flowers white in pendulous spikes. Capsules oblong, quadrate.

Fls. & Frs.: September to November

Rather common along hedges and forest boundaries; Peechi, Nilambur and Velupadam campuses.

Dioscorea pentaphylla L., Sp. Pl. 1032.1753; Wt., Ic. t. 814.1844; Hook. f. in Hook. f., Fl. Brit. India 6: 285.1892; Rama Rao, Fl. Pl. Trav. 408. 1914; Fisch. in Gamble, Fl. Presid. Madras 3: 1511. 1928; Prain et Burk., Ann. Roy. bot. Gard. Calcutta 14(1): 160. 1936. Nuran.

Tuberous climbers with stems twining to the left. Leaves alternate, 3-5 foliate or simple towards apex, ovate or obovate. abruptly cuspidate at apex. Flowers in simple (male) or 2-3 branched (female) racemes. Capsules oblong, glabrous, winged.

Fls. & Frs.: November to February.

Common along hedges and bushy areas; Peechi, Nilambur and Velupadam campuses.

Dioscorea wallichii Hook. f. in Hook. f., Fl. Brit. India 6: 295. 1892; Rama Rao, Fl. Pl. Trav. 409. 1914; Fisch. in Gamble, Fl. Presid. Madras 3: 1512. 1928. Kattu-kizhangu.

Tuberous, thick climbers with prickly stems twining to right. Leaves simple alternate, suborbicular or broadly ovate, cordate at base, abruptly acuminate at apex. Flowers in axillary, paniced spikes. Capsules broadly-ovate. emarginate.

Fls. & Frs.: October to January.

Very rare, along hedges and in shaded thickets; Peechi campus.

91. LILIACEAE

Asparagus racemosus Willd., Sp. Pl. 2: 152. 1799; Wt., Ic. t. 2056. 1853; Hook. f. in Hook. E., Fl. Brit. India 6: 316. 1892; Rama Rao, Fl. Pl. Trav. 412. 1914; Gamble, Fl. Presid. Madras 3: 1517. 1928. Sathavari.

Armed shrubby stragglers with slender, tuberous roots. Leaves minute, scaly with tufts of axillary, acicular. triquetrous, falcate, cladodes, acuminate at base and apex. Flowers dull-white. fragrant in axillary fascicles or solitary racemes. Berries globose.

Fls. & Frs.: August to January.

Rather common along hedges in open dry areas; Peechi, Nilambur and Velupadam campuses.

Chlorophytum heynei Baker, J. Linn. Soc. London 15: 322. 1877; Fisch. in Gamble, Fl. Presid. Madras 3: 1524. 1928. *Chlorophytum heyneanum* Wall. ex Hook. f. in Hook. f., Fl. Brit. India 6: 333. 1892; Rama Rao, Fl. Pl. Trav. 413. 1914.

Scapigerous herbs with rhizomatous, obscure stem. Leaves radical, oblanceolate, entire, glabrous, narrowed at base, acuminate at apex. Flowers white in dense, scapose racemes. Capsules 3-lobed, truncate at apex.

Fls. & Frs.: June to October.

Rather common in the open, dry forest floor, crevices of rocks, etc.; Peechi campus.

Gloriosa superba L., Sp. Pl. 3: 517. 1753; Wt., Ic. t. 2047. 1853; Hook. f. in Hook. f., Fl. Brit. India 6: 358. 1892; Rama Rao, Fl. Pl. Trav. 415. 1914; Fisch. in Gamble, Fl. Presid. Madras 3: 1519. 1928. Menthonni, Mettoni.

Climbing herbs with cylindrical, forked root tubers. Leaves simple, distichous, linear to ovate-lanceolate. entire. glabrous, rounded at base, transformed into coiled tendrils at apex. Flowers reddish yellow, solitary or in 2-flowered terminal racemes. Capsules linear-oblong, smooth.

Fls. & Frs.: September to November.

Rare climbers, mostly along hedges; Peechi, Nilambur and Velupadam campuses.

Pancratium triflorum Roxb., Fl. Ind. 2: 126. 1882; Hook. f. in Hook. E., Fl. Brit. India 6: 285. 1892; Rama Rao, Fl. Pl. Trav. 407. 1914; Fisch. in Gamble, Fl. Presid. Madras 3: 1508. 1928. *Pancratium veracundum* Wt., Ic. t. 2023. 1853.

Scapigerous herbs with underground bulbs. Leaves linear-lanceolate, entire, glabrous. Flowers white, fragrant in terminal umbels.

Fls. & Frs.: March to May.

Very rare in dry areas, crevices of rocks, in lateritic soil, etc.; Peechi and Nilambur campuses.

Smilax zeylanica L., Sp. Pl. 1029. 1753; Hook. f. in Hook. f., Fl. Brit. India 6: 309. 1892; Fisch. in Gamble, Fl. Presid. Madras 3: 1518. 1928; Koyama, Adv. Pl. Sci. 4: 50. 1966.

Prickly, climbing shrubs with thick stem. Leaves simple, lanceolate, elliptic to ovate-oblong, entire, glabrous, 3-7 ribbed and narrowed at base. acute or cuspidate at apex. Flowers light green in umbels. Berries globose, smooth.

Fls. & Frs. : November to May.

Rare, along hedges or on bushes; Peechi and Nilambur campuses.

92 HYPOXIDACEAE

Curculigo orchioides Gaertn., Fruct. 1: 63. t. 16. 1788; Hook. E. in Hook. E., Fl. Brit. India 6: 279. 1892; Rama Rao, Fl. Pl. Trav. 406. 1914; Fisch. in Gamble, Fl. Presid. Madras 3: 1502. 1928. *Curculigomalabarica* Wt., Ic. t. 2043 A. 1853. Nila-pana.

Herbs with elongated rootstock. Leaves line, lanceolate, glabrous, acuminate at apex. Flowers yellow in scapose inflorescence. Capsules 1-4 seeded.

Fls. & Frs.: September to February.

Common in dry, lateritic, open areas; Peechi, Nilambur and Velupadam campuses.

93. AGAVACEAE

Introduced or cultivated species

Agave americana L.

Grown in open areas and along hedges; Peechi and Nilambur campuses

Sansevieria roxburghiana J. et J. Schult.

An escape from gardens; Peechi campus.

94. COMMELINACEAE

Aneilima scaberrimum (Bl.) Kunth, Enum 4: 69. 1843; Hook. f. in Hook. f., Fl. Brit. India 6: 382. 1892; Rama Rao, Fl. Pl. Trav. 418. 1914; Fisch. in Gamble, Fl. Presid. Madras 3: 1546. 1931. *Commelina scaberrima* Bl., Enum. 1: 4. 1827. *Dichtospermum protensum* Wt., Ic. t. 2071. 1853.

Scandent herbs. Leaves oblong-lanceolate, entire, glabrous beneath, hispid above, narrowed at base, acuminate at apex. Flowers pale pink in panicles of umbellate racemes. Capsules globose, pubescent.

Fls. & Frs.: September.

Rare. in shrubby open areas; Peechi campus.

Commelina attenuata Koen. ex Vahl, Enum Pl. 2: 168. 1806; Hook. f. in Hook. f., Fl. Brit. India 6: 372. 1892; Fisch. in Gamble, Fl. Presid. Madras 3: 1539. 1931.

Subdecumbent, slender herbs. Leaves linear or linear-lanceolate, entire, glabrous, acute or subobtusate at apex. Flowers blue in ovate-lanceolate, acute spathes. Fruits containing seeds white-appendaged at both ends.

Fls. & Frs.: January to March.

Rare, in shaded areas and along pathsides; Velupadam campus.

Commelina benghalensis L., Sp. Pl. 41. 1753; Wt., Ic. t. 2065. 1863; Hook. f. in Hook. f., Fl. Brit. India 6: 370. 1892; Rama Rao, Fl. Pl. Trav. 416. 1914; Fisch. in Gamble, Fl. Presid. Madras 3: 1539. 1931. Vazha-padathi.

Diffuse or subscandent herbs with stems often underground. Leaves simple, sheathed, ovate-oblong or ovate, entire, membranous, glabrous, often asymmetrical at base, obtuse or acute at apex. Flowers blue in clustered spathes. Capsules ellipsoid, 5-seeded.

Fls. & Frs.: July to September.

Common in waste, damp places, especially in shade; Peechi and Nilambur campuses.

Commelina erecta L., Sp. Pl. 41. 1753; Mort., J. Linn. Soc. Bot. 60: 183. 1967. *Commelina undulata* R. Br., Prodr. 270. 1820; Rolla Rao, Blumea 14: 351. 1966. *Commelinakurzii* Clark, J. Linn. Soc. Bot. 11: 444. 1871; Hook. f. in Hook. f., Fl. Brit. India 6: 373. 1892; Rama Rao, Fl. Pl. Trav. 417. 1914; Fisch. in Gamble, Fl. Presid. Madras 3: 1540. 1931.

Herbs with stout stems. Leaves simple, sheathed, narrowly lanceolate, entire, hirsute, glaucous beneath, acuminate at apex. Flowers blue in sessile, cucullate, broadly cordate spathes. Capsules ellipsoid, glabrous, 3-seeded.

Fls. & Frs. : July to September.

A weed in damp and shaded areas; Peechi campus.

Cyanotis cristata (L.) D. Don, Prodr. Fl. Nepal. 46.1826; Wt., Ic. t. 2082. 1853; Hook. f. in Hook. f., Fl. Brit. India 6: 385.1892; Rama Rao, Fl. Pl. Trav. 418.1914; Fisch. in Gamble, Fl. Presid. Madras 1549.1931. *Commelina cristata* Sp. Pl. 42.1753.

Prostrate herbs, rooting at nodes. Leaves simple, ovate-oblong, entire, glabrous, rounded or cordate at base, obtuse at apex. Flowers purple, in falcate cymes. Capsules violet, hairy.

Fls. & Frs.: July to October.

Rare in shaded and damp waste places; Peechi campus.

Cyanotis fasciculata (Heyne ex Roth) Schult. f. in Roemer Schult, Syst. Veg. 7(2): 1152.1830; Wt., Ic. t. 2086. 1853; Hook. f. in Hook. f., Fl. Brit. India 6: 387.1892; Rama Rao, Fl. Pl. Trav. 418.1914; Fisch. in Gamble, Fl. Presid. Madras 3: 1550.1931. *Tradescantia fasciculata* Heyne ex Roth, Nov. Fl. Sp. 189.1821.

Herbs with cottony, pinkish branchlets. Leaves simple, ovate-linear to lanceolate, silvery-silky or floccose. Flowers pinkish in axillary or terminal cymes. Capsules oblong, pilose at apex.

Fls. & Frs. : August to October.

Rare, in grassy and waste places; Peechi campus.

Murdannia japonica (Thunb.) Faden, Taxon 26: 142. 1971. *Commelina japonica* Thunb., Trans. Linn. Soc. London 2: 332.1794. *Aneilema lineolatum* Kunth, Enum. 4: 69.1843; Hook. f. in Hook. f., Fl. Brit. India 6: 376. 1892; Fisch. in Gamble, Fl. Presid. Madras 3: 1544. 1931. *Aneilema latifolium* Wt., Ic. t. 2072. 1853.

Tuberous, stout herbs. Leaves ovate-lanceolate or elliptic-oblong, undulate along the margins, glabrous, rounded at base, acute at apex. Flowers white in dichotomous panicles. Capsules subglobose.

Fls. & Frs.: September to December.

Rare, in shaded forest areas; Nilambur campus.

Murdannia nudiflora (L.) Brenan, Kew Bull. 7: 189. 1952. *Commelina nudiflora* L., Sp. Pl. ed. 2: 412. 1762. *Aneilema nudiflorum* (L.) R. Br., Prodr. 271.1810; Hook. f. in Hook. E, Fl. Brit. India 6: 378.1892; Rama Rao, Fl. Pl. Trav. 417.1914; Fisch. in Gamble, Fl. Presid. Madras 3: 1545.1931.

Trailing or procumbent herbs, rooting at nodes and with reddish branchlets. Leaves linear-lanceolate to oblong, entire, cordate or rounded at base, acute at apex. Flowers pinkish in lax, terminal cymose panicles. Capsules globose.

Fls. & Frs.: July to September.

Rare, in shaded areas and waste places; Peechi campus.

Murdannia pauciflora Bruck., Pflanzenfam. ed 2, 15a: 173.1930. *Aneilema pauciflorum* Wt., Ic. t. 2077.1853 (*non* Dalz 1851); Hook. f. in Hook. f., Fl. Brit. India 6: 378. 1892; Rama Rao, Fl. Pl. Trav. 417.1914; Fisch. in Gamble, Fl. Presid. Madras 3: 1545.1931.

Erect herbs. Leaves linear or oblong-elliptic, recurved along the margins, glabrous, cordate at base, obtuse or acute at apex. Flowers pale bluish-violet in axillary and terminal cymes. Fruits with wide stalk.

Fls. & Frs.: August to December.

A weed in damp areas of moist deciduous forests; Peechi campus.

Murdannia spirata (L.) Bruck., Pflanzenfam. ed. 2, 15a: 173. 1930. *Commelina spirata* L., Mant. 176.1771. *Aneilema spiratum* (L.) R. Br., Prodr. 271.1810; Hook. f. in Hook. f., Fl. Brit. India 6: 377.1892; Rama Rao, Fl. Pl. Trav. 417.1914; Fisch. in Gamble, Fl. Presid. Madras 3: 1545.1931.

Herbs with fibrous roots. Leaves simple, oblong or lanceolate, entire, glabrous, cordate and semi-amplexicaul at base, acute at apex. Flowers blue in branched, slender panicles. Capsules hairy.

Fls. & Frs.: July to October.

Rare, in shaded areas; Peechi campus.

Tonningia axillaris (L.) O. Ktze., Rev. Gen. Pl. 2: 721. 1891. *Commelina axillaris* L., Sp. Pl. 42. 1753. *Amischophacelus axillaris* (L.) Rao et Kamm., J. Linn Soc. Bot. 53: 306. 1966; Hook. f. in Hook. f., Fl. Brit. India 6: 388. 1892; Fish. in Gamble, Fl. Presid Madras 3: 1550. 1931. *Zigomenes axillaris* (L.) Salisb., Trans. Hort Soc. 1: 271. 1812; Rao, Notes Roy. bot. Gard. Edinburgh 25: 187. 1964.

Creeping or suberect, slender, branched herbs. Leaves simple, sheathed, narrowly lanceolate, succulent with pilose, pouched sheaths. Flowers pinkish clustered cymes. Capsules ellipsoid, 6-seeded.

Fls. & Frs.: July to September.

Rare, in waste places, near gutters and other wet areas; Peechi campus.

95. PALMAE

Caryota urens L., Sp. Pl. 1189. 1753; Hook. f. in Hook. f., Fl. Brit. India 6: 422. 1892; Bourd., For. Trees Trav. 391. 1903; Rama Rao, Fl. P. 1. Tm. 420. 1914; Fisch. in Gamble, Fl. Presid. Madras 3: 1560. 1931; Moore et Dransfl., Taxon 28: 70. 1979. Choonda pana.

Trees with monopodial, cylindrical trunk. Leaves bipinnate, crowded at the tip of the trunk; leaflets broadly-cuneate, glabrous, obliquely truncate or rounded and serrate at apex. Flowers light yellow or cream-coloured in drooping spadix. Fruits globose, green turning dark red.

Fls. & Frs.: Throughout the year.

Rather very scarce, especially in valleys and depressions; Peechi and Nilambur campuses.

Introduced or cultivated species

Borassus flabellifer L.

Planted in the quarters premises; Nilambur campus.

Calamus andamanicus Kurz

Planted in the germplasm bank; Peechi campus.

Calamus brandisii Becc. et Hook. f.

Planted in the germplasm bank; Peechi campus.

Calamus delessertianus Becc.

Planted in the germplasm bank, Peechi campus.

Calamus dilaceratus Becc.

Planted in the germplasm bank, Peechi campus.

Calamus dansfieldii Renuka

Planted in the germplasm bank; Peechi campus.

Calamus gamblei Becc. et Hook. f.

Planted in the germplasm bank; Peechi campus.

Calamus hookerianus Becc.

Planted in the germplasm bank and natural forests; Peechi and Nilambur campuses.

Calamus karnatakensis Renuka et Laksh.

Planted in the germplasm bank; Peechi campus.

Calamus manan Miq.

Planted in the germplasm bank, Peechi campus

Calamus metzianus Schlech.

Planted in the germplasm bank; Peechi campus

Calamus nagabettai Fern. et Dey

Planted in the germplasm bank; Peechi campus

Calamus peregrinus Furtado

Planted in the germplasm bank; Peechi campus

Calamus pseudorivalis Becc.

Planted in the germplasm bank; Peechi campus

Calamus pseudotenuis Becc. **ex** Becc. **et** Hook.f.

Planted in the germplasm bank; Peechi campus

Calamus rotang L.

Planted in the germplasm bank; Peechi campus

Calamus simplicifolius Wel.

Planted in the germplasm bank; Peechi campus

Calamus tenuis Roxb.

Planted in the germplasm bank; Peechi campus

Caiamus tetradactylus Hance

Planted in the germplasm bank; Peechi campus

Calamus thwaitesii Becc. **et** Hook.f.

Planted in the germplasm bank; Peechi campus

Caiamus thysanolepis Hance

Planted in the germplasm bank; Peechi campus

Caiamus trachycoleus Becc.

Planted in the germplasm bank and in natural forests; Peechi and Nilambur campuses.

Caiamus travancoricus Bedd. **ex** Becc. **et** Hook.f.

Planted in the germplasm bank, Peechi campus

Caiamus vattayila Renuka

Planted in the germplasm bank; Peechi campus

Calamus viminalis Willd.

Planted in the germplasm bank; Peechi campus

Cocos nucifera L.

The coconut palm, grown in homesteads; Peechi and Nilambur campuses.

Daemonorops kurzianus Hook. f.

Planted in the germplasm bank; Peechi campus.

Daemonorops margaritae Hance

Planted in the germplasm bank; Peechi campus

Korthalsia laciniosa (Griff.) Mart

Planted in the germplasm bank; Peechi campus.

96.PANDANACEAE

Pandanus odoratissimus L.f., Suppl. P1.64. 1781. *Pandanus tectorius* Soland. ex Parkin., J. Voy.H.M.S. End 46. 1774; Bourd., For. Trees Trav. 394.1908; Gamble, Fl. Presid Madras 3: 1570.1928. *Pandanus facicularis* Lamk, Encyl. Meth. Bot. 1: 372.1783; Hook. f. in Hook. f., Fl. Brit. India 6: 485.1893; Rama Rao, Fl. P1. Trav. 424.1914. Kaitha.

Shrubs, rarely branched with cylindrical stems and stiff roots. Leaves crowded towards apex, ensiform, spiny along margins and midrib, acuminate at apex. Flowers in spadix, male and female distinct, fragrant. Syncarpis oblong or subglobose, spinacent.

Fls. & Frs.: March to June.

Rare, along the sides of canal in teak plantation; Nilambur campus.

97.ARACEAE

Amorphophalus paeoniifolius (Dennst.) Nicol. var. *paeoniifolius* Sivad., Taxon 32: 128,130.1983; Nicol. et al., Intrap. Hort. Malab. 275. 1988. Kattu-chena.

Herbs with underground stem and aerial leaf. Leaf solitary, 3-sect and segments pinnatisect with petiole upto

60 cm long and upto 2.5 cm in diameter. Flowers in columnar spadix upto 1 m long including the stalk. Berries subglobose or obovoid, yellowish red.

Fls. & Frs.: July to January.

Common in forest areas, especially in shade; Peechi and Velupadam campuses.

Colocasia esculenta (L.) Schott in Schott et Endl., Melet. Bot. 18: 1832. Arum esculentum L., Sp. Pl. 965. 1753
Colocasia antiquorum Schott in Schott et Endl., Melet. Bot. 18: 1832; Wt., Ic. t. 786, fig. 2. 1844; Hook. f. in Hook. f. Fl. Brit. India 6: 523. 1893; Rama Rao, Fl. Pl. Trav. 426. 1914; Fisch in Gamble, Fl. Presid. Madras 3: 1580. 1931. Kattuchembu.

Herbs with long aerial leaves and tuberous underground stem. Leaves many, simple, peltate, ovate-suborbicular, undulate along the margins, cordate at base, ovate-acute at apex. Flowers in spathes with lower portion open, caudate-acuminate at apex with male flowers above and female flowers towards base.

Fls. & Frs.: October to December.

Common in wet and shaded areas; Peechi and Nilambur campuses.

Pothos scandens L., Sp. Pl. 968. 1753; Wt., Ic. t. 776. 1844; Hook. f. in Hook. f. Fl. Brit. India 6: 651. 1893; Rama Rao, Fl. Pl. Trav. 428. 1914; Fisch in Gamble, Fl. Presid. Madras 3: 1592. 1931; Sur. *et al.*; Taxon 32: 127. 1983. Panel.

Root climbers with brittle stems. Leaves with winged petioles, ovate to lanceolate, entire, glabrous, rounded at base, acuminate at apex. Flowers in pale yellowish, obovoid or subglobose spadix.

Fls. & Frs.: December to May.

Rare, as climbers on the trunk of trees; Peechi, Nilambur and Velupadam campuses.

Theriophonum infaustum N.E. Br., J. Linn. Soc. Bot. 18: 260. 1881; Hook. f. in Hook. f., Fl. Brit. India 6: 513. 1893; Rama Rao, Fl. Pl. Trav. 426. 1914; Fisch. in Gamble, Fl. Presid. Madras 3: 1579. 1931; Sivad. et Nicol., Kew Bull. 37: 283. 1932.

Tuberous herbs. Leaves hastate-sagittate, rarely broadly ovate cordate with basal lobes rounded or ovate at apex. Flowers in greenish-purplish spathes with few pistillate flowers at base and sterile and staminate flowers arranged densely above. Bemes ovoid, clustered.

Fls. & Frs.: July to August.

Rare, in waste places of moist deciduous forests; Peechi campus.

Introduced or cultivated species

Amorphophalus paeoniifolius (Dennst.) Nicols. var. *campunulatus* (Decne.) Sivad.

Grown in homesteads for the edible corm; Peechi and Nilambur campuses.

98. CYPERACEAE

Bulbostylis barbata (Roth) Clarke in Hook. f., Fl. Brit. India 6: 651. 1893; Rama Rao, Fl. Pl. Trav. 433. 1914; Fisch in Gamble, Fl. Presid. Madras 3: 1662. 1931. *Scirpus barbatus* Roth, Descr. Pl. Rar. Programm. 27. 1772.

Annual, tufted herbs. Leaves much reduced, glabrous. Flowers (spikelets) in linear-oblong, sessile, 10-flowered, capitate spikes. Nuts obovoid, trigonous, reticulate with small bulbiform base.

Fls. & Frs.: July to November.

Rather common in wet areas, especially in sandy soil; Peechi campus.

Cyperus castaneus Willd., Sp. Pl. 1: 278. 1797; Clarke in Hook. f., Fl. Brit. India 6: 598. 1893; Fisch. in Gamble, Fl. Presid. Madras 3: 1134. 1931; Kern, Reinwardtia 2: 117. 1952.

Tufted annual, erect herbs. Leaves rigid, narrow-linear, scaberulous, acuminate towards apex. Flowers (spikelets) in heads or compound umbels. Nuts dark red, trigonous, linear-oblong.

Fls. & Frs.: August to February.

A weed along with grasses and other herbs in open areas, especially along roadsides; Peechi campus.

Cyperus compressa L., Sp. Pl. 46.1753; Clarke in Hook. f., Fl. Brit. India 6: 605.1893; Rama Rao, Fl. Pl. Trav. 431. 1914; Fisch. in Gamble, Fl. Presid. Madras 3: 1640.1931; Koyama, Gard. Bull. Str. Settl. 30: 138.1977.

Tufted annual herbs. Leaves usually shorter than the stem, rigid, scabrid, purple sheathed. Flowers (spikelets) yellow, compressed, oblong to linear. Nuts dark-brown, trigonous, shortly stipitate.

Fls. & Frs.: September to February.

Weed in waste places and along roadsides; Peechi campus.

Cyperus distans L.f., Suppl. 103.1781; Clarke in Hook.f., Fl. Brit. India 6: 607.1893; Fische. in Gamble, Fl. Presid. Madras 3. 1640.1931.

Perennial, solitary or tufted herbs with creeping rhizomes. Leaves few, purplish sheathed, membranous. Flowers (spikelets) dark brown, linear, in large spikelets spreading or compressed inflorescence. Nuts brown, oblong-trigonous, apiculate.

Fls. & Frs. : September to December.

Common in wet, waste places, along with other weeds and grasses; Peechi campus.

Cyperus iria L., Sp. Pl. 45.1753; Clarke in Hook.f., Fl. Brit. India 6: 606.1893; Rama Rao, Fl. Pl. Trav. 431.1914; Fisch. in Gamble, Fl. Presid. Madras 3: 1640.1931; Koyama, Gard. Bull. Sh. Settl. 30: 139.1977.

Annual tall, tufted herbs. Leaves basal, flaccid, multi-striate, scabrid and finely acuminate towards apex. Flowers (spikelets) in decompound umbels. Nuts obovate-elliptic, concave on the sides, smooth.

Fls. & Frs.: October to March.

Sedges, rarely distributed in shaded, damp areas; Peechi campus.

Cyperus pubisquamis Steud., Syn. Pl. Glum. 2: 20.1854; Clarke in Hook.f., Fl. Brit. India 6: 604.1893; Fisch. in Gamble, Fl. Presid. Madras 3: 1639. 1931. *Cyperus diffusus* Vahl var. *marcrostachyus* Boeck., Linnaea 35: 534. 1867-68; Rama Rao, Fl. Pl. Trav. 431.1914.

Leafy, stout perennial herbs. Leaves linear, flat, entire, scabrid. sheathed at base, acuminate at apex. Flowers (spikelets) linear, in terminal spikes. Nuts elliptic.

Fls. & Frs. : September to December.

Rather common in rocky and lateritic soil in forest openings and along pathsides; Peechi campus.

Cyperus rotundus L., Sp. Pl. 45.1753; Clarke in Hook.f., Fl. Brit. India 6: 614.1893; Rama Rao, Fl. Pl. Trav. 431. 1914; Fisch. in Gamble, Fl. Presid. Madras 3: 1641.1931; Koyama, Gard. Bull. Str. Settl. 30: 132.1977. Kaimuttan.

Erect, tufted herbs. Leaves flat, scabrous, sheathed. Flowers (spikelets) narrow, oblong in 5-7 rays. Nuts oblong, trigonous.

Fls. & Frs.: Almost throughout the year.

Rather common in waste, damp places; Velupadam campus.

Cyperus tenuispica Steud., Syn. Pl. Glum. 2: 11. 1854; Fisch. in Gamble, Fl. Presid. Madras 3: 1640. 1931; Koyama, Gard. Bull. Str. Settl. 30: 143.1977. *Cyperus flavida* auct. *non* Retz 1789; Clarke in Hook. f., Fl. Brit. India 6: 600.1893; Rama Rao, Fl. Pl. Trav. 431.1914.

Erect, tufted, annual herbs. Leaves linear-flaccid, acute at apex. Flowers (spikelets) linear-lanceolate, digitate in compound or decompound heads. Nuts obscurely trigonous, broadly obovoid to subglobose, obtuse or apiculate at apex.

Fls. & Frs.: October to February.

A weed in wet and shaded areas; Peechi campus.

Fimbristylis dichotoma (L.) Vahl, Enum. 2: 287.1805; Rama Rao, Fl. Pl. Trav. 432.1914; Fisch. in Gamble, Fl. Presid. Madras 3: 1658. 1931. *Scirpus dichotoma* L., Sp. Pl. 50.1753. *Fimbristylis diphylla* (Retz.) Vahl, Enum. 2: 289.1805; Clarke in Hook. f., Fl. Brit. India 6: 636. 1893. *Fimbristylis annua* Roem. et Schult. var. *dichotoma* (Retz.) Kuekenh., Bot. Jahrb. 59: 47. 1924; Fisch. in Gamble, Fl. Presid. Madras 3: 1658.1931.

Tufted, rhizomatous, annual or perennial herbs. Leaves basal, entire, glabrous, acuminate at apex. Flowers (spikelets) reddish-brown, oblong-ovoid, solitary or aggregated. Nuts obovate, smooth or rough.

Fls. & Frs.: September to March.

Rather common in wet or shaded areas; Peechi campus.

Kyllinga nemoralis (J.R. et G. Forst.) Dandy ex Hutch., Fl. West Trop. Africa 2: 487. 1936. *Thyocephalon nemorale* J.R. et G. Forst., Char. Gen. Pl. 130. 1776. *Kyllinga monocephala* Rottb., Descr. Ic. Rar. Pl. 13. t. 5. f. 4. 1773 (nom. super.); Clarke in Hook f., Fl. Brit. India 6: 588. 1893; Rama Rao, Fl. Pl. Trav. 430, 1914; Fisch. in Gamble. Fl. Presid. Madras 3: 1624. 1931.

Perennial herbs with horizontal creeping rhizomes. Leaves shorter than or as long as the stem. Flowers (spikelets) ovate-elliptic, compressed. Nuts yellowish-brown, suborbicular.

Fls. & Frs.: November to May.

Rare sedges in open areas and waste places; Peechi campus.

Kyllinga trieps Rottb., Descr. Ic. Rar. Pl. 14 f. t. 4. fig. 6. 1773; Clarke in Hook f., Fl. Brit. India 6: 567. 1893; Fisch. in Gamble. Fl., Presid. Madras 3: 1623. 1931; Koyama, Gard. Bull. Striat. Settl. 30: 162. 1977. *Cyperus friceps* Endl., Cat. Hort. Acad. Vindob. 1: 94. 1842.

Tubed. erect herbs with slender, triquetrous stems. Leaves pale-yellowish sheathed with blades flat or folded, flaccid, scabrid. Flowers (spikelets) oblong, 1-flowered in 3-5 lobed spikes. Nuts biconvex, oblong, laterally compressed, apiculate.

Fls. & Frs.: October to November.

Rare, in dry waste places as a weed; Peechi campus.

Mariscus cyprinus (Retz.) Vahl, Enum. 2: 377. 1805; Clarke in Hook f., Fl. Brit. India 6: 621. 1893; Fisch. in Gamble, Fl. Presid. Madras 3: 1644. 1931; Koyama, Gard. Bull. Str. Settl. 30: 157. 1977. *Kyllinga cyperina* Retz., Obs. Bot. 6: 21. 1791.

Perennial, tufted, rhizomatous herbs. Leaves flat, rigid with reddish brown sheaths. Flowers (spikelets) 2-4 flowered, oblong-linear in dense, cylindrical spikes. Nuts trigonous, oblong-ellipsoid, slightly curved.

Fls. & Frs.: September to January.

Rare, in wet localities, where water logging is common; Peechi campus.

Mariscus squarrosus (L.) Clarke in Hook f., Fl., Brit. India 6: 623. 1893; Fisch. in Gamble, Fl. Presid. Madras 3: 1645. 1931; Koyama, Gard. Bull. Str. Settl. 30: 153. 1977. *Cyperus squarrosus* L., Cent. Pl. 2: 6. 1756; Kern, Blumea 10: 642. 1960. *Cyperus aristatus* Roxb., Descr. Pl. Rar. 22. 1772.

Tufted. erect annual herbs with green, winged stems. Leaves flat, folded with pinkish-grey sheath. Flowers (spikelets) oblong, compressed, in globose or ovoid, brown spikes. Nuts triquetrous, obovoid, apiculate.

Fls. & Frs.: July to December.

Rather common in wet areas and in forest openings; Peechi campus.

Scleria lithosperma (L.) Sw., Prodr. 18. 1788; Clarke in Hook f., Fl. Brit. India 6: 685. 1894; Fisch. in Gamble. Fl. Presid. Madras 3: 1677. 1931. *Scirpus lithospermus* L., Sp. Pl. 51. 1753.

Tufted slender perennials. Leaves aggregated towards the middle of the stem, brown-hairy, narrowly linear. Flowers (spikelets) 1-3, ovate-lanceolate in loose, narrow, terminal panicles. Nuts shiny, oblong-ovoid

Fls. & Frs.: August to December.

Rare, along with grasses and other weeds in open areas and along roadsides; Peechi campus.

99. GRAMINAE

Alloteropsis cimicina (L.) Stapf in Prain, Fl. Trop. Afr. 9: 487. 1919; Fisch. in Gamble, Fl. Presid. Madras 3: 1766. 1934; Bor, Grass. India 276. 1960; Sreek. et Nair, Grass. Kerala 214. 1991. *Milium cimicinum* L., Mant. Pl. 2: 184. 1771, *Axonopus cimicinus* (L.) P. Beauv., Ess. Agrost. 154, 167. 1812; Hook. f. in Hook. f., Fl. Brit. India 7: 64. 1896.

Erect or decumbent annuals with glabrous or hairy nodes. Leaves ovate-lanceolate, oblong or oblong-lanceolate, ciliate along the margins, hairy along the midrib, rounded or cordate at base. Flowers (spikelets) broadly elliptic in 3-10 digitate, umbellate or corymbose racemes. Grains ovate, laterally compressed.

Fls. Frs.: August to March.

Common along roadsides and in waste places; Peechi campus.

Apluda mutica L., Sp. Pl. 82.1753; Fisch. in Gamble, Fl. Presid. Madras 3: 1750.1934; Bor, Grass. India 93. t. 7. 1960; Sreeket Nair, Grass. Kerala 32.1991. *Apluda aristata* L., Amoen. Acad. 4: 303. 1756; Fisch in Gamble, Fl. Presid. Madras 3: 1750.1934. *Apluda varia* Hook in DC., Mongr. Phan. 6: 197.1889 (nom. superfl.); Hook f. in Hook. f., Fl. Brit. India 7: 150.1896.

Annual or perennial herbs with creeping or erect stems. Leaves elliptic-lanceolate or linear-lanceolate, petiolate, glabrous or slightly villous along nerves, attenuate at apex. Flowers (spikelets) both sessile and pedicelled in racemes forming interrupted panicles. Grains oblong, compressed.

Fls. & Frs.: August to December.

Rather rare in open areas, waste places, along roadsides, etc.; Peechi campus.

Axonopus compresses (Sw.) P. Beauv., Ess. Agrost. 12: 154, 167. 1812; Bor, Grass. India 278.1960; Sreek et Nair, Grass. Kerala 216.1991. *Milium compressum* Sw., Prodr. Veg. Ind. Occ. 24.1788.

Erect, perennial herbs with creeping culms. Leaves linear-lanceolate, ciliate along the margins, rounded or shallowly cordate at base, acute or rounded at apex. Flowers (spikelets) elliptic-acute in 2-6 binate racemes. Grains oblong.

Fls. & Frs.: August to October.

Rare, along forest fringes and in disturbed areas, including roadsides; Peechi campus.

Brachiaria miliiformis (J. Presl ex C. Presl) A. Chase, Contrib. US Nat. Herb. 22: 35.1920; Fisch. in Gamble, Fl. Presid. Madras 3: 1796. 1934; Bor, Grass. India 283. 1960; Sreek. et Nair, Grass. Kerala 220. 1991. *Panicum miliiforme* J. Presl ex C. Presl, Rel. Haenk 1: 300.1830. *Panicum distachyon sensu* Hook. f. in Hook. f., Fl. Brit. India 7: 37.1896 (non L. 1771).

Creeping herbs, rooting at lower nodes. Leaves lanceolate or linear-lanceolate, glabrous or sparsely hairy, rounded or shallowly cordate at base. Flowers (spikelets) elliptic or obovate in 3-8 racemes. Grains ellipsoid.

Fls. & Frs.: Almost throughout the year.

A weed in open, waste places, along roadsides, etc.; Peechi campus.

Brachiaria ramosa (L.) Stapf in Prain, Fl. Trop. Afr. 9: 542.1919; Fisch. in Gamble, Fl. Presid. Madras 3: 1770. 1934; Bor, Grass. India 284.1960; Sreek. et Nair, Grass. Kerala 223.1991. *Panicum ramosum* L., Mant. Pl. 1: 29. 1767; Hook. f. in Hook. f., Fl. Brit. India 7: 36.1896.

Annual herbs with many culms. Leaves ovate-lanceolate or linear-lanceolate, minutely hairy, shallowly cordate or rounded at base, acuminate at apex. Flowers (spikelets) broadly elliptic or ovate-elliptic, mostly solitary, softly hairy or glabrous. Grains ellipsoid.

Fls. & Frs.: September to October.

Common as a weed in waste places and along pathsides; Peechi campus.

Cappilipedium assimile (Steud.) A. Camus in Lecomk., Fl. Gen. Indo-China 7: 314.1922; Bor, Grass. India 110. 1960; Sreek. et Nair, Grass. Kerala 55. 1991. *Andropogon assimilis* Steud. in Zoll., Syst. Vers. 58. 1854; Hook. f. in Hook. f., Fl. Brit. India 7: 179. 1896. *Cappilipedium glaucopsis* (Steud.) Stapf in Hook., Ic. Pl. 3 1: t. 3085. 1922; Fisch. in Gamble, Fl. Presid. Madras 3: 1730. 1934. *Andropogon glaucopsis* Steud. in Zoll., Syst. Verz. 58. 1854. *Cappilipedium huegelii* (Hook.) Stapf in Hook., Ic. Pl. 3 1: t. 3085. 1922; Fisch. in Gamble, Fl. Presid. Madras 3: 1730.1934; Bor, Grass. India 110.1960.

Annual or perennial, erect or straggling herbs. Leaves elliptic-lanceolate, acuminate at apex. Flowers (spikelets) ovate-oblong, both sessile and pedicelled, in open or contracted racemose panicles.

Fls. & Frs.: September to December.

Rare in shaded areas; Peechi campus.

Chrysopogon aciculatus (Retz) Trin., Fund. Agrost. 181.1820; Fisch. in Gamble, Fl. Presid. Madras 3: 1738.1934; Bor, Grass. India 115.1960; Sreek. et Nair, Grass. Kerala 59. t. 9.1991. *Andropogon aciculatus* Retz, Obs. 5: 22.1789; Hook f., in Hook. E, Fl. Brit. India 7: 188.1896; Rama, Rao Fl. Pl. Trav. 446.1914.

Creeping or decumbent, perennial grasses. Leaves ovate-lanceolate or lanceolate, serrulate along the margins, acute or blunt at apex. Flowers (spikelets) both sessile and pedicelled, in pyramidal panicles, open or contracted.

Fls. & Frs.: June to January.

Common in waste places and along roadsides; Peechi campus.

Cymbopogon flexuosus (Nees ex Steud) Wats. in Atkins., Gaz. North-West. Prod. India 392.1882; Fisch. in Gamble, Fl. Presid. Madras 3: 1756.1934; Soenk., Reinwardtia 9: 353.1977; Sreek et Nair, Grass. Kerala 69-70. 1991. *Andropogon flexuosus* Nees ex Steud, Syn. Pl. Glum. 1.388.1854. *Andropogon nudus* L. ssp. *flexuosus* mess ex Steud.) Hack, in DC., Mon Phan. 6: 603.1889; Hook E in Hook f., Fl. Brit, India 7: 207.1896, Rama Rao, Fl. Pl. Trav. 441.1914. Inchi-pullu, Theruvai.

Perennial, stout herbs. Leaves linear-lanceolate, pc-cate-serrate, sheathed at base, acuminate at apex. Flowers (spikelets) in compound panicles. Caryopsis elliptic-lanceolate.

Fls. & Frs.: June to December.

Rare. in dry lateritic, open areas; Peechi, Nilambur and Velupadam campuses.

Cynodon dactylon (L.) Pers., Syn. Pl. 1:85.1805; Rama Rao, Fl. Pl. Trav. 443.1914; Hook. f. in Hook E, Fl. Brit. India 7: 288.1896; Fisch. in Gamble, Fl. Presid. Madras 3: 1835.1934; Bor, Grass. India 469.1960; Sreek et Nair, Grass. Kerala 360.1991. *Panicum ductylon* L., Sp. Pl. 58.1753.

Slender herbs, rooting at nodes. Leaves oblong, folded or flat. Flowers (spikelets) sessile, compressed, 2-seriate, one-flowered in 3-4 digitate spikes.

Fls. & Frs.: Almost throughout the year.

Common in open, waste places; Peechi, Nilambur and Velupadam campuses.

Cyrtococcum deccanense Bor, Kew Bull. 1956 256.1956 & Grass. India 291.1960; Sreek. et Nair, Grass. Kerala 229. 1991. *Panicum patens* auct. non L. (1753); Hook. f. in Hook. f., Fl. Brit. India 7: 57.1896; Fisch. in Gamble, Fl. Presid. Madras 3: 1788. 1934.

Creeping or decumbent annual herbs with glabrous or sparsely hairy nodes. Leaves elliptic or elliptic-lanceolate, softly villous or glabrous, narrowed at base, acuminate at apex. Flowers (spikelets) obovate or ovate in lax panicles. Grains oblong.

Fls. & Frs.: July to November.

Rare. in shaded and wet areas; Peechi campus.

Cyrtococcum patens (L.) A. Camus, Bull. Mus. Hist. Nat. Paris 27: 118. 1921; Fisch. in Gamble, Fl. Presid. Madras 3: 1786.1934; Bor, Grass. India 292.1960; Sreek. et Nair, Grass. Kerala 231.1991. *Panicum patens* L., Sp. Pl. 58. 1753. *Cyrtococcum rudicans* (Retz.) Stapf in Hook., Ic. Pl. t. 3096. 1922; Fisch. in Gamble, Fl. Presid. Madras 3: 1786.1934. *Panicum radicans* Retz., Obs. Bot. 4: 18.1786.

Creeping or trailing herbs with glabrous nodes. Leaves ovate-lanceolate, elliptic-lanceolate or lanceolate. softly villous or glabrous, cuneate at base, acuminate at apex. Flowers (spikelets) ovate or obovate. purplish-green in lax panicles. Grains oblong.

Fls. & Frs.: Almost throughout the year.

A shade-loving grass forming an undergrowth in forest areas and sometimes along forest margins; Peechi campus.

Dactyloctenium aegyptium (L.) Beauv., Ess. Agrost. Expt. Pl. 15. 1812; Fisch. in Gamble, Fl. Presid Madras 3: 1840.1934; Bor, Grass. India 489.1960; Sreek. et Nair, Grass. Kerala 367.1991. *Cyosurus aegyptius* L., Sp. Pl. 72. 1753. *Eleusine aegyptia* (L.) Desg., Fl. Atlant. 1: 85.1798; Hook. f. in Hook. f., Fl. Brit. India 7: 295. 1896; Rama Rao, Fl. Pl. Trav. 444.1914.

Annual, creeping or geniculate herbs. Leaves linear-lanceolate with ciliate margins, rounded or shallowly cordate at base, acuminate at apex. Spikelets 2-4 flowered, sessile in 1-5 digitate spikes.

Fls. & Frs.: July to November.

A weed, common in waste places and forest openings; Peechi campus.

Digitaria bicornis (Lamk) Roem. et Schult., Hort. Brit. 24: 1578.1830; Bor, Grass. India 299. 1960; Veldkamp, Blumea 21: 30. 1973; Sreek. et Nair, Grass. Kerala 236. 1991. *Puspalum bicornis* Lamk., Tab. Encyl. Meth. Bot. 1: 176. 1791. *Digitaria bififormis* Willd., Enum. Pl. Hort, Berol. 92. 1809; Bor, Grass. India 219. 1960.

Annual herbs. Leaves lanceolate, linear-lanceolate or linear, glabrous, rounded or shallowly cordate at base. acute or

anuminate at apex. Flowers (spikelets) paired, heteromorphous, sessile and pedicellate in two or more racemes.

Fls. & Frs.: March to September.

A weed in waste places, along roadsides, etc.; Peechi campus.

Digitaria ciliaris (Retz.) Koel., Descr. Gram. 27.1802; Veldcamp, Blumea 21: 32.1973; Sreek. et Nair, Grass. Kerala 237.1991. *Panicum ciliare* Retz., Obs. 4: 16.1786. *Digitaria adscendens* (H.B.K) Henr., Blumea 1: 92. 1934; Bor, Grass. India 298. 1960. *Digitaria marginata* Link., Enum Hort. Berol. 1: 102.1821; Fisch in Gamble, Fl. Presid. Madras 3: 1784. 1934. *Paspalum sanguinale* (L.) Lamk. var. *rottleri* Hook f. in Hook. f., Fl. Brit. India 7: 15.1896 (*pro parte*).

Annual or perennial, tufted, erect or decumbent herbs, rooting at lower nodes. Leaves linear or linear-lanceolate, undulate along the margins, villous or glabrous, rounded or subcordate at base, acuminate at apex. Flowers (spikelets) binate, one sessile and one pedicelled in digitate or subdigitate, 2-12 racemes.

Fls. & Frs.: Almost throughout the year,

Common in open waste places, along roadsides, etc.; Peechi campus.

Digitaria griffithii (Hook.f.) Henr., Blumea 1: 100.1934; Fisch. in Gamble, Fl. Presid. Madras 3: 1765.1934; Bor, Grass. India 301.1960; Sreek. et Nair, Grass. Kerala 238.1991. *Paspalum sanguinale* (L.) Lamk. var. *griffithii* Hook.f. in Hook f., Fl. Brit. India 7: 15.1896.

Annual or perennial creeping or geniculate herbs with bearded nodes, rooting only at base. Leaves oblong-linear, linear-lanceolate or linear, rounded or shallowly cordate at base, acuminate at apex. Flowers (spikelets) oblong, bipinnate, one sessile and one fertile in 3-15 digitate or subdigitate racemes. Grains oblong.

Fls. & Frs.: July to September.

Common in waste places; Peechi campus.

Digitaria longiflora (Retz.) Pers., Syn. Pl. 1: 85. 1805; Fisch. in Gamble, Fl. Presid. Madras 3: 1765. 1934; Bor, Grass. India 302.1960; Veldcamp, Blumea 21: 66.1973; Sreek. et Nair, Grass. Kerala 239.1991. *Paspalum longiflorum* Retz., Obs. Bot. 4: 15. 1786; Hook. f. in Hook. f., Fl. Brit. India 7: 17. 1896; Rama Rao, Fl. Pl. Trav. 434.1914.

Creeping, geniculate or very rarely erect herbs, rooting at nodes. Leaves oblong-lanceolate, elliptic or elliptic-lanceolate. rounded or shallowly cordate at base, acute at apex. Flowers (spikelets) ovate-elliptic or broadly-elliptic, solitary, soft-hairy, in 2-3 or rarely 4 digitate racemes. Grains oblong.

Fls. & Frs.: July to April.

A common grass in waste places, along roadsides and in weedy areas; Peechi campus.

Digitaria setigera Roth ex Roem. et Schult., Syst. Veg. 2: 474.1817; Veldcamp, Blumea 21: 37.1973; Bor, Grass. India 305.1960; Sreek. et Nair, Grass. Kerala 24. 1991. *Paspalum sanguinale* (L.) Lamk. var. *extensum* Hook. f. in Hook. f., Fl. Brit. India 7: 15. 1896; Rama Rao, Fl. Pl. Trav. 434. 1914; Fisch. in Gamble, Fl. Presid. Madras 3: 1764.1934.

Creeping, geniculate or rarely erect, annual herbs. Leaves elliptic-lanceolate, lanceolate, linear-lanceolate or linear, rounded or shallowly cordate at base, acuminate at apex. Flowers (spikelets) elliptic, elliptic-lanceolate or lanceolate in digitate or subdigitate racemes. Grains oblong.

Fls. & Frs.: Almost throughout the year.

Rare, in waste places and along roadsides; Peechi campus.

Echinochloa colona (L.) Link., Hort. Beral. 2: 209.1883; Fisch. in Gamble, Fl. Presid. Madras 3: 1776.1934; Bor, Grass. India 308. 34.1960; Sreek. et Nair, Grass. Kerala 245.1991. *Panicum colonum* L., Syst Nat. ed. 10, 2: 870. 1759; Hook. f. in Hook f., Fl. Brit. India 7: 32.1896; Rama Rao, Fl. Pl. Trav. 435.1914.

Erect, tufted annuals. Leaves lanceolate to linear, undulate along the margins, rounded or shallowly cordate at base, acuminate at apex. Flowers (spikelets) greenish-yellow or purplish, ovate-acute or ovate-lanceolate, in linear-oblong, racemose panicles. Grains oblong, ellipsoid or lanceolate.

Fls. & Frs.: Almost throughout the year

Common in damp, waste places, along roadsides. etc.; Peechi campus.

Eleusine indica (L.) Gaertn, Fruct. 1:8.1789; Hook f. in Hook. f., Fl. Brit. India 7: 293.1896; Rama Rao, Fl. Pl. Trav. 444.1914; Fisch. in Gamble, Fl. Presid. Madras 3: 1839.1934; Bor, Grass. India 493.1960; Sreek et Nair, Grass. Kerala 371. 1991. *Cynosurus indicus* L., Sp. Pl. 72.1753.

Tufted, erect, annual herbs. Leaves lanceolate to linear, often folded, rounded or shallowly cordate at base, blunt at apex. Flowers (spikelets) ovate-oblong or oblong-lanceolate in digitate or subdigitate spikes. Grains oblong, obtusely trigonous.

Fls. & Frs.: Almost throughout the year.

A weed in waste places, along roadsides and also forest margins; Peechi campus.

Eragrostis minor Host., Gram. Austr. 4: 15.1809; Stapf in Hook f., Fl. Brit. India 7: 327.1896; Sreek et Nair, Grass. Kerala 383. 1991. *Eragrostis poaeoides* P. Beauv., Ess. Agrost. 162.1812; Fisch in Gamble, Fl. Presid. Madras 3: 1827.1934; Bor, Grass, India 512.1960.

Erect or geniculate-ascending, loosely tufted annuals. Leaves linear, flat or convolute, glabrous or pilose on the upper surface. Flowers (spikelets) linear or narrowly oblong in dense, ovate-oblong panicles. Grains globose.

Fls. & Frs.: June to September.

Rare, as a weed, especially in the gardens; Peechi campus.

Eragrostis nutans (Retz.) Nees ex Steud., Nom. Bot. ed. 2: 563. 1840; Fisch. in Gamble, Fl. Presid. Madras 3: 1826.1934; Bor, Grass. India 511.1960; Sreek et Nair, Grass. Kerala 385.1991. *Poa nutans* Retz., Obs. Bot. 4: 19. 1786. *Eragrostis elegantula* Nees ex Steud., Syn. Pl. Glum. 1: 266. 1854 (non Nees, 1841); Stapf in Hook. f., Fl. Brit. India 7: 318. 1896. *Eragrostis stenophylla* auct. non Hochst. ex Miq. 1851; Stapf in Hook. f., Fl. Brit. India 7: 318.1896; Rama Rao, Fl. Pl. Trav. 445.1914.

Tufted, perennial herbs with glabrous nodes. Leaves acicular or lanceolate, narrowed or rounded at base. Flowers (spikelets) oblong or oblong-lanceolate in grey, contracted, spiciform panicles. Grains obovoid.

Fls. & Frs.: April to July.

Rare, in wet areas and waste places; Peechi campus.

Eragrostis tenella (L.) P. Beauv. ex Roem. et Schult., Syst. Veg. 2: 576.1817; Hook. f. in Hook. f., Fl. Brit. India 7: 315. 1896; Rama Rao, Fl. Pl. Trav. 445. 1914; Fisch. in Gamble, Fl. Presid. Madras 3: 1825. 1934; Bor, Grass. India 513. 1960; Sreek et Nair, Grass. Kerala 390. 1991. *Poa tenella* L., Sp., Pl. 69.1753.

Tufted, slender, annual herbs. Leaves linear-lanceolate or lanceolate, acuminate at apex. Flowers (spikelets) ovate or oblong in elliptic or pyramidal, lax or contracted panicles, 4-8 flowered and breaking up from the apex. Caryopsis elliptic or elliptic-ovate.

Fls. & Frs.: September to November.

Common in waste places, open dry areas, along roadsides, etc; Peechi, Nilambur and Velupadam campuses.

Eragrostis uniloides (Retz.) Nees ex Steud., Syn. Pl. Glum. 1: 264. 1854; Fisch. in Gamble, Fl. Presid. Madras 3: 1826. 1934; Bor, Grass. India 515.1960; Sreek et Nair, Grass. Kerala 392.1991. *Poa uniloides* Retz., Obs. Bot. 5: 19. 1789. *Eragrostis amabilis* auct. non Wt. et Arn. ex Nees (1838); Stapf in Hook. f., Fl. Brit. India 7: 317. 1896; Rama Rao, Fl. Pl. Trav. 445.1914.

Erect on geniculate, tufted, annual or perennial herbs. Leaves lanceolate or linear-lanceolate, rounded or shallowly cordate at base. Flowers (spikelets) ovate-oblong in narrowly oblong or ovate, lax panicles. Grains obovoid or ellipsoid, reddish-brown.

Fls. & Frs.: June to January.

Rather common in waste places and along roadsides; Peechi campus.

Eragrostis viscosa (Retz.) Trin., Mem. Acad. Sci. Petersb. Ser. 6, 1: 397.1830; Fisch. in Gamble, Presid. Madras 3: 1826. 1934; Bor, Grass. India 515.1960; Sreek et Nair, Grass. Kerala 398.1991. *Poa viscosa* Retz., Obs. Bot. 4: 20. 1786. *Eragrostis tenella* (L.) P. Beauv. ex Roem. et Schult. var. *viscosa* (Retz.) Stapf in Hook. f., Fl. Brit. India 7: 315.1896; Rama Rao, Fl. Pl. Trav. 445.1914.

Erect or geniculate, annual or perennial herbs. Leaves lanceolate, glabrous, shallowly cordate or rounded at base, acuminate at apex. Flowers (spikelets) oblong or oblong-lanceolate in ovate-oblong or oblong panicles. Grains ellipsoid.

Fls. & Frs. : June to February.

A weed in the open, waste places and also along roadsides; Peechi campus.

Ischuemum indicum (Houtt.) Merr., J. Arn. Arbor. 19: 320. 1938; Bor, Grass. India 180. 1960; Sreek et Nair, Grass. Kerala 136. 1991. *Phleum indicum* Houtt, Nat. Hist 11. 13: 198. t. 90. fig. 2. 1782. *Ischuemum aristatum* auct non L.; Fisch. in Gamble, Fl. Presid. Madras 3: 1721. 1934. *Ischuemum ciliare* Retz., Obs. 6: 36. 1891: Hook. f in Hook. f., Fl. Brit. India 7: 133. 1897; Rama Rao, Fl. Pl. Trav. 440. 1914.

Tufted perennial herbs with densely villous nodes. Leaves linear-lanceolate. glabrous or densely villous, narrowed and rarely petiolate at base, acuminate at apex. Flowers (spikelets) oblong-ovate in 2 or rarely 1 or 3 racemes.

Fls. & Frs.: July to December.

Rare, in waste places and forest openings along with other grasses; Peechi campus.

Oplismenus burmanii (Retz.) P. Beauv, Ess. Agrost. 54, 168, 169. 1812; Hook. f. in Hook. f., Fl. Brit. India 7: 68. 1896; Fisch. in Gamble, Fl. Presid. Madras 3: 1778. 1934; Bor, Grass. India 317. 1960; Sreek et Nair, Grass. Kerala 256. 1991. *Panicum burmanii* Retz., Obs. Bot. 3: 10. 1783.

Prostrate or trailing annuals with rooting nodes. Leaves elliptic to elliptic-lanceolate, hairy or glabrous, oblique at base, acuminate at apex. Flowers (spikelets) elliptic or lanceolate in racemes with rachis densely bristly. Grains oblong-ellipsoid.

Fls. & Frs.: September to January.

Rather rare in shaded areas, forming a mat on the floor; Peechi campus.

Oplismenus compositus (L.) P. Beauv, Ess. Agrost. 54, 168. 1812; Hook. f in Hook. f., Fl. Brit. India 7: 66. 1896; Rama Rao, Fl. Pl. Trav. 436. 1914; Fisch. in Gamble, Fl. Presid. Madras 3: 1778. 1934; Bor, Grass. India 317. 1960; Sreek. et Nair, Grass. Kerala 257. 1991. *Panicum compositum* L., Sp. Pl. 57. 1753.

Rambling, trailing or creeping herbs, rooting at nodes. Leaves ovate elliptic to lanceolate, hispid or villous. oblique at base, shortly acuminate or acute at apex. Flowers (spikelets) paired, elliptic or elliptic-lanceolate. in racemose panicles. Grains oblong ellipsoid.

Fls. & Frs.: Almost throughout the year.

In open and sparsely wooded forest areas; Peechi campus.

Oryza sativa L., Sp. Pl. 333. 1753; Hook. f. in Hook. f., Fl. Brit. India 7: 92, 1896 (pro parte) Rama Rao, Fl. Pl. Trav. 437. 1914; Fisch. in Gamble, Fl. Presid. Madras 3: 1844. 1934; Bor, Grass. India 433. 1960; Sreek. et Nair, Grass. Kerala 433. 1991.

Erect. tufted annuals, rooting at lower nodes. Leaves linear-lanceolate or linear. scabrid, acuminate at apex. Flowers (spikelets) ovate-oblong or oblong in lax panicles. Grains oblong.

Fls. & Frs.: September to March.

The paddy plant, running wild in forest openings, waste places. etc.; Peechi campus.

Ottochloa nodosa (Kunth) Dandy, J. Bot. 69: 55. 1931; Fisch. in Gamble, Fl. Presid. Madras 3: 1778. 1934; Bor. Grass. India 318. 1960; Sreek. et Nair, Grass. Kerala 258, 1991. *Panicum nodosum* Kunth, Enum. Pl. 1: 97. 1833; Hook. f. in Hook. f., Fl. Brit. India 7: 43. 1896; Rama Rao, Fl. Pl. Trav. 435. 1914.

Creeping or geniculate, annual or perennial herbs with rooting lower nodes. Leaves ovate-lanceolate, elliptic-lanceolate or lanceolate, glabrous, rounded or shallowly cordate at base. Flowers (spikelets) elliptic-lanceolate in spiciform, long, lax, unbranched panicles. Grains oblong ellipsoid or lanceolate.

Fls. & Frs.: July to December.

Rare. along boundaries of forests, waste places and roadsides; Peechi campus.

Paspalidium flavidum (Retz.) A. Camus in Lecomte, Fl. Gen. Indo-China 7: 419. 1922; Fisch. in Gamble, Fl. Presid. Madras 3: 1774. 1934; Bor, Grass. India 333. 1960; Sreek. et Nair, Grass. Kerala 278. 1991. *Panicum flavidum* Retz., Obs. Bot. 4: 15. 1786; Hook. f. in Hook. f., Fl., Brit. India 7: 28. 1896; Rama Rao, Fl. Pl. Trav. 434. 1914.

Tufted. erect or geniculate grasses with glabrous nodes. Leaves linear-oblong or linear. flat. rounded or shallowly cordate at base. blunt at apex. Flowers (spikelets) ovate. gibbous, in spiciform inflorescence with

3-10 spikes. Grains oblong, ellipsoid or lanceolate.

Fls. & Frs.: July to January.

Common in shaded and damp areas of the forest with partial openings; Peechi campus,

Pennisetum polystachyon (L.) Schult., Syst. Veg. Mant. 2: 146. 1824; Fisch. in Gamble, Fl. Presid. Madras 3: 1792. 1934; Bor, Grass. India 346.1960; Sreek. et Nair, Grass. Kerala 291.1991. *Panicum polystachyon* L., Syst. Nat. ed. 10,2: 870. 1759; *Pennisetum setosum* (Sw.) L.C. Rich. in Pers., Syn. Pl. 1: 72. 1805; Hook. f. in Hook. f., Fl. Brit. India 7: 87.1896.

Annual or perennial, densely tufted herbs. Leaves lanceolate or linear-lanceolate, hairy or glabrous, rounded or shallowly cordate at base. Flowers (spikelets) creamy-yellow or purplish, lanceolate in spiciform panicles. Grains oblong.

Fls. & Frs.: August to February.

Common in disturbed and open areas of moist deciduous forests; Peechi campus.

Perotis indica (L.) O. Ktze., Rev. Pl. 2: 787. 1891; Fisch. in Gamble, Fl. Presid. Madras 3: 1814. 1934; Bor, Grass. India 611. t. 72.1960; Sreek. et Nair, Grass. Kerala 434.1991.

Annual herbs with erect or geniculate culms. Leaves oblong or oblong-lanceolate, wavy and scabrid along the margins. rounded or cordate at base. Flowers (spikelets) linear or lanceolate in creamy-purplish racemes. Grains linear, terete. Grains almost cylindrical.

Fls. & Frs.: Almost throughout the year.

Common along roadsides and in open areas; Peechi campus.

Setaria pumila (Poir.) Roem. et Schult., Syst. Veg. 2: 891.1817; Sreek. et Nair, Grass. Kerala 309.1991. *Panicum pumilum* Poir. in Lamk., Encyl. Meth. Bot. Suppl. 4: 273. 1816. *Setaria pallide-fusca* (Schum.) Stapf et Hubb., Kew Bull. 1930: 259.1930; Fisch. in Gamble, Fl. Presid. Madras 3: 1789.1934; Bor, Grass. India 363.1960. *Seturza glauca* sensu Hook. f. in Hook. f., Fl. Brit. India 7: 78.1896 (pro parte); Rama Rao, Fl. Pl. Trav. 436.1914.

Annual. erect or decumbent, tufted herbs. Leaves lanceolate to linear, glabrous or sparsely hairy, rounded or shallowly cordate at base. acuminate at apex. Flowers (spikelets) ovate or subglobose in spiciform, cylindrical panicles.

Fls. & Frs.: May to November.

A weed in open forest areas, waste places and along roadsides; Peechi campus.

Sporobolus indicus (L.) R. Br. var. *diander* (Retz.) Jovet., Taxon 22: 163. 1973. *Agrostis diandra* Retz., Obs. 5: 19. 1789. *Sporobolus diander* (Retz.) P. Beauv., Ess. Agrost. 26: 147.1812; Hook. f. in Hook. f., Fl. Brit. India 7: 247. 1896, Rama Rao, Fl. Pl. Trav. 442.1914, Fisch. in Gamble, Fl. Presid. Madras 3: 1817. 1934; Bor, Grass. India 629.1960.

Tufted. erect herbs with glabrous nodes. Leaves linear-lanceolate or linear, acuminate at apex. Flowers (spikelets) obovoid, greyish in oblong or pyramidal, effuse panicles. Grains oblong or elliptic-oblong, truncate at apex. Grains broadly obovoid.

Fls. & Frs.: February to October.

Common in waste places and along the fringes of forests; Peechi campus.

100. BAMBUSACEAE

Bambusa bambos (L.) Voss, Besch., Pflanzen. deu. Gaertn. 2. 1896; Dransfl., Prosea 7: 56-60. 1995. *Bambusa arundinacea* (Retz.) Roxb., Pl. Corom. t 79.1798; Hook. E, Hook. f., Fl. Brit. India 7: 395.1896; Rama Rao, Fl. Pl. Trav. 447. 1914; Fisch. in Gamble, Fl. Presid. Madras 3: 1859.1934. *Bambos arundinacea* Retz., Obs. Bot. 5: 24.1788. Moma, Illi.

Culms arborescent and armed with hollow internodes and sheaths. Leaves linear-lanceolate, entire, ciliate, acute at apex, ending in a sharp point. Flowers (spikelets) white, lanceolate, 3-7 flowered in compound panicles. Grains oblong, grooved on one side, beaked.

Fls. & Frs.: Not seen.

Gregarious bamboos, planted or growing wild, especially along hedges; Peechi, Nilambur and Velupadam campuses.

Dendrocalamus strictus (Roxb.) Nees, Linnaea 9: 476.1834; Rama Rao, Fl. Pl. Trav. 447. 1914; Gamble in Hook.f., Fl. Brit. India 7: 404. 1897; Fisch. in Gamble, Fl. Presid. Madras 3: 1858.1934; Tiw., Mono. Bamb. 77. 1991. *Bambusa stricta* Roxb., Pl. Corom. t. 80.1798. Kallan-mula.

Densely tufted, arborescent bamboos with rooting lower nodes. Leaves linear-lanceolate, entire, rough and hairy above, softly-hairy beneath, acuminate and twisted at apex. Flowers (spikelets) spinecent in panicles of globular heads. Caryopsis brown, ovoid or subglobose.

Fls. & Frs. : Not seen.

Comon in dry outskirts of forests; Peechi, Nilambur and Velupadam campuses.

Ochlandra travancorica (Bedd) Benth. ex Gamble, AM. Roy. bot. Gard. Calcutta 7: 125. tt iii. 1896; Hook f. in Hook. f., Fl. Brit. India 7: 420.1896; Rama Rao, Fl. Pl. Trav. 448.1914; Fisch. in Gamble, Fl. Presid Madras 3: 1289.1934. *Beesha travancorica* Bedd., Fl. Sylvat. t. 324.1873. Eeetta, Eera

Erect shrubs with hollow, cylindric culms. Leaves oblong-lanceolate, entire, scabrous, unequally rounded at base, acuminate at apex. Flowers (spikelets) with mucronate glumes in axillary and terminal panicles. Grains brown, ovate-oblong.

Fls. & Frs.: March to May.

Rare. as planted and naturalised; Peechi and Velupadam campuses.

Introduced or cultivated species

Bambusa balcooa Roxb.

Grown in bambusetum and germplasm bank; Nilambur and Velupadam campuses.

Bambusa bambos (L.) Voss. var. *gigantea* Ben et. Gaur

Grown in germplasm bank; Velupadam campus.

Bambusa blumeana J.A. et J.H. Schult.

Grown in germplasm bank, Velupadam campus.

Bambusa glaucescens (Willd.) Sieb.

Grown in bamboosetum and germplasm bank; Nilambur and Velupadam campuses.

Bambusa longispiculata Gamble ex Brandis

Grown in germplasm bank; Velupadam campus.

Bambusa pallida Munro

Grown in germplasm bank; Velupadam campus.

Bambusa polymorpha Munro

Grown in bamboosetum and germplasm bank; Nilambur and Velupadam campuses.

Bambusa tulda Roxb.

Grown in bamboosetum and germplasm bank; Nilambur and Velupadam campuses.

Bambusa variegata Siebold ex Miq.

Ornamental bamboo, grown in germplasm bank; Velupadam campus.

Bambusa vulgaris Schrad. ex Wendl.

Grown in forest areas, bamboosetum and germplasm bank; Peechi, Nilambur and Velupadam campuses.

Bambusa wamin Camus

Grown in germplasm bank, Velupadam campus.

Dendrocalamus brandisii (Munro) Kurz

Grown in bamboosetum and germplasm bank; Nilambur and Velupadam campuses.

Dendrocalamus calostachys (Kurz) Kurz

Grown in germplasm bank, Velupadam campus.

Dendrocalamus giganteus Munro

Grown in bamboosetum and germplasm bank; Nilambur and Velupadam campuses.

Dendrocalamus hamiltonii Nees ex Am. et Munro

Grown in bamboosetum; Nilambur campus.

Dendrocalamus hookeri Munro

Grown in germplasm bank; Velupadam campus.

***Dendrocalamus longispathus* Kurz.**

Grown in bamboosetum and germplasm bank; Nilambur and Velupadam campuses

***Dendrocalamus membranaceus* Munro**

Grown in bamboosetum and germplasm bank; Nilambur and Velupadam campuses.

***Dendrocalamus sikkimensis* Gamble**

Grown in germplasm bank, Velupadam campus.

***Gigantochloa albociliata* (Munro) Kurz.**

Grown in germplasm bank, Velupadam campus.

***Gigantochloa apus* Bl. ex Schult.f.) Kurz**

Grown in germplasm bank; Velupadam campus.

***Melocana bambusoides* Trin.**

Grown in bamboosetum and germplasm bank, Nilambur and Velupadam campuses.

***Ochlandra scriptoria* (Dennst.) Fisch.**

Grown in bamboosetum and germplasm bank; Nilambur and Velupadam campuses.

***Ochlandra setigera* Gamble**

Grown in germplasm bank, Velupadam campus.

***Ochlandra wightii* Fisch.**

Grown in germplasm bank; Velupadam campus.

***Phyllostachys aurea* Carrie. ex A. et C. Riviere**

Grown in germplasm bank, Velupadam campus.

***Phyllostachys pubescens* Maze1 ex H. de Leh.**

Grown in germplasm bank; Velupadam campus.

***Pseudosasa japonica* (Sieb. et Zucc. ex Steud.) Makino ex Nakai**

Grown in germplasm bank; Velupadam campus.

***Pseuhxytenanthera bourdillonii* (Gamble) Naithani**

Grown in germplasm bank; Velupadam campus.

***Pseudoxytenanthera monadelpha* (Thw.) Sodestrom**

Grown in germplasm bank; Velupadam campus.

***Pseudoxytenanthera ritcheyi* (Munro) Naithani**

Grown in germplasm bank; Velupadam campus.

***Pseudoxytenanthera stocksii* (Munro) Naithani**

Grown in germplasm bank; Velupadam campus.

***Schizostachyum pergracile* (Munro) Majumdar**

Grown in germplasm bank; Velupadam campus.

***Thyrsostachys oliveri* Gamble**

Grown in bamboosetum and germplasm bank; Nilambur and Velupadam campuses.

***Thyrsostachys regia* (Munro) Benn.**

Grown in germplasm bank; Velupadam campus.

***Thyrsostachys siamensis* Gamble**

Grown in bamboosetum; Nilambur campus.

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